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**Prying into Cultural Gaps:  
An Analysis of Chalcolithic (6500-5700 BP) and  
Contemporary Cemeteries in the Southern Levant**

THESIS SUBMITTED FOR THE DEGREE OF DOCTOR OF PHILOSOPHY

BY

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UNDER THE SUPERVISION OF

Prof. Avi Gopher

SUBMITTED TO THE SENATE OF TEL AVIV UNIVERSITY

June 2010

## Acknowledgements

I would like to express my utmost gratitude to my supervisor, Prof. Avi Gopher, for his encouragement and support and especially for allowing me the opportunity to pursue the present project, which was not always readily accepted. There is no doubt in my mind that without his backing the present dissertation would not have been possible.

Special thanks are due also to Dr. Rafi Greenberg which offered me considerable encouragement and support. I would also like to express my gratitude to many friends and colleagues with whom I exchanged ideas and from whom I drew support: Roni Shimelemitz, Danny Rosenberg, Mark Iserlis, Sarit Paz, Dr. David Ilan, Ruth Eyal and Zohar Lev.

I am grateful to the following people for opening their doors to me and generously allowing me to make use of yet unpublished data from their ongoing projects:

- Dr. Tzvika Gal and Dr. Dina Shalem for Peqi'in;
- Dr. Yossi Nagar for Peqi'in and the IAA anthropological laboratory.
- Dr. Edwin C. M. van den Brink for Sha'ar Ephraim
- Dr. Amir Gorzalczany for Palmahim (North)

Lastly, my love and appreciation goes out to Lisa for her honesty, patience and strength, for withstanding my whims and containing my strains, and most importantly for providing me a home to set out from and one to return to.

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## **Abstract**

The present study is essentially three-fold. It consists of (a) an investigation of Chalcolithic cemeteries in the Southern Levant; (b) an investigation of contemporary cemeteries in Israel; and (c) an analysis of the qualitative gap that spans between them. The Chalcolithic and contemporary cemeteries are at the centre of attention, constituting the objects of research, the understanding of which is the primary goal. This includes the disclosure of their underlying logic and structure, determination of their organising principles, recognition of the main categories and concepts at play, and the distinction of the discourses they support. Other than detailed analysis and discussion of each of them on its own, the appraisal of the qualitative gap between them is also expected to avail important insights for both, hopefully leading to a fundamental conceptual divide from which their differing qualities follow. Hence the justifications for the research design and my second goal: assessing the interpretive potential of cultural gaps.

The general background for the present study, its objectives and its broad scholarly context is presented in the first introductory chapter (Ch. 1). Next, its theoretical base is discussed in detail (Ch. 2). In a nutshell, it is argued that by setting up distinct cultural phenomena one against the other and by striving towards a fine formulation of the gap between them, akin to a binary opposition, valuable insights can be gained into important meanings and concepts held by both. It is further argued that it is methodologically and theoretically valid to set up any two cultural phenomena, in-so-far as one properly defines the realms of meaning he/she is after.

In accordance with this theoretical framework, each of the two empirical objects of research (i.e. Chalcolithic and contemporary cemeteries) is treated separately in fully autonomous sections, designated parts I and II. Notwithstanding the common aim to provide an elucidation of cemeteries as dynamic, transforming and discursive phenomena, the choice of methods and means of analysis differ considerably from one to the other, due to profound discrepancies in the quality and nature of the data. In the last part of the study (part III) the findings and observations that were collected separately for the Chalcolithic and contemporary cemeteries are brought together in order to find the crux upon which the essential quality of the gap between them lies. After this, a short discussion of other appending concerns is offered, constituting more of a reflexive afterthought than an integral part of the dissertation, referring primarily to issues such as the qualities of the material record and the hermeneutics involving the gap between past and present.

## **Part I: The Chalcolithic cemeteries**

The treatment and analysis of the Chalcolithic cemeteries in the present study is first and foremost an endeavour to synthesise the data that accumulated over the past eight decades. In doing so the analyses presented are entirely based on the reconsideration of secondary data, almost all of which is published. A total of 26 sites are included (Table 3.1). They cover a considerable geographical area from the Upper Galilee to the north until the Northern Negev to the south (Fig. 3.1). They also present a remarkable range of material expressions including both under and above ground contexts, large and small scale sites and highly varied material assemblages.

Given the considerable variability among contexts, excavators and publications, the present study is focused primarily on the human remains and designated receptacles, while other categories of material culture are only subsidiarily considered. Analysis is directed towards both spatial and temporal concerns, with particular focus on the understanding of cemetery structure (including the spatial distinctions produced and distribution of artefacts) and temporal trends (with special emphasis on matters of site formation processes and stratigraphy).

Ultimately, based upon the principles underlying their organisation, five types of Chalcolithic cemeteries were defined, each occupying a more or less distinct and continuous area:

- *Karstic-cave cemeteries* are encountered relatively inland, in the hill region of Samaria and the Upper Galilee. These are cemeteries that made use of large, complex and active cavities in the rock. They feature a consecutive order of spaces that is likely to have been harnessed for hierarchical ordering. The funerary assemblage of these cemeteries is relatively rich and conspicuous.
- *Single-cave cemeteries* are primarily distributed between Alexander and Qishon rivers, along the coastal and Samarian piedmont. These consist of single and shallow cavities. The use of ossuaries and other designated funerary vessels seems to characterise the earlier part of the period, rather than all of it.
- *Multiple-cave cemeteries* are predominantly found between the Yarqon and Soreq rivers, along the coastal plain and Shefelah. These cemeteries consist of a cluster of shallow caves. The cemetery structure seems to be governed by an underlying tripartite structure, representing two pure ends and the range in between, articulated by means of their funerary assemblages. The assemblages of the caves occupying the intermediary range strongly

suggest intensive processes of intentional fragmentation and circulation, which went hand in hand with the diminishing occurrence of new ossuaries.

- *Mortuary-structure cemeteries* are known from the Northern Negev and the Southern Coastal plane. These cemeteries consist of a tight cluster of multiple structures that usually vary in size and sometimes in form. They seem to operate according to an open-ended syntactical logic that defines the means of expression (the funerary structures), but does not restrict their application, thus providing a platform for a relatively highly dynamic discourse.
- *Kissufim Road*. Although consisting of a single example it is sufficiently different to be taken to represent a distinct type. It includes a collective burial and a sunken rectangular funerary structure surrounded by single inhumations. Given the relatively limited exposure and that each of the elements occurs only once it is very difficult to substantiate an interpretation.

## **Part II: Contemporary cemeteries**

The analysis of contemporary cemeteries in Israel aims to offer an *archaeological understanding* of these institutions by distinguishing key features of their organisation and development as manifested in their material patterning. In order to produce a manageable database, sampling and quantitative methods were employed. Eight cemeteries were selected for investigation, so as to represent four basic categories/types: closed civil cemeteries, open civil cemeteries, civil Qibutz cemeteries and military cemeteries. A sample, ranging between 165 and over 200 entries, was produced for each cemetery, aspiring to represent the temporal continuum and micro-spatial relations. The parameters recorded for each grave included their spatial and temporal position, sex and age of the deceased, form and material of the tombstone, and various symbols and additional attributes applied to the tombstone. Analysis of the database thus produced included the consideration of the temporal distribution of forms, raw materials and attributes, and the representation of relationships among graves and spatial relationship between the sexes. Interpretation was ultimately geared toward the narration of discourses, read from changing frequencies of particular material phenomena across time, and to the disclosure of underlying organisational principles.

Based upon these analyses it is argued that contemporary cemeteries differ primarily in the degree of institutional control, exerted internally, on individual burials. Whereas in some cemeteries institutional involvement ceases at the level of spatial organisation, in others it goes so far as to regulate the mode of individual representation (the tombstone). To a slightly lesser extent cemeteries are also seen to differ in the content of these regulations whence some maintain a policy of keeping the sexes apart whereas others do not. Moreover, the cemeteries support local and widely diverse discourses, unfolding at the community level, mainly concerned with matters of representation and commemoration, but often refer to issues of social cohesion and solidarity as well. Often, it is interesting to note, institutional policy is seen to be negotiated and challenged by these seemingly marginal and local discourses.

### **Part III: Between past and present**

Treating distinct cultural phenomena as oppositions has the welcomed effect of directing attention to otherwise inconspicuous aspects of each and driving an interpretation towards the elucidation of fine and fundamental characteristics that would otherwise remain undisclosed. Such an approach takes the form of a back and forth movement between the two phenomena, where each serves to highlight particular aspects of the other, progressively advancing towards a formulation of the fundamental gap between them.

In the present case, the discussion works its way through several themes: the general context in which the cemeteries operate; the elemental constitutive units of each; inter-cemetery variability; and intra-cemetery regulation and discourse. Various points consequently come to the fore. Among others it is made clear that whereas Chalcolithic cemeteries vary by kind, contemporary ones vary by degree; and that whereas contemporary cemeteries are focally concerned with the regulation of the individual interment, the Chalcolithic cemeteries produce a buffer between themselves and the dead they contain. It is ultimately argued that while both Chalcolithic and contemporary cemeteries embody a convergence of funerary and social concerns, the abovementioned distinctions, as well as others, ultimately follow from whether primacy is allocated to the former or to the latter.

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## **Ch. 1: Introduction**

The present study is multi-faceted by design, but in its core it is three-fold: (a) an investigation of Chalcolithic cemeteries; (b) an investigation of contemporary cemeteries in Israel; and (c) an analysis of the qualitative gap between them. The Chalcolithic and contemporary cemeteries are at the centre of attention, constituting the objects of research, the understanding of which is my primary goal. This includes the disclosure of their underlying logic and structure, determination of their organising principles, the recognition of the main categories and concepts at play, and the distinction of the discourses they support. Other than detailed analysis and discussion of each of them on its own, the appraisal of the qualitative gap between them is also expected to provide important insights for both, hopefully leading to a fundamental conceptual divide from which their differing qualities follow. Hence the justifications for the research design and my second goal: assessing the interpretive potential of analysis of cultural gaps.

This scheme of things invites the consideration of additional, more reflective matters of interest as well: the omnipresent challenge of archaeologists to bridge the gap between past and present, or from a slightly different angle the relationship between subject and object, the researcher and the researched; these interests also include some fundamental questions about the limits and particularities of the material record compared with that employed by other disciplines.

All these concerns are closely intertwined, some of which are defined explicitly as objects of research, while others rise out of the particular design of the study. In order to clarify the logic and how they all come together, each of the issues will be addressed in turn, beginning with the theoretical project, which offers both the justification and the possibility for this particular design, continuing with the Chalcolithic and contemporary cemeteries and discussing how the other concerns are addressed. Finally, the manner in which the different strands are drawn together to produce a single project will be discussed.

### **Theoretical base and aims**

The cornerstone of the present study is a comparative approach, initially formulated in the course of a previous research concerned with the transformations of early pottery production in the Neolithic site of Nahal Zehora II (Nativ 2005). In a nutshell, it is asserted that setting up distinct

cultural phenomena in order to disclose the quality of the gaps between them (i.e. as oppositions) affords valuable insights into the meaning and essence of both. It is further argued that it is methodologically and theoretically valid to set up any two cultural phenomena, insofar as one properly defines the realms of meaning he or she is after. These assertions are discussed in some detail in Ch. 2.

After applying this approach to a continuous developmental process (i.e. transformations in Neolithic pottery production), where the questions addressed were what changed and how, a next logical step seems to be the application of the same approach to completely disassociated phenomena, hence the choice of Chalcolithic and contemporary cemeteries. In this case, the questions are not of development or change; they are also not of variations within a given frame, but purely questions of meaning.

Before moving on it should be noted that, while this theoretical perspective is presented here as an overarching scheme of thought that mostly concerns the larger structures of the study, it is in fact implicated at all levels of interpretation and discussion concerning also more contingent phenomena, such as regional and temporal variations.

### **Chalcolithic period and cemeteries**

The Ghassulian Culture of the Chalcolithic period of the Southern Levant spans roughly 700 years between the mid-fifth and mid-fourth millennia cal. BC. It is marked by numerous innovations and considerable intensification of earlier processes. Settlements expanded into regions that were unsettled or only sparsely exploited during the Neolithic, such as the Golan Heights (Epstein 1998) and the Northern Negev (Levy 1987, Perrot 1984). The ‘Secondary Product Revolution’ (Sherratt 1981), which had begun earlier, moved into full swing, particularly concerning milk products, wool and the use of domesticated animals for traction and carrying burden. Increase in craft specialisation and a wide circulation of the products is demonstrated by the quality and distribution of highly stylised copper implements (Bar Adon 1980; Shalev 1992: 19-38; Gal *et al.* 1997: 151) and basalt vessels as well as the evidence for copper workshops among the Beer Sheba sites (e.g. Gilead *et al.* 1991: 174-176). The Ghassulian-Chalcolithic is also marked by an overwhelming complexity and diversity of explicit symbolic expression, manifested, to mention just a few, in mural paintings in Ghassul (Mallon *et al.* 1934:Pls. 56, 57, 66-72; North 1961: Pls. II, V), a wide range of anthropomorphic and

zoomorphic figurines (e.g. Commenge *et al.* 2006; Epstein 1998: 230-233), gold-electrum rings from Nahal Qanah (Gopher and Tsuk 1996: 165-174) and many other examples.

In view of the above, there is little doubt that some degree of differentiation did exist in Chalcolithic society. However, its structure and level of institutionalisation is still being debated. Levy (1986; 1995) argued for a ranked society following the chiefdom model: for the existence of elite groups, for institutionalised offices of leadership and for a two-tier settlement hierarchy, whereby centres were surrounded by smaller satellite sites, the economic and social activities of which it coordinated. Gilead (1988: 428-435), on the other hand, argues for an agrarian roughly egalitarian society, emphasising the absence of any direct evidence for the existence of an elite in the form of prestigious burials or undisputed centres of power. Recently, a form of a middle ground has been struck with a growing emphasis on the role of ritual and religious figures. Religion is depicted as the principle means of power, but insufficiently institutionalised or of too small a scale to form a clearly ranked society (Joffe 2003; Rowan and Illan 2007).

Indeed, the Chalcolithic period is marked by considerable regional diversity. Levy (1986: 87) argued for 11 distinct groups from the Golan Heights to the southern Sinai Peninsula, most of which occupied an area no more than 40 km across. Regardless if one agrees with the divisions proposed by Levy, he is definitely correct in essence, as demonstrated by numerous examples of spatial discontinuities of all aspects of material culture (pottery, flint, architecture, burial etc.). In the final analysis, it is impossible to put forward one set of attributes that define the Chalcolithic period without resorting to severe reductionism. The Chalcolithic is not a single phenomenon, but a mosaic of multiple autonomous cultural and social entities.

The mortuary realm is no exception in this regard. At least three types of cemeteries – an often celebrated innovation of the period (Levy 1986: 96-99; Gopher and Tsuk 1996: 230-234)<sup>1</sup> – can be readily defined, all dedicated to the secondary burial of human remains: (1) burial caves strongly associated with ceramic ossuaries are widespread along the coastal plain and the piedmont (van den Brink 1998; 2005a) but are known from further inland as well, in the upper Galilee (Gal *et al.* 1997) and the Samaria mountains (Klamer 1981; Gopher and Tsuk 1996); (2)

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<sup>1</sup> It should be noted, however, that the novelty of cemeteries in the Chalcolithic is somewhat debatable, largely depending on the selected definition. Sites of repeated human burial have been reported for earlier periods as well, including the Natufian (e.g. Grosman *et al.* 2008; Nadel *et al.* 2009), and the Neolithic (e.g. Galili *et al.* 2009). However, in none of the preceding periods does it produce a widespread phenomenon as it does in the Chalcolithic period. Moreover, in most cases activities which are not related to the mortuary realm are not excluded (see, Grosman and Munro 2007). Hence given the strict definition employed here (see, pp. 21-24), assigning the Chalcolithic the first occurrence of full-fledged cemeteries still stands.

cemeteries consisting of clusters of circular and rarely rectangular structures, best known from Shiqmim Cemetery in the northern Negev (Levy and Alon 1982; 1987b; Levy *et al.* 1991: 34), el-Adeimeh near Ghassul (Stékélis 1935: 38-68) and Palmahim in the coastal plain (Gorzylczany 2006); and (3) represented to date by the site of Kissufim Road alone in the southern coastal plain, consists of an amalgam of mortuary features: a subterranean rectangular structure, pits containing bones of a single individual and a collective burial of multiple individuals in rectangular stone basins (Goren and Fabian 2002).

On the other hand, non-cemetery mortuary contexts have been documented as well. These consist of primary and possibly secondary intra-mural burials, most widespread in the Jordan Valley, Hula Valley and northern Negev (Mallon *et al.* 1934; Gilead 1995; Eisenberg *et al.* 2001: 33-39; Levy 2006). In the Judean Desert, inhumations were uncovered in caves that served also for habitation (e.g. Aharoni 1962: 188-190; Bar-Adon 1980: 2-11). And in subterranean complexes of the Beersheba valley and Giv'at ha-Oranim, human skeletal remains were often found, but these seem to represent only a small aspect of complicated symbolic and industrial functions (Perrot 1958; Scheftelowitz and Oren 2004).

Thus, via a crude typological outlook we can already distinguish five or six mortuary forms and, by extension, mortuary practices. We may also expect that upon a closer inspection additional distinctions will be made and the number of observable behaviours will increase. This variability in mortuary behaviour is likely to have significant ideological implications, for by its very nature the disposal of the dead presents us with a stronger reference to ideology and symbolic thought than most aspects of material culture. It is probable, therefore, that the diversity of the Chalcolithic is not merely a function of adaptation to local conditions or a result of political organisation (contra, Levy 1986; 1995), but also an ideological and conceptual mosaic, whereby individuals and groups differed in their understanding of themselves and of their position in the world.

The current study will narrow its concern to those phenomena that may be safely considered as cemeteries, as loci that were specifically designated for the disposal of the dead. This has the immediate implication of excluding several Chalcolithic death-related phenomena. The reasons for this refer to matters of scope and the need to properly define the outer boundaries of the issues in question. More importantly, it considerably narrows down the range of activities involved in the formation of the archaeological record under investigation and therefore offers

more stable grounds for interpretation. While this might appear as a compromise, it is evident that Chalcolithic cemeteries are still very poorly understood. Most discussions remain on an extremely high level of generalisation, either restricting their concern to symbolic significations (e.g. Bar-Yosef and Ayalon 2001; Nativ 2008; Perrot and Ladiray 1980:111-113; Rowan and Ilan in press; Shalem 2008) or treating the record as a reflection of issues of social structure and hierarchy (e.g. Joffe 2003; Perrot and Ladiray 1980: 121-134; Levy and Alon 1982). What often seems to be left out is the structure and dynamics of the sites themselves. Beyond statements that they were loci designed for the repeated secondary burial of human remains, little more was said.

The treatment of the Chalcolithic cemeteries has, therefore, two basic aims: (1) to try and articulate the dynamics of the sites in question, the practices involved, the temporal trajectories and the formation processes, all of which came together to create the archaeological record as we know it; and (2) to clarify the regional variations their scope and quality insofar as the cemeteries are concerned.

### **Contemporary cemeteries in Israel**

As noted in the opening of this introduction, the analysis of contemporary cemeteries is intended, according to the original design of the research, to supply the treatment of Chalcolithic cemeteries with a counterpart that is distant in time as well as in quality. But it is also a wonderful opportunity to treat archaeologically a living aspect of our own cultural milieu, to try to “...realize the potential of the study of modern material culture as a critical intervention in contemporary society...” (Shanks and Tilley 1987: 172).

By treating the contemporary cemeteries archaeologically I mean that their analysis will be founded exclusively on the temporal and spatial material patterning discovered in these places. In other words, the investigation presented will limit itself to those sets of data that are found within the cemeteries themselves and will exclude external sources concerning such things as particular historical circumstances and events, ethnic composition of the population, variations in degrees of faith, etc. This is not to say that these data are not important or lack relevance, quite to the contrary, but offering them an equal footing as the material source runs the danger of obscuring what the material record itself can tell us.

The underlying premise of the above statement is that material culture can offer insights that other (e.g., historical and anthropological) sources cannot. The relative weight of material culture

research in contemporary society, however, is low. This is equally true concerning the general state of affairs as it is true for the investigation of contemporary cemeteries in Israel. Among the few exceptions, one may note Palmon's analysis of the texts inscribed on tombstones (Palmon 2007) and Katz's discussion of the military tombstone (Katz 2007), none of which answers to archaeological standards.

Yet, there are other reasons for the archaeological treatment of contemporary cemeteries. First, the current research is conducted in and addressed to a discipline focused on material culture. Second, the insights the presented research aims to disclose are of the culturally meaningful kind, which in the current case are revealed via differences in material patterning. It makes little sense to analyse material patterns in one case and to analyse other patterns in the other, in which case what we would stumble on would more likely be the differences between the disciplines.

A sensitive reader may have sensed the presence of a common theme insinuated in the foregoing paragraphs. This pertains to the nature of the material record and the relationship of archaeology to other social disciplines. Indeed, one way to come to grips with the fundamental characteristics of the material record and the nature of archaeology as a discipline and an occupation is by clarifying its position relatively to others. It is to this that I will turn now.

### **The qualities and limitations of the material record**

In their introduction to *The Archaeology of Urban Landscapes*, Mayne and Murray (2001: 1) note that

Historians tend to regard material evidence... as providing, at best, illustrations of what they have already framed as the major themes of historical inquiry. Often they disregard material things altogether. Rarely has their tunnel vision been effectively challenged by a consideration of the archaeological record. Some historical archaeologists concede that artefacts do serve merely to 'confirm and illustrate the historical record'. Others, with an insularity similar to that of some historians, refuse to engage in cross-disciplinary debate and claim to find documentary evidence helpful simply as corroboration of the archaeology.

The context from which Mayne and Murray speak is that of 18<sup>th</sup>- and 19<sup>th</sup>-century urban archaeology, for which a wealth of historical evidence is available. Indeed, the very existence of documents carrying people's names and personal details, addresses, transactions, operations of

construction, renovation, demolition, etc., avails the historical record a degree of specificity that is often lacking in archaeology and which tends to throw a long shadow over it.

But, if one is discouraged by this, it is because of a pervasive bias in favour of the written and spoken word. That this bias is unjustified, or at least problematic, has been demonstrated on a wide range of occasions, and from various points of view (e.g. Bourdieu 1977; Merleau-Ponty 1964: 12-27; Polanyi 1958). Put somewhat simplistically, the basic assertion can be summarised more or less as follows: human consciousness is anchored first and foremost in experience, in perception, sensation, practice and action; language and speech as an enterprise of ordering the world and repeatedly articulating it, are consequently neither independent of experience nor do they enjoy greater validity; rather the theoretical constructs that are embodied in the written and spoken symbols are ultimately derivatives of experience that are turned back onto it. Accordingly, archaeology's access to foreign societies and cultures through the material record is in no way less privileged than that which history and anthropology gain through spoken or written words. If archaeology seems pale next to history and anthropology it is because we are still imprisoned in a fallacy.

And indeed, more productive collaborations of archaeological and historical research can definitely be found (e.g. Deetz 1977), as Mayne and Murray set out to show in the first place. It is, moreover, my conviction that the archaeological record carries the potential to shed light on human experience and culture that history and anthropology alone cannot. Accordingly, the treatment of contemporary cemeteries is strictly archaeological and will steer away from other sources of information, although these are plentiful and often easily accessible. The primary emphasis in this regard is on the effort to produce an account of a social and cultural phenomenon, based solely on its material patterning – a necessity when treating the Chalcolithic period but a choice concerning contemporary society.

In other words, the analysis of contemporary cemeteries does not merely aim to reach an understanding of these phenomena, but to reach an *archaeological understanding* of them, as distinct from anthropology, history and other human sciences. By doing so, the present study will hopefully serve to demonstrate and reinforce the relevance and value of archaeological analysis for the research of contemporary culture. I also hope that by achieving these goals, the need for a better understanding of the qualities and limitations of material record *vis á vis* other social sciences will be clarified and pursued.

## **Between Past and Present**

The complex nature of the relationship between the researcher and her or his object of research has long been acknowledged, and has considerably problematised the notions of our ability to actually *know* the being or phenomenon observed. The strong influence of hermeneutics on archaeological theory demonstrated the interpretive and translational nature of the archaeological endeavour and the limitations it poses on knowing the past for what it was, if it ever was something that could be known in such a way (Hodder 1999; Hodder and Hutson 2003: 195-200). These difficulties are common to all social sciences, but Shanks and Tilley (1987: 107-108) claimed that, while the latter consist of a double hermeneutic or threefold hermeneutic, archaeology consists a fourfold hermeneutic: that of the discipline, that of contemporary society, that of trying to understand a radically different culture and that concerning transcending past and present.<sup>2</sup>

Put slightly differently, it can be said that the social sciences encompass several realms of discourse. First there is that of the discipline, from which the scientific endeavour originates, including its terminology, concepts and objects of interest. Then there is that of contemporary society that constitutes the wider cultural context, in which these disciplines operate and which constitutes at least for some the prime object of research. Social sciences that are concerned with various aspects of contemporary society (e.g., sociology, economy) have a double hermeneutic in that they encompass both realms. Anthropology, insofar as it is concerned with foreign cultures, introduces a third realm of discourse, belonging to a society that maintains meanings and concepts that are radically different from our own. In this respect it embodies a threefold hermeneutic. History and archaeology involve yet a fourth realm due to the lack of direct access to their objects of research, which must be reconstructed from the written or material record, a residue that has a logic and concerns of its own.

Thus most social sciences could be said to be reflexive in that their interpretive effort is focused on the cultural context in which they operate. Anthropology, history and archaeology, on the other hand, are more interpretive for they are concerned with different social contexts upon which they bring both the discipline's and contemporary society's discourses to bear. It is important to keep in mind, however, that, by shifting the focus from relatively well known to

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<sup>2</sup> There seems to be a slight confusion of terms here, for some of the abovementioned hermeneutics correspond to particular realms of discourse (the discipline and society), whereas others refer to interpretive endeavours (known-unknown, past-present).

poorly known phenomena, one does not replace one gap for another; rather the gaps accumulate, continuously complicating the interpretive effort.

Formulated in these terms, the present study can be said to consist of a three- and fourfold hermeneutic. It involves a fourfold hermeneutic concerning the Chalcolithic cemeteries and a threefold one concerning the contemporary cemeteries. Although the latter is not challenged by the gap between past and present, it does not involve observing its objects of research directly, but reconstructing it through its material patterning. The inspection of the gap between the Chalcolithic and contemporary cemeteries covers, therefore, the qualitative distance between contemporary society and a radically different culture. As such, the presented dissertation offers, by token of its design, the rare occasion to actually observe this gap and not merely assume its presence, as both ends are objectified and receive an equal footing.

Moreover, the gap is not only observed but also integrated into the research programme as the actual means of achieving insight. It thus ceases to be only a challenge to be overcome or dealt with and takes on an additional role as a means for achieving understanding; it is a necessary component for the production and disclosure of meaning. In this respect, the usual relationship between the different hermeneutic circles is rearranged in a novel way. The benefit of these procedures for the understanding of the relationship between past and present in archaeological research are, however, difficult to predict. It is mostly by token of the unique vantage point of the current study that I hope that some observations of interest could be offered, pertaining to the qualities of the interpretive effort bridging the gap between contemporary and foreign cultures and the implicit assumptions employed in the process.

### **Aims and structure of research**

The structure of the foregoing introductory notes mirrors that of the dissertation as a whole. It consists of two empirical objects of research, brought together in a theoretical envelope. The elucidation and understanding of Chalcolithic and contemporary cemeteries as dynamic, transforming and discursive phenomena is the primary aim of the present study. Each is treated separately and independently of the other, employing its own methods and producing fully autonomous sections for presentation and interpretation of the data, designated parts I and II.

A further aim is to determine the quality of the gap between contemporary and ancient cemeteries, to find the essential point of divergence from which others follow. This constitutes

the outer envelope of the present study. The circle is opened in the next chapter (Ch. 2), presenting the theoretical concepts underlying and justifying this project; and it is closed in chapter 24 in the dissertation's final section (part III). There, the findings and observations made separately for the Chalcolithic and contemporary cemeteries will be brought together and searched through to find the core of their difference. It is against this section that the strengths and weaknesses of the proposed theoretical approach should be considered.

Lastly, a short discussion of other appending concerns will be offered (Ch. 25). It constitutes more of a reflexive afterthought than an integral part of the dissertation, referring primarily to the last concerns discussed above: the qualities of the material record and the hermeneutics involving the gap between past and present.

## Ch. 2: Theoretical Outlook and Methodological Considerations

That the meanings we find or produce are rooted in our capacity to make distinctions is an undisputed truism. For the most part, usually more implicitly than explicitly, this truism is regarded or accepted as a condition that typifies our work as archaeologists and social scientists. It covertly guides us through the production of taxonomies, the analysis of material phenomena and the generation of interpretations. And indeed, the application of comparative approaches in archaeology as well as other social sciences is plentiful.

However, most explicit references to comparative approaches have a narrow range of concerns: statistical evaluation of theories, measurement of variability, identification of material correlates for social features (e.g., gender roles, social ranking) and substantiating correlations between variables and evolutionary processes (see, Peregrine 2004). Considering that archaeology is in essence a comparative endeavour and considering the range of interests and questions asked by the scholars of the field, it is clear that the comparative quality of a great deal of the archaeological discourse is left in the dark. This situation is apparently not unique to our discipline and is shared by others as well, as a quick view through the tables of content and abstracts of journals such as *Comparative Sociology* reveals. The reason for this is that the comparative component is insufficiently problematised, which consequently leaves it under-theorised and without methodological treatment.

In what follows, I intend to present one form of comparative reasoning that is concerned with the qualitative appraisal of cultural gaps. Contrary to the more widespread and explicitly formulated approaches, it aims at the capture of difference. To be clear, this approach is not new in itself; it was (and is) practiced by different scholars and in different fields (e.g., Heidegger 1977; Hodder 1982; Kuhn 1970; Polanyi 1958; Thomas 1999), some of which will serve as examples in the following lines. Nevertheless, as most comparative qualities, it remains tacit and unformulated; it is found only between the lines, hardly recognisable unless one knows to look for it. Other than the significance of explicitly acknowledging implicit concepts, I believe that the current approach offers a particularly powerful means of interpretation that, if properly applied, is able to penetrate deep into many archaeological subject matters.

In what follows, the approach in question is introduced and formulated. This includes the articulation of its basic tenets, its logic and potential; its theoretical justifications will be

discussed in some detail in order to offer it a firm footing; and several examples will be presented in order to illustrate its applicability.

### **Prying into Cultural Gaps**

In a nutshell, the approach in question entails defining and characterising the quality of the gap between cultural phenomena. Take, for example, the gap between pure and applied science, two distinct communities, which nevertheless often work on similar materials. Upon close observation, one finds that their greatest difference concerns their attitude towards the world, their common object: while for the former it is a spectacle to be discovered and understood, for the latter it is an object to be manipulated and regulated; the former takes a passive stance of an observer while the latter is actively involved in it; they strive towards utterly different aims, yet cross each other's path repeatedly (see, Polanyi 1958: 174-184). The beauty of this type of reasoning is that, while focusing on the variation and the distance between opposed poles, it says a great deal about each of them in itself.

The benefit of this approach resides in that it offers an avenue through which 'thick descriptions', in the Geertzian sense, can be produced without imposing beforehand rigid limitations on the content discovered: 'As interworked systems of construable signs, culture is not a power, something to which social events, behaviours, institutions, or processes can be causally attributed; it is a context, something within which they can be intelligibly – that is, thickly – described' (Geertz 1973: 14). This is precisely what the characterisation offered above for the gap between pure and applied science does: the particularities of each, their 'construable signs' (desired achievements, means of evaluation, perceived contribution, manners of execution, etc.) can be seen to operate within a context that allows them to be intelligibly understood, as particular expressions of their relationship with the world, as following from a particular concept or attitude.

Within the range of the material record, as well as the systems of behaviour that can be inferred from it, there are very few corners which cannot be treated in this manner. Any attribute, aspect or organisation of human experience that embodies meaning and which to a greater or lesser extent characterises the social or cultural entity in question is appropriate: the composition of an assemblage, technology, space, mortuary practices, architecture, explicit symbolism and artistic motifs, social organisation, subsistence economy, etc. The range is practically limitless.

Also the gap to be defined and characterised is in principle boundless; any two or more cultural entities can be involved, regardless of the distance between them in space or in time or both. Compelling examples for this can be found in Mead's contrast of western education with that of Samoa (Mead 1928: 144-169) as well as in Heidegger's (1977: 3-35) discussion of where and how modern technology diverges from the Greek concepts.

Ultimately, almost any cultural phenomenon can be set up in this way, so as to allow a characterisation of the gap between it and any other. Accordingly, the importance of the question of 'comparability' (i.e. whether a comparison is feasible or not) is considerably narrowed down for, by token of aiming at a qualitative definition of a gap, much of the standard comparative concepts and terminology are rendered irrelevant. This may be considered by some as a methodological problem of great magnitude, which is justified insofar as one feels that a yardstick for evaluation is necessary. And indeed, it raises serious problems of verification and appraisal. But, drawing on Geertz (1973: 16) once more

This is precisely the virtue of it. If ethnography [and archaeology] is thick description and ethnographers [and archaeologists] those who are doing the describing, then the determining question for any given example of it... is whether it sorts winks from twitches and real winks from mimicked ones. It is not against a body of uninterpreted data, radically thinned descriptions, but against the power of the scientific imagination to bring us into touch with the lives of strangers.

On the other hand, it is precisely the absence of rigorous methodology, conditions to be fulfilled and predetermined standards to size up to, that demand considerable responsibility from the researcher. First, one must be aware and explicit concerning the reasons for the selection of the cultural phenomena treated; clear reference to the kind of understanding looked for should be stated as well. This is because the gap between cultural phenomena A and B differs from that between cultural phenomena A and C, so that the insights into culture A would differ according to the counterpart selected, for each would serve to highlight different aspects of it.

Second, explanation as a mode of thinking that drives and directs an analysis' progress must be dispensed with. This is because explanation can come in only one of two forms: causal or teleological, both of which account for an object in question by reference to others external to it. Thus, whatever is accounted for in explanatory terms is understood in terms of that which it is not (cf. Lyotard 1991: 95-100; Reinach 2002 [1914]: 183), which at one and the same time renders the phenomenon in question unimportant and casts aside any opportunity for

understanding in terms noted above; instead of bringing us closer to the people we are investigating, premature application of explanatory reasoning risks pushing them away.

The proposed programme is hence primarily descriptive, and unfolds through two basic stages: (1) the production of as detailed as possible an account of the chosen phenomena and their constituting particulars and (2) the characterisation of the gap between them. This gap, for the sake of clarity, should be conceived as spanning life-ways, traditions, customs or habits that are incapable of comprehending each other, and it is this incomprehension that is of interest here. For incomprehension cannot be found in variations of expression, nor in the particular responses to these expressions, but in how each can be shown to follow from different webs of significance that justify one while excluding the other.

### **Justification: Cultural arbitrariness**

Bourdieu and Passeron (1990 [1977]: 8) distinguished two manners in which the arbitrariness of culture is manifested:

1. 'The 'choices' which constitute a culture... appear as arbitrary when related by the comparative method to the sum total of present or past cultures or, by imaginary variation, to the universe of possible cultures...'
2. 'The selection of meanings which objectively defines a group's or a class's culture as a symbolic system is arbitrary insofar as the structure and functions of that culture cannot be deduced from any universal principle, whether physical, biological or spiritual...'

Let us approach these statements one at a time. The first finds the arbitrariness of culture in the indeterminate number of forms it may take. Hence each given case (i.e. culture) is but one form among numerous others. From this vantage point, human culture, in the widest possible sense of the term, comes to be conceived as a *potential* to be realised, and each given case as a *realisation* of that potential. Thus, the immense variability noted among past and present cultural forms actually manifests different realisations of a potential common to all.

The second statement situates the arbitrariness of culture in the impossibility of deducing cultural forms from natural or other constant law and, in fact, in the impossibility of recognising any true underlying cross-cultural regularities.<sup>1</sup> This, consequently, implies that no

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<sup>1</sup> A similar statement was made by Lemonnier (1993: 6) for technology: '...from a purely technical point of view (which exists only in the analyst's head), techniques appear to be "arbitrary" or, rather, conventional.'

straightforward correlation can be assumed between universal laws and culture (contra, e.g., Binford 1962). On the other hand, it would be nonsensical to claim that culture is free of the restrictions imposed by such laws. Culture, therefore, could be said to operate within the limits dictated by such laws, yet at the very same time to function according to a logic that does not belong to them.

A formulation for such a structure of relations was offered by Polanyi (1966: 27-52), who stated: ‘...(1) that the principles controlling a *comprehensive entity* would be found to rely for their operations on laws governing the *particulars* of the entity in themselves; and (2) that at the same time the laws governing the *particulars* in themselves would never account for the organising principles of a *higher entity* [i.e. ‘the comprehensive entity’] which they form’ (Polanyi 1966: 34, emphasis added). This occurs by token of what Polanyi terms ‘boundary conditions’ – ‘...a set of conditions that is left explicitly undetermined...’ – which lend themselves to be shaped according to principles of another order. This he terms *the principle of marginal control* (Polanyi 1966: 40). This is an elaborate and better structured way of saying that the whole is greater than the sum of its parts, and that the quality of the whole (i.e. the comprehensive entity) cannot be found in its particulars alone. Thus, if put in Polanyi’s terms, culture is a comprehensive entity in that it is a reorganisation of fundamental universal laws according to principles that are foreign to them, bringing about forms that they alone could never anticipate. That is, natural universal laws constitute moments within culture, aspects integrated into a larger whole (see also, Merleau-Ponty 1963: 129-183).

These points, I think, show that the so-called arbitrariness of culture is not necessarily without logic or structure. ‘Arbitrariness’ is revealed as a defining principle, as an aspect via which culture is distinguished from the biological and physical world. Hence, instead of regarding cultural arbitrariness as an epistemological obstacle to be bypassed, it can be taken as an anchor from which one may gain access to the essentials of culture.

These points thus offer a justification for the proposed approach. If culture is an arbitrary phenomenon, every form in the final analysis constitutes an alternative for every other form, each representing a different manner of realising the same potential. Accordingly, the arbitrary quality of a given cultural form is best disclosed in the *gaps* between it and its alternatives.

For the sake of clarity it may be worth our while lingering on this matter a little longer and recasting it in terms of ‘choice’. Whether made consciously or unconsciously, a choice consists

of the election of one option among a range of alternatives, to which a person or group may be differentially aware and even completely blind (cf. Bourdieu 1990: 80-97). Most importantly for our concerns, a choice embodies priorities, concepts, perceptions and sometimes even foresight, which constitute its most basic meaning. These however are rarely explicit, usually being tacitly bound with the act itself. In order to gain access to a choice's underlying logic and sentiments, one must set it against the alternatives forfeited, through which it is possible to observe how they differ in quality, scope, implications, resources, etc. Through these relatively tangible variations, gaps in attitude toward the matters at hand start coming to the surface, after which the way is not long to the recognition of the concepts and priorities implicated in the choice made. Hence, if culture be considered as the ultimate choice, it follows that such analysis of cultural gaps is a highly appropriate approach.

Focusing on the definition and characterisation of cultural gaps, whether on a grand scale or on more modest grounds, as a means of producing thick descriptions that are capable of integrating particular manifestations into a meaningful context, is thus rooted in the arbitrary qualities of culture.

### **Some examples**

Stepping out of a rather tedious and abstract mode of presentation, it will benefit our assertions to offer some examples of works, in which comparative reasoning of the kind discussed above was applied. Such examples can be found in a wide range of scientific literature, albeit usually of the softer kind. But, as already noted, the comparative reasoning with which we are concerned is always concealed within the efforts of the author to build up a solid base for his or her arguments. Consequently, one is required to look for it between the lines.

In his search for the essence of technology, Heidegger (1977) finds that of *modern* technology to be in its challenging attitude and in its viewing everything as 'standing-reserve', '...everywhere everything is ordered to stand by, to be immediately at hand, indeed to stand there just so it may be on call for further ordering' (Heidegger 1977: 17). Heidegger reaches this conclusion after careful consideration of the Greek understanding of the matter at hand. For him, the decisive issue is that modern technology, with its application of the physical sciences, its industrialised qualities and its involvement in the circulation and transformation of energy, cannot be subsumed under the concept of *poiēsis*, which means bringing-forth, coming into

presence. *Poiēsis* is a process of disclosure, of revealing something hitherto concealed, in which *technē*, referring to all arts (both of the hands and of the mind), is a particular mode of the above, where something comes forth out of concealment through the agency of an artisan.

Also, in modern technology Heidegger finds the qualities of a revealing, but not of a bringing-forth in the sense of *poiēsis*, in the sense of disclosing something concealed. Heidegger finds that modern technology, rather than being a revealing through disclosure, it is a revealing through a challenging and demanding; and rather than bringing something forth out of concealment, it is a revealing of order and of a standing reserve. Through the gap between the Greek and modern attitudes toward the matter, the essential quality of modern technology is discovered to be in the relationship to the world: if the Classic concept of the artisan or the craftsman was of someone who draws something out of concealment, then the modern concept is of someone who demands of that something to be disclosed; while the one encourages its coming to the fore, the other forces it to do so. Another important gap stressed by Heidegger concerns the relationship to that which is revealed: while in the classic context the revealing is finite, in the context of modern technology it is not, for every revealing is destined to be followed by another: ‘...the energy concealed in nature is unlocked, what is unlocked is transformed, what is transformed is stored up, what is stored up is, in turn, distributed, and what is distributed is switched about ever anew’ (Heidegger 1977: 16). Hence, it is in how modern technology breaks away from the concept of *poiēsis*, in the gap between these concepts, that Heidegger finds the essence of modern technology.

My second example consists of an attempt by David N. Keightley (1987) to disclose important features of thought and behaviour in Neolithic China, which are likely to have been of importance in the genesis of subsequent Shang culture. He approaches the issue through the exploration of the gap between the ceramic traditions of two large cultural complexes, that of northwest China and that of the east coast (Keightley 1987: 95):

Broadly considered, the essential characteristics of the East Coast ceramic tradition include the following features: 1) pots were unpainted; 2) angular, segmented, carinated profiles were common; 3) pots were frequently constructed componentially; and 4) pots were frequently elevated in some way. The ceramic tradition of the Northwest, by contrast, was characterized by a more limited repertoire of jars, amphoras, and round-bottomed bowls and basins, only a certain proportion of which were painted.

By probing deeper into these differences and their implications, through the realms of manufacture, use, aesthetics and composition, Keightley was able to disclose the underlying modes of thought and practice. For instance, while most northwest pots could be built at one time by coiling or shaping, many of those of the east coast required that different elements be formed separately and later pieced together. The technical and organisational control required for the manufacture of componential forms was necessarily of considerable complexity and precision in order for the various parts to fit and adjoin properly. Such dexterity and scheduling was conversely unnecessary in the context of the former, for little planning was needed and manufacture had a rather straightforward quality to it. Hence, the potter of the east coast was to a considerable degree an architect of forms that demonstrated great mastery of the materials through technical and organisational skills of a high order, while the potter of the northwest followed the predetermined lines of the material and produced single continuous forms through a comparatively straightforward procedure. Keightley termed these the prescriptive and holistic methods of manufacture, respectively.

Deepening and broadening these observations with others, drawn out of additional aspects of the ceramic traditions in question, Keightley was able to offer characterisation of a profound kind (1987: 112, 115):

Man in the Northwest was the surface designer, the embellisher of globular, holistic forms. Man in the East Coast was the maker of shapes, the manipulator, the “handler,” the coordinator, the measurer... [The Northwest potters] were more the “hedgehogs” of the Chinese Neolithic; the people of the East were more “foxes”. The Easterners were, metaphorically speaking, Neolithic “Marxists” – their goal was not simply to understand, or even to depict and imitate the world, but to change it.’

Thus, it is through the articulation of the gap between the two traditions that Keightley was able to penetrate deep and discover fundamental qualities of both. This is particularly well illustrated by his concern being strongly tilted toward the east coast, where features most relevant for the emergence of later Shang Culture are found. Why then does he bother with the northwest? It is because the fundamental qualities in question are best revealed through the gap between traditions, because access to these qualities has to be attained through relative terms such as complexity, order, form, efficiency, variety, etc. It is against the tradition of northwest China that the character of the east coast receives its clearest and sharpest characterisation. The

function of the former in this context is akin to that of a magnifying glass that emphasises important characteristics of the latter.

Finally, the field of history of science is full of examples of the kind of comparative reasoning discussed here, especially when concerned with the controversy between opposed schools of thought. It has long been established that such controversies span ‘logical gaps’ between ‘paradigms’, that they preclude the possibility of mutual understanding and that their resolution is not to be found in their compatibility with empirical facts (Kuhn 1970; Polanyi 1958). The Disclosure therefore of the crux of the controversy, the true core of misunderstanding, the essential, often tacit, concepts from which the particularities of the argument follow, demands of one to explore the gap between the rival schools and to define the heart of their difference. It is in this manner that the controversy between the Ptolemaic and Copernican theories of the solar system was found to be truly concerned with the position of man, whether he occupied the centre of the universe, both a commonsensical point of view and one corroborated by the Bible, or was he merely a minor component of a much larger system, the centre of which was occupied by the sun?

Looking into a slightly less well known example, we may consider the controversy on the nature of alcoholic fermentation (see, Polanyi 1958: 156-157). During the 1830s, several scholars independently concluded that fermentation was a living function of yeast cells. This, however, went against the dominant scientific attitude of the time, which was strongly pushing toward the demonstration that processes of living beings were in fact chemically based. A controversy thus ensued between two camps, separated by a gap that could hardly be bridged: where one finds all living matter to be chemically based, the other asserts the existence of processes induced by living organisms themselves. Or, to paraphrase, while one regarded all biological functions to be reducible to the inanimate processes described by chemistry, the other insisted that living processes were of a different order. It was a controversy over a question as big as ‘what is life?’

### **Chalcolithic and contemporary cemeteries**

In the foregoing lines I have attempted to demonstrate the applicability and potential of a comparative analysis focused on the articulation and definition of cultural gaps. It has hitherto always been applied tacitly, possibly due to circumstantial conditions or to chance unfolding

within the scholars' hermeneutic process. Given the above, there is good reason to consider favourably the conscious and intentional application of this approach both as a guideline for structuring a research program and a potent avenue for interpretation.

The present dissertation constitutes, therefore, an effort to put this theory into practice. Accordingly, the two objects of research, Chalcolithic and contemporary cemeteries, between which the gap to be analysed spans, will be treated independently without reference to the other. With the exception of focusing analysis on the material record, no demands for compatibility of analysis, methods or terminology are made. The treatments of Chalcolithic and contemporary cemeteries will each follow its own course. It is of note, however, that, given that both are handled by the same individual, namely the present author, similar inclinations and interests are found in both, especially pertaining to the general goals: to disclose the underlying logic governing the structure and organisation of the cemetery, to determine the main categories/concepts at play, to distinguish different discourses, and determine how they unfold. The analysis of the gap between Chalcolithic and contemporary cemeteries and the appraisal of its qualities will take place only after each was fully treated. It will try to sift through the various details, searching for their underlying logic and the core of their differing qualities.

**Part I:**

**The Chalcolithic  
Cemeteries**

## Ch. 3: Introduction and Method

Not to be confused with mortuary practices, the main focus of the present study is on cemeteries, the physical result of repeated interments of human remains in a given location. While clearly associated, both recognised and analysed archaeologically via human remains and one being an outcome of the other, cemeteries and mortuary practices often refer to fairly distinct realms of meaning. The latter that seem to enjoy greater popularity in contemporary archaeological discourse often concern matters of experience, behaviour and belief, as eloquently exemplified by book titles such as ‘interacting with the dead’ (Rakita *et al.* 2005), ‘an archaeology of mortality’ (Tarlow 1999) and ‘the materiality of death’ (Fahlander and Oestigaard 2008). Conversely, a treatment of a cemetery is focused on the articulation of a physical reality, its temporal and spatial dynamics, its internal structure and signification.

Archaeologically speaking, the range of material phenomena subsumed under the heading of ‘mortuary practices’ is much broader than that of ‘cemeteries.’ Indeed, practically any occurrence of human remains carries reference to one form or another of mortuary practice, for which cemeteries are a particular case. Yet the cemetery is not merely a particular instance of mortuary behaviour. A cemetery is probably best defined as an area set apart for the burial of the dead or remains thereof. As such, it constitutes a physical representation of a community of the dead, in which internal distinctions and relationships are articulated and negotiated, including their relationship to the living; cemeteries can thus be said to constitute collective representations of the dead. While they do not offer direct reference to personal or emotional experiences, nor do they necessarily convey a sense of the exotic, as mortuary practices often do, cemeteries embody a wealth of representations and ideas, communicated through their organisation and structure. It is to the disclosure of the ideas embodied in the cemeteries of the Chalcolithic period and their variations that the following chapters are devoted.

### **Chalcolithic cemeteries**

As already noted, the focus of the current study on cemeteries implies that only a portion of Chalcolithic mortuary behaviour will be treated. Determining, however, where the line between cemetery and non-cemetery funerary remains ought to be drawn is not always as straightforward as it might seem at first. For this purpose, two strict criteria are upheld: (1) the sites in question

must be spatially and functionally distinct from habitation sites; and (2) there must be evidence for systematic and repeated interment of human remains. Thus, intra-mural mortuary contexts are not to be considered; also funerary contexts that are located in places that served habitation purposes shortly prior or concomitantly to the funerary ones, as in Hurvat Hor (Govrin 1987) and the caves of the Judean Desert (e.g. Aharoni 1962; Bar-Adon 1980; Eshel and Zissu 2000) will be excluded as well. For similar reasons the burials uncovered in subterranean complexes of the Beersheba Valley (Perrot 1955a; 1958; Eldar and Baumgarten 1985) and Giv'at ha-Oranim (Scheftelowitz and Oren 2004) will not be discussed, as evidence for a wide range of other, non-funerary, activities have been recorded. Lastly, cases such as that of Horvat Govit, where a single individual was buried in a removed context (van den Brink and Commenge 2008) cannot be regarded as cemeteries due to the clear lack of systematic conduct.

A great deal of Chalcolithic mortuary data is thus omitted. Nevertheless a substantial body of evidence still remains, consisting of 26 sites that can be safely identified as cemeteries (Table 3.1).<sup>1</sup> Although limited to the western side of the region's main watershed, these cemeteries cover a considerable geographical area from the Upper Galilee to the north until the Northern Negev to the south (Fig. 3.1). They also present a remarkable range of material expressions including both under and above ground contexts, large and small scale sites and highly varied material assemblages. As already noted at least three types are readily defined, suggesting important differences in the cemeteries' functions and meaning: (1) burial caves strongly associated with ceramic ossuaries; (2) cemeteries consisting of clusters of circular and rarely rectangular structures; and (3) a combination of pits and a sunken rectangular structure.

For the sake of clarity, it is of note that the *Nawamis* of the Negev and Sinai (Bar-Yosef *et al.* 1977; 1986; Cohen 1999: 21-24), including Adeimeh (Stékélis 1935), which are often discussed together with Chalcolithic cemeteries, are left outside the perimeters of the current study due to their indeterminate cultural and chronological attribution that is loosely defined as Chalcolithic-Early Bronze. Although I do not reject the possibility of their contemporaneity with the other cemeteries analysed, given the broader intentions of the current study to set up the Chalcolithic cemeteries against contemporary ones, there is little sense in introducing such

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<sup>1</sup> These, it ought to be noted, do not include some excavated but yet unpublished sites such as Nahal Qomem and Nahal Sekher (see, Gilead and Goren 1986; Goren and Gilead 1986).



Fig. 3.1: Distribution map of Chalcolithic Cemeteries.

complications. It is preferable to stick with culturally and chronologically well-defined phenomena.

### **Emphases, methods and outline**

The treatment and analysis of the Chalcolithic cemeteries in the present study is first and foremost an endeavour to synthesise the data that accumulated over the past eight decades since the first burial cave was discovered and excavated in Hederah (Sukenik 1937). In doing, so the analyses presented are entirely based on the reconsideration of secondary data, almost all of which is published. As a result, however, severe inconsistencies and variations need to be dealt with. For, on top of the variations in the archaeological record, concerning such issues as preservation, site formation, and temporal duration, personal and professional differences are introduced as well, pertaining to matters such as degree of control, awareness to various aspects of the material record, priorities and interests.

Speaking of method in its strict sense is evidently difficult under such conditions, if at all possible, for one cannot sustain a harsh set of codes for analysis and interpretation when the quality and availability of the data constantly changes. A great deal of flexibility must therefore be maintained, accommodating circumstances that vary from one case to the next. On the other hand, aspirations for a comprehensive treatment of *all* material aspects of Chalcolithic cemeteries must be moderated as well, and a more modest and realistic approach needs to be adopted. Consequently, the human remains and designated receptacles are constituted as the primary sources upon which the following analyses are drawn, while other categories of material culture are only subsidiarily considered. The reason for this is that the designated mortuary vessels are probably the most consistently and extensively reported aspect of these assemblages, while the treatment of human remains is indispensable given the funerary function of the sites in question; excluding them would amount to ignoring the cemeteries' primary meaning and identity.

But here it is also important to note that information concerning the human remains and the designated vessels is often fragmentary and incomplete, whether due to poor preservation or archaeological treatment. Thus, insofar as the designated receptacles are concerned, a further reduction is taken, excluding the rich symbolic and figurative features they often carry (see, Shalem 2008, and references therein). Instead, the present study follows Perrot and Ladiray's

(1980: 28-35) fourfold typological division: (1) house-shaped ceramic ossuary (henceforth ‘ossuary’) often with a domed roof and modelled facade or *fronton* and an aperture in one of its short ends (Fig. 3.2: 1); (2) chest-shaped ceramic ossuary (henceforth ‘chest’) with its upper part

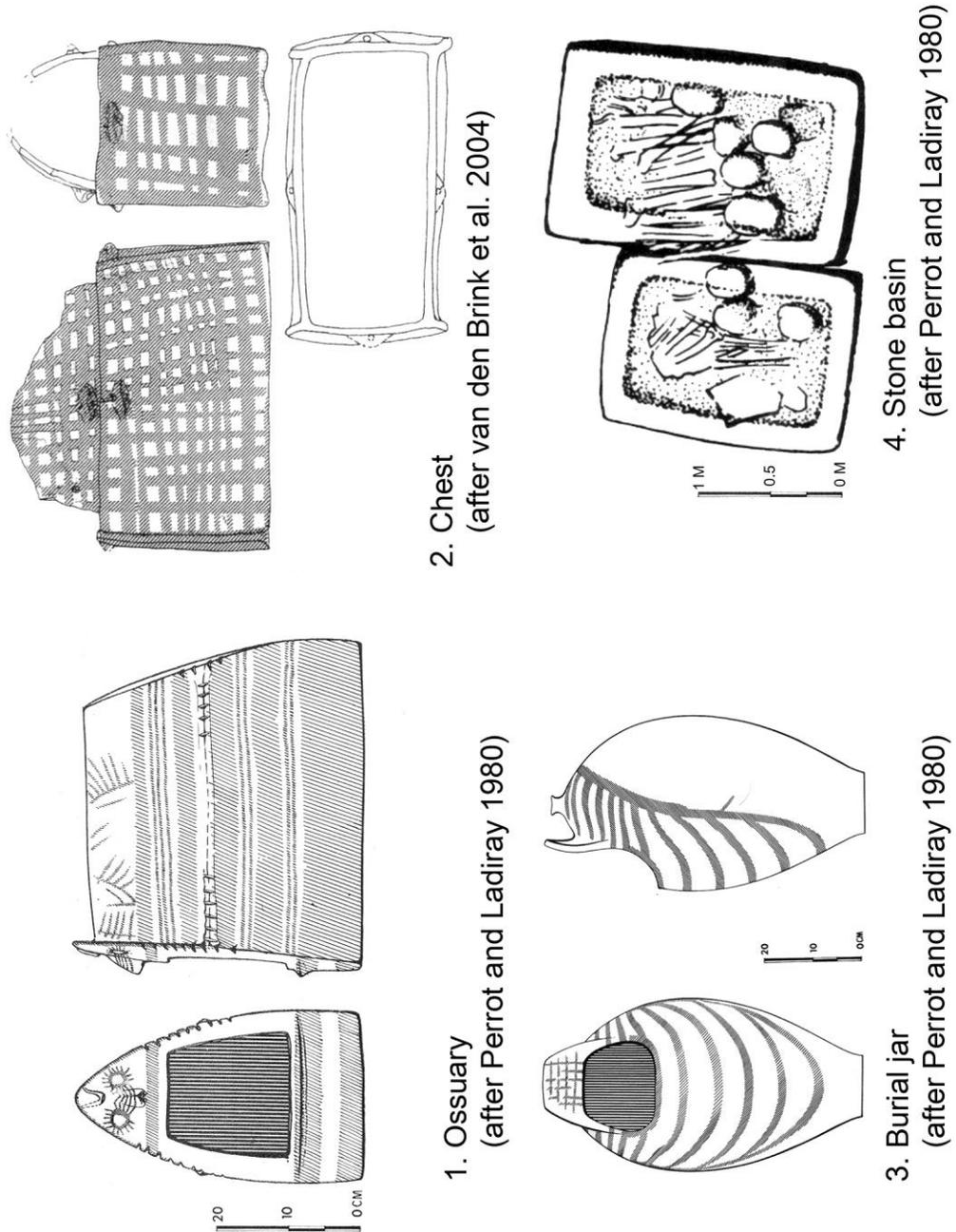


Fig. 3.2: General typology of Chalcolithic designated burial containers.

open, sometimes including a lid (Fig. 3.2: 2); (3) burial jar, with a narrow base, a domed top and an aperture at the upper part of the shoulder (Fig. 3.2: 3); and (4) rectangular stone basin (Fig. 3.2: 4).

Anthropological data is often lacking and rarely complete. For the purposes of the present study, the aspects of interest are those that refer to patterns of interment and discrimination, such as the MNI, sex and age distributions, contexts of interment and the representation of different skeletal parts.<sup>2</sup> Whenever the information is not given and the possibility exists, an effort is made to reconstruct some of the patterns in question. I am referring here primarily to the spatial contexts of skeletal remains, which can occasionally be wrestled out of chance comments and plans. More seldom, biases in representation of skeletal elements can be reconstructed as well. When absolute numbers of certain skeletal parts within an assemblage are given, their relative ratios can be calculated against a known MNI. For example the number of humeri for MNI X is 2X. Accordingly, the number of humeri recovered divided by 2X will give the ratio of their relative representation.<sup>3</sup> If considerable differences in ratios of disparate skeletal parts are noted, intentional selection may be indicated.

In accordance with the primary aims of the present study, interpretation is geared towards the elucidation of the ideas articulated by the cemeteries, the transformations they underwent, and the discourses they maintained. Accordingly, analysis is directed towards elucidation of distinctions drawn between social groups or individuals, determination of the quality of the difference between them (whether the units in question are equivalent or categorically distinct) and the nature of their interrelationships. This is most clearly expressed when distinct spatial units are observed, producing clear divisions among the interred individuals. The quality of relationships among these units may be of equivalence and homogeneity, when all are more or less the same; they also may be categorically distinct, associated with different social and cultural concepts.

If only by token of them being repeatedly visited and used for the deposition of human remains, cemeteries must be acknowledged as essentially dynamic phenomena. Given the representational function of these institutions, it implies also the existence of a discourse and

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<sup>2</sup> Other aspects of the osseous remains that pertain to characteristics of the living population (e.g. matters of diet and health) will not be treated here.

<sup>3</sup> If further information is available, discriminating between the left and right humeri, this is taken into account as well.

negotiation of the ideas articulated. At a minimum, this would amount to a reinforcement and persistence of the existing ideas but it can also manifest vibrant negotiations and transformations. Understanding the diachronic development of these sites is therefore of considerable importance. It is rarely, however, readily apparent. Occasionally, stratigraphic sequences, from which temporal observations can be drawn, are available; but usually these are lacking, necessitating a heavy reliance on a detailed contextual analysis that takes into consideration the distribution and state of the material assemblages and the depositional and post-depositional processes responsible for the site's formation. This too is not always possible and depends largely on the nature of the site and the quality of its report.

Thus, four components constitute the primary foci of the present investigation: human remains, designated funerary vessels, depositional and post-depositional processes, and spatial structure. Together, these are expected to provide access into the core of the cemeteries' function and purpose. Osseous remains and designated, symbolically loaded, paraphernalia epitomise the focus of Chalcolithic mortuary activities in most cemeteries. Directing one's attention at these components is expected, therefore, to provide access to the most important features of their funerary function. In this respect, concern with site formation processes is indispensable. Not only does it provide insights into the quality and reliability of the data, but it is often also a powerful device for animating the relatively static archaeological record. By these means, a site's narrative can be produced, allowing some of the driving human forces to be recognised. Lastly, a cemetery's spatial organisation introduces structural hierarchy into the analysis, for it contextualises all other discussed processes. For the arrangement and manipulation of physical space is also a means of distinguishing units and articulating their relationships (Hillier and Hansom 1984).

The present study is not exhaustive. It does not treat all the available archaeological data, nor does it pursue every lead. Instead it employs a well-focused framework that is expected to lead us into the core of our concern, namely the logic and dynamics underlying the Chalcolithic cemeteries.

In the following chapters, each of the cemeteries in question is discussed, some in greater length than others. Burial cave cemeteries are discussed first (Ch. 4-9), followed by mortuary-structure cemeteries (Ch. 10-11) and, finally, Kissufim Road (Ch. 12). The quality and nature of the discussions vary considerably from one site to the next, from a straightforward and simple

description to a detailed discussion and interpretation, depending on the quality of the available data. The asymmetry in treatment may appear striking at times but is a direct result of the aspiration to make the best out of the available data. Sometimes, elaborate interpretations can be offered for a given site; at other times, interpretive efforts are only modestly possible or utterly impossible at the site level and must be withheld until they can be positioned within a wider context.

Hence, only several of over 20 burial cave cemeteries are discussed at length and presented in separate chapters, while others are grouped together into one. In both cases, the order of presentation is from north to south, and no other significance should be ascribed to it. The cemeteries of Palmahim (North) and Shiqmim (Ch. 10 and 11) are comparatively extensive and elaborate as well. Chapter 13 offers a discussion and characterisation of the Chalcolithic cemeteries in the Southern Levant. It is of note that the number of examples available for different cemetery types had considerable weight in how far the discussion could go. In many respects, a great deal more could be said of the burial cave cemeteries than of the others.

Table 3.1: Index of Chalcolithic cemeteries discussed.

<b>Site</b>	<b>Description</b>	<b>References</b>
Azor	A number of caves, hewn into the kurkar rock. Only one was systematically excavated, yielding numerous ossuaries in at least two phases of mortuary use.	Perrot 1961; Perrot and Ladiray 1980
Ben Shemen	Six burial caves hewn into soft chalk. In one, a cluster of complete burial jars was found, in another, two stone rectangular basins, while in the rest, ossuaries and other vessels were uncovered.	Perrot and Ladiray 1980
Benei Beraq	A cluster of burial caves, hewn into the kurkar ridge, most of which were badly damaged by quarrying activities.	Kaplan 1963; Ory 1946
Furedis	Natural cavity; only partially excavated.	Yannai 2007
Horvat Castra	A burial cave in a natural cavity; bone heaps and few ceramic receptacles	van den Brink <i>et al.</i> 2004
Horbat Hani	A burial cave in a natural cavity; badly disturbed by later activities; ossuary fragments	Lass 2003
Giva'taim	Seven burial caves hewn into the kurkar ridge, demonstrating a wide range of assemblages; one contained two stone basins, another consisted of jars and kraters while others contained ossuaries.	Sussman and Ben-Arieh 1966
Hederah	An artificial cave cut into the kurkar ridge; ossuaries and bones are reported.	Sukenik 1937
Kissufim Road	A cemetery in the southern coastal plain consisting of a submerged rectangular funerary structure and pits.	Goren and Fabian 2002
Ma'abarot	An artificial burial cave cut into the kurkar ridge; two phases were discerned, the earlier marked by large number of ceramic receptacles while the later was characterised by bone heaps.	Porath 2006; Agelarakis <i>et al.</i> 1998; Paley and Porath 1979: 238-239
Mazor	A cluster of natural caves; only one was systematically excavated; several stages were observed; bones deposited in kraters and on cave floor.	Milevski 2007; Lupo 2008
Midrakh 'Oz	A burial cave at the eastern margins of the Menashe hills; ossuary fragments	Getzov <i>et al.</i> 2008
Nahal ha-Ela	Burial caves located inside natural cavities in the rock; one cave contained mainly jars while another was badly damaged by EB activities	Eirich-Rose 2009
Nahal Qanah	A large active karstic system in the Samaria mountains used for burial purposes during the Chalcolithic period; among the finds copper and gold/electrum is of note.	Gopher and Tsuk 1996

Table 3.1: Index of Chalcolithic cemeteries discussed (continued).

<b>Site</b>	<b>Description</b>	<b>References</b>
Palmahim	11 artificial caves hewn into the kurkar bedrock. Only partially published.	Gophna 1968; Gophna and Lifshitz 1969; 1980
Palmahim (North)	A cemetery consisting of multiple mortuary structures, positioned at the top of kurkar ridge.	Gorzalczany 2006
Peqi'in	Large karstic system; numerous ossuaries, chests and bone clusters; finds include copper items	Gal <i>et al.</i> 1997; 1999; 2007
Qula	A minimum of five natural caves; one of which contained a cluster of burial jars and rectangular stone basins; in another cave, a unique male figurine was found	Milevski 2001a; 2001b; 2002; Milevski and Shevo 1999
Sha'ar Ephraim	Six burial caves, some of which were severely damaged by construction work; assemblages contain ossuaries, burial jars and chests.	van den Brink in press; Oren and Scheftelowitz 1998
Shiqmim	A series of cemeteries spread across several hilltops overlooking the Beersheba River and Shiqmim Village; consist of various combinations of circular mortuary structures, cists and cairns.	Levy and Alon 1982; 1985a; 1985b; 1987b; Levy <i>et al.</i> 1991; 1993
Shoham	A cluster of natural caves, the assemblages of which are often highly fragmented; in one case a cluster of burial jars was reported.	van den Brink and Gophna 2005; van den Brink 2009
Shuni	A burial cave at the southern end of the Carmel Ridge; the cave was reused heavily during the Intermediate Bronze Age.	Peilstöcker and Sklar-Parnes 2005
Taiyiba, et	An artificial cave cut into the soft chalk; numerous complete ossuaries; the cave was robbed and most items were retrieved subsequently; no contextual data available.	Yannai and Porath 2006
Tel el-Farah	A single cave; contents include bone clusters on bench	de Vaux 1957
Shechem/Askar	A Chalcolithic burial cave, heavily damaged in later periods	Klamer 1981; Guyot 2009
Yannai, St.	At least two burial cave hewn into the kurkar bedrock; ossuary fragments and widely distributed bones.	Kaplan 1958

## Ch. 4: Peqi'in Cave

The cave of Peqi'in was discovered in the course of road construction, and was subsequently excavated from May to August 1995. To date, only brief preliminary publications are available for the site, upon which most of the following discussion is based (Gal *et al.* 1997; 1999; 2007). Special thanks are due to Tzvika Gal, Dina Shalem and Yossi Nagar for providing me some of their still unpublished data.

### **The cave**

The cemetery consists of an active karstic cave, the opening of which was blocked and was indiscernible on the surface. The cave measures 17 m in length, 5-7 m in width and consists of three successive units, descending from east to west. A corridor led from the slope on the hillside into the upper unit (4.5x6x4 m). The unit's surface was levelled and partially paved with fieldstones upon which ossuaries were placed. A stone platform was built on its southern side and a 1.5 m high wall was built on the western side. A large cluster of bones was found in a niche in the northern wall of this chamber, apparently arranged in two layers, with the upper one deposited in disorder, while the lower one demonstrated bones neatly grouped together in a fashion similar to that expected in an ossuary.

The middle unit (3x4.5x1.2m) slopes sharply to the west and was augmented with stone-built terraces upon which ossuaries and burial jars were placed. Its westernmost part was delimited by a low terrace wall.

The innermost unit is also the lowest and largest in the cave. It consists of a large irregular chamber with maximum measurements of 6.5x5.5x2 m. Depressions in the cave floor were intentionally filled and stone platforms were built in the northern and southern corners, upon which ossuaries and jars were found along with a variety of other objects. In the southwestern end of the chamber, 2 m above the surface, a "loft-like area" was also used for ossuary and jar burials.

All in all, the archaeological remains were scattered in the cave in great disorder, which led the excavators to conclude that it was extensively robbed in antiquity. This was undoubtedly augmented by events of ceiling collapse and ongoing karstic activity that further contributed to the supposedly human induced post-depositional processes.

## Human remains<sup>1</sup>

The skeletal remains represent a minimum of 453 individuals, based on mandible counts. The excavators estimate, however, that approximately 600 individuals were originally buried in the cave. No age or sex discrimination could be detected other than the exclusion of infants under the age of 3 or 4 (see, Nagar and Eshed 2001).

The age range spans from 4 years of age to over 60. The life expectancy at birth was 21 years, due to the high child mortality rate; average age at death for an adult was 32 years. There are also indications for higher female mortality in the young adult group age (15-20), which are probably associated with giving birth.

Of particular interest is the very high frequency of porosity in the orbital roof (*cribra orbitalia*), estimated at 83% of the population. This is indicative of anaemia, the most plausible cause for which is an epidemic of malaria (Nagar, forthcoming). Malaria, however, is very unlikely to have been present in the Peqi'in area of the Upper Galilee, but rather in the lowlands where marshes afford the proper conditions for the malaria-carrying mosquitoes to thrive. If this is the case, it follows that the Peqi'in burial cave served a population inhabiting an area significantly larger than that of the immediate environs of Peqi'in cave.

There is no doubt that the burials in Peqi'in cave were secondary in nature and that only certain parts of the complete skeleton were deposited in the cave. However, because no overall counts of identified bones are available, it is not possible to assess directly the relative representation of different skeletal parts. Nevertheless, some further data do present themselves (Table 4.1). It is clear that mandibles are the most common skeletal element in the cave, 453 were counted. Cranial fragments are much more fragmentary and, based upon the 267 temporal bones reported for epigenetic investigation, at least 134 individuals can be counted (Nagar, forthcoming). The humerus, tibia and femur were inspected for pathologies, according to which a minimum of 123, 162 and 232 individuals are represented respectively (N=246, 324 and 464 respectively; Nagar, forthcoming).

These figures ought to be treated with caution and as representing the smallest possible numbers. It also ought to be stressed that this is not to say that other skeletal

	N	MNI	%
Mandible	453	453	100%
Temporal bone (Cranium)	267	134	30%
Humerus	246	123	27%
Tibia	324	162	36%
Femur	464	232	51%

Table 4.1: Relative representation of selected skeletal parts.

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<sup>1</sup> The details presented in this section draw primarily on a preliminary anthropological report, courtesy of Y. Nagar and T. Gal.

elements were not represented, but that their representation is more fragmentary or does not afford an estimation of the number of individuals represented. Nevertheless, the available figures, taken to represent a bias in the record that cannot be entirely accounted for by differential preservation, can be seen to demonstrate a general and somewhat crude trend: a preference for the deposition of the skull and lower limbs. In a similar vein, it is of note that a significantly higher number of humeri's distal parts were available for inspection (n=246), compared with the middle and proximal parts of the bone (170, 136 respectively). This pattern is at variance with the expected preservation for a single bone. The diaphysis, or shaft, is the part of the bone with the best preservation index, while the extremities, which are "spongy," are more prone to decomposition. This is the pattern noted for both the femur (288 proximal, 464 middle and 210 distal) and the tibia (160 proximal, 324 middle and 184 distal). Hence, the significantly higher representation for the distal extremity of the humerus suggests that, unlike the long bones of the lower limbs, these bones were not complete when deposited in the cave, but broken, and that the distal portion was preferentially included.

### The burial containers

Any attempt to consider the assemblage of containers for osseous remains is hindered by the partial retrieval of the assemblage, portions of which were left in the cave. The composition and fragmentation index of the retrieved assemblage is presented in the table below (Table 4.2; D. Shalem, pers. com.). It should be stressed that the presented figures constitute a preliminary count and should be treated with caution. In any event, insofar as the bone receptacles are concerned, the most common were chests with lids, then ossuaries, shallow chests. Jars were also numerous, but it is difficult to determine how many of these were actually used to contain human bones.

Although the reliability of these figures is not entirely clear, one may expect, given the partial retrieval of finds, that the results would be strongly biased towards a high degree of fragmentation and incomplete specimens. Yet, the presented figures clearly indicate that the great majority of the retrieved funerary vessels could be restored to completion, thus

	Complete	%	Partial	%	Fragment	%	Total
Ossuaries / Chest (+ Lid)	41	63%	23	35%	1	2%	65
Chest	11	69%	2	13%	3	19%	16
Lids	4	10%	6	15%	30	75%	40
Jars	56	62%	17	19%	17	19%	90
<b>total</b>	<b>112</b>	<b>53%</b>	<b>48</b>	<b>23%</b>	<b>51</b>	<b>24%</b>	<b>211</b>

Table 4.2: Breakdown of designated mortuary vessels in Peqi'in Cave.

supporting a post-depositional cause of their fragmentation. This pattern is consistent for all vessel categories presented save one: the lid, which clearly shows the reversed pattern, with 75% of them represented by fragments alone. Against the background of a relatively complete assemblage, the failure to reconstruct the lids to completion cannot be readily attributed to the same processes. Rather something else must have been involved. Assuming that lids are not more susceptible to destructive influences than other components of the assemblage, the absence of considerable portions of their body suggests that they were removed, either to a remote place in the cave or out of the cave entirely. That is, the observed patterns of fragmentation suggest that, contrary to the majority of the assemblage, lids were fragmented intentionally and probably circulated while the cave still served its mortuary function.

At least two further points might shed additional light on the subject. First, these are ‘orphan’ lids that could not be associated with a receptacle (an ossuary or a chest). This is of significance for many of the reconstructed ossuaries included lids as well. Thus the fragmented lids might have been deposited without ossuaries in the first place. Second, in a typological-functional sense, the lids are categorically distinct from the rest of the vessels. While ossuaries, chests and jars are receptacles, presumably meant to contain human bones, the lids were used to cover the contents or seal them from the outside. Perhaps the higher fragmentation of the lids was related in some way to their different function.

## **Discussion**

The reader is advised to take the foregoing discussion with a touch of salt. Most of the data is preliminary and therefore subject to change as it is being processed for publication. This is particularly the case for the points made on the human remains and composition of the assemblage. Hence, the hypotheses presented here should also be considered preliminary and reassessed upon publication of the detailed report. In the next few paragraphs I would like to comment on two of the excavators’ assertions: (1) that the patterning of designated receptacles indicates the existence of social ranking and (2) that the cave was robbed.

The excavators have recently suggested that the patterning within Peqi’in cave reflects a hierarchical organisation, according to which individuals deposited in ossuaries were of a higher rank than those deposited in jars and in heaps (Gal *et al.* 2007: 46). While this might be the case, somewhat supported by the recovery of prestige objects such as copper (Gal *et al.* 1997: 151), it still needs to be properly substantiated. Given the size of the population buried in the cave, the likelihood that it gathered together deceased individuals from some distance

and that the cave was in use for a considerable period of time, the processes and internal dynamics within it were undoubtedly complex and multi-faceted. The type of receptacle in which the bones were deposited could signify a host of ideas and notions, of which social rank is only one possibility. The cohabitation of several social groups in a single space invites an elaborate discourse preoccupied with the articulation of identity and relationships. Power negotiations may be an aspect of these discourses; and even if so it need not be the most acute one.

One aspect of Peqi'in cave that might be viewed nevertheless as conducive to differentiation by rank is its subdivision into three successive units. This order produces a hierarchy of spaces, ranging from shallow to deep, with the potential control and regulation of access (Hillier and Hanson 1984: 143-175). Hence, if social status was an important issue, the spatial character of the cave is likely to have been exploited. Whether this was the case or not must await the publication of detailed contextual data.

Another claim forwarded by the excavators is that the cave was robbed in antiquity (Gal *et al.* 1997; 2007). This too, I believe, needs to be further substantiated. The fragmentation and disorder of the material remains, upon which this assertion rests, is not a sufficient indicator, especially in an environmental context as complicated as a karstic cave, where processes of subsidence and collapse, high humidity and animal activity promote damage to the archaeological record (Frumkin 1996). A proper understanding of the depositional and post-depositional processes is an indispensable prerequisite.

## Ch. 5: Ma'abrot

A salvage excavation of a Chalcolithic burial cave, quarried into the kurkar ridge south of Alexander stream, was conducted by Y. Porath in 1978 following a road development project that damaged the northern part of the cave. Two phases of use were discerned, separated by a thick layer of blocks and brittle kurkar, probably representing the crumbling of the roof and walls. After the second phase, the cave ceiling collapsed, effectively sealing the deposits below.

Skeletal remains representing a total of 63 individuals were recovered. These were found in two main clusters, along the western and eastern walls of the cave, most of which (n=42) were deposited in ceramic containers (Fig. 5.1) while the remainder (n=21) were arranged in 'bone heaps'. It has been noted that 'bone heaps' (Fig. 5.3) were prevalent in the later phase, while ceramic containers were dominant in the earlier. Anthropological analysis of 58 of the identified individuals concluded that they were predominantly male (Agelarakis *et al.* 1998: 439). Unfortunately, little detailed data is available regarding specific burial contexts: presence, absence and type of container, arrangement of the bones, age estimation, sex, etc.

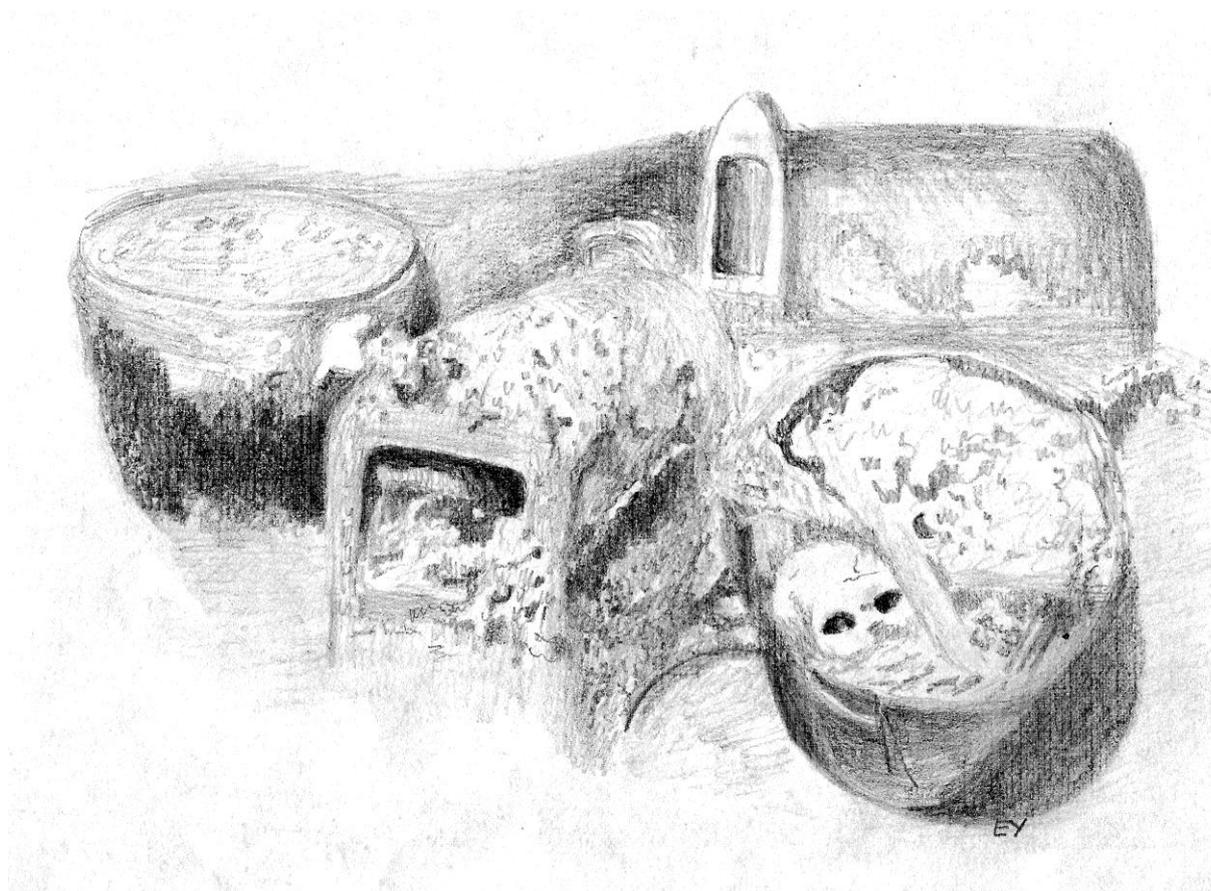


Fig. 5.1: Illustration of inhumation of bone in ceramic containers, Ma'abarot phase 1 (by Elisabeth Yehuda, after Porath 2006: Fig. 3).

### **Burial containers**

Burial containers consisted of 14 kraters, 15 ossuaries and three ceramic chests. It is not entirely clear, however, whether all of these were originally complete. Only four of the kraters were illustrated (Porath 2006: Fig. 7), leaving the state of preservation of the remainder indeterminate. In the published plan (Porath 2006: Plan 1), a minimum of eight kraters are indicated by their complete circumference, suggesting that the majority was complete. Among the ossuaries, on the other hand, only one complete specimen is illustrated, two are represented by relatively large fragments and seven by pieces (Porath 2006: Figs. 11-14). Two of the ceramic chests were complete, while one was represented by large fragments.

The excavator emphasises the poor state in which many of the ossuaries were found, disintegrating while being recovered, and notes that they are of a low paste and firing quality (Porath 2006: 52). This, it should be noted, renders the estimation of the original number of ossuaries deposited in the cave problematic. Indeed, at least 22 rectangular vessels are portrayed in the plan of the cave, four over the number of ossuaries and ceramic chests noted above. According to the presentation of their outline, one could suggest that upon discovery 11 were complete or almost complete (all or most outline visible), 6 were represented by large fragments and 5 by small fragments (outline mostly restored). Excluding the three chests, one is left with 8 complete ossuaries.

Moreover, it is evident that the ossuaries were the only vessel type to have been affected so badly. Other vessel types, including the ceramic chests, were much better preserved. The excavator suggested that this is due to significant differences in the structural qualities, which render them more susceptible to destructive influences. While possibly true, one ought to be cautious not to prematurely reject a behavioural explanation that might point towards the existence of different attitudes towards different parts of the assemblage.

### **Depositional and post-depositional processes**

The burial cave of Ma'abarot was hewn into a relatively brittle layer of kurkar sandwiched between two harder ones. Two episodes of collapse were apparently responsible for the rapid burial of the deposited artefacts and bones, stabilising their condition below the accumulated sand and kurkar. Such processes of rapid burial often present a promise of relatively good preservation and comparatively undisturbed archaeological contexts. And indeed Ma'abarot presents one of the most complete and impressive mortuary assemblages among the burial caves of the Southern Levant. Given, however, the poor condition in which parts of the assemblage were found, some consideration of the post-depositional processes is in order.

While still intact, the interior of the cave seems to have had little, if any communication with the external environment. The greater part of the volume, constituting the matrix in which both phases of use were embedded, consists of sand and kurkar, originating from the deterioration of the cave walls. No mention is made of sediments that may have infiltrated from the outside. If such an influence did exist, it must have been limited to the vicinity of the entrance, which was also the lower part of the cave, but destroyed prior to excavation.

A somewhat more subtle form of external influence concerns the infiltration of water. As the material assemblage was constantly covered either by an overhanging roof or superimposing rubble, it was not subjected to the direct influence of rain and running water. Instead, a slowly percolating trickle would have reached the assemblage through the kurkar during the rainy seasons. While it is unlikely to have caused the assemblage large-scale displacements, it could have induced other processes. Agelarakis *et al.* (1998: 434) note that many of the bones were found bonded in conglomerates of kurkar encrustations, testifying to processes of deposition of calcium carbonates. These most likely originate from the overlying kurkar, which is solidified by calcareous cement. The water infiltrating through the fissures and cracks dissolved the calcareous cement and carried it into the cave in the form of a solution, where it was deposited once more, thereby solidifying conglomerates of sand, bone and other elements.

This in itself need not have a destructive effect on the archaeological assemblage. But the infiltration of non-saturated water, settling on pottery, especially if porous, could promote the leaching of minerals and other associated chemical processes (see, Schiffer 1987: 158-162). Consequently, the internal structure of the vessel would weaken, promoting crumbling and, under extreme conditions, utter destruction. Such processes could perhaps be held responsible for the difficulties of retrieving the ossuaries.

## **Discussion**

Upon reviewing the published plans and photographs, it becomes evident that the cave of Ma'abarot is one of the most striking and impressive Chalcolithic burial caves known to date. This is a combined product of human activity, quick burial of the deposits and favourable post-depositional conditions. As such, it offers a rare occasion to examine the spatial as well as chronological arrangements.

During the early phase, the western compartment was densely populated with interments, mostly in kraters and ossuaries. The containers were tightly clustered against the western and south-western walls of the cave, occasionally set one above the other. This pattern seems to

suggest a preoccupation with the efficiency of the spatial arrangement, emphasising the preservation of room for easy movement and further interments. However not all deposits of osseous remains in this early cluster were found in a ceramic receptacles. As demonstrated by Fig. 5.2, below, on at least two occasions, clusters of human bones were deposited above pre-existing ceramic containers. Moreover, it seems that at least two more ‘bone heaps’ were deposited in the front part of the cluster, on the cave floor amid the ossuaries. Thus, the deposition of bones without containers, or otherwise in containers made of perishable materials, was practiced already during the earlier phase of the cave’s use, alongside kraters and ossuaries. Unfortunately, a better appreciation of their relative numbers cannot be attained and they may have been more numerous than observed here. Nevertheless, this phenomenon seems to have been of secondary importance compared with that of the ossuaries and kraters.

A broadly equivalent pattern is found also in the eastern compartment, although it is not as densely populated. It consisted of five or six ossuaries or chests, one krater and probably one bone heap deposited over large sherds.<sup>1</sup> The small number of interments, their relatively spacious arrangement (despite the smaller surface area) and the composition of the assemblage might be taken to suggest that this sector was initiated while the western one was already advanced. Still, it is likely that deposition in both compartments continued simultaneously. Reducing, however, the eastern compartment to a mere technicality of spatial

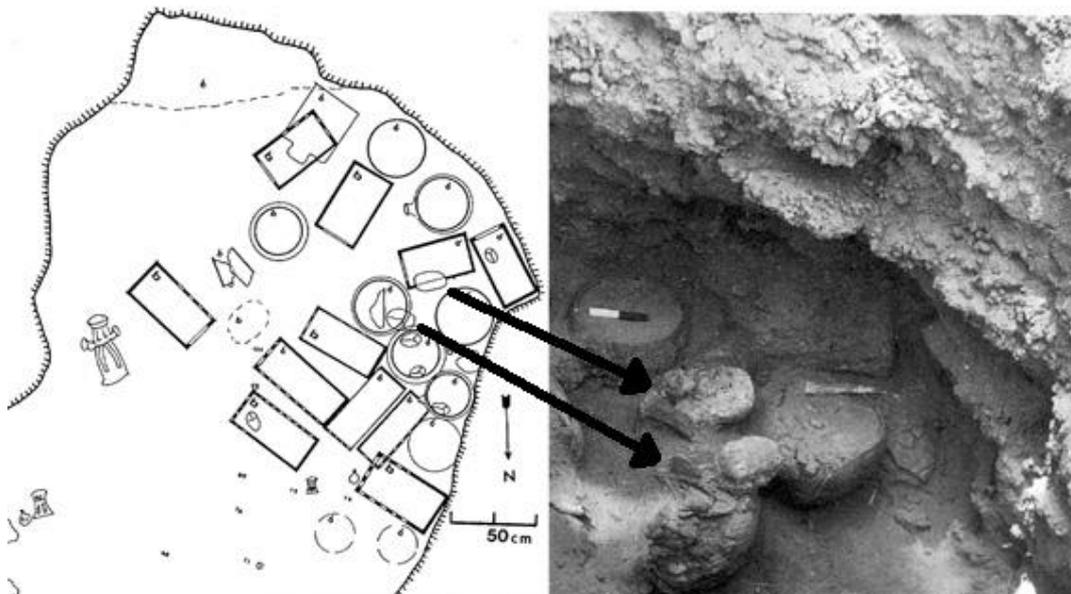


Fig. 5.2: The western compartment of Ma'abarot burial cave, highlighting the position of interments outside of containers (after Agelarakis *et al.* 1998 and Porath 2006).

<sup>1</sup> These observations are based upon the plan published in Agelarakis *et al.* (1998).

considerations is improbable; the western compartment was still easily accessible and had plenty of room to house many more interments when it was sealed below the debris of the first collapse. The significant differences in density and quantity of interments between the eastern and western parts of the cave suggest that the deposition in either side was not entirely an arbitrary matter and that for some reason there was a strong leaning toward one of them. This may have to do with distinctions between social sub-groups within the community, age or sex distinctions, circumstances of death, etc. On the other hand various contingent circumstances may also have contributed to the production of these spatial patterns, demanding that some caution be maintained.

The later phase demonstrates a significant increase of 'bone heap' interments. The force of this trend cannot be accurately estimated, however, due to the lack of quantitative data. In at least one case, a distinctive arrangement of depositions can be observed (Fig. 5.3; Porath 2006: Figs. 4, 5). It is located in the northeastern part of the cave, consisting of a ceramic chest with osseous remains surrounded by additional interments, representing at least six individuals (based upon the number of crania identified in the photograph). The chest, accordingly, seems to have constituted a centre around which further interments clustered. Unlike the somewhat disordered pattern produced by the cluster of ossuaries and kraters discussed above, this arrangement seems to suggest some form of hierarchical order, whereby the ceramic chest produces a focal point for other interments and serves to define the cluster

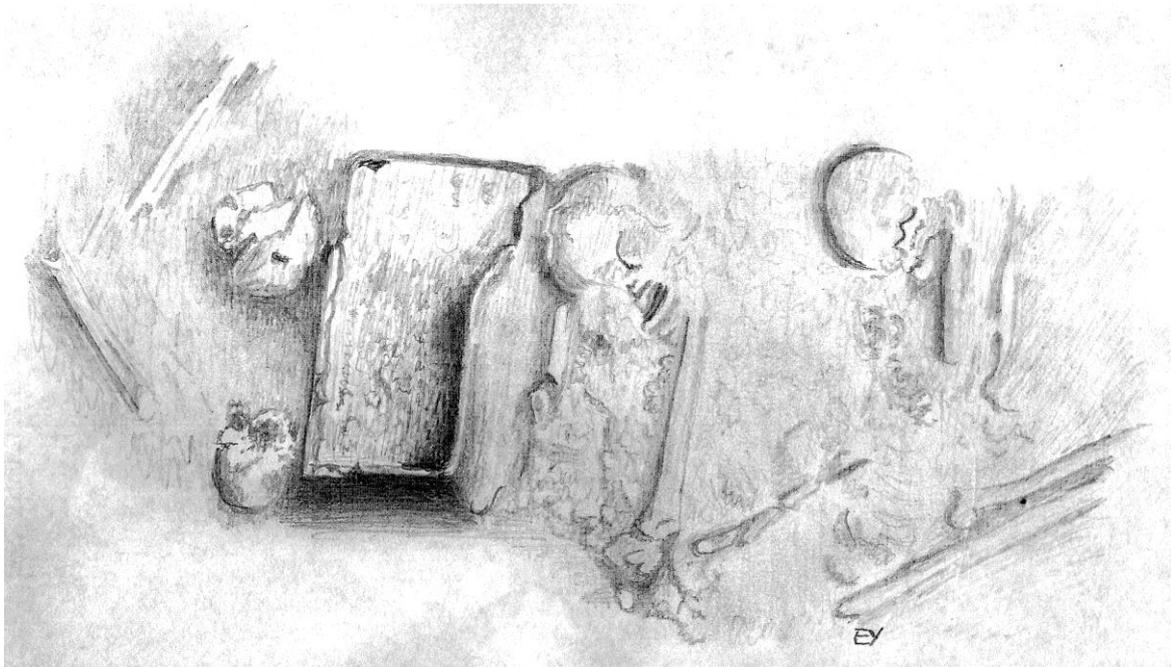


Fig. 5.3: Illustration of 'bone heaps' clustered around ceramic chest (by Elisabeth Yehuda, after Porath 2006: Fig. 4).

as a whole.

In any event, the cave of Ma'abarot demonstrates a clear chronological trend, according to which the systematic use of ceramic receptacles for the interment of human remains was a relatively early practice that was eventually relinquished. This temporal observation was made possible thanks to the partial collapse of the cave's ceiling, which interrupted the ongoing accumulation of cultural deposits and created a subdivision within it. Had this not been the case, a temporally undifferentiated assemblage would have been recovered, comprised of bone deposits both within and outside ceramic vessels, a situation which can at least partially also be observed during the earlier phase of the site.

## Ch. 6: Azor

During the winter of 1957, following bulldozer work in a quarry, several burial caves were discovered, hewn into the kurkar ridge. The bulldozer emptied portions of one of the largest tombs and entirely destroyed its western part. The other tombs have been destroyed completely. Some information about two of these caves, located 20 m west of the large one, was retrieved by Moshe Dayan from the workers. Accordingly, it seems that in one of these approximately 10 jars were found in line (Perrot and Ladiray 1980: 41).

Prior to the excavation of the large cave, some looting took place. It damaged the western part of the lower levels that were exposed on the quarry wall. A considerable portion of the pillaged material was retrieved, however, by Moshe Dayan, thereby minimising the harm done. The excavation was conducted in the course of two seasons during January 1958 and May 1959.

The large burial cave consisted of a single subterranean room, dug into the kurkar ridge, approximately 42 m<sup>2</sup> in area. Access was achieved from the east via a narrow shaft and tunnel.

### Stratigraphy

Nine strata were discerned by the excavator (Fig. 6.1):

1. Topsoil, 0.7-1 m thick, composed of reddish-brown sandy sediment originating from the deterioration of the adjacent kurkar ridge along with dark patches resulting from decomposed organic material. The archaeological finds were mixed and three Roman-Byzantine graves were found.
2. At the lower portion of the topsoil layer an occupational horizon was encountered, consisting of dispersed and aligned kurkar blocks. Probably this should be dated to the Early Bronze Age.
3. The collapsed ceiling of the cave and gray brown soil originating from the surface and infiltrating through the cracks.
4. Immediately below the collapsed ceiling a thin layer (0.1-0.2 m thick) of reddish-brown silt-sandy sediment was found. Sherds were found set flat on the surface of this layer and near the entrance an overturned stone basin was recovered.
5. A lens, no more than 0.1 m thick and 3 m in diameter, of yellow sand was noted in the centre of the cave. It was sterile and is probably of aeolian origin.

6. This layer consists of silty red-brown sediment, 0.1-0.2 m thick, with clayish compact laminations. An accumulation of ash was incorporated in this layer and was particularly visible in the eastern part of the cave. Horizontally arranged sherds were found in the centre of the cave.
7. A thin layer of clayish silt that rises along the walls of the cave. Human bones in clusters were found along the southeastern wall of the cave.
8. A layer of pale yellow sand, 0.2-0.3 m thick, originated from the deterioration of the cave walls and contained kurkar blocks most likely fallen from the cave ceiling. This layer came up against a rise in the cave surface which may represent the remains of a pillar. Numerous fragments of ossuaries, vessels and bones were found.
9. This layer is identical to layer 8 in thickness and quality and is differentiated from it by a thin bed of reddish clay, which thickens slightly near the entrance. Another such clayish layer is found at the base as well, covering the cave floor, upon which ossuaries and bones were found.

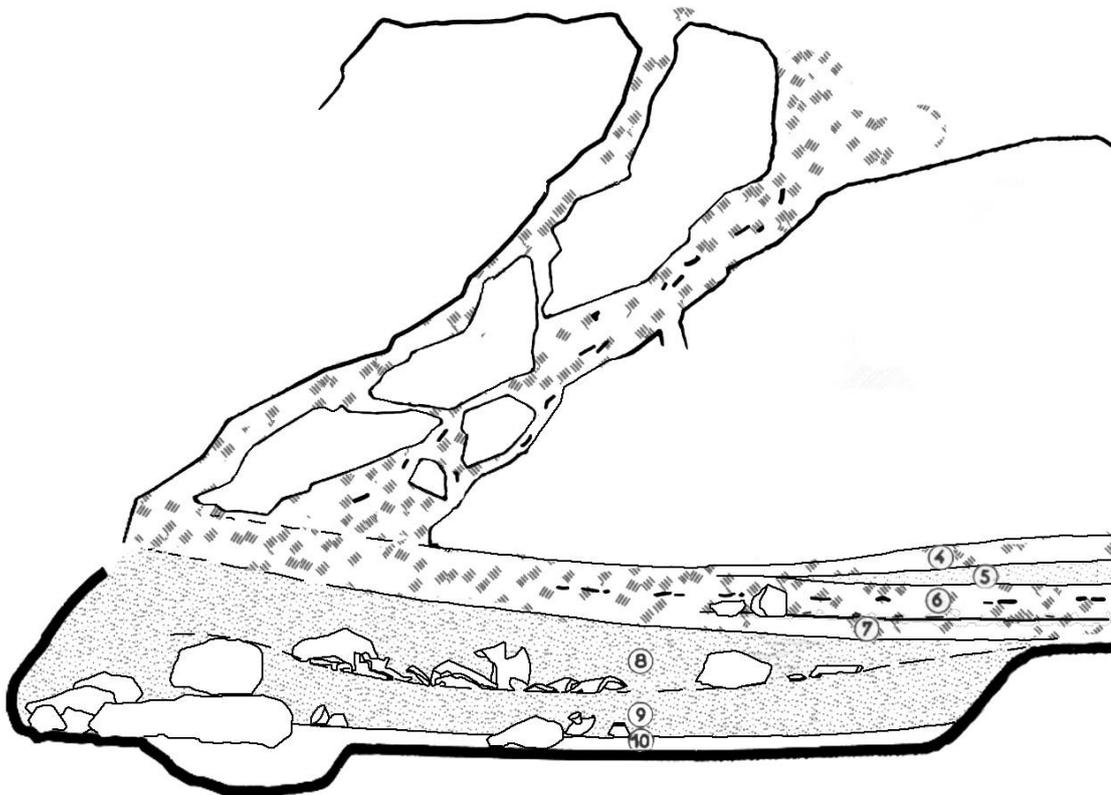


Fig. 6.1: Stratigraphical section of the cave of Azor (after Perrot and Ladiray 1980).

In all, three major phases of human activity were discerned. Phase 1 consists of strata 9 and 8, to which the majority of finds are assigned. They are both composed of yellowish sand and kurakar blocks originating from the crumbling of the cave walls and are separated by a thin layer of reddish clay. This phase is associated with a bench that was constructed along the northeastern wall of the cave and with an elevated platform that might represent the remains of a central pillar.

Phase 2 consists of strata 7 through 4 and overlays both the bench and platform. A cluster of bones (MNI=4) was deposited along the southeastern wall of the cave (stratum 7) and subsequently superimposed by a layer of ash and red soil (stratum 6). A lens of yellow soil of aeolian origin suggests a certain hiatus in the activities in the cave (stratum 5), upon which a surface was found along with a scatter of horizontally lying sherds and ossuary fragments on its surface, and an overturned stone basin near the entrance (stratum 4). Following the collapse of the cave ceiling evidence for later activities at the site, probably dating to the EBA, constitute the third phase.

### **Human bone assemblage**

The state of preservation was extremely poor. Most bones were pulverised and found scattered in no particular order. Only fifteen skulls were retrieved, all of adults. Among these, at least seven were deposited upon the bench running along the north-eastern wall of the cave and three were found on the cave's floor (Fig. 6.4).

### **Burial containers**

A total of 108 designated burial vessels were found, consisting of 1 stone basin, 92 ossuaries and 15 burial jars (not counting the miniature funerary jar 181). 49 of these derive from the first phase (strata 9 and 8), 24 from the second (strata 7-4) and 12 from the third. 21 additional specimens were retrieved by Dayan and originate from the robbed area, thereby lacking stratigraphical context. These were hypothetically assigned by Perrot and Ladiray to the earliest phase, however here they will be treated separately. Given that the third phase is situated above the collapsed roof and therefore postdates the cave, its assemblage will not be discussed here. The stone basin was found prior to the excavation and probably does not belong to the cave either.

A quantitative breakdown of ossuaries and burial jars is presented below (Tables 6.1, 6.2; Figs. 6.2, 6.3). Only 17 of a total of 81 ossuaries recovered were restorable (21%), 14 are represented by relatively large fragments (>20 cm) (17%), while the remainder are

represented only by small fragments (n=51, 62%). Regarding the burial jars, this is even more pronounced, as only one of a total of 14 was complete (7%), although their relative paucity renders them statistically problematic. This pattern by which the overwhelming majority of the assemblage is represented by fragments is reversed only with the vessels originating from

	Complete	%	Large	%	Small	%	Total
Phase 1 in situ	8	20%	7	17%	26	63%	41
Phase 1 disturbed	9	43%	6	29%	6	29%	21
Phase 2	0	0%	1	5%	19	95%	20
<b>Total</b>	<b>17</b>	<b>21%</b>	<b>14</b>	<b>17%</b>	<b>51</b>	<b>62%</b>	<b>82</b>

Table 6.1: Distribution of ossuaries per phase and fragmentation (after Perrot and Ladiray 1980: Table XI)

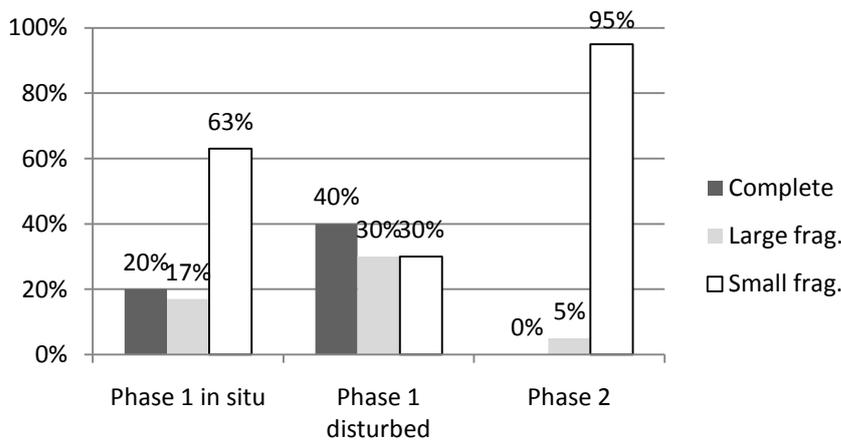


Fig. 6.2: Distribution of ossuaries per phase and fragmentation.

	Complete	%	Large	%	Small	%	Total
Phase 1 in situ	1	11%	1	11%	7	78%	9
Phase 1 disturbed	0	0%	2	67%	1	33%	3
Phase 2	0	0%	0	0%	2	100%	2
<b>Total</b>	<b>1</b>	<b>7%</b>	<b>3</b>	<b>21%</b>	<b>10</b>	<b>72%</b>	<b>14</b>

Table 6.2: Distribution of burial jars per phase and fragmentation (after Perrot and Ladiray 1980: Table XI)

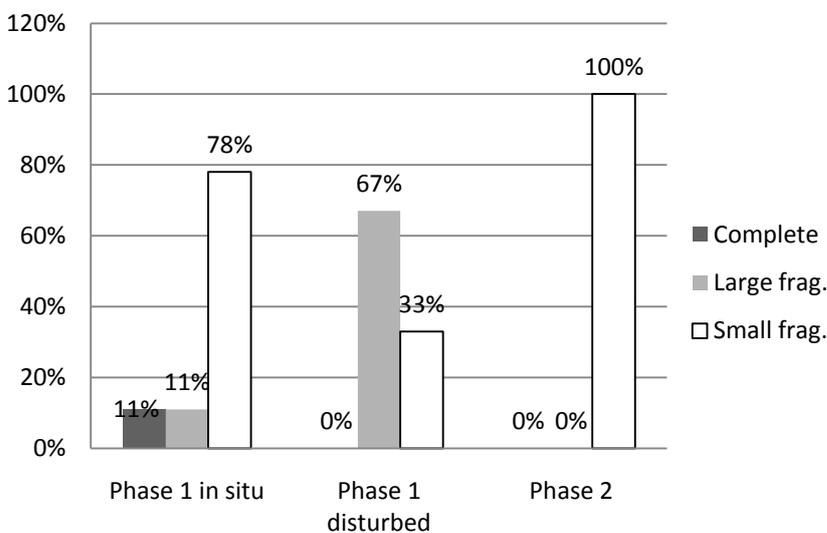


Fig. 6.3: Distribution of burial jars per phase and fragmentation.

the looted area. This is most likely due to a bias in the retrieval of finds, which tended to focus on complete and large fragments.

### **Depositional and post-depositional circumstances**

The sedimentary sequence in the cave of Azor is characterised by the ongoing accumulation of sand, silt and clay, which originated from the deterioration of the cave walls and ceiling and from fluvial and aeolian processes that introduced sediments from outside. The relative contribution of these components varies through the sequence, indicating changes in the conditions to which the cave was subjected.

Two major sedimentological phases are readily distinguished. The earlier, constituting approximately half of the accumulated sediment consists predominantly of sand and kurkar blocks, which undoubtedly originate from the cave walls and ceiling, occasionally interrupted by thin clayish layers. The second phase, from stratum 7 onwards, consists of various combinations of silt and clayish sediments. Generally speaking, the shift between the phases corresponds to an increase in contributions from outside the cave, mitigated by aeolian and fluvial agencies. Thus, two possibilities need to be considered: either the cave was sealed and isolated from external influences in the earlier phase and opened in the later, or the shaft remained open and a significant decrease in the rate of the cave deterioration occurred.

Whether the shaft remained open or not has great repercussions for the understanding of the human and natural processes that took place in the cave. To begin with, if the shaft remained open, one must assume that the clayish sediment distinguishing between strata 9 and 8 is a product of seasonal processes, most likely fluvial transportation. The implication of this is that the intermittent embedment of kurkar and sand on the one hand and clayish sediment on the other represents an annual cycle. Accordingly, the deterioration of the cave walls was extremely rapid and the formation of strata 9 and 8 would have lasted one year at most for each. This reconstruction suggests that two annual visits to the cave took place (most likely at the end of winter or early spring) during the initial phase of its use and that the deposited material was subsequently buried by natural processes during the following months. The increase in contributions from the outside during the second phase must be taken to indicate a deceleration, perhaps even a halt, in the deterioration of the cave interior.

Alternatively, if the shaft was sealed, the time-span during which the sand and kurkar accumulated must be extended. Furthermore, under these circumstances, it is likely that the clayish sediment represents residues of backfill that was used to seal the shaft and poured in during its removal. Accordingly, the shift in the sequence of sedimentation correlated with a

failure to seal the shaft following the interment of layer 7, thereby leaving the interior of the cave susceptible to external contributions.

Considering the above, the possibility that the shaft remained open throughout the cave's life-span seems highly unlikely. The extremely rapid crumbling of the cave's interior is very improbable and even less probably its cessation during the winter. Hence, strata 9 and 8 represent a period of use, during which the cave was sealed, save at times of visitation when human bones, ossuaries and other artefacts were deposited. It seems that following the interment of stratum 7 the shaft was not sealed as before, allowing rainwater to infiltrate inside and deposit soil it relocated from outside the cave.

The cave may also have been used as a temporary shelter while it was still open. In stratum 6, an accumulation of ash and the possible remains of a hearth were noted along with a basalt grinding stone, animal bones and several other finds. Stratum 4 also bears slight indications for the presence of a surface, primarily by horizontally lying sherds and the overturned stone basin. The stone basin is definitely not part of the cave assemblage and was apparently discarded there or fell in with the collapse of the ceiling (Perrot and Ladiray 1980: 47). This may also be true of the sherds distributed upon the surface of stratum 4.

Considering the above, it seems that the tumbling of kurkar blocks from the cave ceiling and walls and the abrasive qualities of the sand are the factors of greatest influence on the preservation of the assemblage. The chemical environment inside the cave may have also had some influence if intense bacteria activity took place and lowered the otherwise alkaline pH levels. This, however, is less likely, considering the relatively low moisture levels in the cave during its early phases. The mechanical processes of collapse, abrasion and weight of accumulated sediments are sufficient to explain the high fragmentation of bones and artefacts.

## **Discussion**

The tomb of Azor presents an extraordinary sequence of three successive phases of mortuary practice followed by a brief occupation. The cave was sealed and reopened repeatedly; and the activities it hosted underwent a series of transformations.

Although strata 9 and 8 definitely represent two distinct phases of interment, the distinction between the portions of the assemblage originating from one or the other seems rather unbalanced. Perrot and Ladiray assign most of the assemblage to stratum 9 and the remainder to both 8 and 9 (Perrot and Ladiray 1980: Appendix 1). However, this is contradicted by the illustration of the north-south section, which unequivocally situates the

large cluster of artefacts and bones in stratum 8 (Fig. 6.1; see also Perrot 1961: 3-7). Also the assignment of the ossuaries found on the stone bench to stratum 9 seems inconclusive as it was still accessible when the interments of stratum 8 took place. This situation does not reflect ineptitude of the excavators to assign finds to the appropriate stratum or merely a tight stratigraphy, but a situation in which items originally deposited in stratum 9 were accessible, reused and manipulated in stratum 8. Something in this spirit was in fact suggested in an earlier report, where stratum 8 is said to have witnessed a replacement of previously installed ossuaries by new ones and, as a consequence the old ones were smashed on the floor (Perrot 1961).

In fact, if we grant the excavators the advantage of first-hand observation and accept their assignment of artefacts to strata, stratum 8 introduced very few new artefacts into the cave, but drew upon the pre-existing mortuary assemblage, probably increasing its fragmentation in the process. One could perhaps postulate that the benches were cleared, some ossuaries emptied and reinstalled while others were discarded on the floor. However, the extent to which this might have been the case cannot be determined with certainty. It is likely that some form of reuse and reorganisation of the assemblage originally deposited in stratum 9 took place in stratum 8, but the resulting pattern will always be ambiguous.

Nevertheless, granted that the modern disturbances do not distort the view of the composition and quality of the assemblage to an excessive degree, it may be assumed that the spatial distribution of the artefacts represents the manner in which the cave was left following the second phase. Figure 6.4 below presents the plan of the cave with a reconstruction of the distribution of ossuaries, burial jars and crania. Perrot and Ladiray were able to reconstruct the position of most of the ossuaries that were removed by looting, reaching a total of 14 complete ossuaries, 7 large ossuary fragments and three burial jars. The position of three complete ossuaries and six ossuary fragments, however, could not be reconstructed and these are absent from the plan. They were most likely situated in the western part of the cave. Thus, the number of ossuaries that could be plotted onto the plan is sufficiently large and representative to warrant spatial analysis.

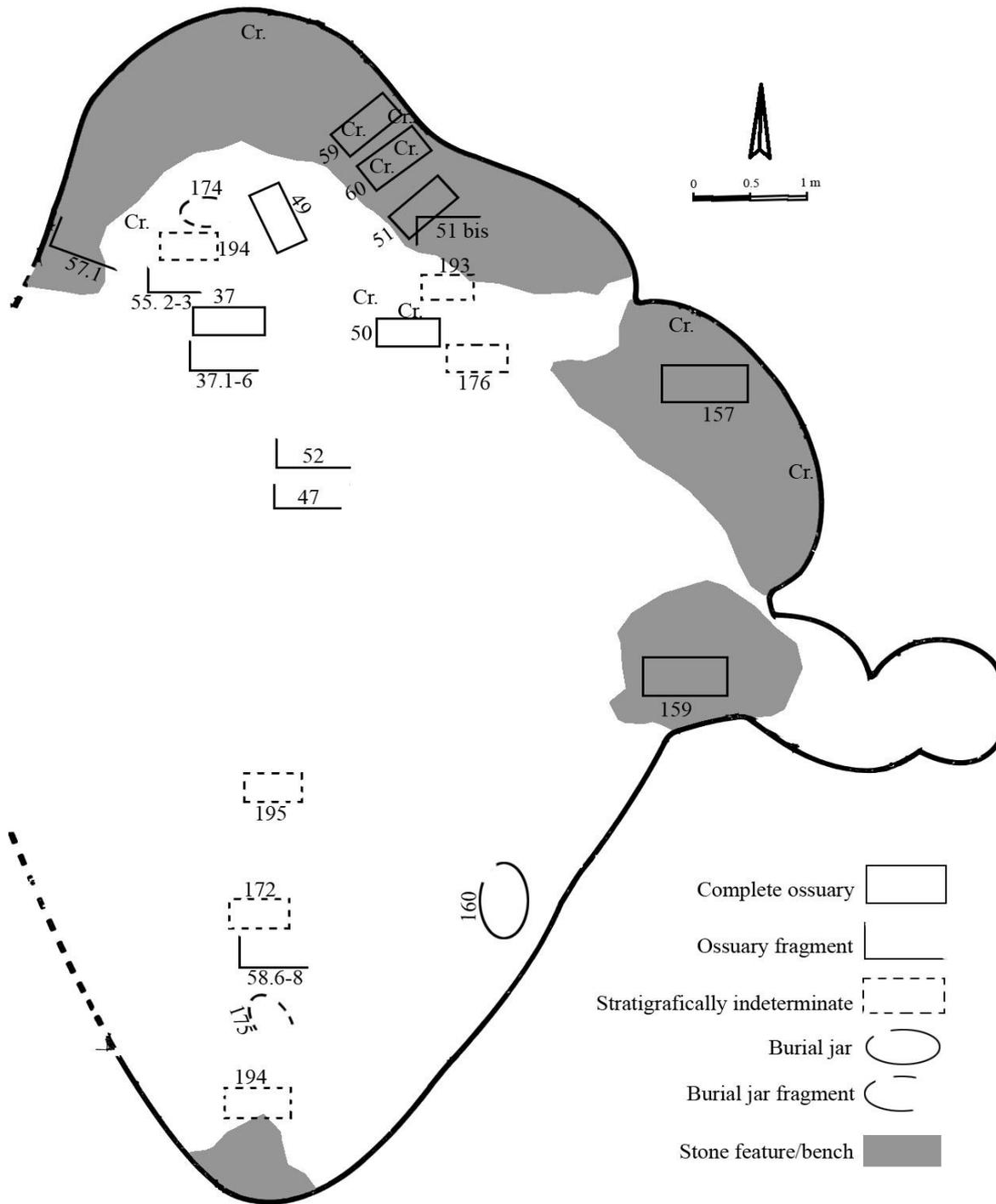


Fig. 6.4: Plan of Azor cave schematically representing the distribution of mortuary vessels and human remains (after Perrot and Ladiray 1980: Fig. 8).

The vast majority of ossuaries, consisting of at least 17 burial containers, were tightly clustered in the northern part of the cave, most of which were deposited on the floor (n=11) while the remainder were situated on the stone bench; ten were restored completely while

seven were represented by large fragments. The ten crania plotted on the plan (of 15 reported) were all located in the northern portion of the cave as well. However, only three of these were deposited on the floor, while seven were on the stone bench. The association of ossuaries and crania is also inconsistent. Three crania were definitely deposited within ossuaries (60 and 59), one cranium was deposited above ossuary 59 and three were sufficiently removed to presume that they were deposited directly on the bench. The three crania found on the cave floor are ambiguous in this sense, and whether they were originally deposited in an ossuary or upon an ossuary fragment cannot be established.

The different distribution of crania and ossuaries between the floor and the bench suggests that they were not treated the same, and although the data is wanting in accuracy it seems rather clear that osseous remains were not always associated with ossuaries and were sometimes deposited on their own. And it is likely that the same was true also for the ossuaries. In any event, it is evident that the relationship between the osseous remains and their presumed designated containers is anything but straightforward.

A more conclusive pattern is that of the fragmentation. As noted above, over 70% of the ossuaries were represented by fragments alone, which could not be restored to complete vessels. That is, the greater part of these vessels was absent from the assemblage. Only a fraction of this can be accounted for by post-depositional processes and the modern disturbances. It is necessary therefore to assume either that numerous ossuary fragments were deposited in the cave in the first place or that complete specimens were fragmented and subsequently removed. Whether it is one or the other cannot be said with certainty, but it is likely that some of both took place. Yet, if indeed the second phase of the cave introduced only a few new vessels, as suggested by Perrot and Ladiray, and was characterised by the reuse and manipulation of the pre-existing assemblage, it follows that it also involved the fragmentation and removal of portions of the assemblage.

It is of interest to note that, during the third phase of the cave's mortuary use (stratum 7), the assemblage of strata 9 and 8 was no longer accessible, well buried under the accumulation of kurkar and sand from the deterioration of the ceiling and walls. It ought to be considered, therefore, that the simple deposition of the human remains without any associated container is also a function of the existing assemblage being out of reach, in which case this interment does not represent a break from the conduct associated with stratum 8 but a consequence of the circumstances. This event also marked the end of the cave's mortuary function and was associated with the failure to seal the cave and with a short period of occupation that followed. In view of this, it is possible that the use-life of the cave was a function of the

accessibility to the mortuary assemblage it holds and, once this could no longer be attained, the cave was abandoned.

In fact, the occupational phase of the cave (stratum 6) might represent the residues of activities conducted to mark the close of the cave as a mortuary locus. Conversely, it might have served as a temporary shelter during the time mortuary activities were taking place in neighbouring caves.

To summarise the above, the cave of Azor presents a sequence of three phases of mortuary use, in the course of which human bones, ossuaries, associated artefacts and fragments of these were deposited and removed from the cave. The cave was systematically sealed following visits and was left untouched for indeterminate periods of time until the next funerary event. Although the evidence is rather ambiguous on this matter, there are some indications that the later visits to the cave contributed mostly osseous remains while looking to draw upon the existing mortuary paraphernalia.

## Ch. 7: Ben Shemen

The Ben shemen cemetery was first encountered in 1950 during road-construction activities that cut through several of the caves (502, 506, 516). However, it was not until 1962 that the site was recognised by M. Dayan, who excavated tomb 502. Five additional caves were later systematically excavated during three seasons (1968-1970), including thorough cleaning of the surface from vegetation and a geomagnetic survey. In all, six burial caves comprise the cemetery of Ben Shemen (Fig. 7.1); five of these will be discussed here in the order of their numerical assignment; cave 502 is not treated due to the lack of contextual data.

### Tomb 505

Only the eastern part of this tomb was excavated over a limited area of roughly 10 m<sup>2</sup>. A central pillar was left standing in the middle of the cave, and the access must have been from the west. In the northern part of the excavated area, on a stone platform limited to the south by a small dividing wall, four burial jars were found standing along with a fenestrated bowl. They were in such a fragile state that they could not be removed. The excavators note that in at least one of them, badly preserved bone fragments were observed, although the plan depicts three crania in the northernmost jar (Fig. 7.2).

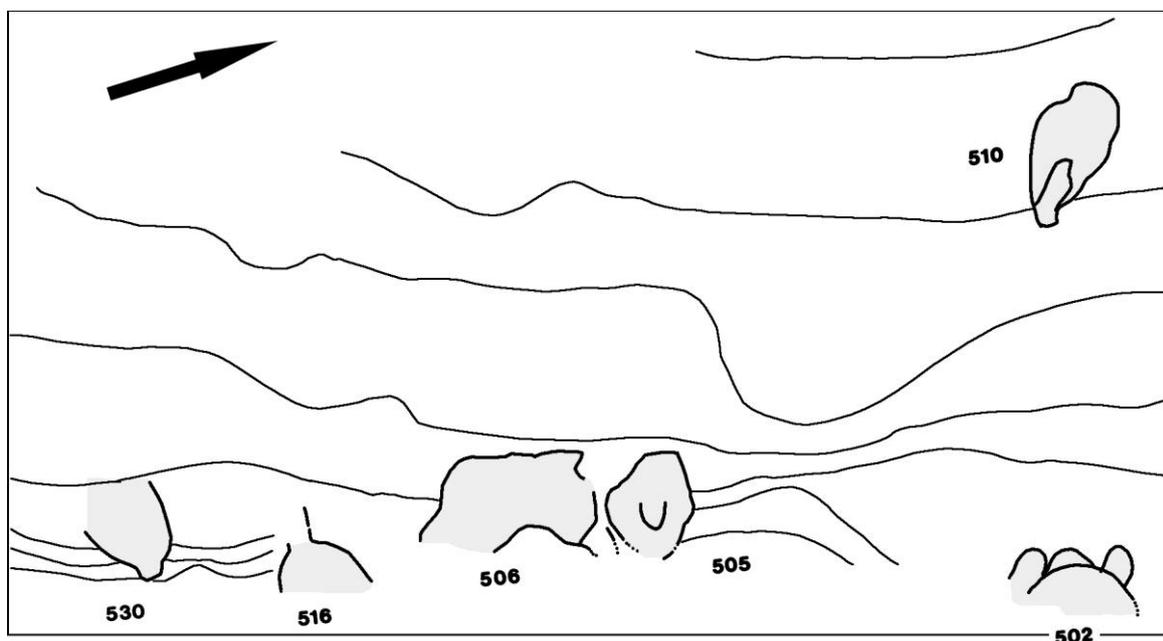


Fig. 7.1: General plan of Ben Shemen cemetery (after Perrot and Ladiray 1980: Fig. 80)

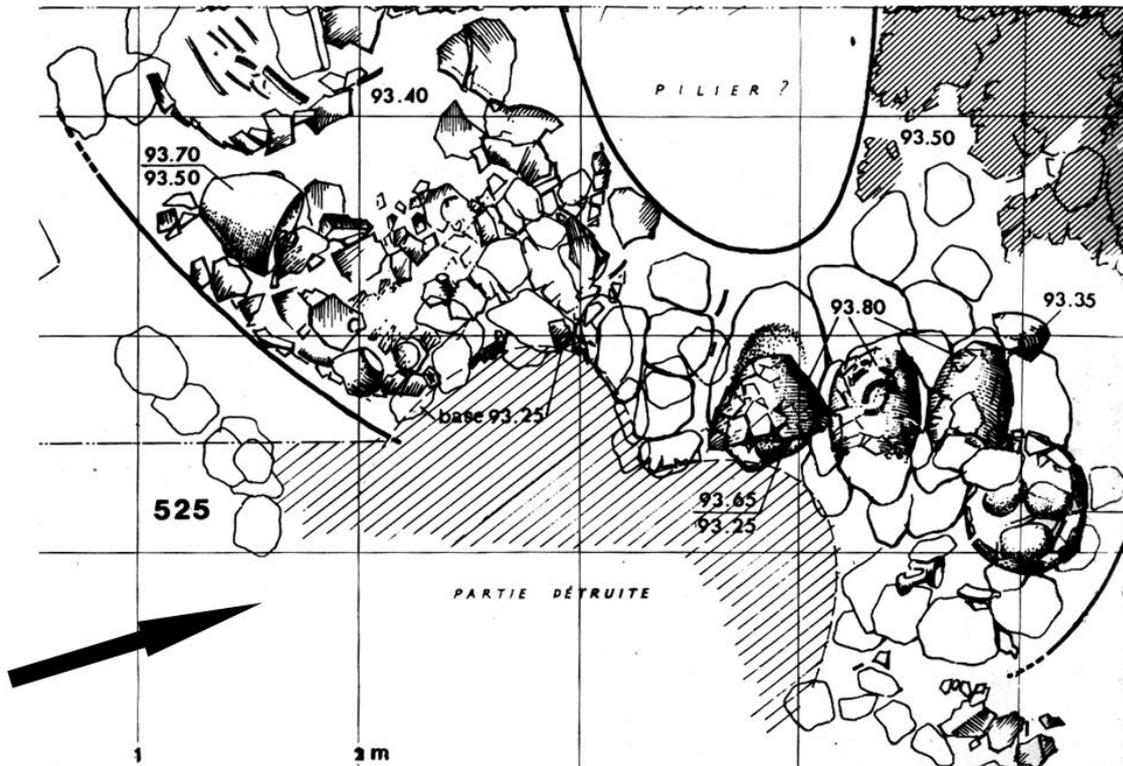


Fig. 7.2: Plan of burial cave 505, Ben Shement (after Perrot and Ladiray 1980: Fig. 88)

In the southern part of the cave, in no apparent order, a concentration of stones, human bones (shafts of long bones and cranial fragments), ossuary fragments, pottery fragments and flint was uncovered. Among these, only an isolated ossuary fragment was found.

#### Human bone assemblage

In their taphonomical analysis, Le Mort and Rabinovich (1994: 74) report two clavicles, five cranial fragments, a humerus, an ulna, four incomplete femurs and one tooth, representing at least two individuals, an adult and an infant. These most likely originate from the southern part of the cave, as those from the burial jars were in an extremely deteriorated state. A portion of a humerus shaft bears carnivore teeth marks.

#### Depositional and post-depositional circumstance

No account of the sedimentary context of the archaeological finds is given, which somewhat hinders an attempt at considering the post-depositional processes that affected the archaeological material. The rather bad preservation of the finds, particularly the burial jars and the osseous remains, is probably due to high moisture levels, which have been noted also for other caves at the site.

The southern part of the cave demonstrates a strong inclination of the floor from west to east, where the elevation decreases 0.25 m across a distance of 2 m. This might cause the gravitation and clustering of artefacts towards the lower area. And indeed the majority of finds in this part of the cave tend to concentrate at the lower area against the southern face of the dividing wall. Hence, this clustering ought to be considered with caution as it might be a result of natural processes rather than intentional deposition.

### Discussion

The clear distinction between the northern and southern parts of the cave is striking. The spatial differentiation between the two and the relatively neat arrangement of the former versus the disorder characterising the latter suggests a categorical distinction is at work. Considering the juxtaposition and close proximity of the assemblages of both parts of the cave and assuming that they experienced the same post-depositional processes, the fragmented state of the southern assemblage must be understood as a result of human agency, whether intentional or not. The distinction, therefore, between north and south may be one of fragmentation versus completeness, order versus disorder.<sup>1</sup> One might also consider the possibility that this distinction also refers to cranial versus postcranial skeletal elements.

Although it is probable that bones and vessels were moved around the cave in the course of repeated activities, the recovery of only one ossuary fragment indicates that none of the bones scattered in the southern part of the cave were deposited in such a container. Even careless clearing of such deposits would not have resulted in the complete disappearance of an ossuary. As the part of the ossuary represented by the fragment and its size are not noted, any further discussion of its role would be precarious. Moreover, Fig. 7.2 shows in the eastern extremity of the excavated area a concentration of bones surrounded by pottery sherds. These must have been deposited directly on the cave floor.

### **Tomb 506**

Tomb 506 is a subterranean cell, quarried into the chalk rock. It is irregularly kidney-shaped, roughly measuring 5x10 m. The cave suffered from the crumbling of the walls and ceiling, preventing, for safety reasons, the excavation of the northern part. Walls 519 and 521 were constructed at the northeastern extremity of the cell, apparently for similar reasons, in order

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<sup>1</sup> Burial jars dominate the assemblage with only a single example of an ossuary and human bones were deposited in both contexts. These are therefore not the focus of the differentiation.

to support the ceiling. It seems that the entry was arranged from above, probably from northwest. Two periods of mortuary use were discerned with a brief occupation in between.

### Stratigraphy

A total of seven sediment layers were observed:

1. *Topsoil* – It is approximately 1 m thick, covering the surface and the large chalk blocks of the collapsed cave ceiling; it consists of black-brown sandy soil rich in organic material (humus).
2. *Layer 1* – Below the collapsed roof blocks, a clayish brown sediment, 0.3 m thick in average. The upper part of this layer contained numerous human bones (Loc. 518), sherds and other finds. Judging by the pottery assemblage, this layer is likely to be EB I in date (Perrot and Ladiray 1980: Fig. 132).
3. *Layer 2* – pale brown soil, 0.2 m average thickness; it contained small sherds and ossuary fragments near its base.
4. *Layer 3* – calcareous sediment, 0.4 m thick in average, with its upper part mixed with brown soil. Its lowest point is at Sq. D6, from where it ascends gradually towards the north as the number of stones it contains increases steadily. Several sherds and bones were found in the upper part of the layer.
5. *Layer 4* – An occupational layer in the form of several patches of various contents: a patch of clayey sediment in Sq. CE 5-7, extends to the north, reaching a maximum thickness of 0.25 m; an occupational level (Loc. 524) with traces of ash in Sq. GJ 5-6; a cluster of bovid bones near the cave wall in Sq. FG 5; and a crude pavement (Loc. 520) and small wall (Loc. 522) in Sq. JL 5-6.
6. *Layer 5* – White calcareous, brittle sediment, 0.3-0.4 m thick, contains blocks fallen from the ceiling, and small quantities of archaeological material.
7. *Layer 6* – brown sediment containing stones, ossuaries and bones; its maximum thickness is 0.25 m in the south and it rises and thins toward the north until Sqs. K 7-9. A large hewn stone (loc. 527) was settled into a shallow depression (loc. 531).
8. *Layer 7* – this layer consists of gravel, archaeologically sterile, debris. It is limited to the northern part of the cave, where the bedrock drops approximately 0.5 m in elevation, and leans against wall 521.

The outlined stratigraphic sequence demonstrates three distinct episodes of human activity (layers 6, 4 and 1), between which the cave walls and ceiling deteriorated and

fluviially transported sediment was deposited. The early period of use corresponds to layer 6. A large number of stones were scattered upon the cave floor with a higher concentration in the periphery, but not forming a bench along the walls. The finds were scattered in great disorder; ossuaries were found lying on the floor, turned over, broken and often incomplete, and the bones were dispersed (Fig. 7.3). Attempts to trace the dispersal of fragments of the same ossuary did not yield any insights.

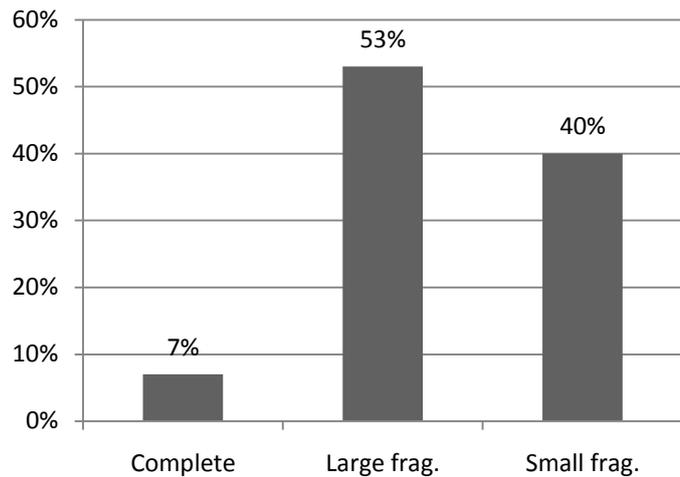


Fig. 7.3: fragmentation of ossuaries in cave 506 (n=15).

The cave was reused after a period of abandonment, probably for habitation during a relatively short period. This phase was associated with several architectural features, accumulation of ash and a cluster of animal bones. Following its second abandonment, the cave continued gradually to fill. At its latest phase, shortly before the ceiling collapsed, the cave was again used for the deposition of human bones, this time in disorder and with no accompanying artefacts. The date of these later phases is somewhat unclear and only one plate was published for the relevant layers (Perrot and Ladiray 1980: Fig. 132). Nevertheless, it seems that, while the occupational phase may still have been within the Chalcolithic horizon, the latest phase is beyond it, most likely in the Early Bronze Age I.

The following discussion will, therefore, centre upon the earliest phase of use (layer 6).

### Human Bone Assemblage

The bones were relatively well preserved. Lacombe (1980) examined a total of 22 mandibles belonging to nine females, one male, 2 children (5-6, 7-9), one adolescent and 9 of unknown sex and age.<sup>2</sup> Three crania were also examined by him, all originating from females aged 50, 45 and 20-30. Le Mort and Rabinovich (1994: 76) identified a minimum of five individuals, three adults and two infants. The representation of the skeletal elements shows a preference for the skull (at least three individuals had well preserved skulls) and lower limbs: cranium,

<sup>2</sup> The stratigraphic origin of these bones is not stated explicitly in the text. It is assumed here that all examined bones derive from stratum 6 as it is only in the discussion of this assemblage that a reference is made to Lacombe's analysis.

mandible, radius, femur and tibia have the highest representation (60%); the humerus is 40%; and the lowest representation of 20% was found for the clavicle, scapula, ulna, the metacarpals, the iliac bone, the fibula, and foot metatarsals and phalanges. Many forms of post-mortem modifications of the bones were noted: erosion, exfoliation, alteration of the bone surface and carnivore modifications. The latter was found on only 0.85% of the bones recovered and on 2.85% of identified bones.

The significant discrepancy in the results of these two analyses is too great to be overlooked. This may be due to several reasons. On the one hand, Lacombe does not note the stratigraphic origin of the specimens he discusses, some of which may have derived from L518 in which at least eight mandibles were found (Le Mort and Rabinovich 1994). On the other hand, it is possible that only a portion of the assemblage was available to Le Mort and Rabinovich for examination, at least partially due to preservation (1994: 70). This possibility is reinforced by the representation of at least 17 skulls, and possibly as many as 21, in the plan of stratum 6 (Fig. 7.5). Hence, it is clear that an MNI of five individuals is much too low for the assemblage of this stratum. Hence, the findings of Le Mort and Rabinovich ought to be considered with caution, as they represent less than a third of the population originally found in the cave.

### Burial containers

All in all, the remains of about 15 ossuaries and one burial jar were recovered. Of these, only one ossuary was restored to completion, at least eight were restored to represent relatively large portions, while the remainder, the burial jar included, were represented by small fragments only (Fig. 7.3). This implies that interment of skeletal parts in a complete ossuary was a rare phenomenon in this cave.

A particular case of two skulls deposited in an ossuary offers a pertinent illustration of this (Perrot and Ladiray 1980: PL. XV: 4 and 5). The ossuary in question (2070.8) is incomplete, consisting only of portions of the rear and one of its sides (Perrot and Ladiray 1980: Fig. 96 and 97). It was found resting on its side with the skulls situated over its wall. Given the good context of recovery, it is improbable that the fragmentation of the ossuary post-dated their deposition. If this had been the case, the loss of over 2/3 of the vessel would have undoubtedly resulted in severe disruptions of the arrangement of the skeletal remains. Consequently the human remains in question must have been deposited in an ossuary fragment rather than in a complete specimen.

### Depositional and post-depositional circumstance

The artefacts and osseous remains of layer 6 were deposited on a rather uneven surface. Fig. 7.4 offers a schematic reconstruction of the cave's floor topography based upon the absolute levels offered in the published plans. The most important feature is a gentle rise in elevation from south to north. This incline is especially notable in the eastern part of the cave, while the western part forms a small plateau. This might influence the artefact distribution and orientation, as they tend to gravitate toward lower areas.

Moreover, the brown sediment comprising the matrix of layer 6 was transported and deposited in the cave by infiltrating water. That is, the mortuary assemblage was subjected to the influence of water soon after it was deposited, which has implications for both the spatial patterning and the preservation of the archaeological material. Two factors are of concern in this regard: the direction of the flow and its strength. In the absence of a known opening, through which water would have infiltrated, it is difficult to reconstruct the course a water stream would take. Still, Perrot and Ladiray's suggestion that the entrance was from above seems highly likely in this regard and we may assume in a highly generalised manner that the infiltrating water advanced towards the southern end of the cave.

The relatively fine texture of the sediment comprising the matrix for layer 6, as seen in the published photograph (Perrot and Ladiray 1980: PL. X, 3), the clayey nature of layer 1, and the patch in layer 4 all point to a low-velocity current that did not carry coarse-grain particles.

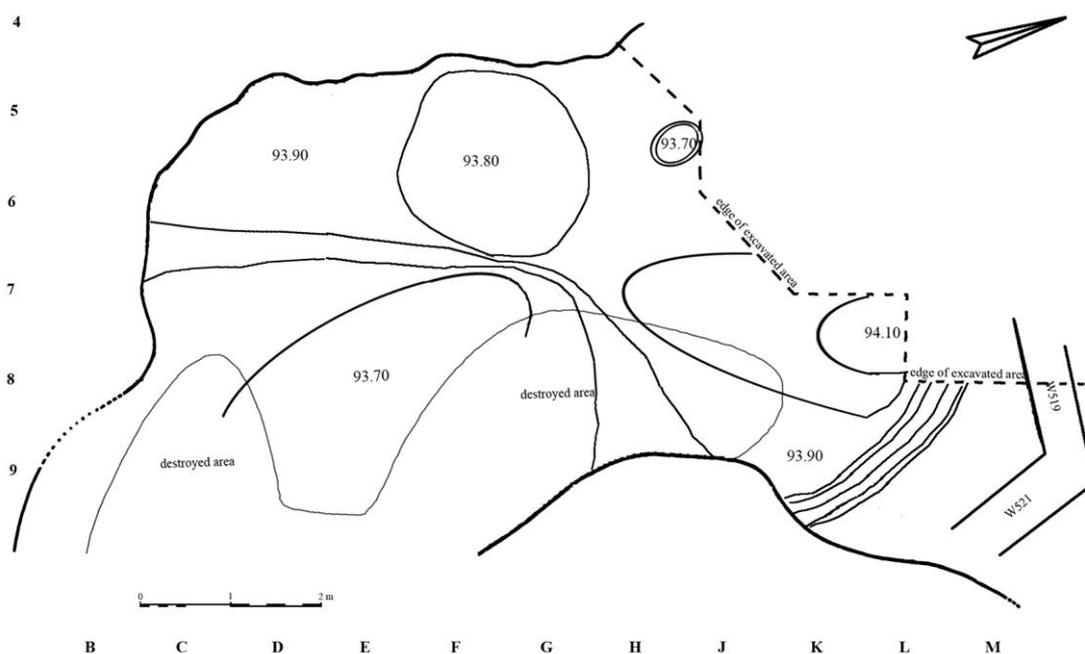


Fig. 7.4: Schematic representation of cave 506 topography.

The spatial distribution of elements coarser than silt or sand is unlikely to have been affected by such low-energy fluvial phenomena alone. However, coupled with topographic variations, one may expect the gravitation of artefacts toward the lower zones.

And indeed, when the artefact distribution is viewed against the topographical features of the cave floor, it is easily observed that the majority of the assemblage is clustered in the depression at the southern part of the cave (Sq. D9-G7) or in depression 531 around the large hewn stone, while a relatively widely scattered minority of the assemblage is found over the remainder of the area. While this does not rule out the possibility that the artefacts were clustered in these locations intentionally, it does indicate a probability that they were grouped together by natural processes.

### Discussion

According to Le Mort and Rabinovich's analysis, the bone assemblage demonstrates an emphasis on the deposition of the skull and limb bones, particularly the lower limbs. However, as noted above, the MNI suggested by their analysis is low and undoubtedly represents less than a third of the original population in the cave. This casts significant doubts on the representativeness of the assemblage analysed, particularly regarding quantitative data, such as that pertaining to the relative representation of various skeletal parts. Nevertheless, some general remarks are still possible. The presence of carnivore gnawing marks on some of the bones indicates that they were at least partially accessible to predators/scavengers while still fresh, i.e. prior to their deposition in the cave. Other modifications of the bone surface are due to various weathering processes, which may equally have occurred prior and after their deposition in the cave.

The bones were found throughout the entire cave, but with the weight significantly leaning towards the south (Fig. 7.5). Of the 17 skulls definitely identified in the plan, 11(65%) were found in the southern part of the cave, 4 (23%) in the centre and 3 (18%) in the north. Of the 46 long bones identified, 23 were recovered in the southern part of the cave (50%), 16 in the centre (35%) and 7 in the north (15%). This trend may be partially due to gravitation of the bones toward the lower portions of the cave. However, the tight clustering of the skulls, especially in the lowest depression (Sq. D8-F7), contrary to the relative wide scatter of the limb bones somewhat contradicts this trend, as the skull, and notably the cranium, is the skeletal part least liable to be transported (see, Lyman 1994: 171-175). Thus, if the bone assemblage in this depression was mostly deposited by postdepositional processes, one would expect to find a majority of postcranial bones and significantly fewer crania. The reversed

representation of skeletal parts, therefore, indicates that the majority of the osseous remains were intentionally deposited in this location.

The distribution of the ossuaries is limited to the southern half of the cave and thereby reflects the same trend as the bones (Fig. 7.5). Indeed, there seems to be a close association between the bones and the ossuaries, with most of the ossuary fragments located amongst bone clusters. At least three well documented cases in which they served as receptacles for osseous remains can be noted (Perrot and Ladiray 1980: PL. XV: 1, 2, 4, 5), all of which were located in the southern end of the cave. On the other hand, ossuary 2063.1 is not associated with any of the bone clusters and did not serve as a receptacle. Moreover, several bone clusters (SK10-11 and 14) seem to have been deposited directly on the cave floor without an accompanying ossuary. Hence, the relationship between bones and ossuaries is not a straightforward one, and one may be deposited without the other.

In view of this, assuming that all ossuaries found in the vicinity of bones served as designated receptacles would be an over-simplification and it is equally feasible that they were deposited empty. It should also be considered that the overwhelming majority of these vessels were fragmented specimens rather than complete ones, including those that did contain osseous remains. Thus, only a portion of the human remains deposited in the cave were interred in ossuaries and these were predominantly large fragments rather than complete vessels. Considering the relatively good context of their retrieval and the tight clustering of the human remains, this fragmentation cannot be attributed to post-depositional processes. These ossuaries may have either been brought into the cave already in a fragmentary state, or otherwise were fragmented in the course of their use and portions removed.



## **Tomb 510**

Tomb 510 consists of an oblong space measuring 8.8x4.7 m. Access was achieved from the southwest via a 3.5 m long, stepped passage. The cave surface was covered with an irregular layer of stones upon which ossuaries were placed.

### Stratigraphy

Two major stratigraphic units comprise the sediment filling of the cave: an archaeological layer overlaid by a geogenic layer. The latter is predominantly water-deposited sediment (Perrot and Ladiray 1980: 64), accumulated to an average thickness of 1 m, with a growing concentration of calcareous content toward its lower horizon. Near the entrance, in the upper part of this layer, two large, decomposed rock blocks, originating from a partial collapse of the ceiling, were found.

The archaeological layer (stratum 2) consisted of clear brown soil, approximately 0.3 m thick, showing a strong inclination toward the centre of the cave. A large number of stones originating from outside the cave were found in the area of the entrance. A brittle brown layer was discerned at its base in the extremities of the cave, disappearing towards the centre (stratum 3). It contained relatively few sherds.

The cave's bedrock is gently inclined towards the rear of the cave.

The excavators suggest that stratum 3 represents the infiltration of soil during the period the cave was in use. This, however, would be expected to result in accumulation oriented towards the entrance of the cave, thinning out as it advances to the rear. Its concentration at both front and rear extremities may indicate intentional clearing of this sediment. The tumble of stones in the entrance area directly superimposes stratum 2 and seems to have followed the abandonment of the cave. The excavators suggest it may have originated from a wall that marked the entrance. On the other hand it may also have resulted from an act marking the end of the use of the cave. The remainder of the sediment accumulated through natural processes of water infiltration and gradual decomposition of the cave walls.

### Human Bone Assemblage

The bones were in poor state of preservation. According to Le Mort and Rabinovich (1994) a minimum of 11 individuals are represented in the bone assemblage, 9 adults and two infants.<sup>3</sup> Sternum and carpal bones are entirely absent; certain cranial bones were too fragmentary to determine the MNI and the trunk bones were under-represented as well. The remainder of the skeletal remains can be divided into three categories of representation: mandible, clavicle, and all long bones other than the radius and fibula (45-55%); cranium, radius, metacarpals and fibula comprise the second category (18-27%); least represented were the scapula, pelvic bone, patella, feet bones and phalanges (9%).

Natural modifications of the bone surface were observed on several occasions (Le Mort and Rabinovich 1994). Perforations due to insect activity were noted for two bone fragments; nine osseous elements carried rodent gnawing marks (0.46% of the total assemblage and 1.36% of the identified bones), five of which can be identified as porcupine; 48 bones (2.46% of the entire assemblage and 6.04% of the identified bones) demonstrate carnivore modifications, predominantly on postcranial bones. Cut marks were recorded on five osseous elements (0.26% of the assemblage and 0.78% of the identified bones), four of which were located on long-bone shafts. Perforations were discerned on five long-bone shafts, two cranium fragments and another unidentified fragment (0.41% of the entire assemblage and 1.17% of the identified elements).

Based upon the plan of the cave (Fig. 7.6), in which 77 long bones and long-bone fragments are represented, three major bone clusters can be recognised. The largest concentration crosses the cave from north to south (from Sq. F5-6 to Sq. C8-9), in which 65 of the recorded bones are found (84%). Its southern portion is closely associated with ossuaries and at least three instances of deposition in designated containers can be recognised here (see below). The remainder of the bones in this area were deposited on the surface, occasionally associated with large sherds. In the northern end of this cluster the bones were located in the vicinity of large ossuary fragments, however no instance of deposition in them was observed. Between the two ends, in Sqs. D6-7, a decrease in the number of bones is noted, where fewer bones are found and their distribution is relatively dispersed.

The second cluster (N=7) is located against the eastern wall in sq. B5, where a skull and tibia were deposited in a large ossuary fragment (Perrot and Ladiray 1980: PL. XIX: 4) and

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<sup>3</sup> Lacombe (1980) discusses 15 mandibles and mandible fragments, seven of which belong to males, four to females one to a 7 year old child and 3 unidentified.

several additional bones were found immediately to its east. The third cluster (N=5) is located at the rear of the cave in Sq. D3-4. It consists of relatively few scattered bones.

### Burial containers

The excavator reports that the burial containers in the cave were comprised of approximately 10 ossuaries and 14 burial jars, none of which could be completely restored. Of these, only three ossuaries (2156.6, 2156.8, 2157) and one burial jar (2157.2) are depicted in the plan (Fig. 7.6). They were found in the eastern part of the cave, in rather close vicinity to the entrance, against the NE wall (sq. E8) and the southern part of the cave (sq. C8-9). The failure to represent in the plan other restorable large ossuary fragments is most likely due to the high degree of fragmentation, which hindered the ability to spatially recognise them. Hence, a general increase in fragmentation may be suggested as one proceeds from the entrance toward the rear part of the cave.

The reconstructed distribution of the ossuaries, suggested in Fig. 7.6, is based on the catalogue numbers of the illustrated vessels and their reference to their location in the excavation grid (Perrot and Ladiray 1980: appendix 3). While this distribution is admittedly only an approximation, it does demonstrate that the ossuaries were largely limited to the middle of the cave, dispersed in a relatively north-south orientation, while the rear was left relatively empty.

Contrary to the patterns of ossuary fragmentation and distribution, a group of complete or nearly complete kraters was uncovered in the middle of the cave in sq. C-D6 (2146.1, 2146.2, 2126.6, 2126.2 and 2126.8). The excavators suggest that their deposition post-dates that of the ossuaries and human bones (Perrot and Ladiray 1980: 65).

### Depositional and post deposition circumstances

As indicated by the stratigraphic sequence of the sediments in the cave, the human bones and associated artefacts were deposited on an uneven stone surface that covered the majority of the cave bedrock. These stones must have been intentionally deposited shortly after the cave quarrying was completed.

The human activities in the cave must have occurred concomitantly to the initial deposition of sediments, the main (and possibly exclusive) agent of which was water. It is necessary therefore to consider the water regime and, in the absence of any indication of means of sealing the cave, one must assume that it was in contact with the outside environment.

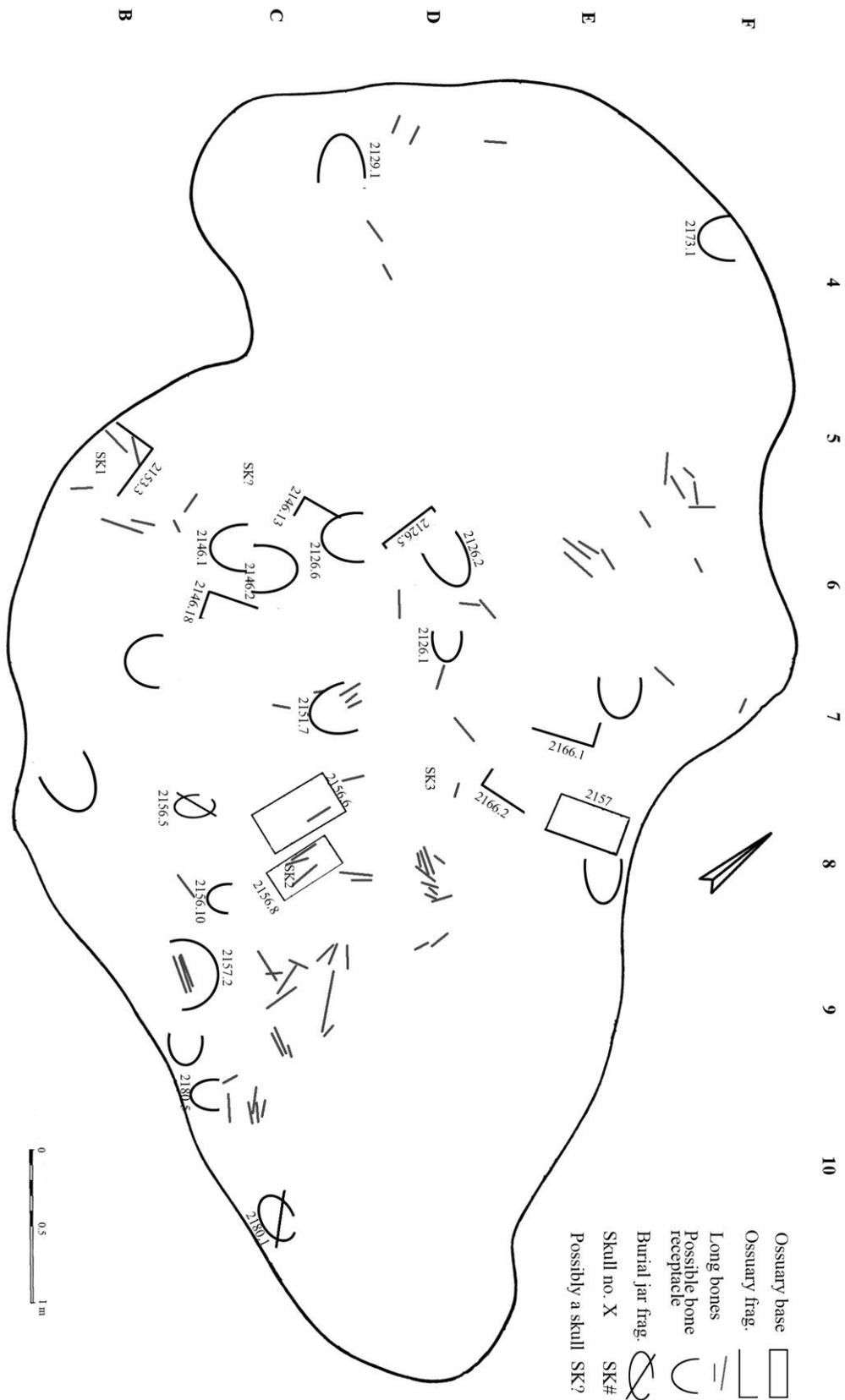


Fig. 7.6: Plan of cave 510, Ben Shemen, showing spatial distribution of skeletal remains and funerary vessels (after Perrot and Ladiray 1980: Fig. 100).

Judging from the topography of the hill and the location of the cave, it seems that the water flow would have been above the cave roof, falling through the opening in the ceiling in the area of sq. D-E9 and then continuing towards the rear of the cave in accordance with the gradient of the bedrock. Such water flow carries the potential to move and redeposit artefacts, and indeed it is possible that processes of this kind are responsible for the decrease in bone concentration near the middle of the cave as well as for the widely scattered bones deposited at the rear. It is difficult, however, to assess the impact the water flow had on the distribution of the remainder of the bones and artefacts. Fig. 7.7 represents the distribution of orientation of 77 long bones recorded in the plan of the cave, with the latitude line of the excavation grid taken as 0°-180° baseline. There seems to be a general inclination of the bones towards 140°-160° (roughly east-west orientation) which corresponds with the expected direction of the water flow. Such an alignment of bones with direction of the flow is characteristic of relatively strong currents (e.g. McPherron 2005: 1009). Such currents could not have been continuous and of long durations, but must have been relatively punctual in nature, most likely associated with heavy rains.

The likelihood that an artefact or bone will be fluvially transported depends on the strength of the current and on the size and structural density of the artefact. Limb bones are relatively resistant in this respect and tend to stay on the surface rather than float (Lyman 1994: 171-175). Nevertheless, it must be acknowledged that a strong rush of water into the cave could have resulted in a shift of bone distribution. Such an event would probably take the form of a concentrated stream running into the rear wall of the cave, possibly producing weak back and forth movements of water. The large bone concentration, arranged perpendicularly to the expected water flow, may be the product of such processes.

Notwithstanding the above, the location in which the bones were originally deposited in the cave influences their

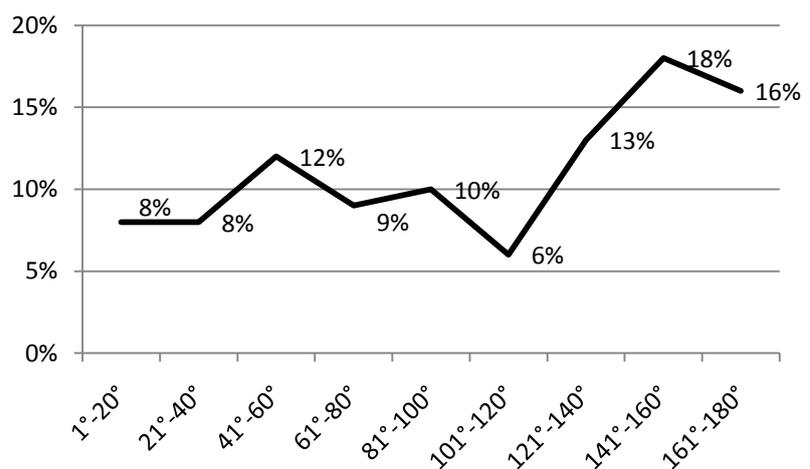


Fig 7.7: distribution of bone orientation (N=77). Datum line is the latitude excavation grid line.

susceptibility to be moved by water. The bones located in the southern part of the cave are the least likely to have been moved. They appear to be outside the route of the main current of water running through the cave and relatively distant from the rear so that the effects of such currents on them would have been minimal, while the bone cluster in sq. B5 was protected by a curve in the cave wall to its north. The bones distributed in the northern part of the cave, on the other hand, represent a mirror image of this. They are either located along the route of the main current between sq. E9 and sq. D4 or in areas likely to have been susceptible to the movements of the rising water as in sq. E9-F5. There is a higher probability therefore that the bones distributed in the northern part of the cave moved and re-deposited by water running through the cave.

This impression is reinforced by the difference in bone orientation between the northern and southern part of the large bone cluster (Fig. 7.8). The relative consistency of the 120° to 160° orientation of the northern part of the cluster is suggestive of it being influenced by relatively strong water currents, contrary to the bimodal and relatively even distribution of the southern part of the cluster indicating slow movement of water at the most.

The distribution of pottery vessels and sherds (ossuaries included) is less likely to have been strongly influenced by the movement of water through the cave. Their relatively high density and weight renders them resistant to such influences. Nevertheless, being subjected to the influence of water may have contributed to their fragmentation, which seems to increase towards the rear of the cave. Moreover, the relatively humid conditions introduced by

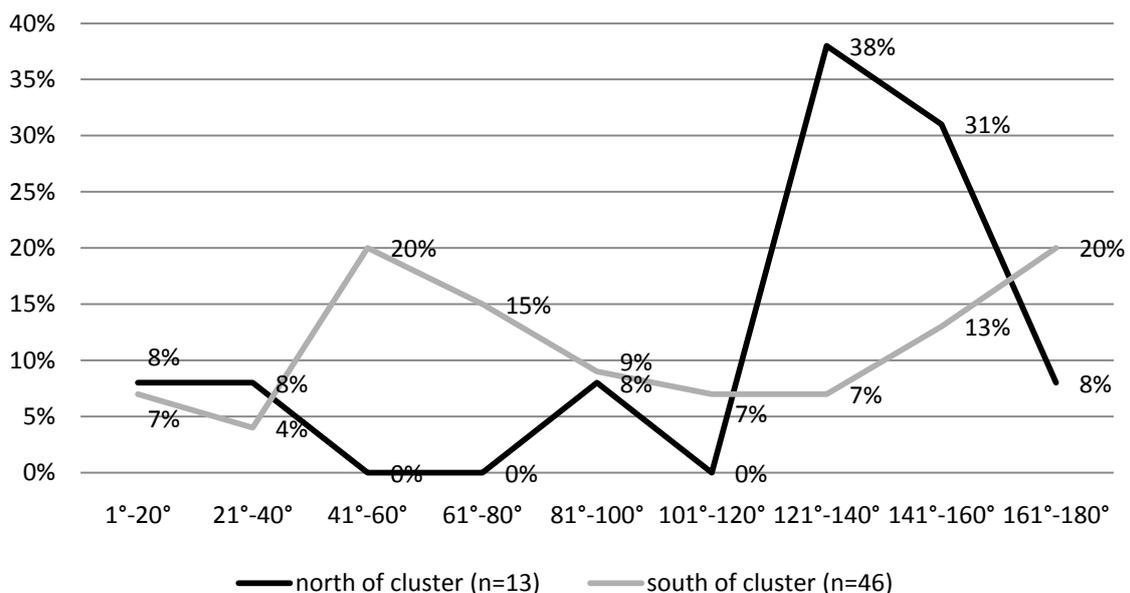


Fig. 7.8: Bone orientation distribution of northern and southern parts of large bone cluster.

infiltrating water are undoubtedly responsible for the destruction of portions of the archaeological remains. But determining how much of the record has been lost, especially pertaining to the ossuaries, is extremely difficult.

It seems, however, that the artefacts deposited in the cave did not suffer these circumstances for long. As noted above, natural modification of bone surface, which may equally have been inflicted prior to their deposition in the cave, were recognised only on a small number of specimens; this is true also for rodent gnawing marks that were recorded only on 0.46% of the bone assemblage. This suggests that the burial of the artefacts and bones under accumulated sediment, which has a stabilising influence, occurred rather rapidly, effectively removing the assemblage from the majority of destructive agents.

The relatively High calcareous content in the lower horizon of the sediment accumulated in the cave (layer 1) could be, contrary to the excavators' opinion, due to soil formation processes. That is, it may represent the formation of a B horizon, which in turn indicates a prolonged period of stability during which active deposition of sediments had ceased (see, Rapp and Hill 1998: 31-32). Moreover, the abovementioned calcareous content indicates the pH condition was relatively alkaline rather than acidic. Under these conditions, factors pertaining to the preservation/deterioration of the archaeological remains are the relative humidity of the soil, chemical processes of ion exchange and leaching of minerals and compounds, and pressure exerted by the weight of the sediments above.

Summarising the depositional and post-depositional processes, the greatest disturbances to the archaeological assemblage took place during a relatively short period of time between the abandonment of the cave and the burial of the remains under primarily water-deposited sediments. These especially pertain to the redistribution of the bones and increasing fragmentation of the assemblage. To a lesser extent, they had caused the crumbling and destruction of portions of the pottery assemblage. However, only a fraction of the of the recovered artefacts' incompleteness (not a single ossuary or burial jar could be restored to completion) can be accounted for by these processes, which are too limited in scope and duration to bring about the disintegration of a whole ossuary, especially when most of the fragments recovered were in relatively good condition.

### Discussion

The observations presented above pertain to a wide variety of aspects of the activities that took place in cave 510, Ben Shemen. In the first place, the rapid process of sedimentary deposition in the cave and the absence of draining of the water collected inside it during the

winter suggest that the cave was in use for a relatively short duration and that it was most likely frequented during the mid- and late summer months when it was dry.

The deposited bones demonstrate a clear emphasis on the skull and limb bones, with hardly any representation of the trunk bones and vertebrae. Carnivore gnawing marks on some of the bones suggest that some of the corpses were at least partially exposed, or otherwise buried close to the surface. Moreover, the occurrence of cut marks on a small fraction of the bones suggests that active defleshing and disarticulation was occasionally practiced as well. Considering the low frequencies of such marks, however, it is likely that cutting of the tendons and intentional disarticulation of joints was not a regular practice, but rather circumstantial in nature.

The spatial distribution, as well as the effects of water flow, suggests that deposition of the bones took place predominantly in the southern part of the cave, especially near the entrance (Fig. 7.6). Here, clear association of osseous remains and containers is recorded in five instances: inside the lower part of a large (burial?) jar (2157.2), two cases of deposition on ossuary bases (2156.6 and 2156.8), bones deposited upon large sherds of a jar (2151.7); and, somewhat isolated in sq. B5, bones (including a skull and tibia; see, Perrot and Ladiray 1980: PL. XIX: 4) were deposited in the upper piece of an ossuary. The vast majority of bones, however, were scattered on the surface. Of the total of 77 long bones (recorded in the plan), only 12 are definitely associated with a container (16%), while the remainder are not (84%). While this pattern may be partially due to post-depositional processes, human activities are those most likely to be responsible for the bulk of this distribution. This implies that the majority of bones were not deposited in designated or other containers, but on the surface, usually in small clusters. Moreover, the majority of bone clusters deposited on the surface is located beside and to the east of the group of bone carrying vessels.

A similar pattern is observed for designated burial containers as well, where only a minority of them is associated with bones: three of roughly ten ossuaries and one burial jar among 14. Once again, post-depositional processes might account for a fraction of this, but definitely not for most of it. Hence, the majority of designated containers were deposited empty, or otherwise were intentionally emptied.

It is evident that, while osseous remains and the so-called designated containers, i.e. ossuaries and burial jars, are definitely related, this relation is multi-faceted. In fact, the occurrence of one without the other (that is, bones without containers and containers without bones) is more pronounced than their association. Moreover, their spatial distribution is rather distinct, with ossuaries and burial jars scattered and fragmented over a large area of the cave

and the bones tightly clustered in specific locations. It is likely, therefore, that the human remains and the containers associated with their deposition constitute distinct categories that are either brought together or separated under different circumstances.

Another aspect of the assemblage worthy of consideration is the fragmentation of the deposited artefacts. As noted above, this cannot be accounted for by post-depositional processes, which implies that either only fragments of ossuaries and jars were brought to the cave in the first place, or that these originally complete vessels were fragmented in the course of their use, intentionally or unintentionally, and portions were removed. In this regard, it is also noteworthy that a large portion of the fragmentation of the restored ossuary pieces is difficult to explain without some resort to more direct human involvement, especially with the foreground occupied by complete kraters. Thus, it is probable that some form of intentional fragmentation took place.

### **Tomb 516**

Tomb 516 was almost entirely destroyed by the road construction; only the westernmost part was preserved. Two rectangular stone basins, one large and one small, were placed one beside the other near the cave entrance (Fig. 7.9). The authors assert that, first, the long and other postcranial bones were deposited, followed by a careful arrangement of the skulls. However, when inspecting the accompanying photographs and illustrations (Perrot and Ladiray 1980: Figs. 114, 115), one gets the impression that this is true for the smaller basin, in which the skulls are seen to rest on the long bones, but the larger basin was arranged differently.

Firstly, the long bones seem to cover the skulls partially and definitely continue over the rim of the basin. Secondly, there seems to be strong emphasis on a horizontal distinction between the skulls and the long bones, rather than a vertical one, i.e. one beside the other rather than one above the other. It therefore seems more likely that the skulls were deposited first at one end of the basin and that the long bone were arranged in the remaining space.

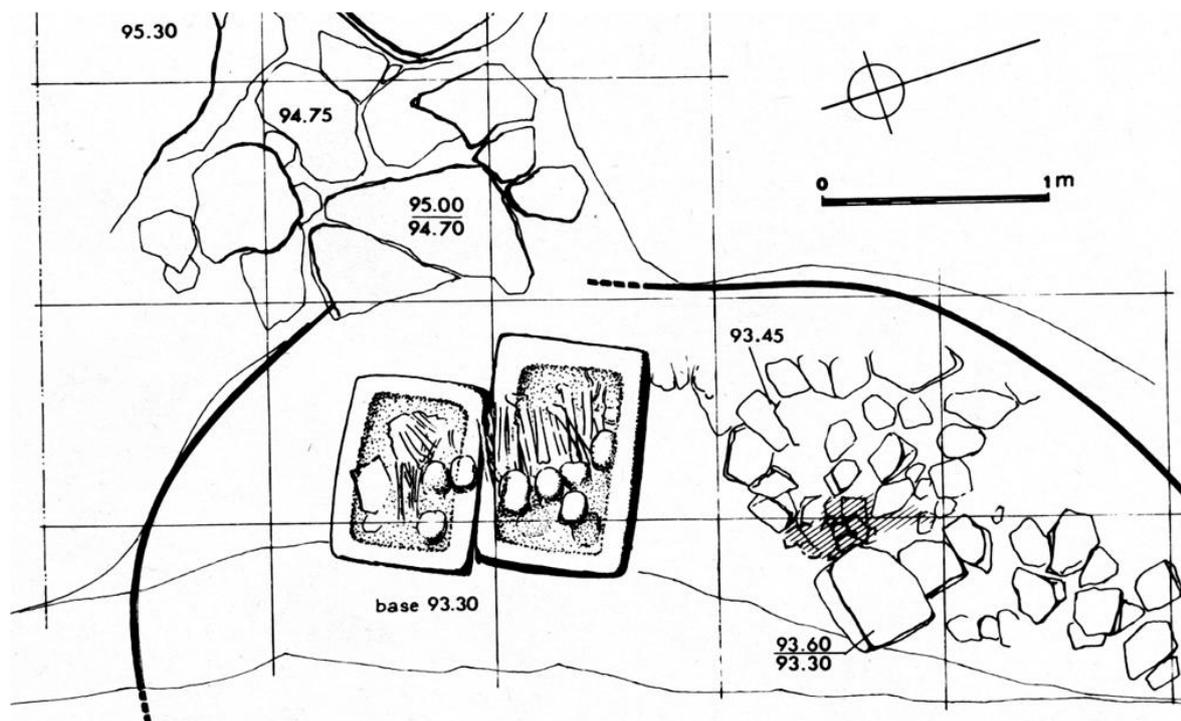


Fig. 7.9: Plan of burial cave 516, Ben Shemen (after, Perrot and Ladiray 1980: Fig. 114).

Another point of importance is the arrangement of the bones. In the larger basin, the bones' arrangement appears to demonstrate a preferred orientation, with the long bones set along the east-west axis and the skulls facing the east (Perrot and Ladiray 1980: Fig. 115.1). In the small basin, this might be demonstrated by the skulls being clustered at the eastern part of the container, but here this trend is much more obscure.

According to the number of skulls, the remains of three individual were deposited in the small basin, while six (possibly seven) were in the larger one. The remains of the latter were subjected to anthropological analysis: both sexes and a range of ages are presented. Based upon the skulls alone, one can identify one child, an adolescent, a male adult and a female adult. The two remaining individuals could not be identified (Perrot and Ladiray 1980: 69). The material from this cave was not treated by Le Mort and Rabinovich.

### **Tomb 530**

Only the entrance area of this tomb was excavated. Two layers were recognised, the upper of which contained ossuary fragments and several bones; the lower layer contained only a few sherds.

### Stratigraphy

The stratigraphy of cave 530 consists of two layers. The upper, situated below the collapsed roof, consists of brown soil in its higher horizon and pale brown soil in its lower, together reaching a total thickness of roughly 1 m. It is from the base of this layer that the majority of finds were retrieved. The second layer consists of relatively compact clayey sediment, approximately 0.4 m thick.

### The material assemblage

The entrance to the east is comprised of a step, upon which several stones, ossuary fragments and bones were found. According to the published plan (Perrot and Ladiray 1980: Fig. 116), the remains of at least two individuals (judging by the skulls) were deposited on this step, set on large sherds.

The bone assemblage studied by Le Mort and Rabinovich (1994: 90) was very partial and was comprised only of postcranial bones representing at least one adult. Several bone fragments were severely eroded. Carnivore damage was noted on 2 incomplete humerus fragments, 2 portions of femur shafts and a fragment of a tibia shaft. Perforations that are probably anthropogenic were found on the distal part of a humerus shaft and a fragment of a tibia shaft.

### **Discussion**

The Chalcolithic cemetery of Ben Shemen consists of six burial caves, hewn into the eastern flanks of a low chalk hill. Only one of these was entirely excavated (510), while the others only partially, either due to damage they suffered from the construction work or due to safety reasons.

The prime function of these caves was as loci for the deposition of disarticulated human bones, primarily the skulls and limb bones, along with a variety of other finds. However, the manner in which these depositions were structured varies significantly from one cave to the next, which suggests that different aspects were emphasised.

Occasionally, the remains of numerous individuals were deposited in a single vessel, as in the stone basins in cave 516; on the other hand, in many instances, some effort was made to distinguish the remains of an individual from those of others by placing them in a container or upon large vessel fragments. Moreover, clusters of bones, representing varying numbers of individuals, were often deposited on the cave floor in an apparently careless manner.

Also, the relationship between the deposited human bones and the supposed designated vessels, i.e. ossuaries and burial jars, is anything but straightforward. Although these vessels are limited in their distribution to mortuary sites they are (in Ben Shemen) often not associated with bones and, as noted above, bones are often not associated with these vessels either. In fact, the number of instances in which bones were deposited in such vessels (or fragments thereof) is small. In addition to the deposition of osseous remains with no associated container, large sherds of large mundane vessels were employed as well.

It has been emphasised throughout this chapter that ossuaries and burial jars were represented predominantly by fragments; the occasions in which these vessels were complete are the exception rather than the rule. In fact, all instances, in which human bones were recovered in an ossuary, consisted of merely large fragments and not of whole specimens. This implies that some form of circulation of fragments of these vessels took place: either they were brought from elsewhere, or were fragmented in the course of their use and partially removed from the site.

The quality of the spatial discrimination between different contexts demonstrates great variability as well. In certain instances, a given area was designated for a particular form of interment, as in the northern half of cave 505 and cave 516. More common was the clustering of bones, artefacts or both against an undifferentiated “ground mass” of artefacts (and rarely bone fragments as well). This latter pattern is closely correlated with the extent of fragmentation, which is likely to have had some special significance. One may postulate the existence of activities involving the ongoing fragmentation of the material, or the inauguration of the cave.

Thus, a multitude of categories were at play in Ben Shemen, partially overlapping, partially complementing and partially contradicting each other. All of the above offers a glimpse into the mortuary activities that took place in the cemetery of Ben Shemen. Pursuing these further would be premature at this point and best be withheld until a wider perspective is available and more sites can be considered. It will suffice at the current juncture to note that the archaeological record reflects multi-faceted mortuary behaviour, and that a wide range of possibilities and principles were open to the Chalcolithic people to draw upon. The choices made each time may reflect contingent circumstances as well as ideological trends, and it is likely that competing principles and categories were constantly at work.

## **Ch. 8: Shoham (North and Northeast)**

The site of Shoham is located on the karstic landscape of the western slopes of the Samaria Mountains looking over the Lod Valley. Remains of Chalcolithic funerary activity were found in natural cave systems. In all, five caves were excavated, of which four were used for burial. Three were clustered tightly together in an area designated Shoham North (van den Brink and Gophna 2005), while the fourth was located some 400m to east, designated Shoham Northeast (van den Brink 2009). Given their proximity and that these are natural rather than artificial cave systems, all four caves are considered as members of a single cemetery.

### **Cave 1**

Cave 1 consists of a large hall, measuring 12x11 m. Its entrance could not be identified due to the collapse of its roof, but the excavators suggest that access was most likely afforded from above. The Chalcolithic remains were limited to the northern part of the cave, resting against a natural pillar and blocking a small gallery leading into cave 2 (Loc. 122).

### Stratigraphy

The fill inside the cave consisted predominantly of fluvially deposited soil, containing finds from the Chalcolithic, Early Bronze, Intermediate Bronze and Early Islamic periods. No clear stratigraphic sequence was noted. Nevertheless an apparently undisturbed cluster of Chalcolithic remains (L122) was found on the bedrock against the cave's northern wall, superimposed by sediment containing both Chalcolithic and Early Bronze remains. An Intermediate Bronze Age burial was deposited above this accumulation, delineated by a stone wall and accompanied by several vessels. At a later time, probably during the Early Islamic period, after significant portions of roof had collapsed, a lime kiln was inserted into the cave cutting the eastern end of Loc. 122. Associated pottery was found in relatively large numbers in the eastern part of the cave.

### Burial containers

At least eight jars (three complete or almost complete burial jars, two small fragments of burial jars, and two necked jars and one holemouth jar) and three open vessels (one basin, two v-shaped bowls) were found containing osseous remains. These jars originally stood on

stones that were covered by a slightly greasy gray soil. Fragments of at least five ossuaries were recovered among the burial jars and in the mixed fill in the western part of the cave (Loc. 152b, containing both Chalcolithic and Early Bronze I sherds), but no complete specimen was

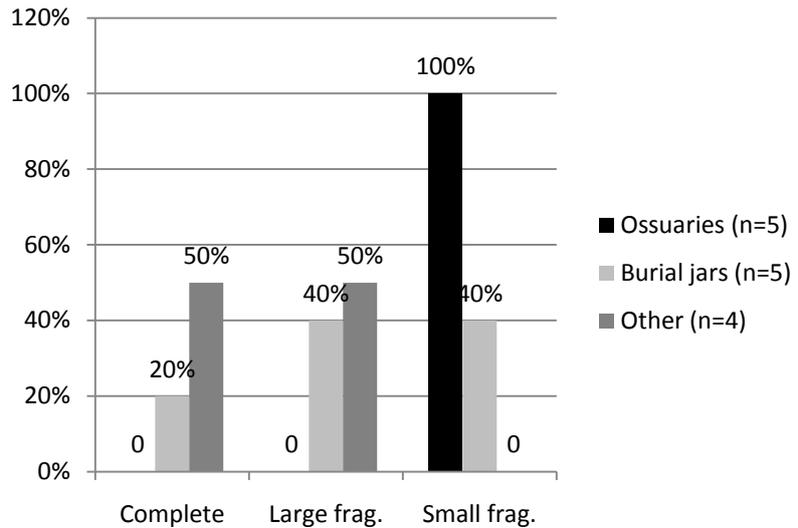


Fig. 8.1: Quantitative distribution of funerary assemblage according to type and degree of fragmentation.

found. The bases of two additional jars were recovered to the south, from a small pocket in the bedrock near the base of the pillar (Loc 155).

Although too small to be statistically reliable, the inconsistency in the pattern of fragmentation is telling. While ossuaries are represented only by small fragments, the majority of burial jars and other containers of osseous remains were either restored completely or to a significant extent (Fig. 8.1). This pattern is mirrored also among the burial jars themselves, which are either represented by complete to very large portions of the vessel or by very small fragments. This discrepancy between the ossuaries and other parts of the assemblage suggest that they did not participate in the same processes nor had the same function and that some intentional distinction was involved.

### Human bones

Unfortunately most of the human remains from Loc. 122 did not receive an anthropological examination due to circumstances. Only those associated with an ossuary roof fragment (basket 1136) were treated. These consisted of postcranial bones of an adult of undetermined sex and age. Nevertheless, nine skulls were recovered from this locus, indicating that the bones of at least nine individuals were present (Eshed 2005: note 2).

### Depositional and postdepositional circumstance

While, the sequence of human activities related to the cave are relatively clear, the associated sedimentological formation processes are difficult to discern. One must consider that the collapse of the cave ceiling is unlikely to have occurred all at once, but at intervals. This

would suggest that the accessibility of different portions of the cave varied over time, thereby influencing both human conduct and the accumulation of sediment infiltration from outside the cave.

In all, three apertures were found in the cave ceiling: L102 in the north-eastern extremity of the cave, L100 approximately 1 m southwest and a large elongated aperture in the south-western extremity. The accumulation of sediment dominated by Early Islamic pottery in the eastern part of the cave, most likely originating from activities associated with the limekiln, suggests that this portion was the last to fill with sediment. Conversely, the EB and IB accumulations covered most of the western part of the cave, while the Chalcolithic remains were limited to the north. This pattern is somewhat reinforced by the published section (van den Brink and Gophna 2005: Plan 3.5), which suggests a general inclination of the layers toward the southwest, and thus that sediments infiltrated from the northeast. Hence, during the earlier phases of use, only the northeastern apertures were open (L102 and/or L100) while the southwestern one was of a later date.

It is reasonable to presume that during the Chalcolithic period access to the cave was from the northeast, which implies that, as one descended into the cave, the bones and associated artefacts were deposited almost immediately to one's right. Yet, as the caves are a product of natural processes, they are likely to have been open for some time prior to their use for burial. Therefore, in order for the bones and receptacles to be deposited on the bedrock, some preparatory clearing of accumulated sediments would have been necessary. This need not have been conducted over the entire cave, but may have been limited to the designated area.

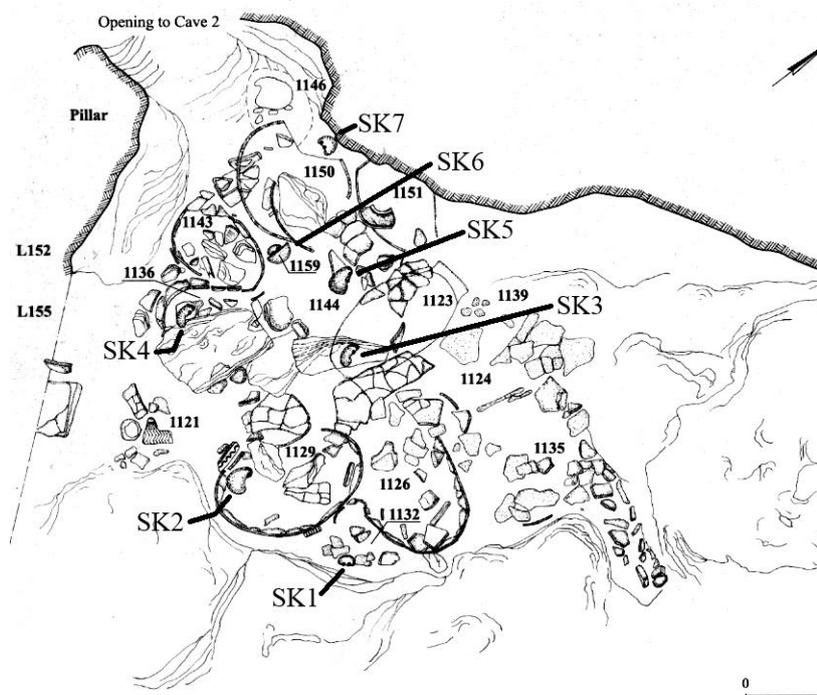


Fig. 8.2: Plan of Loc 122, cave 1, with emphasis on skulls (after van den Brink and Gophna 2005: Plan 3.6).

## Discussion

Although considered a primary context, L122 demonstrates a rather chaotic situation. Of the seven skulls depicted on the plan (Fig. 8.2), only two are definitively associated with containers: SK2 found with the upper part of a globular jar and SK6 in a v-shaped bowl; three skulls (SK1, SK5 and SK7) were recovered on the cave floor among the sherds and lack any clear association with a container other than the general spatial proximity. The relationship of the remainder is questionable. Unfortunately, it is not possible, given our current state of understanding, to appreciate the extent to which post-depositional processes may have been responsible for this distribution.

## **Cave 2**

Cave 2 is situated to the north of cave 1 and to the west of cave 4, to which it adjoins via natural crevices. It is irregular in shape and measures roughly 12 x 5 m. The entrance to the cave from the surface was located in its western wall in the form of an oval aperture, measuring 0.9 m. in diameter.

## Stratigraphy

Three stratigraphic units were recognised in the cave:

1. The uppermost (stratum III) consists of an approximately 0.7 m thick, dark, humic soil, containing limestone debris that originated from the deterioration of the cave walls and ceiling. Pottery recovered from this unit included Chalcolithic and late Early Bronze I vessels.
2. Stratum II consists of light brown soil, roughly 0.6 m thick. While its upper levels contained Intermediate Bronze Age pottery its lower horizons consisted of late EB I pottery. The base of the stratum was marked by a level of limestone debris, which had originated from the deterioration of the cave walls. The authors attribute this to an earthquake.
3. Stratum I consists of 0.5 m thick brown-yellowish soil. It contained highly fragmented remains of Chalcolithic ossuaries. A deep pit was cut into the bedrock in which relatively large ossuary fragments were found.

## Burial containers

Potential containers of osseous remains consisted of at least 23 burial jars, 12 jars and 12 ossuaries. Of these, two ossuaries were restored to relatively complete specimens; three jars

were represented by large portions of the vessel while the remainder were retrieved only as small fragments. The pattern of fragmentation here tends towards the extreme, with two complete ossuaries standing against a background of numerous fragments. This, however,

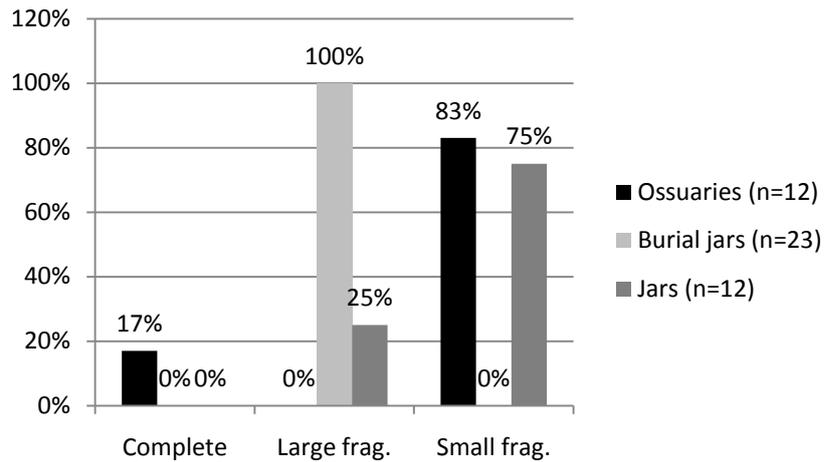


Fig. 8.3: Quantitative distribution of funerary assemblage according to type and degree of fragmentation.

was not recognised in the field, as demonstrated by the plan of the cave (van den Brink and Gophna 2005: Plan 3.7), but only in hindsight, following restoration. It is probable, therefore, that the complete ossuaries were fragmented and distributed in such a manner that they were indistinguishable from the numerous isolated fragments.

### Human bones

Also the state of preservation of the human bones is extremely poor. These consisted mostly of teeth and bone fragments, all of adults, two of which were 30-40 years of age and one was 20-30 years old. Unfortunately, little information is available concerning the skeletal parts involved, and the MNI of eight individuals, based upon the basket count, does not seem convincing either. In any event, it is evident that the state of the human bone assemblage is extremely poor, not unlike that of the containers (Eshed 2005).

### Depositional and postdepositional circumstances

Generally speaking, the accumulations inside the cave are a combination of fluvially deposited sediments with a contribution of limestone from the deterioration of the cave walls and ceiling. The infiltration of water into the cave could have originated either from the access shaft or from cave 1, the elevation of which is approximately 1 m higher. This implies that the filling of the cave would have gradually advanced from south to north (from cave 1) and from west to east (from the access shaft). Considering the very narrow apertures, it is likely that this process was gradual, leaving ample time for scavengers, rodents and other

fauna to interfere with the deposited cultural materials. Such animal activity<sup>1</sup> may at least partially account for the poor human bone assemblage.

In this regard it ought to be noted that the tendency of the finds to cluster in the north-eastern area of the cave corresponds with the abovementioned direction of sediment accumulation, which must be taken into account. Moreover, the recovery of the Chalcolithic remains from directly above bedrock, in the lower portion of the stratum (van den Brink, personal communication) indicates that the bedrock was at least partially exposed. This is unlikely to have been the natural state in which the cave was originally encountered and some extent of clearing of the bedrock must have taken place. Whether this clearing involved the removal of sediment from the cave or its mere relocation has significant repercussions for the rate of burial of the cultural remains, which would have been faster in the latter case.

In any case, the fragmentation of cave 2 assemblage and its distribution can only partially be attributed to post-depositional processes, whether natural or human-induced. Animal scavenging is likely to result in some damage to finds and even loss of a portion of the osseous remains. However, assuming that the bones deposited in the cave were already dry, only a small number of species would be attracted by them. But even if this was not the case and extensive animal scavenging did occur, this would result in significant damage to the bone assemblage but not to the ceramic assemblage. Growing pressure exerted by the accumulating sediment definitely contributed to the fragmentation of the finds but cannot account for the absence of the greater part of most vessels. On the other hand, low pH values can result in the destruction of bone and pottery, particularly vessels with high calcareous content. However, this seems unlikely for the spatial distribution of restorable ossuaries overlapped with those represented only by small fragments, for such a pattern to result from low pH values one must assume great variability in materials and quality of the vessels.

Thus, natural processes alone cannot account for the patterns observed in the Chalcolithic assemblage of cave 2, and one must acknowledge that contemporaneous human activity must be largely responsible.

## Discussion

Admittedly, little can be said about the activities that took place in cave 2 with reasonable certitude. Every attempt to follow a thread of evidence ended with equivocal contradictory results. A host of human activities may have been involved ranging from robbery to refuse

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<sup>1</sup> This is particularly relevant for porcupines, which are known to gnaw dry bones and occasionally relocate them. Scavengers are less likely to participate in such activities because they are not attracted to dry bone.

deposition, and natural processes could not be efficiently isolated. Nevertheless, it ought to be kept in mind that extensive degrees of fragmentation have been noted for the great majority of Chalcolithic burial cave assemblages, and in this regard cave 2 may be an extreme variant of this phenomenon.

### **Cave 3**

The largest cave in the karstic system comprising Shoham (North) is located in its northernmost extremity. No traces of human activity earlier than the Early Islamic period were found here.

### **Cave 4**

Cave 4 was situated northeast of cave 2 and connected to it through a natural crevice. It measures 15 x 12 m. and it is high (2.5 m. in average). The roof of the cave was found intact and a narrow (0.45 m) and oblique solution channel connected it with the surface.

### Stratigraphy

At least six phases were noted in cave 4:

1. The latest phase is dated to Intermediate Bronze Age and consists predominantly of a large amount of storage jar fragments, mostly concentrated in sq. 2 near the aperture leading into cave 3.
2. An Early Bronze occupation(?) is marked by a cluster of pits in southwestern part of the square (L213, 214, 216, 226, 235, 288), in which a few GBW sherds were found.
3. A Chalcolithic occupation level, consisting of shelves cut into the wall and a stone-built hearth (fireplace). This layer included large quantities of pottery, animal bones and several flint items.
4. A heavy stone collapse originating from the roof and walls of the cave was concentrated mostly in the western part of the square.
5. This layer contained the fragmentary remains of ossuaries and other associated artefacts distributed throughout the cave on or near bedrock.
6. Scattered remains, probably dating to the late Pottery Neolithic, were recovered over a limited area in the north-eastern part of the cave, beneath L230.

### Burial containers

A minimum of 18 ossuaries, 1 burial jar and 4 jars were recovered from cave 4, all of which are represented by small fragments; only two consisted of somewhat large fragments (>20 cm).<sup>2</sup> At least 10 of the 25 items listed in the ossuary inventory of cave 4, however, were retrieved from topsoil and occupational levels, which are definitely removed from their original context of deposition. The sequence of human activity in the cave had undoubtedly displaced significant parts of the assemblage.

### Human bone assemblage

All in all, the remains of four individuals were reported, two of which derive from secondary contexts: topsoil, L151 and erosion fill L219. The remaining two consist of postcranial fragments of an adult found near bedrock (L169) and skull fragments of an adult, probably male, in a darkish fill (L209).

### **Shoham (Northeast)**

In 1999, another cave was excavated approximately 400 m east of the cave system discussed above (van den Brink 2009). The ceiling had collapsed already in antiquity. Three probes were excavated covering the central and northern parts of the cave. The entrance was located in the east.

The Chalcolithic remains were found deposited in a 20-40 cm thick layer resting directly on bedrock. The state of preservation is very poor. No complete vessels were recovered, including ossuaries. At least six individuals are represented, by few skull, teeth and postcranial bones. Four of these are adults, one of which is above 40, while for two ages could not be determined. One individual is likely male while sex could not be determined for the remainder. It should also be noted that there is a relatively wide representation of skeletal parts: cranium, femur, tibia, phalanges and mandible. The number of specimens is too small, however, to consider them statistically.

The fragmentation of the assemblage can at least partially be attributed to subsequent Early Bronze I influence. However, this explanation seems insufficient, considering that a thick layer of levelling fill is said to have separated the Chalcolithic from the Early Bronze I living surface. This fill may at least partially be a product of natural erosion, which carried

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<sup>2</sup> The *in situ* burials referred to in the text consist of two relatively large ossuary fragments that offered some suggestion regarding their shape. However no skeletal remains were associated with them

soil. However, it ought to be kept in mind that only the centre of the cave was excavated while the rear was left untouched.

### **Summary**

Of the four caves in the Shoham system that were used during the Chalcolithic period, only in cave 1 was there clear evidence for the deposition of human bones, and also this was strictly circumscribed in space. In the remainder the fragmentary remains of various artefacts and human bones were found. Whereas both human and non-human related post-depositional processes are likely to have contributed to this situation, a great deal of it was probably also induced by contemporary mortuary activity. The fragmentation and missing portions of the mortuary assemblage are immense and only thorough clearing of the caves' contents could perhaps explain the occurrence of assemblages as incomplete as these in post-depositional terms.

It is interesting to note that the most complete assemblage is also the one that clearly diverges from the others in terms of composition. Unlike the other assemblages, which are characterised by varied combinations of ossuaries and jars, the assemblage of cave 1 is unequivocally under the sign of the burial jar. Only two very small ossuary fragments were found with them while the remaining three derived from dubious contexts. Given the coincidence of its relative completeness and exceptional composition, it is possible that this assemblage represents a context that was produced and handled differently from the others and that it had a distinct significance.

## Ch. 9: Additional Chalcolithic burial cave sites

The present chapter presents all cemeteries for which only a relatively concise discussion is afforded. This does not necessarily mean that they are of less significance for the present study, but only that they allow less elaboration. They are grouped here for purely organisational reasons. The order of presentation of the Chalcolithic burial caves in question is according to their geographical location, from north to south.

### **Horvat Castra** (van den Brink *et al.* 2004)

The site of Horvat Castra is situated in the north of the Carmel ridge to the south of the modern city of Haifa. It consists of an irregular karstic cave that was badly damaged by bulldozing prior to excavation; the Chalcolithic remains were also disturbed by Byzantine construction activities. Prior to its use for burial purposes during the Chalcolithic, it was occupied during a late Wadi Rabah horizon, featuring four shallow, rock-cut pits.

The sedimentary sequence at the site is not specified, thereby hindering a discussion of natural post-depositional processes. In the absence of any mention to the contrary, it is likely that this was not an active karstic cave while in use. Hence, the accumulation of sediment in its interior is primarily due to fluvial or aeolian depositional processes, or both. Any further attempt to trace the manner in which these processes influenced the archaeological deposits is superfluous, for it is not possible to trace the location of the cave opening. The cave roof collapsed in antiquity sometime between the Chalcolithic and Byzantine occupations, and its debris was probably removed by the latter.

Despite the significant damage caused by modern trenching activities, three clusters of bones were preserved, all located on stone platforms or benches that were constructed along the walls of the cave: Loc. 801, consisting of a chest and a krater both containing bones; Loc. 806, consisting of a ceramic chest; and Loc. 814, which features a bone concentration.

### Loc. 801

Loc. 801 consists of two distinct containers, a ceramic chest and a krater, and possibly another bone concentration. As such, they may represent separate occasions in spite of their physical proximity. They are set on a stone platform against the northern wall of the cave.

The ceramic chest contained osseous remains of an adult male at least 60 years old (b8015). Identified bones include the skull, the mandible and postcranial bones.<sup>1</sup> To the west of the ossuary, a krater served as a receptacle for human bones. It contained fragments of the cranium and of postcranial bones of an adult of unknown sex (b8014). On the other side of the ossuary and in the same orientation, a concentration of long bones was found (b8018).<sup>2</sup> According to a single tooth, the age was determined to be of a young adult, 15-25 years old, of unknown sex. More bones were found to the south of the krater and chest and possibly also below them. These consisted of several cranial, postcranial and tooth fragments (Loc. 802 and Loc. 818), representing a minimum of three individuals of unknown sex aged 15-20, 20-30 and 30-40.<sup>3</sup>

Thus, a minimum of four individuals were deposited in this northern cluster of the cave, two were deposited in containers and at least two more around them. The possibility that several of the osseous remains were found below the krater and chest might suggest that the first interments were in mere clusters and that only later were the vessels introduced with later inhumations, or that these vessels were emptied for the sake of newly deposited remains.

#### Loc. 806

At the western corner of the cave, a large fragment of a ceramic chest was found set upon a platform of fieldstones above a fan scraper. The chest contained the remains of a child, represented by fragments of cranial bones (b8013), apparently of a rather young age. Around or below it and still in the chest, remains of at least two more individuals were found, consisting of cranial and postcranial bones. Based on teeth attrition their age was determined to be 15-20 years old (b8025).

Slightly further to the east, bones representing two individuals were recovered, probably associated with those three of Loc. 806 (Loc. 816 and Loc. 817). These consisted of few postcranial bone fragments and five teeth. Their estimated ages are 10-25 and 30-40.

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<sup>1</sup> Unfortunately, no specifications of the postcranial bones represented are available.

<sup>2</sup> This context is not noted in the published report, nor was it treated separately in the anthropological section. The account presented is based upon an examination of the original illustrations and on an early version of the anthropological report, courtesy of Y. Nagar of the Antiquity Authority.

<sup>3</sup> This context is not discussed in the published report. The account given here is based upon the review of the original field notes.

Hence, a minimum of four individuals were associated with this western cluster. A child and two adolescents were deposited in a chest fragment and the remains of at least one more individual was found in the immediate vicinity.

#### Loc. 804, Loc. 807

In the southern part of the cave, fragments of an adult's lower limb bones and a tooth were found, according to which it belonged to a 20-30 year old individual.

#### Loc. 814

This locus consists of a concentration of bones on the stone bench in the eastern part of the cave. The bones were in a poor state of preservation and no particular form or order could be distinguished. They included cranial and postcranial fragments of at least eight individuals of unknown sex. Based upon dentition, their ages were determined as follows 4, 9, 12, 15-20, 20-25, 20-30, 30-40 and 40-50. Approximately 1 m to the north, on the cave floor, few cranial and postcranial fragments of an adult were found, 30-40 years of age, and several teeth of an 11-13 year-old child.

#### Discussion

The researchers suggest that the remains of a minimum of 27 individuals are represented in the cave. This figure, however, seems to be too high, stemming from a strong emphasis on the distinction between adjacent units (often baskets), assuming that each represents a separate set and disregarding their juxtaposition. Given that bones are susceptible to relocation and may be moved about by various agencies, *a priori* accepting separation into loci and baskets when trying to establish an MNI count is problematic and ought to be done with caution (see, Grayson 1979). Although lacking a hands-on treatment of the bones and based only on the age estimation, I suspect that the MNI should not exceed 19 and may even be lower, according to the details noted above.

Unlike many other Chalcolithic burial caves, no signs of significant disturbances in the form of a high degree of fragmentation and scatter were noted in Castra. On the contrary, the picture presented above is a very neat one, consisting of three distinct and well defined contexts. This, however, might be deceiving, for the area damaged by mechanical trenching is right in the middle of the cave (Brink *et al.* 2004: footnote 3). Seven ossuary fragments (of a total of twelve)

were retrieved from the removed fill as well as a tabular scraper and a rectangular stone palette. This implies that a significant portion of the archaeological remains was removed prior to the excavation.

This situation definitely causes a bias in our understanding of the context and it is probably best to avoid excessive speculations concerning the fragmentation of the assemblage and the details of its composition. But some general observations are nevertheless worthy of consideration. First, it is clear that the burial containers recovered in their original position consisted of ceramic chests and a krater, while ossuaries that have their aperture in the front are absent or represented only by small fragments.

It is also noteworthy that the three contexts distinguished in the cave demonstrate variability in the relationship between osseous remains of different individuals and their designated containers. In Loc. 801 three individuals were deposited separately in different vessels or on the bench, in Loc. 806 three individuals were deposited together in a single vessel and in Loc. 814 eight individuals were deposited together on the bench. One might suggest that there is a negative correlation between the number of individuals deposited in a single location and the number of vessels associated with them. It is very tempting to read chronological and social meanings into this, but the size and condition of the context renders this hazardous and inappropriate at this time.

### **Furedis (Yannai 2007)**

The cave is located on the western slope of the Carmel ridge, above the old part of the village of el-Furedis. Only about a quarter of the cave area was excavated, producing a 2.5 m deep section (3 x 7 m) running through its southern side. In all, six strata were recognised, spanning between the late Neolithic and Middle Bronze Age. Of these, two strata (V and III) yielded Chalcolithic finds, between which a sterile alluvial layer was found.

Several ossuary fragments were reported, as well as one complete specimen from stratum V that disintegrated upon removal. The excavator suggests that the earlier phase was one of dwelling while the later was of burial, with the sterile layer in between intentionally deposited to separate the two. He is not clear, however, how this agrees with the complete ossuary found in the earlier stratum.

**Midrakh 'Oz** (Getzov *et al.* 2008)

Located on the eastern slopes of the Menashe Hills, bordering with the Jezreel Valley, a burial cave was excavated as part of salvage excavation prior to the construction of a residential neighbourhood. The cave was used for burial during the Chalcolithic and later during the EB Ib. The remains of over 30 individuals are reported, although no specification is given as to how many of them ought to be assigned to the Chalcolithic phase. Ossuary fragments were also reported.

**Shuni** (Peilstoker and Sklar-Parnes 2005)

Salvage excavations at the southern end of the Carmel Ridge, conducted to minimise unintended damage by a private company, revealed the presence of an extensive Intermediate Bronze Age cemetery. One of the tombs is reported to have reused an earlier Chalcolithic burial cave.

**Hederah** (Sukenik 1937)

The burial cave of Hederah, located at the foot of a small hillock, Giv'at Bilu, was discovered in the course of kurkar quarrying. Ossuaries and bones were found embedded in a layer of sand below a 1.5 m thick layer of kurkar. Sukenik did not consider this to be a cave as he understood the kurkar layer to be a later geogenic deposition; now, however, it is widely agreed that the site in question was originally a cave, the ceiling of which must have collapsed.

Numerous ceramic 'chests' were found, most of which were in a very bad state of preservation, crumbling as they were removed. Several of them were intact when found while others were clearly fragmented in antiquity. In one case, fragments of a large vessel were found inside an ossuary, covering bones; and in another, apparently near the rear of the cave, large pottery sherds were found covering bones.

The bones were generally in a very bad state of preservation, and fragments of them were found both inside the ossuaries and scattered between them. Unfortunately, no anthropological data or quantitative aspects of the pottery assemblage are available. No mention of burial jars suggests their absence and the burial vessels consist essentially of rectangular and oval ceramic chests, as well as ossuaries.

**Sha'ar Ephraim** (Oren and Scheftelowitz 1998; Smith and Kolska Horwitz 1998; van den Brink 2005b; in press)

In the Sharon Valley, east of the modern village of Sha'ar Ephraim, an extensive Chalcolithic cemetery was excavated following its exposure by construction work. It consists of at least six burial caves, one of which was excavated by Oren and Scheftelowitz (1998) in 1994-1995, while the others were excavated by van den Brink in 2002.

#### Oren and Scheftelowitz's excavation

The cave was carved into the chalk rock and has an entrance descending from the northwest into the antechamber. The cave extends to the west in the form of a gallery and ends in a round niche. It is likely that it is but one component of a larger system, for a round opening was discerned in the northern wall, probably leading to another chamber.

The antechamber and southern part of the cave contained large amounts of pottery and bone. These, however, reflect all phases of use from the Chalcolithic period, through the EB I, Iron Age and Roman/Byzantine periods. Moreover, most of the bones belong to animals.

In the niche, a homogenous context was found representing the Chalcolithic period, containing a concentration of pottery vessels and ossuary fragments, as well as bones, particularly human, which were found scattered. In at least two instances, v-shaped bowls were found in direct association with skulls. Animal bones were recovered from here as well, some of which definitely indicate post-depositional animal intrusions (Smith and Kolska Horwitz 1998: 112-113).

At least four individuals were identified: a 10-12-year-old, two 14-16-year-olds and one 25-30 years of age. No sex determinations were possible. The bones were found in an advanced state of deterioration and were comprised, in a descending order of frequency, of teeth, long-bone shafts, cranial fragments and small pieces of ribs and phalanges. On one humerus of an adult, a perforation was discerned, indicating a post-mortem treatment of the bones. No other post-mortem modifications are noted.

At least five ossuaries and one burial jar were retrieved, none of which were complete. Also, the pottery assemblage was rather fragmentary, including very few complete or almost complete

vessels. It seems rather unlikely that this state of preservation of the ceramic assemblage can entirely be attributed to post-depositional processes, including human and animal intervention. The majority of finds originate from the niche area, which was relatively undisturbed by later human activities in the cave, and animal modification is unlikely to have removed significant portions of the pottery assemblage.

Either complete ossuaries were not used in the cave, but only fragments, or the fragments found are those that stayed behind following the removal of the more complete specimens. The latter would seem to be in agreement with the extremely fragmentary state of the human bones, i.e. that the greater representation of them was intentionally removed from the cave. However, the frequencies of the skeletal elements are apparently also in accord with the expected preservation based upon bone density. Thus, the possibility that the majority of human bone interments and associated artefacts were removed from the cave should be dealt with cautiously.

#### Van den Brink's excavation

*Cave I.* This cave was relatively well preserved, only its southwestern part was slightly damaged by the bulldozer. It measures 8.5x6x2 m and slopes sharply toward the west. Two phases were distinguished for this cave, Chalcolithic and Early Bronze, during both of which it served for burial. The Chalcolithic finds were found resting on bedrock, partially sealed below a layer of stones originating from the ceiling's collapse. This layer yielded ossuaries and various artefacts.

The upper part of the cave, which is apparently also its innermost, contained a chest, two ossuaries and a jar leaning against the inner wall. Unlike the remainder of the cave, this area was not reused during the EB I and was sealed off by a partition wall. The very fragmentary remains of at least five individuals were represented by teeth and a few skull and postcranial fragments (15-20, 20-30, 30-50, 15< and one of unknown age, Nagar in press: Table 6).

In a lower part of the cave, particularly in the northern extremities, three chests and four ossuaries were found resting on the bedrock and sealed below a layer of stones. At least 22 individuals are associated with these loci (Loc. 110, 124, 128 and 131). The bones were in very fragmentary condition, consisting mostly of teeth and few postcranial fragments (Nagar in press: Table 6).

Loc. 124 is of particular interest. It contained teeth and 12 distal ends of humeri representing six adults and two children (Nagar in press: Table 6). This suggests that these humeri were

deposited already broken, intentionally selecting their distal ends. For it is the shaft which is expected to be preserved, while the porous extremities are more likely to suffer from various post-depositional processes due to their greater surface area.<sup>4</sup>

Cave 2. This cave was severely damaged by construction work and most of it was destroyed. Only a limited area of 4x1.2x1.5 m in the north-eastern part of the cave was preserved. A (complete?) ossuary oriented north-south, with its opening to the south, was found resting on three flat stones. Beside the ossuary, to the north, a fragmentary bowl, probably used as a receptacle for bones, was found and a fragment of another ossuary was found to the east against the cave's wall. A minimum of two individuals were recorded, both of which were represented by very few postcranial fragments and teeth (Nagar in press: Table 7).

Cave 3. This cave too suffered greatly from the construction work and only part of the bedrock floor of the cave was spared. The cave's ceiling and walls were entirely removed. The remains of at least three ossuaries were recovered *in situ* and the osseous remains of at least six individuals, represented only by teeth.

Cave 4. Although relatively well preserved, this cave yielded mostly disturbed deposits. On top of its use in the Chalcolithic and Early Bronze I, it also served domestic purposes during the MB IIa and mortuary functions during the LB IIb. Fragments of only two ossuaries were recovered from this cave, and none of the skeletal remains could be securely attributed to this phase.

Cave 5. The ceiling and westernmost portion of the cave were removed in the course of construction operations, leaving an area of 4.5x4.5x2 m. The cave floor inclines rather sharply. The fragmentary remains of at least seven ossuaries were recovered and 11 individuals, identified by teeth alone. This very poor state of preservation is undoubtedly at least partly due to the blasting of the cave.

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<sup>4</sup> Note that a similar observation was made also for Peqi'in Cave (Ch. 4).

**Eṭ-Taiyiba** (Yannai and Porath 2006)

The Chalcolithic burial cave of Eṭ-Taiyiba was discovered in 1989 following the digging of a cesspit, and subsequently suffered greatly from looting. This significantly hampers any attempt to reliably reconstruct the processes that took place in the cave. Furthermore no anthropological information could be obtained because human bones were entirely lost (notwithstanding several human teeth of adults).

The cave, quarried into the soft chalk, had an irregular oval shape of 4.5x6 m. In its southern part, a pillar had been left in place. The cave margins were slightly higher than the floor, creating a bench-like platform along the cave walls. Only a limited portion in the north-western part of the cave and on the floor was not disturbed by the looters. The ossuaries were grouped densely on the benches and cave floor, sometimes placed on flat stones, and among them ceramic vessels were found. The authors mention in passing that several ossuaries were removed while the cave was still in use.

The mortuary container assemblage consists of 17 complete ossuaries and fragments of at least five more, four complete ceramic chests, 5 complete kraters, fragments of at least two burial jars and four additional complete vessels that may have served as bone receptacles. In all, 79% of the assemblage was complete while only 21% was fragmented.

**Tell el-Farah (north), Tomb U** (de Vaux 1957: 553-556; Miroschedji 1993)

The cave is located on the southern side of the tell; it is oval in shape and its interior had collapsed. The entrance was facing Wadi ed-Dleib. Two phases were distinguished, separated by a partial collapse of the ceiling and a white lime layer. The cave's floor rises toward the rear to form a bench, in which pits were cut, roughly 0.5 m in diameter.

Four inhumations were recorded, two in the upper layer and two in the lower. The bones were incomplete and each burial consists of bones arranged into a heap after defleshing. Those of the earlier phase were deposited on the bench, without any container, nor in the rock cut pits. A fragment of an ossuary was found as well.

**Shechem/Askar** (Klamer 1981; Guyot 2009)

The cave is located on the southern slopes of Eival Mountain, 500 m northwest of modern Shechem. The cave was discovered in 1975 when its southern side was destroyed by a bulldozer

in the course of road construction. The cave was subsequently excavated. Four basic phases of use were recognised, dated to the Late Bronze Age I-II (stratum I), the Middle Bronze Age II (stratum II), the Early Bronze II-III (stratum IIIa) and finally to the Chalcolithic and Early Bronze Age I (stratum IIIb). The cave was hewn into the soft chalk and consisted of a primary oval space to which two small annexes were added. A stone bench was built against its northern wall and two paved areas were located near the centre of the space. Access to the cave was made possible via a vertical shaft at its western side.

The material assemblage of the earliest phase was found in a severe state of fragmentation and preservation, probably due to repeated use of the cave and clearing activities that took place. No stratigraphical distinction between the Chalcolithic and EB deposits could be made. The archaeological remains were recovered from two main clusters, one located to the north, on or near the bench, while the other was found at the south-western part of the cave on the floor.

An analysis of the human remains conducted at the site indicates that at least seven individuals were represented. 20 fragments of designated funerary vessels were recovered as well from which six could be identified with confidence; these included two chests, one with a lid and one without, and the rest were probably ossuaries.

### **Nahal Qana** (Gopher and Tsuk 1996)

Nahal Qana cave is a large karstic system located on the southwestern slopes of the Samaria Mountains that developed in the hard dolomite rock of the Weradim formation. It consists of a large chamber (approximately 500 m<sup>2</sup> in area), designated 'the Main Hall,' out of which narrow tunnels and spaces diverge, producing a system of at least five levels (A-E). The deepest point reached in the cave is over 25 m below the surface and 90 m distance from the entrance. Access to the cave is achieved via a narrow shaft and passage roughly 16 m long. The conditions inside are moist; speleothems are conspicuous and an abundance of evidence for subsidence was readily observed. The accumulation of sediments was very poor and most finds were found either on the rock surface and crevices, under travertine crusts, in bat droppings or under large boulders. Consequently, the archaeological assemblages are characterised by a high degree of fragmentation and poor preservation.

The cave was used for human purposes during at least three periods: the Pottery Neolithic (Yarmukian), the Chalcolithic period and the Early Bronze Ib. During and between these periods,

events of collapse and subsidence took place, gradually blocking previously accessible spaces. The severest event seems to have taken place between the Chalcolithic and Early Bronze Age when the lower reaches of the cave, beyond the Main Hall, were blocked (Frumkin 1996; Gopher and Tsuk 1996: 209-212, 223-224).

Based upon the recurring association of ossuaries, human remains and built terraces, the excavators conclude that the cave served primarily mortuary purposes during the Chalcolithic period, to which they assign all human remains, a working hypothesis adopted here. In all, the remains of at least 23 individuals were identified: six infants under five years of age (26%), five children 6-13 years old (22%), two adolescents (14-18; 9%), four young adults (18-25; 17%) and six adults (25<; 26%); two males and four females were identified. The spatial distribution of human remains demonstrates a constant decrease as one advances deeper into the cave: 12 individuals were identified from the Main Hall (52%), six from the passage connecting the main hall and the deeper parts of the cave (26%), three from the copper room (13%; Level B), one from level C and another from level E (4% each). It is interesting to note the absence of skulls from the assemblage; it is nevertheless impossible to point out clear indications for bone selection, due to irregular frequencies of different body parts (Hershkowitz and Gopher 1996).

Plentiful ossuary fragments were recovered, but not a single specimen could be restored. An estimation of the number of vessels represented is extremely difficult, but a minimum of 15 can

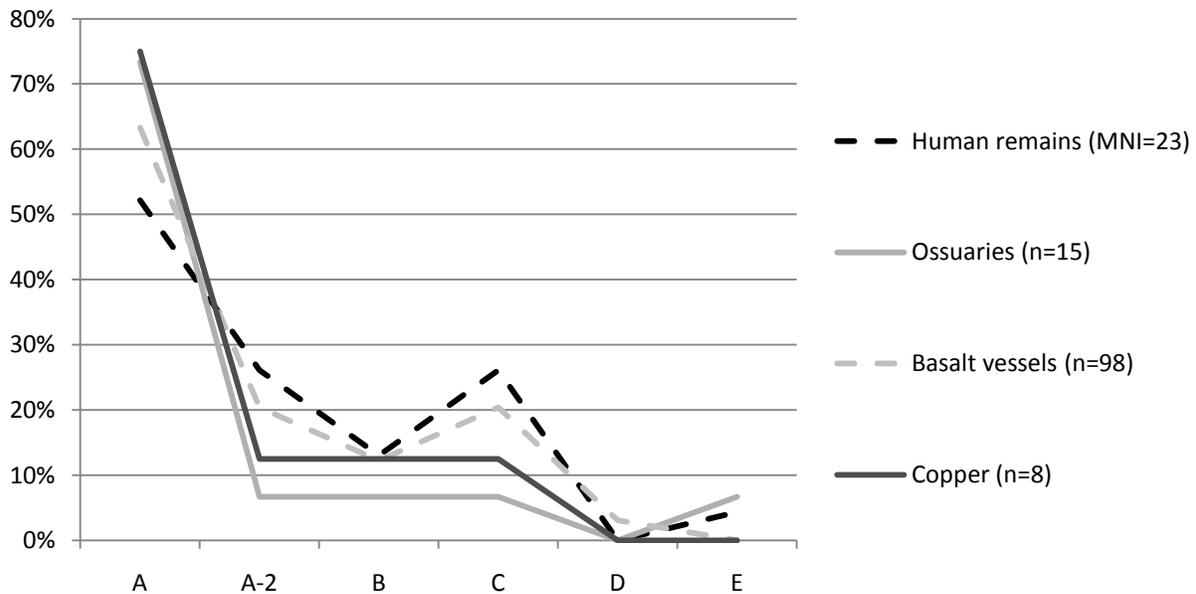


Fig. 9.1: Spatial distribution of human remains and selected artefact types across levels (A=Main Hall; A2=The Passage; B= Copper Room; C=way to Rectangular Room; D=Rectangular Room; E= Hall of the Terraces).

be suggested based upon the distribution map in the report (Gopher and Tsuk 1996: Fig. 12.3), almost all of which were found in the Main Hall (n=11, 73%). Among the accompanying artefacts, the copper and gold/electrum elements are worthy of note. In all, 16 copper items were found, including a standard, an adze, many pieces of wire and lumps. As other parts of the assemblage, the overwhelming majority of these were recovered from the Main hall. It may be of significance nevertheless that the standard, the more stylised among the copper artefacts, was found in a relatively deep location in the Copper Room. In addition eight gold/electrum rings were found in close proximity to each other in the passage connecting the Main Hall with the deeper parts of the cave.

A great deal of caution is necessary when attempting to interpret the finds. Considerable variations in moisture conditions are likely to have induced differential preservation. It is also probable that the assemblage and the interred population were originally much larger than that presented by the currently available data. Severe biases were thus undoubtedly introduced and the degree to which one can rely on the existing information is somewhat questionable. Given nevertheless that all artefact types, including the most resilient, basalt, decrease in number as their position in the cave deepens, it is reasonable to conclude that most activities took place in the shallower parts, primarily in the Main Hall (Fig. 9.1). Indeed, the area between the Main Hall and the Copper Room of the next level seems to represent some form of threshold, drawing a sharp line between them, which was expressed not only in terms of intensity of use but also in terms of access and control, distinguishing the few individuals deposited in the interior parts of the cave from the majority of the population.

### **Benei Beraq** (Kaplan 1963; Ory 1946)

A cluster of Chalcolithic burial caves was discovered at the eastern outskirts of Benei Beraq in 1942 following construction work that cut through a kurkar ridge. Upon inspection, twelve loci were discerned along the northern slope, overlooking the Yarkon stream. These were excavated by Ory. Following further construction work, another burial cave was discovered on the eastern slope of the ridge, which was subsequently excavated by Kaplan in 1951.

### Kaplan's Excavation

The cave was elliptical in outline, 7.5 m across. Approximately a third of the cave was destroyed by the bulldozer. An additional cave was found 20 m northwest of the first, measuring 2.5 m in diameter and empty. The original access to the cave was from the east, via a shaft (0.6 m in diameter) and a gallery that were blocked with stones.

The ceiling of the cave had collapsed in antiquity, sealing the archaeological finds below it. Most of the ossuaries were recovered grouped together near the walls upon small paved areas. In a small pit, 0.4 m in diameter and 0.6 m deep, broken vessels, ossuaries and human bones were found. Kaplan suggests that this may have been a chance accumulation and that the bones were deposited in it following the breakage of an ossuary. A lens of soot and ash was found in the centre of the cave including pits of wild olives. A reddish limestone slab served as a *matzebah* and a hematite macehead and a shell pendant were found as well.

The composition of the mortuary assemblage in the cave is not entirely clear and no quantitative data are given. Only one complete ossuary was recovered, which was miniature, measuring only 15 cm long and thus unlikely to have served as a bone receptacle. All other ossuaries are represented only by small fragments, the minimum number of which is six based upon the number of *frontons* illustrated. At least two small fragments of ossuary jars were also found.

Generally speaking, the pottery was in relatively good condition, although several instances in which the clay was friable were encountered too. Kaplan describes it as well fired and red, which suggests a ferruginous origin for the clay, probably the local *hamra* soil.

### Ory's Excavation

Locus A. This is a chamber measuring 3.5 m in section. Access appears to have been afforded from above via a shaft. Both chamber and shaft were filled with loose sand and rubble. A ledge serving as a bench was discerned along the western wall. The cave was not entirely excavated and the innermost part of it was left untouched due to safety reasons. A large fragment of an ossuary was found at the eastern side of the chamber (most of the roof, portions of the long walls and most of the sort ends were missing). Fragments of two ossuaries were found in the middle of the floor, little was preserved of a fourth in the western part. Another partially restored fragment was recovered behind it, and one was found in the spoil below. The assemblage was encrusted

with a limy deposit, probably signifying the deposition of calcium carbonates by percolating water.

Locus B was situated several meters southwest of Loc. A. It seems that most of the chamber was destroyed. Its contents consisted of mixed red and Yellow soils and kurkar fragments, suggesting that sediment infiltrated into the cave concomitantly to the accumulation of kurkar and sand from the deterioration of the cave walls. Fragments of a painted ossuary were found.

Loci C, D and E were not cleared and were almost entirely destroyed.

Locus H consists of a subterranean rectangular chamber. Only its south-western corner was preserved and its overwhelming majority was destroyed. The floor and walls were lined with kurkar slabs. A rectangular stone basin was found and in it decayed human bones; a clay ossuary was found upon a stone slab, also containing disintegrated bones, and beside it, a juglet. The chamber floor and artefacts deposited on it were covered clear loose sand. Ory suggests that this represents the original backfilling of the pit, but it seems more likely to represent aeolian accumulation of sand, which implies that it was open.

Loci I, J, K and L were badly disturbed and for the most part were not cleared.

Locus F was situated further uphill, several meters below the top of the ridge. It consisted of an oval pit measuring 6x7 m in area and approximately 1 m deep. The pit was full of tightly clustered pottery, sometimes clearly seen to be stacked one inside the other. The pottery was very poorly preserved; its fabric was soft and limy encrustations were noted as well. The sediment in which the finds were found is described as a mixture of sand and pebbles. At the base of the pit, an accumulation of ash was found and some of the pottery was blackened.

Ory suggests that this installation functioned as a pottery kiln. This, however, seems unlikely, particularly regarding the arrangement of vessels one inside the other, which would cause significant fluctuations in the temperatures throughout the kiln and hinder proper firing. Also the recovery of small ossuary fragments does not support the kiln interpretation. Nevertheless, the extremely poor state of preservation of the pottery, at least a portion of which seems to have been

originally complete, demands an explanation. Assuming that the pit remained exposed, the direct impact of water may be responsible for the disintegration of the pottery.

Locus G is a badly disturbed cave of indeterminate size. A wall approximately 0.4 m thick and 1.1 m high ran through it. At least one ossuary fragment and several other vessels were found in this context.

### **Yanai Street, Tel Aviv (Kaplan 1958)**

While quarrying into a kurkar ridge as preparatory work to the construction of residential buildings, a number of caves and pits were exposed at the site, also known as Giv'at Bet ha-Mitbahaim. Two of these have yielded unequivocal evidence of their mortuary function: caves 5 and 6.

Cave 5 is reported to have been circular in outline with a diameter of approximately 2.75 m. and an opening at its eastern side. Ossuary fragments and human bones were found embedded in reddish soil (hamra) and sealed below the debris of the collapsed roof. The excavator concluded that the cave was robbed and the ossuaries emptied at a very early date prior to the collapse.

Cave 6 was badly damaged and its upper half was removed. It was circular in outline, roughly 2.5 m in diameter with a niche on one side. Ossuary fragments and human bones were found embedded in reddish sediment.

### **Giv'ataim (Sussman and Ben Arieh 1966)**

In the course of November 1958, a Chalcolithic and Early Bronze cemetery consisting of a minimum of 13 burial caves was discovered, following kurkar quarrying on a small hill. Eight of these caves were excavated, seven of which were dated to the Chalcolithic period (Nos. 1-3, 5-8) and one to the Early Bronze age (No. 4).

#### Cave 1

The cave is elliptical in outline, roughly 4.5 m in diameter. Approximately a quarter of it was destroyed and the ceiling had collapsed (it is not clear whether this occurred in antiquity or due to the quarrying work). Fragments of ten ossuaries were recovered, in relatively ordered arrangement, situated upon flat stones. Only two were restored to completion. The authors note

that marks of damage were discerned on both of them, possibly indicating that they were intentionally fragmented. The ossuaries were found in a poor state of preservation and were rather brittle. No mention was made of osseous remains.

### Cave 2

The outline of the cave is not clear and it may have been a pit. Two rectangular kurkar basins were found situated one beside the other. Within and between them bone fragments were scattered. These were accompanied by a *mazzebah*.

### Cave 3

The cave is rectangular in outline. Its northern part was not excavated due to a structure above it. In the excavated area, ossuary fragments and numerous sherds and flint items were found.

### Cave 5

At least a third of the cave was destroyed and its ceiling could not be detected. Jars were clustered tightly together and at least one of them contained cranial and limb bone fragments. These vessels were found in a very poor state of preservation and crumbled upon touch. Their number and typological identity are not clear. Considering that at least two of them had small ledge handles, it is likely that at least some of them were kraters rather than burial jars.

### Cave 6

This is an elliptical cave, 7 m long. Ossuary fragments were found.

### Cave 7

Cave 7 is relatively small, roughly 1.5 m in diameter. The ceiling was not preserved and the location of the original access could not be determined. At least one complete ossuary was found, but it crumbled upon touch. A krater and two burial jars (one large fragment and one mushroom) were also recovered. Four *matzebot* accompanied this assemblage.

### **Mazor (West)** (Milevski 2007; Lupo 2008)

The site is located on a moderate hill at the contact zone between the Samarian Mountains and the coastal plain. A salvage excavation was conducted due to the construction of the cross-state highway. One Chalcolithic burial cave was fully excavated but there seem to have been several more in the vicinity that were severely damaged by the development works. The cave measures 9x5 m and is approximately 2.5 m deep. A bell shaped-pit produces an access shaft on the southern side, although its function as an entrance is inconclusive.

The Chalcolithic mortuary assemblage was found sealed below the cave's collapsed roof, apparently consisting of two phases. The earlier phase is deposited directly on bedrock, into which pits were cut. Human remains, representing a minimum of two individuals, were found in the central part of the cave. They consist of unidentified bones deposited in a lower part of a closed vessel and the remains of an adult, over 35 years of age, deposited on the cave floor. A cluster of complete vessels, mainly bowls and small jars, were found near the entrance. The later phase is represented by distribution of human bones, mostly near the entrance, on the cave floor, representing a minimum of two adults (20-30, 30-40 years of age) and one child (6-8 years old). Pottery vessels appear to be more evenly distributed than in the previous phase. A few bones, representing an adult (> 50 years) and a child (8-10 years), were found in an indeterminate context between the two phases; it is not clear whether they constitute two additional individuals or belong to previously identified ones. It is of note that there is a persistent preference for the representation of cranial and long bones, and that, in at least one case, cut marks were observed.

Ossuaries recovered from these assemblages were in highly fragmented condition. Only 21 fragments could be satisfactorily identified. Of these, 14 (66%) were retrieved from the earlier phase and only three from the later one (14%); the remainder derived from indeterminate or later contexts. Although not statistically valid, this does seem to suggest a decrease in the use of ossuaries.

### **Horvat Hani** (Lass 2003)

The site is located at the western fringes of the Samarian mountains and consists of a single cave. It was discovered during test drilling conducted by the Cross-Israel Highway and subsequently excavated. Four phases have been ascribed to the depositional sequence, sealed below the collapsed cave roof, only the earliest of which was assigned to the Chalcolithic period. The

assemblage was highly fragmented and consisted of a few sherds and ossuary pieces. The subsequent phases were dated to the Early Bronze Age, consisting of a short term-occupation, followed by the reuse of the cave for burial purposes.

The high fragmentation of the Chalcolithic remains can be attributed to the ongoing and changing functions of the cave during the subsequent periods. This is strongly attested to by the consistent occurrence of Chalcolithic pottery throughout the sequence. Little can therefore be said of this cave other than its probable use for burial.

### **Qula** (Milevski 2001a; 2001b; 2002; Milevski and Shevo 1999)

Qula is situated approximately 15 km east of Tel Aviv on the western margins of the piedmont. Following construction work an extensive Chalcolithic cemetery was discovered. Eight caves were excavated to date, but more are likely to dot the area. Regrettably, the available information is scanty and partial.

#### Cave E1

This is a natural cave consisting of a central room and two niches hewn into the eastern and northern walls. Most of the ceiling collapsed in antiquity, however the stratigraphical position of this event is not clear. Rock-cut stairs lead into the cave from northeast. Most of the cave was filled with alluvial sediment that must have gradually infiltrated over the years. The niche in the eastern wall was found blocked with stones, and in the southeastern part of the room, two phases of paving were discerned. Human bones and poorly preserved ossuary fragments were uncovered in the southern part of the cave. No evidence for later activities in the cave were found.

#### Cave I1

The cave is rectangular in form measuring roughly 5x2.5 m. Access was probably from the east, where a set of stairs leads into the cave. The cave volume was occupied by alluvial sediment and most of the ceiling had collapsed in antiquity, leaving only an arched area over the middle of the cave. Patches of pavements were encountered in the western, eastern and northeastern parts of the cave.

In the middle sector of the cave both on and near the paved areas a cluster of jars and burial jars containing osseous remains were found. Two stone basins, each containing the remains of a single individual were uncovered at the eastern part of the cave.

### Cave K1

Cave K1 was discovered by infrastructure work which destroyed its eastern end. It roughly measured 13x7 m. The cave was full to the ceiling with alluvial sediment containing numerous large stones. Below it, a layer of orange-brown sediment was uncovered containing a large number of sherds and bones.

A total of four phases were recognised. The earliest phase consisted of orange sandy sediment deposited directly above bedrock. Numerous fragments of restorable vessels were found, mostly of bowls, pedestaled bowls, cornets and possibly also numerous jars found in the northern and eastern parts of the cave, although their stratigraphical assignment is not clear.

The next phase was marked by the construction of paved areas in the centre and southern parts of the cave, upon which ossuaries, pottery vessels and bones were deposited. A minimum of 15 ossuaries were uncovered, in some of which osseous remains were found as well. In one of the ossuaries, a male figurine was found together with human remains. Other than its right arm and penis, it was fully represented, although broken. Based upon the relative position of the different parts, the author suggests that it was intentionally fragmented prior to its deposition in the ossuary (Milevski 2002). In view of this, it is likely that the right arm and penis were intentionally removed.

Phase II entailed the movement and fragmentation of the remains of the earlier phase, and the deposition of stones and additional ossuaries above them. At least eight ossuaries were found and many scattered bones.

The latest phase was encountered only in the southern part of the cave and consisted of an Intermediate Bronze Age burial.

### Cave J1

Cave J1 was badly disturbed by mechanical work, which does not allow a reconstruction of the cave's measurements. It consisted of a natural cavity composed of two spaces. The northern of the two was almost entirely empty while, in the southern, secondary burials in ossuaries and

burial jars were encountered. At least two phases were discerned: the first was deposited directly on the bedrock while a wall was constructed in the second phase with the vessels deposited upon it or upon the vessels of the first phase.

### Cave J2

The ceiling collapsed and portions of it were removed by mechanical instruments. It was filled with alluvial sediment mixed with small stones. It consists of a single room that was accessed by means of several stairs. On the floor, fragments of burial jars and few human bones were found.

### **Mesillat Tzion** (Perrot and Ladiray 1980)

Very little is known about Messilat Tzion. The only publication on the matter is a short paragraph in Perrot and Ladiray's monograph of the Chalcolithic burial caves (1980: 104), where they discuss three pottery vessels from the Moshe Dayan collection: a burial jar, a cornet and a krater. The Cave is located on the western slopes of the Judean Mountains near the juncture with the hills of the higher Shefelah. Little more can be said.

### **Nahal ha-Ela** (Eirich-Rose 2009)

In the course of salvage excavation along the planned route of the separation fence, three natural karstic caves were found, two of which probably served for burial purposes during the Chalcolithic period: Caves A and D; the third cave (B) served dwelling and industrial purposes.

Cave A was circular in plan with an entrance to the north. Its western side was destroyed during construction work. The remains of at least 19, poorly preserved yet neatly arranged burials in jars were exposed. In the western part it was observed that some burials were deposited above others, perhaps suggesting the existence of two phases of use.

Cave D was in use during the Chalcolithic and Early Bronze. It was not possible to distinguish between the phases.

## **Ch. 10: Palmahim (North)<sup>1</sup>**

Palmahim cemetery is located upon a low kurkar ridge overlooking the mouth of the Soreq River. It was excavated in 2005 by A. Gorzalczany after construction work for a desalinization plant accidentally discovered the site (Gorzalczany 2006). An impressive cluster of over 50 mortuary structures was uncovered. It consists of circular and rectangular structures that originally had corbelled stone roofs. The archaeological remains consist primarily of architectural and rock-cut features as well as stone implements; other aspects are, however, very meagre and poorly preserved: the skeletal remains were chiefly represented by sporadic teeth and unidentified bone fragments, and the pottery assemblage, although in slightly better condition, was in very brittle state, many items of which disintegrated upon touch. The excavation results are yet unpublished, precluding a detailed discussion of its findings. The following therefore will focus instead on some general patterns: preservation and post-depositional processes, architecture and temporal development, sacred orientation and planning.

### **Preservation and post-depositional processes**

The severe underrepresentation of some aspects of the assemblage, particularly bone and pottery, are suggestive of conditions unfavourable to preservation. If this is the case, we may suspect the introduction of considerable biases into the retrieved assemblage. In order to avoid as much as possible the pitfalls and caveats caused by such biases, the current discussion will limit its concern to the architectural aspects of the cemetery. As a result, however, more context-specific patterns of behaviour and interment are rendered beyond reach. Consideration of the main post-depositional processes influencing the assemblage offer, I believe, sufficient justification for this choice.

First, it is important to consider the rapidity of the burial of the site under sediment, protecting it from the elements. While the absence of finds noticeable on the surface may be suggestive of fast burial, this need not have occurred soon after the site was abandoned, as we might hope. Rather, the sediment covering the site consists primarily of shifting sands, which, driven by wind, change constantly. Consequently, these sediments may have covered and uncovered the

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<sup>1</sup> I would like to express my gratitude to the excavator, Amir Gorzalczany, for allowing me to view his report before publication.

site intermittently and for varying durations each time, depending among other things on such factors as the presence of stabilising vegetation (cf. Ravikovitch 1969: 33). Long periods of exposure cannot therefore be ruled out. During such times, the site (or parts thereof) was subjected to the direct influence of the elements. Other than the removal of sediments and artefacts by wind and water, these include windblown sand that is known to have considerable abrasive effects, water sprays carrying salts and other minerals that promote chemical processes of deterioration (leaching, decomposition) and high humidity levels that may encourage bacterial and fungal growth (Schiffer 1987: 147-150).

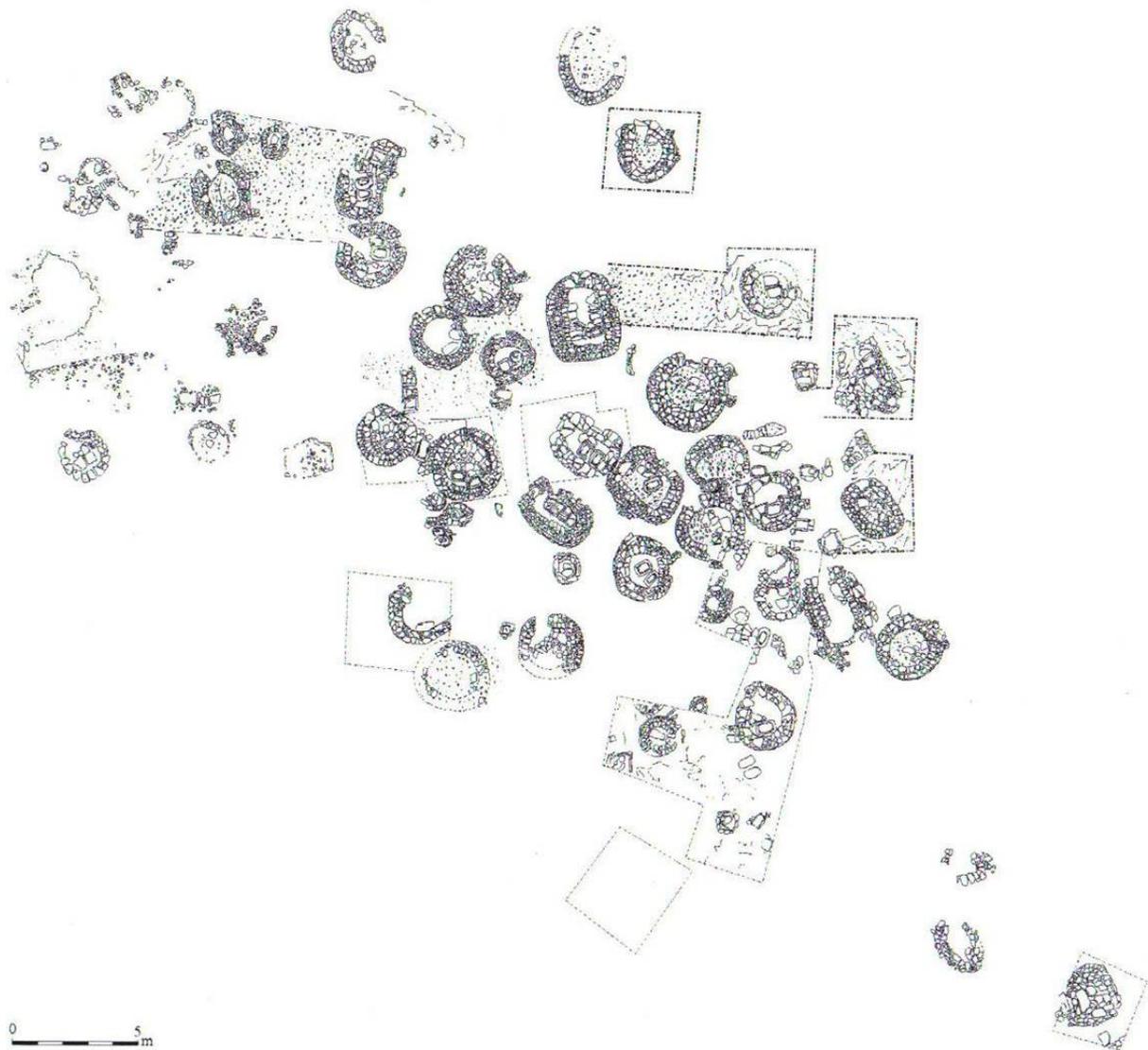


Fig. 10.1: General plan of Palmahim (North) cemetery (after Gorzalczy 2006)

Second, given the qualities of sand dunes, their stabilising influence on the archaeological deposits is likely to be of less effect than of most other sediments. Although accumulated in large amounts, the grains of sand still move about, producing an abrasive effect. Moreover, due to the paucity of clay content within these sediments, rain water percolates readily through them either down to the underlying rock or to a hydrophobic soil horizon. Thus, although buried under a sand dune, the archaeological site and many of its artefacts were still subjected to the direct effect of rainfall. Porous pottery vessels, consequently, may suffer from mechanical stress of swelling and shrinking due to the infiltration of water; to this one might add also processes of leaching and alteration. In this regard, it is also noteworthy that more clayey sediments, by token of their adhesive qualities, might hold a vessel together for a long time despite its disintegration, but this is less likely to occur in sand, where pieces are expected to break off and be removed more readily by internal movements.

The environmental circumstances, therefore, are as a rule unfavourable to preservation, and there is good reason to suspect that considerable portions of the assemblage are underrepresented. This is particularly so for the less resilient materials: organic matter, bone and pottery. Although conditions may vary within the site, allowing poorly preserved materials to be encountered sporadically, the overall circumstances render their analysis highly contentious. For these reasons, the following discussion will be limited to the architectural features and site plan and will only cautiously touch upon the mortuary vessels.

### **Architectural features and temporal development**

Three elementary types of mortuary features are readily defined:

1. Rectangular or sub-rectangular structures (n=7), measuring 2.5-3x2.5 m;
2. Circular or oval structures (n=44), demonstrating a wide range of sizes between 1 and 3 m in diameter, subdivided by the excavator into large (1.5m <, n=28) and small (1.5 m >, n=8); and
3. Rock-cut cists or cells (approximately 10 clusters).

Based upon stratigraphic and spatial patterns, a four-phased sequence was suggested by the excavator: the first consists of the rock-cut cells, sometimes on their own and sometimes grouped together in the form of a chain; the second phase was marked by the construction of the large

rectangular structures, some of which encompassed existing cells; next, large circular structures were built; and finally small circular structures were built around the existing larger ones.

This temporal reconstruction is based on three basic distinctions:

1. While the rectangular and some of the circular structures are founded on bedrock, most circular structures are founded on naturally accumulated fill;
2. Some of the rectangular and circular structures encompass rock cut cells; and
3. Circular structures occasionally cut or superimpose rock cut cells as well as other circular structures, but they never do this to rectangular structures.

Given the patchy nature of these stratigraphic observations, the above sequence might be a little too rough. It relies heavily on typological grounds, assigning distinct temporal phases to specific forms and consequently underestimating the plausibility of contemporaneity. For example, the inclusion of rock-cut features inside structures most probably represents also their integration and simultaneous use. Moreover, given that it is likely, for practical considerations, that the hewn installations were produced before the walls of the structure, this may be merely a matter of technical consideration. Second, if we assume with the excavator that the difference between structures founded on bedrock and those founded on fill is primarily due to the accumulation of windblown sand, we should also accept the probability that at least some of circular structures were roughly contemporaneous with the rectangular ones.

There seems therefore to be good reason to believe that different features coexisted at least during part of the sequence. If, for the sake of the exercise, we follow the lead of seriation dating and assume that each of the mortuary types in Palmahim (North) cemetery produced a unimodal frequency curve (cf. O'Brien and Lyman 1999), it may also be suggested that a rough correlation exists between the proportion of a particular type of feature and the form of its abundance curve:

the larger the ratio of a particular feature in the site,  
the broader its popularity curve. Thus, based upon  
these proportions (Table 10.1) and the sequence  
suggested by the excavator, a hypothetical  
reconstruction can suggested, Fig. 10.2.

	N	%
Cist/Cell clusters	~10	19%
Rectangular structures	7	13%
Large circular structures	28	53%
Small circular structures	8	15%

Table 10.1: Proportions of feature types.

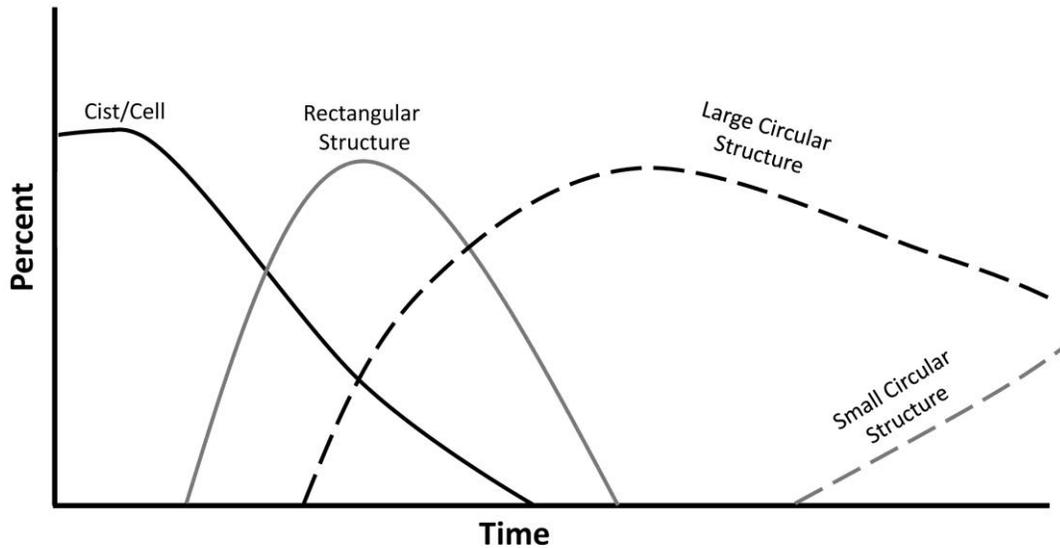


Fig. 10.2: A hypothetical seriation of Palmahim (North).

Without committing too much to the frequencies and fluctuations, the reconstructed sequence suggests a distinction between its earlier and later parts. The earlier is marked by the coexistence of multiple feature types, frequently taking each other's place, whereas the later is characterised by relative stability and slow transformation. A situation in which multiple alternatives coexist and the preferred choice among them changes repeatedly is suggestive of a state of flux. As a characteristic of the earlier part of the cemetery's sequence, it may be considered the formative phase, where the media of representation and distinction, the form of organisation, and the socio-ideological issues at stake are being negotiated and eventually decided. I would suggest, therefore, with due caution, that it is probable that the rock-cut cells and rectangular structures were part of the early negotiations and experimentations of the cemetery's formative phase, which eventually ended with a decision in favour of the circular form of structure.

As noted above, the incipience of the cemetery was characterised by the cutting of rectangular cells in the bedrock, measuring on average 0.4x0.5 m. Given their limited size, it is probable that they were intended to contain the remains of a single or a couple of individuals at most. These cells are sometimes found on their own in relative isolation and sometimes grouped together, forming a chain. Such groupings seem to suggest a concern with the representation of association by means of juxtaposition. The subsequent erection of mortuary structures, some of which enclosed rock cut cells, had the effect of clearly demarcating these associations that were hitherto only loosely represented in terms of spatial proximity; by building a circling wall, distinction

from without and association from within were rendered explicit. This process therefore seems to have been one of definition, constituting identities by delineating lines that distinguish among various subgroups.

This development also had the effect of introducing a hierarchy into the cemetery's structure. If initially the cemetery was constituted by singular features, each representing particular individuals, these were later mediated by larger structures, signifying specific subgroups, with which these individuals were affiliated. Thus the cemetery shifted from an organisation oriented towards the single interment to one preoccupied with social groups. This may have very well been a function of the organic development of the cemetery, entailing a gradual but continuous accumulation of burials, which rendered the simple method of juxtaposition cumbersome as a means of expressing affiliations. The building of designated structures would have been a convenient solution to this problem.

Yet the fact that such buildings were not constructed in the first place suggests that issues of affiliation and distinction among subgroups of the community were of little importance at this early stage. Consequently, the erection of such buildings does not merely signify a change in mode of presentation but also the rise of a concern that was previously absent or of marginal importance. That is, the cemetery of Palmahim (North) was initially a locus for the deposition of human remains and only later did it acquire also the function of representing internal social distinctions. To a considerable degree, such a pattern of development may mirror an evolutionary process of the crystallisation of a community, beginning from a simple, relatively poorly differentiated group evolving into a more complicated and internally differentiated community. This seems to match well with Gorzalczany's suggestion of an immigrated group, which was probably of small scale at first, gradually growing in size and complexity.

The temporal trajectory of Palmahim (North) may be observed also to entail a movement from a rectangular form to a circular one and from a below-ground context of interment to an above-ground context. The symbolic weight of these changes is not quite clear, but it does indicate that a change in attitude or concepts took place as well.

### **Sacred orientation and organisation**

Several aspects of the built structures demonstrate striking consistency. Most obvious are the northern orientation of the entrances and the attachment of standing stones (*mazzevot*) to the

external side of the eastern walls. Such formulaic architectural phenomena strongly emphasise the cosmological framework to which the cemetery was tied and that clearly encompassed a very wide frame of reference. Although it is tempting to tie these aspects together with the solar cycle or features in the landscape, with nothing more to go on, such a pursuit would amount to little more than guesswork. I will therefore not pursue this matter further.

It is perhaps with these formulaic aspects in mind that Gorzalczany suggests that the cemetery was also spatially planned, the structures arranged along straight lines in a roughly NW-SE orientation. One can indeed detect such an orientation in the plan (Fig. 10.1) but, if a clear pattern did exist, it is necessary to acknowledge that it was also skewed and cluttered, especially near the middle of the excavated area. Given the complicated sequence of the site, such planning, if present, is unlikely to have characterised all phases. Moreover, the abovementioned NW-SE orientation of the site is perpendicular to the overall topographical bearing of the ridge, upon which it is situated. The arrangement of the cemetery may, therefore, be due to accommodations to the local topography and the apparent straight lines a result of spontaneous processes, rather than of a strict plan. Thus whether the layout of the cemetery followed a predetermined plan is not clear. If it did, it ought to be more accurately defined, especially concerning the site's temporal sequence. Such a definition must await the final publication.

Yet, some implications for the site's internal dynamics can nevertheless still be drawn from its plan. The cluttering of structures and the occasional superposition of one above the other indicates that, concomitantly to the erection of new structures, processes of abandonment occurred as well. Given that each structure represents a bounded subgroup within the community, these internal dynamics of construction and abandonment can be recast in terms of constitution and dissipation of small-scale social units and identities. If the temporal sequence suggested by Gorzalczany and elaborated above is essentially correct, the constitution and representation of new identities was a rather commonplace phenomenon in Palmahim (North) cemetery; if, however, the disintegration of existing identities was equally common, it is difficult to determine. It seems nevertheless sufficient to suggest that the community represented by the cemetery was a fairly vibrant one, in which constitutive social units continuously emerged, defined and disappeared.

One might suspect in this respect that some mortuary structures were more durable than others and that some social identities were more stable and long-lasting whereas others were

more transient and of a short time-span. This stands to reason in view of the constant changes in represented units; however, whether there was system to these variations or whether they were entirely random and spontaneous is difficult to say. Nevertheless, should we venture an attempt, it is worth recalling that the rectangular structures, although among the earliest features of the site, were never superimposed or cut by any of the other structures. Circular structures, on the other hand, do cut and superimpose each other. This may, of course, be a matter of coincidence or statistical probability, but it may also be due to the cemetery's properties. It is of note that, although surrounded by numerous features, some space around the rectangular structures was retained, sufficient to preserve their accessibility, especially from the north where their entrances were situated (Fig. 10.1). We may hypothesise, accordingly, that the rectangular structures were preserved throughout the cemetery's use, and that, unlike some of the circular features, they remained prominent also during the later phases of the site.

Pushing this idea a little further, a binary opposition between circular and rectangular forms may have emerged, which can be summarised as follows:

Rectangular	:	Circular
Past	:	Present
Permanent	:	Transient

While the rectangular features were of a relatively early date and were preserved for a long time, the circular may have been regarded as derivative or of a later date, and whereas the rectangular would constitute a constant non-changing feature of the cemetery the circular would have been of a more fleeting nature. If correct, the rectangular structures represented a stable factor within a constantly changing milieu of shifting circular ones. In social or symbolic terms, the rectangular structures may have signified the origins of the community, perhaps embodying the founding figures or groups, from which the rest had sprung.

As such, while the community may have been considered as a constantly changing social phenomenon, its origins were absolute. In this manner discourses and transformations could unfold while still retaining a sense of a common collective identity. One should not confuse however the preservation of the rectangular structures with their continued use. Their ongoing maintenance need not imply that they retained their original function, for they may have transformed from mortuary structures into monuments or memorials, representing ideas legitimised through ancestral and genealogical reasoning.

## **Discussion**

The foregoing discussion touched only upon the most basic aspects of Palmahim (North) cemetery. To a considerable extent, this is due to matters of preservation and biases of the record; but it is also due to acknowledging the necessity of waiting for the publication of the material before engaging with the finer aspects of the material remains. Yet, despite these self-imposed restrictions, some interesting suggestions could be made. Most noteworthy were (1) the temporal development, representing a formative and later a stable phase, and (2) the dynamics of the site entailing simultaneous processes of building new features alongside the abandonment of others.

As a rule, composed of multiple, well defined, and roughly equivalent architectural units, the community represented by Palmahim (North) cemetery seems to have consisted of single, equivalent and autonomous social components grouped together. Based upon the currently available data, it is difficult to hypothesise on the quality of internal social discourse that the cemetery may have hosted. Other than the distinction between rectangular and circular forms, which seem to pertain to matters of time rather than to different contemporary groups or individuals, the variation among the structures is fairly small and hardly seems to have been involved in any distinctive discourse. Some differentiation could perhaps be suggested on spatial grounds where some structures are clustered together more tightly than others; it could perhaps also be suggested that proximity to the rectangular structures offered some prestige.

Last, considering the dynamic patterns of abandonment and construction suggested above, some characteristics of the basic social unit of the cemetery come to the fore. The abandonment and possibly their intentional dismantling of structures might suggest that they were not considered as representing eternal phenomena, but something finite that can be replaced. While it is not clear to what extent the processes in question represent systematic successions, it is possible that the newly built structures were considered as successors of the old, representing a relationship between generations. If this is true, it could be postulated that each structure represents a household unit, and the processes of succession represent the change of generation and the bifurcation of households.

## Ch. 11: Shiqmim Cemetery

Shiqmim cemetery consists of a vast complex, stretching over approximately 1.2 km of Eocene chalk hilltops, along the northern bank of the Beersheba River. Its association with the site of Shiqmim, one of the largest Chalcolithic villages known to date (9.5 ha), is sound, although there are at least three additional sites in the immediate vicinity, which may also have been related to it (Fig. 11.1).

Beginning in 1979 and continuing throughout the 1980s, different sectors of the cemetery complex were excavated, labelled cemeteries 1-7. The most striking and common feature is the grave circle. It usually consists of a single course stone wall, often enclosing deposits of disarticulated human remains; the grave circles are located very close to the surface, and no remains of a superstructure were observed. Consequently, the excavators suggest that the uncovered circles represent the foundation upon which a mudbrick superstructure was built. Other features were recorded as well, although they are not as widely distributed; these include features such as cists and cairns.

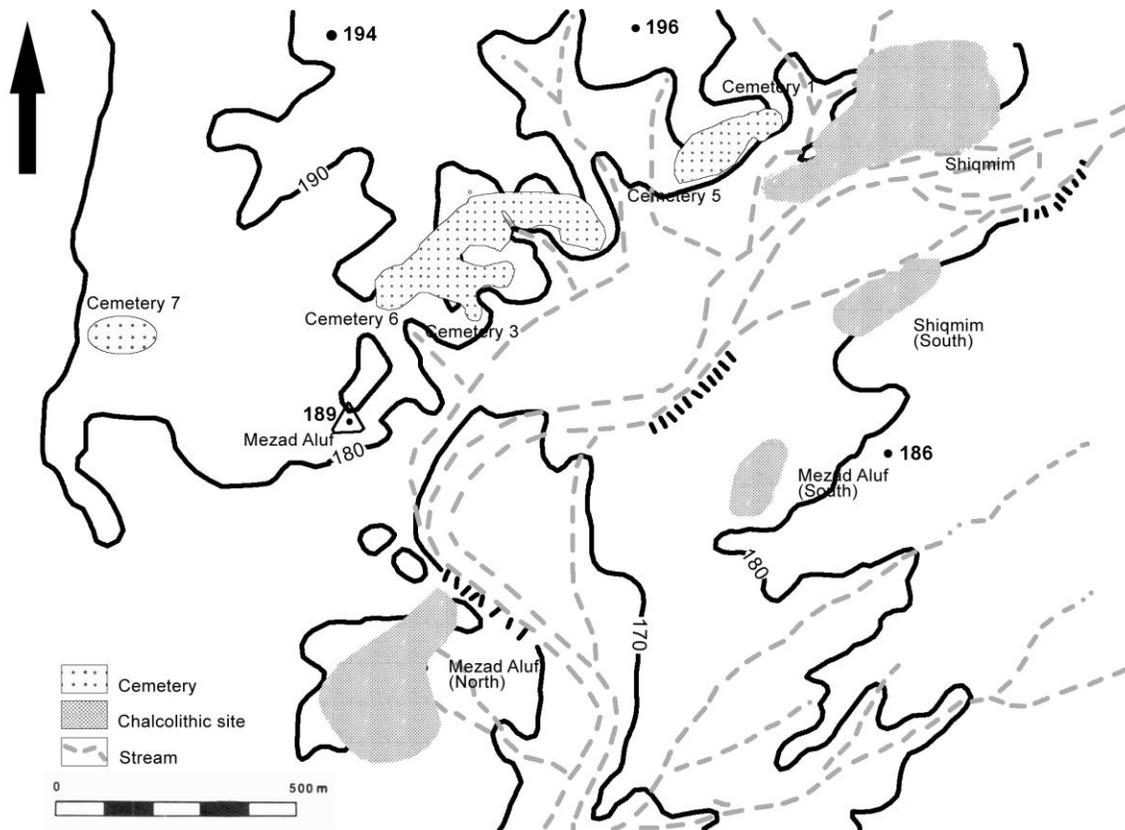


Fig. 11.1: Shiqmim cemetery and its relationship to Beersheba River and associated sites (after Levy and Alon 1982; Levv *et al.* 1993: 102).

To date, cemetery 3 alone has been fully published (Levy and Alon 1987b), while the others are only preliminarily reported with varying degrees of detail. The information at our disposal therefore is not balanced. For the sake of simplicity, the following discussion will work its way through several topics: position in the landscape, depositional and post-depositional processes, variations in structure and plan among cemeteries, and human remains.

### **The cemetery's position in the landscape**

Although many Chalcolithic cemeteries can be associated with nearby settlement sites (cf. Van den Brink and Gophna 2005: 165-169), Shiqmim is perhaps the only example known to which specific habitation sites can be attributed with a fair degree of certainty, due to their immediate spatial proximity (Fig. 11.1). The current case thus offers a unique opportunity to look into some aspects of the relationship between settlements and their cemeteries, between the living and the dead.

From a geomorphologic point of view, the village sites of the living and the cemeteries of the dead occupy distinct units within the landscape. The first are located upon quaternary deposits of silt and loess, close to the riverbed on both the north and south sides of the water course; the cemetery, on the other hand, is located at a slightly higher elevation upon Eocene chalk hilltops north of the river. The excavators note the poor economical value of these chalk hills due to their thin soil cover, which supports little vegetation (Levy and Alon 1982: 37). Such economic considerations may indeed have influenced the choice of the cemetery's location but, even so, it hardly offers an account of the structure of relations between the cemetery and the village(s).

Although occupying distinct units in the landscape, there is no sharp break between the villages and the cemetery. The soft chalk produces a landscape of rolling hills that rise only moderately above their surroundings, producing a relatively modest distinction between the place of the living and that of the dead. It is of note, however, that Shiqmim (South) and Meza Aluf (South) are on the opposite side of the Beersheba River and that between Shiqmim Village and the Eocene chalk hills runs a secondary stream. It is thus possible that the drainage system was to some extent regarded as marking the boundary between the two realms, with the living to the south and the dead to the north.

Another point of interest is that all villages maintained direct eye contact with the cemetery. The cemeteries were consequently rendered omnipresent in village life, always close, tangible

and watching. But not all parts of the cemetery were equally visible from all sites. Shiqmim village, located to the east of the cemetery, was under the direct gaze of cemeteries 1 and 5, but the view of all other cemeteries was obstructed either by the eastern parts of the complex or by hilltops in the way; cemetery 7, conversely, seems to have been visible only from Meza Aluf (North); the two sites on the southern bank of the river appear to have had direct eye contact with the entire complex other than cemetery 7. Given the variations in quality of visibility, it is probable that different parts of the cemetery complex were associated with different habitation sites. If the maintenance of direct eye contact was as important as the arrangement in the landscape seems to suggest, it is unlikely that the entire cemetery complex or even most of it was exclusively associated with Shiqmim village. Indeed, if visibility were a decisive criterion, it would be probable to suggest that the Shiqmim village proper was associated with cemeteries 1, 5 and perhaps the eastern offshoot from cemetery 3.

The relationship between cemeteries and habitation sites was thus tightly intertwined and at least three elemental characteristics can be noted: (1) the dead were omnipresent, constituting an integral aspect of daily life; (2) given their slightly elevated position, the cemeteries occupied a somewhat superior stance, suggesting that they were regarded with reverence; and (3) the absence of a marked break might suggest that the distinction between the two was not a sharp one but one of degree, which further suggests that the living and the dead were not necessarily regarded as oppositions or fully distinct states of being.

### **Preservation and Post-depositional processes**

The thin soil cover characterising the chalk hill upon which the cemetery is built has already been noted and the architectural features were found very close to the surface. The implication of this is that the features of the cemetery were hardly subjected to burial and remained mostly exposed to the elements. A superstructure made of materials other than stone could not have survived the persistent influence of erosion by wind and water; and indeed, given that only the foundations of the structures were found, the excavator's suggestion for a mudbrick superstructure (Levy and Alon 1985b: 80) is most probable.

Other aspects of the material record are likely however to have been subjected to more variable influences. The most important factor is probably the place of deposition. The chances of preservation for material deposited in the open (between structures) are extremely low for,

other than the impact of wind and water, it must withstand the influences of severe shifts in temperature, trampling, bleaching, etc. (cf. Schiffer 1987:143-198). Conversely, depositions within an enclosed structure stand a considerably greater chance of preservation because of the shelter it offers the artefacts and materials in question. Consequently, caution is necessary when considering the paucity of archaeological remains between structures. While it may indeed be due to the activities in these open areas having a minor material signature, it may in fact be due to processes of differential preservation, in which case the lack of material remains is deceptive.

Yet, as noted above, none of these structures remained standing and all eventually disintegrated to their foundations. The protection they offered their contents was therefore temporary at best. But also the debris under which the material is sealed offers considerable stabilisation. We may assume, therefore, that the greater the mass of the superstructure the better the preservation. Consequently, we may expect the material record to be biased towards the larger mortuary structures, the walls of which consisted of a greater mass of mudbrick.

### **Cemetery structure and plan**

Of seven cemeteries or sectors excavated, only two were published in detail (cemeteries 1 and 3); the rest were selectively discussed in a series of preliminary reports. Generally speaking, three types of features were encountered:

1. The grave circle. It consists of a circular stone wall, roughly ranging in diameter between 1 and 3 m. It apparently served as a foundation for a mudbrick superstructure. These structures were often associated with disarticulated human remains and a range of artefacts.
2. The cist. Usually oval in form and stone lined, this rock cut feature often contained a v-shaped bowl, but no human remains.
3. The rock cairn. It measures on average 1x0.5 m; it was associated with pottery and occasionally human bones.

Table 11.1 below offers a rough summary for the distribution of the various features excavated. The variation is striking: while circular structures are very common, encountered throughout the cemetery complex, all other features are of a much more limited distribution. Cists were reported for only two of the seven cemeteries, and cairns were encountered in cemetery 4 alone. The tendency, however, of these features to occur in specific locations in

	<b>Circle</b>	<b>Cist</b>	<b>Cairn</b>	<b>Reference</b>
<b>Cemetery 1</b>	22	-	-	Levy and Alon 1979; 1982
<b>Cemetery 2</b>	+	?	-	Levy et al. 1991: 34
<b>Cemetery 3</b>	14	11	-	Levy and Alon 1987b
<b>Cemetery 4</b>	?	?	13	Levy et al. 1991: 34
<b>Cemetery 5</b>	+	?	-	Levy and Alon 1989; Levy et al. 1993: 99-100
<b>Cemetery 6</b>	7	2	-	Levy and Alon 1989; Levy et al. 1993: 100-101
<b>Cemetery 7</b>	1	-	-	Levy and Alon 1989; Levy et al. 1993: 102

Table 11.1: Distribution of mortuary features in the cemetery complex of Shiqmim.

significant numbers strongly suggests the existence of spatial clustering and perhaps even distinct sectors. This impression is somewhat strengthened by the observation that cemeteries 3 and 6, which are characterised by the presence of cists are also adjacent spatially. Perhaps this might also be related to the abovementioned issues of visibility and the possible association with specific habitation sites.

Variations in structure of different sectors of the cemetery complex suggest differences in practice and symbolism as well. While little has been published for the cairns, differences in content strongly suggest variation in function for the stone circles and the cists. These were sufficiently striking for the excavators to suggest that, while the circles were the focus for the secondary and final burial, the cists served for primary burials as a locus for defleshing. Anyhow, it follows that the quality of the relationship among sectors as well as among the various units constituting each of the cemeteries was not a monolithic phenomenon but a variable, multifaceted one. Variations in plan and structure within the Shiqmim cemetery complex is likely to have been of considerable significance. To date, however, full plans were published only for cemeteries 1 and 3, precluding the possibility of a full analysis of variation in cemetery structure and composition. The following discussion will therefore focus on these two cemeteries.

### Cemetery 1

Only grave circles were uncovered in cemetery 1, 22 in total, varying from 0.85 m to 3.2 m external diameter (Fig. 11.2). Variation was fairly limited, pertaining predominantly to size and building materials; otherwise they all seem to have shared the same form and function. This overall uniformity tends to deny categorical distinction, favouring instead the articulation of relationships in relative terms. Levy and Alon (1982) suggested a four-level division according

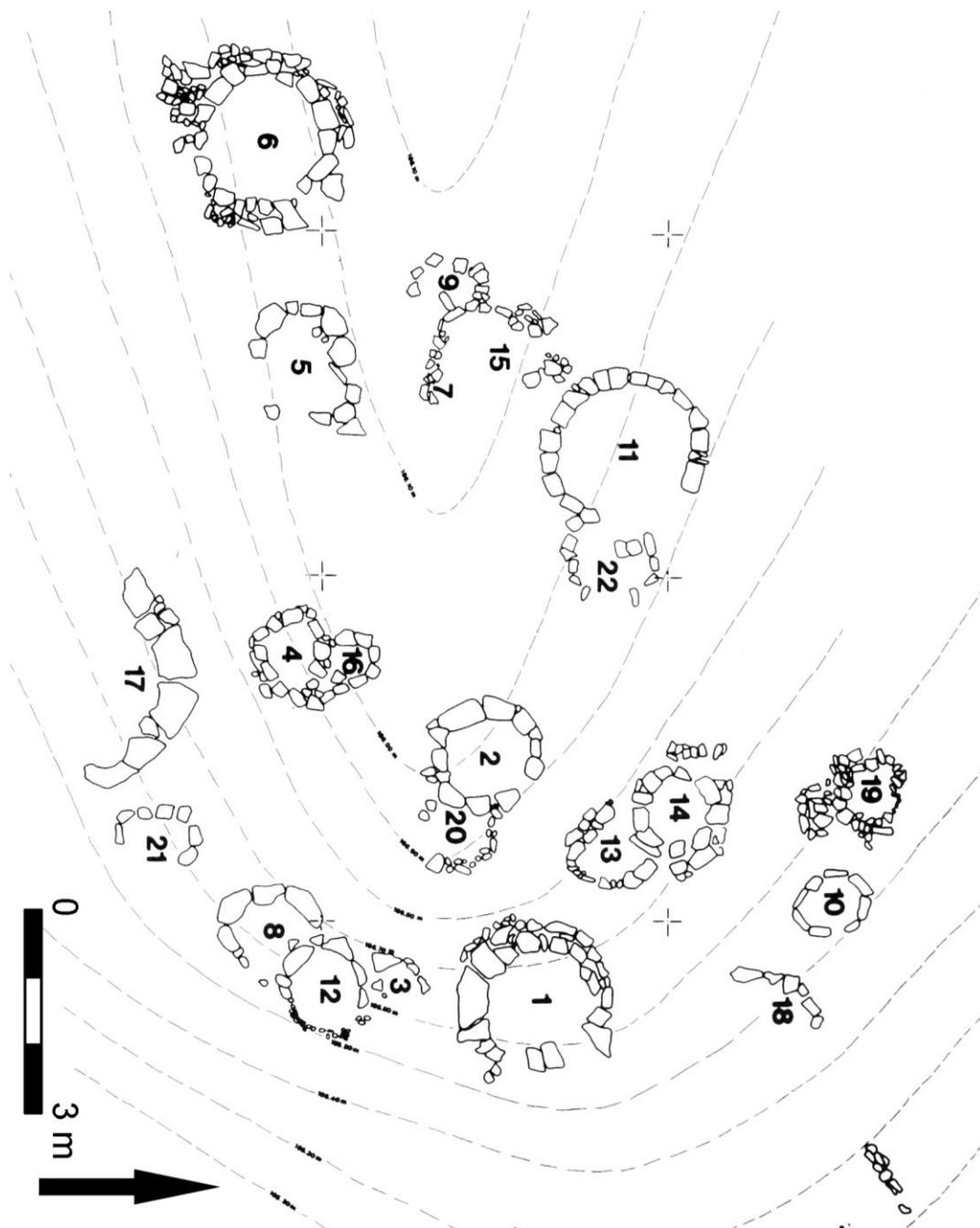


Fig. 11.2: Plan of Shiqmim cemetery 1 (after Levy and Alon 1982).

to size and materials of construction, referring to the supposed energy expenditure involved. At times however, this division seems to be excessively refined, raising minor differences to a status of categorical distinction. This seems to be the case especially for levels 1 and 2. Elsewhere they suggested a three-fold division according to size (Levy and Alon 1979), distinguishing large (2.5

m on average), medium (1.5 m on average) and small (approximately 1 m in diameter) structures.

However, if one considers the quantitative distribution of the structures according to size in continuous fashion, a twofold (rather than a three or fourfold) distinction seems the most appropriate. As seen in Fig. 11.3,

the majority of the structures (n=18) cluster together around a prominent peak, with the curve sharply rising towards it and sharply falling after. The tight grouping of most structures around a single peak is a pattern that would be expected for something conventional, or agreed upon. These structures should, therefore, be considered as members of a single group.

This leaves four structures that tail into the larger ends of the continuum. They are separated from the rest by a gap, where the curve drops down to zero (126-150 and 201-225 respectively). This suggests them being distinct from the previous group. It is of note however, that among these four, there is one – the largest of all – that is again separated from the others by a gap. This is circle 17, located at the southern edge of the cemetery. It is represented however only by a relatively small segment of its northern wall, rendering its measurements slightly doubtful. It is perhaps for this reason that Levy and Alon (1982) left it out of their discussion. For our purposes, on the other hand, it is probably sufficient to group it together with the other three.

This distinction into two groups is in agreement with the distinctions made by the excavators; it merely joins their ranks 3 and 4 into one group and their ranks 1 and 2 into another. I suspect that in their pursuit of precision and refinement, Levy and Alon produced more distinctions than the data warrant. This was among other things driven by their goal to determine the degree of social ranking in Shiqmim, in the course of which they interpreted variations in size and construction materials as reflections of status. While this interpretation might have some truth to it, some doubts must be noted. First, in the absence of stratigraphic data, temporal patterns of

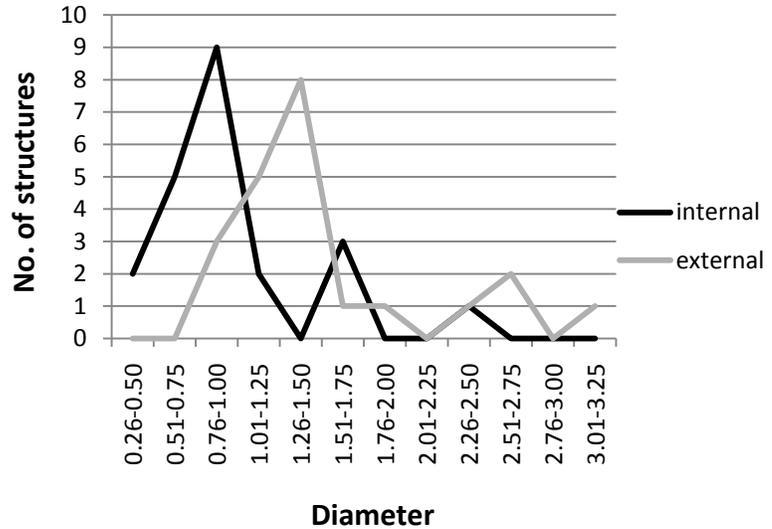


Fig. 11.3: Absolute quantitative distribution of mortuary structures of Shiqmim cemetery 1 according to internal and external diameter.

development will go unnoticed, risking a confusion of social/structural differentiation with evolutionary processes. Second, as noted above, the consistency of form suggests against categorical distinctions as strict as those implied in hierarchical ordering; the variations expressed are of a more subtle kind. Producing therefore an analysis of social structure in terms of ranking and subordinating individuals is excessively rigid.

As components of a symbolic system, the equivalence in form of the cemetery's constitutive units (i.e. the circles) suggests also equivalence in meaning, saying that all structures represent phenomena of the same, or at least similar, kind. Consequently, the cemetery comes to be conceptualised and articulated as a cohort of multiple semi-autonomous and analogous units. Variation in size, which is likely to entail also variation in conspicuousness, can serve at most to distinguish some of these units from others in relative terms as possessing more or less socially valued properties, but not as qualitatively distinct categories.

Yet there is more to the relationship of the two other than their difference in size. It is of note that all four large circles are positioned on the outer edges of the cluster, while the smaller ones are distributed both along its perimeter and within it (Fig. 11.2).<sup>1</sup> This seems to suggest an association between the large circles and cemetery's outline. In fact, with the exception of the northern side, the large circles may be taken to represent the eastern, southern and western borders of the cemetery. It is almost as if these structures had aside of their mortuary function also the function of boundary markers or, conversely, guidelines along which the cemetery and the community it represents was structured. It is possible, therefore, that the large structures were constitutive of the cemetery in a way that the smaller ones were not.

Another aspect worthy of mentioning is the markedly stronger tendency of the small circles to form adjoining units. Technically speaking, adjoining units consist of one structure being built against another. Consequently, and unless a mere technicality was involved, an asymmetry is built into the relationships of these units, expressed in terms of primacy and dependence. One of the structures within a cluster initially stood on its own (henceforth 'primary structure/unit') and only later was it accompanied by another (henceforth 'secondary structure/unit'). Thus, somewhat contrary to the singular autonomous structures, the later adjoining structure appears to foster a definition that relies on its relationship to an already existing unit. Such new units are no

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<sup>1</sup> Given that the published plan represents the entire cemetery, as asserted by the excavators (Levy and Alon 1982: 42), it is safe to assume that the biases and distortions introduced into the cemetery's plan are minimal.

longer self-contained and carry themselves, but rely and draw on others for their meaning and identity. The manner therefore in which one structure leans on another may reflect the social and symbolic relationships between them.

In all, there are 14 primary structures, consisting of four large and 10 small circles, six of which (43%) are adjoined by secondary ones; these include one large and five small circles. Although the inclination of the smaller structures to be adjoined by others is more pronounced, the variation between the two groups seems to be of little significance in this regard. On the other hand, secondary structures are always of the small kind, and it is in this respect that the difference between the two groups is significant. While large structures are always primary, small ones may go either way; almost half of the latter (44%) draw on another to establish their identity. Thus, if the rule was of a cemetery constituted by a cohort of autonomous and self-contained units, it was challenged by the small structures prioritising their relationships, expressing closer affiliation to some units than to others.

A testimony for the existence of a social discourse can thus be seen to emerge from the data, concerning the manner in which the significance and meaning of a social unit, represented by the mortuary structure, is constituted. There seems moreover to be, despite the lack of clear stratigraphic data, a temporal aspect to this discourse. Because secondary structures are later additions to primary ones, they testify to internal dynamics characterising the cemetery's function and development. It also suggests that, as a whole, the construction of secondary adjoining units was a relatively later phenomenon in the cemetery's sequence and that, during the later part of the cemetery's use, the construction of secondary units was more common than primary ones. If correct, a gradual shift is implicated from the singular autonomous unit to one defined by its association with others, perhaps reflecting a change in the constitution of social identities within the community in question in the form of greater reliance on neighbouring, preceding, allied, blood-related or other relationship.

Summarising the above, two lines of distinction were observed for Shiqmim cemetery 1: size of the structures (large and small) and their interrelationships (primary and secondary). The large structures are clearly more prominent than the others, dominating the cemetery. Their position seems to be closely related to the cemetery's outline, suggesting that they had some role in defining its outer borders. Other than three exceptions to the north, all remaining smaller mortuary structures are located within the defined outline. Perhaps one might hypothesise that

the position of a small structure was also a form of articulation of its relationship to the four cardinal points marked by the large burial circles.

The erection of secondary structures, explicitly adjoining and leaning onto existing ones, seems to represent the articulation of explicit relationships among mortuary units and even more so to emphasise a reliance on pre-existing units. If the above interpretation of the large structures is accepted, one might see in the appearance of secondary structures a shift of emphasis from characterisation according to general relationship to outline drawn by prominent units, to more specific ones.

### Cemetery 3

Twenty-five mortuary structures were uncovered in cemetery 3. These consist of 11 cists and 14 circles, aligned in a roughly WNW-ESE orientation in accordance with the topography of the ridge, upon which they are situated. In addition, several hearths and stone features were recorded. The juxtaposition of cists and circles suggests a sharp contrast between above- and below-surface structures, which is further reinforced by their spatial distribution, with the circles occupying the northern portion of the cemetery and the cists the southern (Fig. 11.4).

Generally speaking, cists consist of an oval, stone-lined pit. Their depth varies between 0.38 and 1 m, length 1.31-2.37 m and width 0.54-1.05 m. Two exceptions are of note: (1) cist 42 is rectangular rather than oval; and (2) cist 43 is an elongated trench only partially lined by stones, which the excavators did not label as a cist. These features were all found devoid of skeletal remains and were principally filled with wind-deposited, loessial soil, which indicates that they were left open and exposed in antiquity. The function of these structures is difficult to determine but based on their formal properties and their clear association to the cemetery, the excavators suggest that they may have served as loci for defleshing of bodies.

The dimensions of the cists and a graphic summary of their variation are presented in Table 11.2 and Fig. 11.5, below. It seems that, insofar as their formal dimensions are concerned, the cists tended to cluster around a well-defined range of measurements, suggesting that their scale and proportions were conventional. Their distribution seems to be of similar quality, fairly evenly spaced and with little internal variation (Fig. 11.4).



Fig. 11.4: General plan of Shiqmim cemetery 3 (after Levy and Alon 1987b: Fig. 13.0). Broken line marks divide between cists to the south and burial-circles to the north.

No.	Depth	Length	Width
34	0.82	1.7	0.9
35	0.38	1.38	0.8
37	0.65	1.62	1.05
39	0.48	1.36	0.88
40	0.61	1.65	0.85
42	0.94	1.33	0.9
43	0.56	2.37	0.54
45	0.65	1.34	0.65
46	0.7	1.53	0.92
47	0.56	1.7	0.72
48	0.56	1.31	0.69

Table 11.2: Cist internal dimensions (after Levy and Alon 1985a)

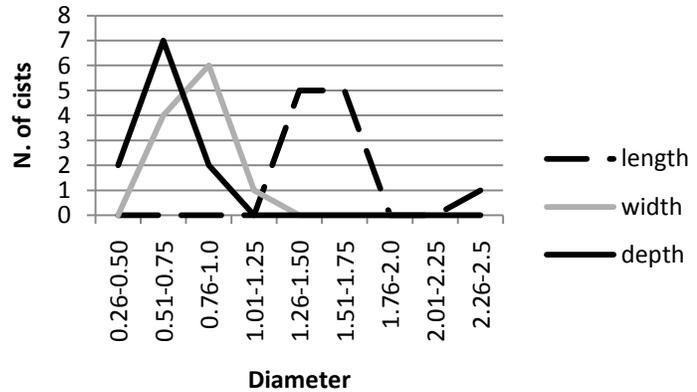


Fig 11.5: Quantitative distribution of cist dimensions.

The patterns produced by the grave circles differ from the cists on both accounts of spatial distribution and size variation. The measurements of the various features and a graphic representation of their distribution are presented in Table 11.3 and Fig. 11.6. It is readily observed that, unlike the unimodality of the cists (Fig. 11.5), the grave circles produce a trimodal curve, suggesting a tripartite subdivision. But, given the small number of specimens involved (n=14), the validity of this division is questionable. It is, accordingly, preferable to proceed with caution and be satisfied with a minimalist distinction of two size-groups as in the case of cemetery 1.

As can be observed in Fig. 11.4, the spatial distribution of the grave circles is rather uneven, coming together in some locations and moving apart in others. Three clusters are readily defined: (1) cluster 1 at the western end of the excavated area, consisting of one large structure (circle

No.	Internal	External
23	2.1	2.55
24	2.3	3.1
25	0.57	0.985
26	0.57	0.985
27	1.07	1.72
28	1.16	1.65
29	0.72	1.15
30	0.4	0.775
31	0.9	1.24
32	0.63	1.18
33	1.28	1.83
36	1.12	1.82
38	2.47	2.9
41	0.51	0.97

Table 11.3: Grave circle Internal and external diameters (after Levy and Alon 1985a).

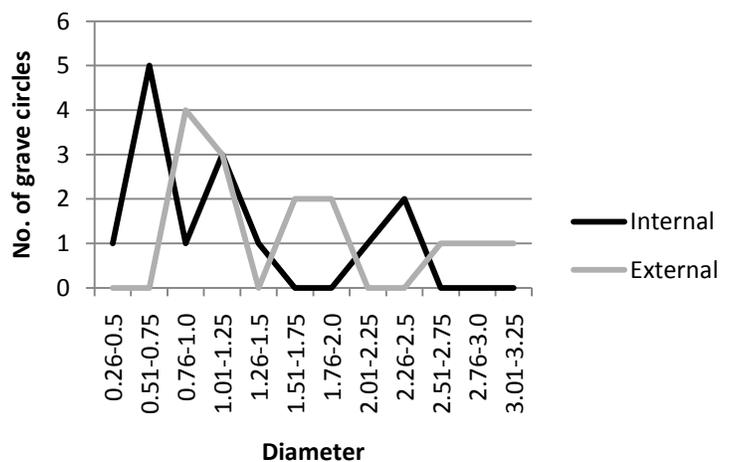


Fig. 11.6: Quantitative distribution of grave circle diameters.

24), one medium sized structure (33) and three small structures (25, 31 and 32); (2) cluster 2, located slightly further to the east spatially more loosely grouped, consisting of one large structure (circle 23), one medium sized structure (circle 27) and one small structure (circle 26); and (3) cluster 3 near the middle of the excavated area, composed of one medium sized structure (circle 28) and three small structures (circles 29, 30 and 41). Two more circles were found in relative isolation and cannot be associated with any of the above clusters; these are circle 36 a few meters south of cluster 3 and circle 38 at the eastern end of the excavated area.

The quality of the relationships among the various structures is not, however, only a matter of distance or proximity that can be reduced to metric values. There are additional structural properties that have some bearing on them. Some of the structures are physically related, usually as in cemetery 1 by one structure being built against another. Thus circles 31 and 33 are built against structure 24, and circles 29 and 30 seem to be built against circle 41. It is of note that circle 25 seems to be integrated into one of the two platforms branching out of circle 24. That the two rows of stone that compose the wall of the circle seem to ‘dissolve’ where the ‘platforms’ are situated (on the eastern and western sides of the structure) suggests that they were integral to the original structure (Levy and Alon 1987b: Fig. 13.1). Circle 25, therefore, may have also been part of the original feature. The excavators suggest that it was built after circle 25 was abandoned, in which case it ought to be regarded as a rearrangement of the platform and a cut through it.

Regardless of the specifics of each case and how it ought to be interpreted, the above points strongly suggest that the plan of cemetery 3 (at least insofar as the grave circles are concerned) is the result of an ongoing and dynamic process of development, where several structures came together to form clusters of associated units. Given the relative prominence of the large structures, it is reasonable to assume that they constituted the symbolic or representative centre of their cluster. This is somewhat reinforced by the observation that at least two of the smaller structures surrounding circle 24 are later additions, and that the two isolated structures are relatively large. Consequently variations among clusters pertaining to number of units and their relative sizes might represent differences in how well established they were and how elaborated their internal structure is.

It is becoming exceedingly clear that the distinctions between circles and cists go beyond the first observations made. They do not only embody oppositions between above- and below-

ground contexts or between northern and southern positions within the cemetery, but they also seem to represent markedly different systems. While the cists convey an overall sense of uniformity, expressed in their even distribution and consistent measurements, the circles constitute media of differentiation, articulated via their distribution and size. The quality of the relationship between the two is difficult to determine, but they clearly represented phenomena of entirely different orders.

### Summary

When comparing the patterns of cemeteries 1 and 3, they seem to present different modes of organisation and probably different concepts as well. The cists present the most obvious difference, occupying approximately half of the area of cemetery 3 and being entirely absent from cemetery 1. As demonstrated above, these features clearly constitute a mortuary component entirely distinct in function and meaning from the grave circles. Consequently and regardless of their specific functions, the incorporation of both circles and cists into cemetery 3 had the effect of introducing a broader range of the practices, concepts and situations than those fostered by cemetery 1, which consisted only of stone circles.

Given that, unlike the other features, circles are omnipresent throughout the Shiqmim cemetery complex (Table 11.1), it is reasonable to assume that they represent a constant and perhaps essential component in the cemetery's mortuary function. The occurrence of cists or cairns in some sectors seems, accordingly, to have had augmentative implications, supplying the site with additional functions and meanings. The variability within the Shiqmim mortuary complex implicated therefore the breadth of the mortuary site's functions, with some sectors fostering a narrow, perhaps minimalistic, concept while others chose a broader notion. This suggests that the concept of 'cemetery' was somewhat fluid and negotiable. Moreover, the physical proximity of such variably structured sectors suggests that the differences in question were explicit and that at least to some extent they constituted alternatives for each other, offering a setting for the negotiation of the mortuary site's role and significance.

So long as the functions of the cists and the cairns cannot be determined, the concepts involved in this negotiation must remain obscure and highly abstract. If, however, for the sake of the argument, we choose to accept the excavators' interpretation of the cists as facilities for primary burial and defleshing (see however an alternative interpretation below), the

abovementioned variations in cemeteries' structure can be shown to have far-reaching implications. Put as briefly as possible, the incorporation of cists into the cemetery that is otherwise associated with the final phase of extended burial rites implies the incorporation of primary burials as well. Symbolically speaking, extended funerary rites that consist of at least two episodes of burial are often characterised by great emphasis upon the transitory aspects of death, referring simultaneously to the body, the deceased and the bereaved. While the transitory episode may vary considerably in length, it is usually associated with the decomposition of the flesh and is ritually terminated by acts of exhumation and reburial (cf. Van Gennep 1960). Accordingly, a cemetery consisting of grave circles, in which disarticulated human remains were deposited, represents a focus on the order that was reinstated following a death. The cemetery representing the dead and structuring the relationship between them and the living thus represents an established and well defined state of affairs. The incorporation of primary burials into the cemetery entails consequently the potential disruption of order. First, the cemetery does no longer represent only the well defined dead but also the poorly understood and 'dangerous' ones; and, second, it ceases to be associated with the closure of the funerary process and becomes associated with it as a whole, which might suggest that the cemetery became more important as a site for the unfolding of the funerary rites than as a site for the deposition of the dead per se.

Whether these interpretations are accepted or not, it cannot be doubted that one of the crucial aspects of variability within the Shiqmim cemetery complex was manifested by the shifts in components constituting the different sectors, and that some negotiation of definition of these sites was apparently implicated. The comparison of cemeteries 1 and 3 reveals, however, the existence of finer variations as well. These pertain primarily to the quality of the interrelationship among the grave circles.

Generally speaking, one finds in cemetery 3 a somewhat greater emphasis on distinction and differentiation than in cemetery 1. This is most clearly manifested in the spatial differentiation that produces distinct clusters in cemetery 3 and which is less pronounced in cemetery 1. It may also be the case that more pronounced size-group distinctions were involved but this cannot be determined with certainty due to the small sample size. Accordingly, cemetery 3 can be said to express patterns of internal interrelationships that are more complicated and nuanced than those of cemetery 1. These differences, it is interesting to note, are differences of degree, not of kind.

That is, unlike the cists, neither spatial distance nor size constitutes a categorical distinction that implies that the units in question differed in nature; rather each was a variation of the others. Accordingly, the two cemeteries must have operated along similar lines, applying the same concepts and articulating ideas that although, not alike, were not foreign either. A continuous line, whether conceptual or evolutionary, can be drawn between the cemeteries

What then is the quality of the difference between the cemeteries? Perhaps the most obvious difference is that while cemetery 3 consists of several small clusters, cemetery 1 consists of one big one. Accordingly, what is represented by cemetery 1 as a cohesive unit is fragmented in cemetery 3 into smaller autonomous groups. Each such group consists of one relatively large structure, with which smaller ones are often associated. Given its prominence, the larger structure within a cluster or group is likely to have had considerable weight in defining its corporate identity. The widely spaced distribution of these large structures and the clustering of smaller ones around them suggest that each was constituted as independent and roughly dissociated from the others. In cemetery 1, conversely, there are four large structures, all associated with the same single group or cluster. That is, unlike in cemetery 3, the articulation and representation of the corporate identity by the larger structures was done in and by conjunction rather than singularly. Also, it is in conjunction that these structures outline the cemetery's borders. Given that these larger structures represent the focus of the group, one can say that, while the group represented in cemetery 1 is multi-focal, those in cemetery 3 are unifocal.

### **Human remains and artefacts**

Turning to the contents of the mortuary structures, we are faced with similar difficulties to those noted above for cemeteries' structure and planning. The existing publications offer only a partial glimpse into different parts of the Shiqmim cemetery complex and are fairly inconsistent concerning the aspects of the record for which they offer an account. Consequently, a great deal is obscured, rendering a comparison a challenging affair. The situation is further complicated given the wide range of biases that are likely to have been introduced by a host of natural and cultural agencies. Ultimately, only three cases were reported to date in any detail. These include cemeteries 1 and 3 and the human remains from structure 51 in cemetery 2.

## Cemetery 1

The population of cemetery 1 consist of a minimum of 49 individuals. Other than the absence of infants under five years of age, the sample appears to correspond reasonably well with the expected mortality curve of a preindustrial living population, as observed in the balanced representation of the sexes and

Circle No.	5-10 ?	10-20 ?	20-25 ?	25-35 ♀	25-35 ♂	25-35 ?	Total
1	1	1		3		5	10
2				2	2		4
4						1	1
6	3			4	2	1	10
7						1	1
8						1	1
11	2	1		2	5	3	13
12					1		1
13			1		1		2
14	1					1	2
15	1		1		1		3
20					1		1
<b>Total</b>	8	2	2	11	13	13	49

Table 11.4: MNI per grave circle in cemetery 1 according to age and sex.

the slightly higher number of children compared to juveniles and young adults (Table 11.4).

Yet, the distribution of the skeletal remains among the various mortuary structures is anything but balanced. While some structures contained 10 individuals or more, many were empty or contained only a few (up to four). This discrepancy corresponds well with the division of the structures into size groups, whereby the former correspond to the larger size group (circles 1, 6 and 11) and the latter to the smaller one. Furthermore, the aforementioned imbalance is not only limited to the number of individuals per structure but also to the population as a whole. Only a minor portion of the population is associated with the small structures, despite their relative abundance (n=16, 33%), whereas the overwhelming majority is limited to the three large structures (n=33, 67%).

This seems to suggest the attention of mortuary practice usually turned to the larger structures while the smaller ones were of relatively peripheral importance, a pattern that seems to match well with their structural variations in prominence. It is of note however, that the abovementioned distribution of skeletal remains among the mortuary structures may be somewhat exaggerated due to differential preservation, which may have been influenced by the differences in the mass of the superstructure (see above). The original pattern may have been therefore less pronounced than the archaeological record suggests.

Concerning the specific deposits of human remains and associated artefacts, only little information is available. Some details have been published for circle 6 (Levy and Alon 1982)

and to a slightly lesser extent for circles 2 and 20 (Levy and Alon 1979). Generally speaking, the available information suggests that effort was invested in keeping the remains of the different individuals from mixing. This is observed in the correspondence between the number of individuals recognised in a given structure and the number of clusters identified; or conversely that only one individual could be attributed to each cluster of bones. Thus in structure 6, ten individuals were recognised in ten clusters (Fig. 11.7); in structure 2, four individuals were recognised in four distinct clusters, three of which were arranged along the wall, while the fourth was relatively scattered in the centre (Levy and Alon 1979: Fig. 1); in structure 20, only one individual was represented, the bones of which were grouped together near the southern wall. Despite the apparent emphasis on distinguishing between the remains of different individuals, the use of containers, which would clearly facilitate this effort, was recorded in only one occasion, for the bones of an adult female that were deposited in a clay 'box', perhaps an ossuary, in circle 6.

Artefacts deposited in association with the human remains cover a wide range of items and materials, ranging through pottery, stone, flint, shell, bone and copper. The application of these, however, is rather inconsistent and variable, although the excavators note that materials other than pottery were deposited only in the large structures (Levy and Alon 1979: 116), a pattern that complements the above-noted distinctions in terms of size and population. The v-shaped bowl is the only artefact type that seems to be distributed consistently. In all, 50 vessels of this type were found, associated with all age and sex groups (Levy and Alon 1982: Table 4). Accordingly, a correspondence can be suggested with the number of interments (see also, Levy and Alon 1987b: 337), that they carried some kind of prescriptive weight in the interment of human remains. This is probably best observed in the illustration of circles 20 and 2 (Fig. 1.7), in which the number of v-shaped bowls corresponds to the number of interments (four and one, respectively).

It is interesting to note, moreover, that in both cases illustrated in Fig. 11.7b no direct association between artefacts and a particular cluster of bones can be suggested. While the human remains in circle 2 are deposited in the southern and western parts of the structure, the four corresponding bowls are located separately against the north-eastern wall; and while the bones of the individual interred in circle 20 were deposited at the southernmost portion of the

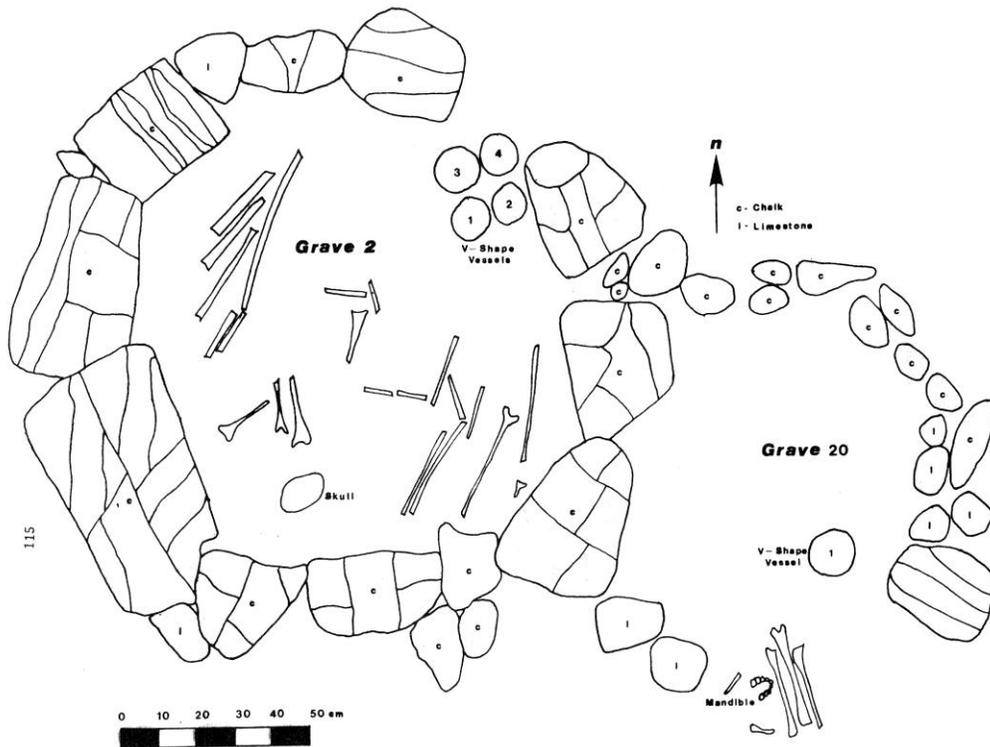
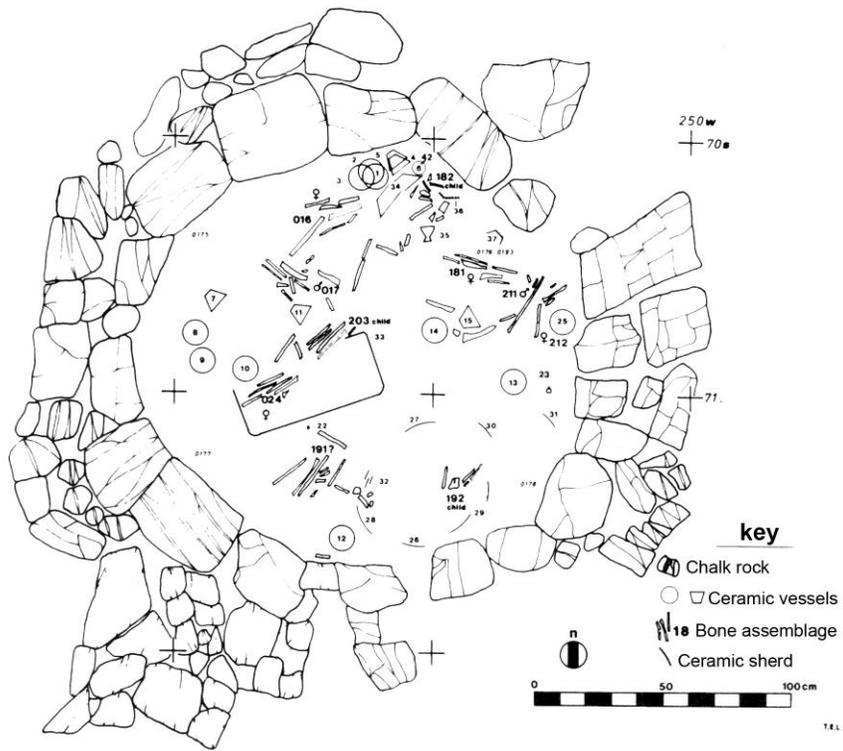


Fig. 11.7: plan of circle 6 (above) and circles 2 and 20 (below) (after Levy and Alon 1979; 1982)

structure, the v-shaped bowl was located separately, slightly to the north. This pattern implies that a deposited bowl does not necessarily constitute a personal attribute or gift of a particular individual, but is more closely affiliated with the collective or the social unit (represented by the structure) as a whole. Consequently, some doubt is thrown on notion that artefacts within the circle are attributable to particular individuals. The most pertinent case in this regard is the burial of a child in circle 6, with whom the largest number of offerings in the entire cemetery was found (including an assortment of pottery vessels, a necklace, and a shell pendant), leading the excavators to postulate the probability of ascribed status (Levy and Alon 1982: 53). While this hypothesis cannot be rejected based on the above, it does seem that considerable caution is necessary.

### Cemetery 3

Considerable looting activity took place in cemetery 3 shortly prior to excavations. The cultural deposits were consequently severely damaged, leaving only a small portion of the assemblage for consideration. Of the 14 circular structures comprising the site, only circles 24 and 25 seem to have escaped almost untouched while all others were badly damaged. The cists, on the other hand, do not seem to have been subjected to such activities, probably because they were not visible on the surface.

As noted above, no human remains were found inside the cists, but other deposits were recorded. These include primarily v-shaped bowls, beads, flint items and pendants. The v-shaped bowl and flint debitage are the most consistent, recorded in all of the cists, while other artefact types occur more sporadically (Levy and Alon 1987b: Table 13.2). Based upon a section cut through the sediment of cist 34, the excavators assert that it consists primarily of windblown loess. Although the excavators are not explicit on the issue, it seems that no break or variation could be observed in the depositional process. This would imply a continuous process of accumulation of sediment gradually filling the cavity. There is reason, however, to suspect that the depositional processes involved are not as simple as they may initially appear. Most notably, artefacts were recovered in a range of horizons within the fill and not only on the installation's floor. In at least three instances, v-shaped bowls were recovered from above floor contexts (cists 37, 39 and 45) and other elements were almost invariably obtained through sieving. The excavators offer two hypotheses: either the material was intentionally deposited in a partially

filled cist or that the sediment with the artefacts it contains was mixed by activities that postdate their primary deposition. Given that the bowls in question were found in upright position, the second hypothesis can be confidently rejected as improbable. Thus we must assume that at least some acts of deposition took place on previously wind-deposited sediment, which implies that the cultural and natural processes that produced the record of these features occurred simultaneously rather than sequentially, as we might intuitively assume.

Venturing on a speculation, it might be worth our while to consider the possibility that it is this very process of sediment accumulation that was the prime focus of these installations; that the cists were excavated and prepared 'simply' to allow them to be gradually filled up with windblown sediments. In the course of this process, a cist would be repeatedly visited and tokens deposited: a flint core, a flake, a pottery sherd, a bead or a bowl. Despite the esoteric impression this narrative might evoke, it fits very well with the archaeological record as portrayed by the existing publications. Indeed, the absence of any sign of human remains in the cists is perhaps not due to especially meticulous conduct of removal but to their never having been there in the first place. It is rather difficult to see how nothing would escape in the process of exhumation.

Although the above suggestion might appear to make little sense at first, I believe one can find the logic for such a practice in the interest to embody and represent the passage of time. In the context of grief and mortuary processes, especially of the extended kind, such an interest is an inherent feature of the preoccupation with transitions and transformations undergone by the deceased, the body and the community. Some of the acts, recorded ethnographically and often associated with grief and mourning, such as shaving one's head and self-mutilation, can be seen to embody the passage of time in the form of the subsequent growth of the hair or healing of the wounds (cf. Parker Pearson 1999: 142-145). These prolonged physical experiences may constitute a manifestation of one's participation in the mortuary process as a whole, beginning with the first separation or infliction through healing, growth and transition. The cist gradually filling up with windblown sand can also symbolise, in a very similar manner, the elapse of time and the gradual transformation undergone by all participants. It is perhaps not too far-fetched to suggest that the cutting of the cist constitutes an infliction of a wound into the soil and that accordingly the process of it filling up is also one of healing. The cist could consequently be said to represent a death, the rupture it produced, ongoing mourning and the gradual process of healing. The deposition of artefacts in this context can perhaps be considered as tokens

representing active participation or involvement in this otherwise natural process. A more 'practical' aspect of this practice could be that it assists in tracing the progression of the filling, as an artefact deposited on the surface of the sediment is covered over.

Turning to the grave circles, the following discussion will limit its concern to the contents of the two relatively undisturbed structures (24 and 25). In circle 24, the largest structure in cluster 1 at the western end of the excavated area, at least 23 individuals were recognised in 12 clusters, consisting of 11 males, five females, two adults of unknown sex, three juveniles and three children.<sup>2</sup> The basic data is summarised in Table 11.5. It is of note that two of the children are reported to be 1-2 years of age, which, if correct, would constitute an important exception to the rule according to which infants under the age of 3 are excluded from formal burial contexts (Nagar and Eshed 2001).

The femur and the humerus are the most common skeletal parts, representing 43% and 39% of the individuals respectively. These are followed in descending order by teeth, cranial bones, ulnae, clavicles, rib fragments, extremity bones, and radii (35%-22% of individuals). Although differential preservation may have biased these distributions, it seems that the upper and lower limbs were preferred. Mandibles are strikingly underrepresented, however, constituting only 9% of the population. Given that it is one of the most resilient skeletal parts, preservation is unlikely to be responsible; rather these are more likely to have been excluded intentionally or due to circumstances that preceded the secondary burial rites.

Unlike in cemetery 1, here there is clear grouping together of skeletal remains belonging to different individuals. In all, five of the 12 clusters (42%) consisted of a single individual; four (33%) contained the remains of two individuals; two clusters (17%) contained the remains of three individuals; and one (8%) contained the remains of four. The mixing of the remains of the deceased can at least partially be attributed to the almost double number of interments in grave circle 24 and shortage in space their crowding must have evoked. Assuming that, as observed for cemetery 1, there was a general preference for separately grouping the remains of different individuals, the clustering together of skeletal parts of several individuals suggests the moving about and rearrangement of interments inside the structure. Perhaps, with time, the singularity of the deceased and her or his memory eroded, merging into a general collective. Unfortunately, a

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<sup>2</sup> Please note that there is some discrepancy in the report offered by Levy and Alon (1987b) between the forward text and the detailed list. For the current purposes the resolution of discrepancies was done in favour of the detailed list.

No.	cluster	sex	age	skull			upper limbs			lower limbs			pelvis	vertebrae	ribs	extremity	scapula	clavicle	
				cranial	mandible	teeth	humerus	ulna	radius	femur	tibia	fibula							
1	1	male	adult				1		2	2	2	1		+	+	+		1	
2	2	male	adult	+															
3	4	female	17-18			1	1			1									
4	4	unknown	juvenile	+															
5	5	female	adult				2												
6	5	male	adult			1		1	1	1					+	+		1	
7	5	unknown	1-2																
8	6	male	young adult	+		1				1									unidentified long bone fragments
9	6	unknown	child	+															
10	7	male	adult																numerous long bone fragments
11	8	male	adult		1	5	2	2		2	1								1(right)
12	8	unknown	adult			1													1(right)
13	8	female	adult		1		2		1			1	+	+	+				1(right)
14	8	unknown	1-2	+						1									long bone fragments
15	9	unknown	adult																numerous long bone fragments
16	10	female	adult				2	1			1								numerous long bone fragments
17	10	male	adult			1		1				1	+	+	+		1		long bone fragments
18	11	male	adult							1									numerous long bone fragments
19	11	male	young adult			+	1	1		1		1			+	+			1
20	12	female					2		1										
21	12	male								1									
22	12		juvenile					1	1			1			+			1	
23	13	male		+		5	1			1						+			
Total					2		14	7	6	12	4	3	2					2	6
No. of individuals represented				6	2	8	9	6	5	10	3	3	2	3	6	6		2	6
% of individuals represented				26%	9%	35%	39%	26%	22%	43%	13%	13%	9%	13%	26%	26%	9%	26%	
% of clusters represented				50%	17%	67%	75%	50%	42%	83%	25%	25%	17%	25%	50%	50%	17%	33%	

Table 11.5: Population of circle 24, Cemetery 3, Shiqmim; anthropological data and bone representation (after Levy and Alon 1987b: 339-340).

detailed plan of circle 24 and its content is yet to be published, precluding further discussion on the matter.

The finds within the grave consisted of two large shell bracelets, two mother of pearl pendants, a perforated shell plaque and 14 v-shaped bowls (three were found *in situ*). The excavators suspect that the absence of additional vessels is due to their being removed by robbers (Levy and Alon 1987b: 341-342).

Circle 25 was found empty of finds except for a well preserved cluster of bones representing a minimum of two individuals: a female adult and a juvenile, approximately 6 years old. The representation of skeletal remains of the female reveals a similar pattern to that noted for circle 24, emphasising the deposition of the skull, humerus and femur (Levy and Alon 1987b: 342).

### Circle 51, Cemetery 2

Little has been published to date from cemetery 2 other than an account of the skeletal remains from circle 51. It consisted of fragmentary remains of 27 individuals (Levy *et al.* 1991: 42-44). These consist of 10 males, nine females, one adult of unknown sex, three juveniles and four children. No metrical or contextual data of the structure itself is available at this point, nor are plans. Still, a preliminary report on a portion of the human bones and their contexts highlights the uniqueness of this case, where two phases of use have been observed as well as a great variety of manners of interment.

At least four distinct clusters and a minimum of five individuals can be definitely assigned to the earlier phase:

1. In the southwestern portion of the circle bones were stacked up-right in a pit. The represented skeletal parts were the cranium and upper and lower limbs, belonging to an adult male.
2. Bones piled in small stone-paved pit in the eastern part of the circle. These bones were identified as belonging to a 48-year-old male, the entire skeleton of which was represented.
3. The bones of a child, representing the entire skeleton with the possible exception of the skull, were placed in a ceramic basin in the northern part of the circle.
4. A cluster of bones in the southeastern portion of the square was arranged in rectangular form. The eastern side was formed by a large concave stone, while the northern and

western sides were formed by bone clusters, representing two individuals, one oriented N-S and the other E-W. These are a 46-year-old male, represented by the mandible and upper and lower girdles, and a 20-year-old male represented by upper and lower limbs and some teeth. The bones were placed upon fragments of an ossuary; Two v-shaped bowls were found as well, one on each edge of the stone (northern and southern), associated with mandibles and teeth.

The later phase demonstrates several additional phenomena:

1. In the southwestern part of the circle, the remains of several individuals were found, with the skull crowning the postcranial bones. These consisted mostly of the upper girdle bones and humeri. The skull was lying on the humerus that was set perpendicularly to the skull and surrounded by stones. It is not clear how many individuals were found to have been deposited in this manner.
2. In the northern portion of the circle two primary burials were found: a 36-year-old male in contracted position and a 60-year-old female in a semi-contracted position. Their skulls (including the mandible) were severed from the rest of the skeleton and surrounded with stones.

The preliminary nature of the report poses significant difficulties for any attempt to tease trends and meanings out of the published data; and for most, it must await final publication. But, perhaps a few cautious observations may nevertheless be put forward. First, there seems to be a certain shift in the manner in which the bone clusters were spatially circumscribed. In the earlier phase pits, pottery vessels and alignment of bones were employed to demarcate the remains of different individuals, while in the later phase they were circled with stones.

Second, the two articulated skeletons in the later phase represent mortuary behaviour significantly different from the typical manner of conduct in Shiqmim cemetery. It is the only case in which primary burial is clearly seen to have taken place within the mortuary structure. One might hypothesise that this was in fact more common than it appears and that these two individuals are simply the only ones that were not completely disarticulated in the process. This is unlikely, however, and at least two points can be made to illustrate this. First, like all other cases, the two individuals in question did receive secondary mortuary treatment, but instead of being completely disarticulated only the skulls were treated. Second, had primary burial within the structure been the norm, followed by the collection of the bones into neatly arranged clusters,

we would expect to find representation of all skeletal parts. However, other than the abovementioned articulated skeletons, only two such cases have been recorded (see, Levy *et al.* 1991: Table 9, H5 and H13), constituting more of an exception than a rule; the greater majority consists of a selection of bones that must have been deemed representative (primarily the humerus, femur and skull). Given the selectiveness in most bone deposits, it is more probable that they represent acts of interment rather than removal.

Hence the two articulated skeletons appear to deviate considerably from standard conduct. Most importantly, they introduce primary burials into a structure dedicated to secondary ones. As noted above, in the discussion of variations in cemetery structure, this is no simple matter, for, from the perspective of extended mortuary rites, the primary burial marks the beginning of a more-or-less long period of transition and liminality, entailing ruptures, grieving, taboos, dangers and instability, whereas the secondary burial marks its closure and the reinstatement of order. That a cemetery is dedicated to the secondary burial means therefore that it is also concerned with the representation of the reality produced by the end of the process for all concerned: the physical remains, the deceased and the living, and, probably equally important, it constitutes an institution regulating the relationship between the living and the dead.

The introduction of primary burials into such a context must have had some kind of disruptive effect. One should be careful, however, in attributing too much significance to it. In the absence of contextual data, and given the exceptional character of these inhumations and their relatively late date, their impact on the cemetery as a whole is very unclear. At this juncture, it is probably most appropriate to leave it under the heading of an exception.

## **Conclusion**

The foregoing discussion considered the Shiqmim cemetery complex from several complementary angles: (1) positions in the landscape and the relationship with the habitation sites; (2) plan and organisation; and (3) deposition of human remains and associated artefacts. Although the observations made and hypotheses suggested do not presume exhaustiveness in any manner, they do provide, I believe, a fairly comprehensive view, which I shall try to summarise in the following lines.

Based upon their position in the landscape, occupying the chalk hilltops, it appears that the Shiqmim cemeteries were omnipresent in quotidian activities, probably enjoying a position of

some dominance. This is manifested in the direct eye contact maintained by all villages with the cemetery, or parts thereof, and in the slightly higher elevation of the latter. Accordingly, the living could be said to look up to their dead and the dead to be looking down onto their living descendants. For the inhabitants of Shiqmim, the presence of their dead must have had a quality of constant surveillance and monitoring, one perhaps endowed with moral authority or stance. It is of note, however, that the nature of the landscape is such that no break or sharp distinction exists between the cemeteries and the habitation. The chalk hilltops upon which the cemeteries were positioned produce a landscape of rolling hills rising only moderately above the river bed and the villages. One might postulate, accordingly, that, despite the somewhat authoritarian stance of the dead, the relationship between them and the living was not one of two mutually exclusive groups but one that had also some qualities of a continuum; the living and the dead were not entirely distinct, but at some level they could also be seen to fade into each other.

Although plans were published for only two of the seven sections of the Shiqmim mortuary complex, they were sufficient to disclose considerable variability pertaining to the function and meaning of the site as well as to the internal interrelationships articulated among the various units. It was suggested that patterns of expansion and contraction of the site's mortuary function or meaning can be observed across the cemeteries, depending on whether cists or cairns were setup alongside the stone circles, which, by token of their consistency and function (locus of secondary burial), undoubtedly epitomise the cemetery's mortuary purpose. Given that the cists and the cairns constitute features that are symbolically or practically distinct from the circles, their inconsistent occurrence constitutes an elaboration of the cemetery's basic form, broadening the range of meanings and practices associated with it. It is, unfortunately, a very precarious matter to try and go beyond this general statement because the function of both cists and cairns is still unresolved.

Internal distinctions among social units within a cemetery were articulated along two basic lines: size of structure and spatial distance. Accordingly, it was observed that different sectors represented relationships and structures of different qualities, some emphasising distinctions more than others. It was suggested that, while cemetery 1 represents a single unit with relatively moderate internal, although pronounced, distinctions, cemetery 3 consists of multiple autonomous small units, each with relatively marked internal distinctions. Moreover, while each unit in cemetery 3 consisted of a single prominent structure, with which every smaller one was

associated, the former unit was represented concomitantly by four primary structures that defined it in conjunction. The quality of the social units represented thus differed markedly, being relatively centralised in cemetery 3 compared to a more heterogeneous and internally variable structure in cemetery 1.

Although the sample of human remains is too small to draw clear demographic patterns, no evidence for discrimination was observed other than the possible exclusion of infants. In terms of choice of skeletal parts, there seems to have been preference for the femur and humerus as well as the skull, although other skeletal parts are also represented. In view of the relative number of interments per structure, there seems to be good reason to believe that the large structures were the focus of most of the mortuary activity in the site and that the smaller ones played a relatively minor role, reinforcing the impression of the centrality of the larger structures.

Concerning the treatment of the remains, it is noteworthy that there seems to have been some concern in keeping the remains of different individuals distinct, either by arranging them in distinct clusters, or by the use of pits and pottery vessels. When mixing did occur, it is often under circumstances of considerable crowding; and it is probable that as time passed, a particular individual's personality and memory ceased to be of significance. Lastly, I would like to note that although we may wish to attribute certain artefacts to particular individuals as grave goods, the deposition of these items seems to carry greater weight on the collective level of the social unit represented by the burial structure than on the personal level.

## Ch. 12: Kissufim Road

The site of Kissufim Road is situated on a low hill at the south of the coastal plain, east of the second kurkar ridge. The site was discovered during road construction work that cut through its northern part. Subsequent excavations, directed by Goren and Fabian (2002), revealed a range of mortuary features that distinguish Kissufim Road from all other contemporary cemeteries (Fig. 12.1). These belong to three basic classes: a rectangular funerary chamber, a large collective burial and individual burials. The following discussion will consider each of these in turn.

### The Rectangular structure

The most striking feature of Kissufim Road is a rectangular mudbrick structure, dug into the loess. It was apparently roofed by means of wooden beams and kurkar slabs, many of which have fallen onto the floor, smashing the deposited material; and access to it was from above. The structure was oriented northwest-southeast, the walls were 0.6-0.8 m thick and into two of them (the south-western and south-eastern) niches were built. There may also have been niches in the other walls but, because the northern part of the structure was damaged by bulldozing, this cannot be determined.

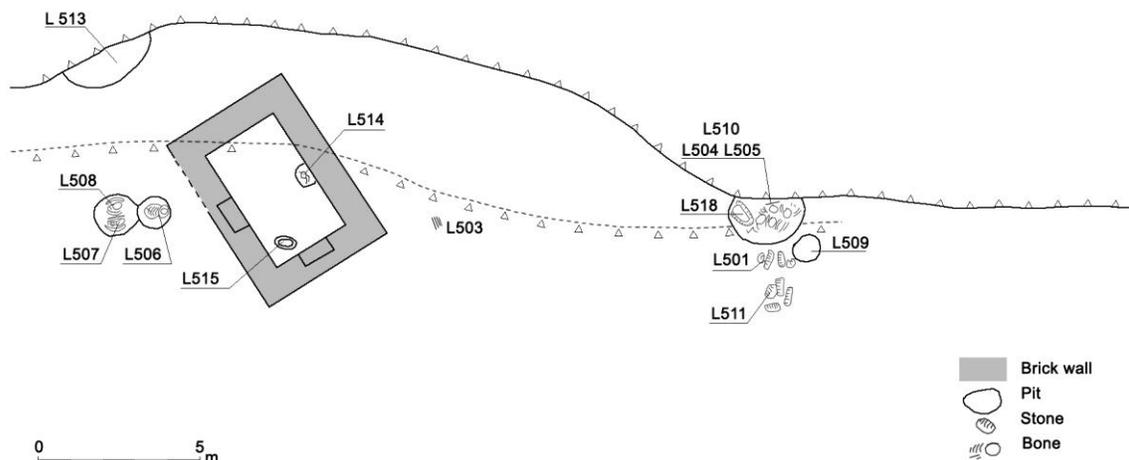


Fig. 12.1: Plan of excavation (after Goren and Fabian 2002: Plan 2.2)

### The human remains

Only two burials were encountered in the funerary chamber. Loc. 514 consists of a juvenile, approximately 8 years old (Zagerson and Smith 2002; 11-12 years old according to Le Mort and Rabinovich 2002), deposited in a krater set against the northeastern wall of the funerary chamber. It was represented by cranial and postcranial bones, including a humerus, a femur and tibia. No anatomical connection between the various skeletal parts was noticed nor were post-mortem modifications. The preservation was nevertheless rather poor, possibly due to the burial being smashed under a collapsed kurkar slab.

The second burial (Loc. 515) also consists of a juvenile, estimated to be 8 years of age (Zagerson and Smith 2002; probably an adult according to Le Mort and Rabinovich), placed inside an oval burial basin situated near the southern corner of the funerary chamber. It consisted of a fragmented skull and mandible, and fragments of long bones, the pelvis and ribs. No post-mortem modifications were noted. This burial was also damaged by a fallen kurkar slab.

### The pottery assemblage

The pottery assemblage uncovered in the funerary chamber is extraordinarily rich and complete, deposited on the floor and in shallow pits. The main corpus of the assemblage consisted of 23 complete, or nearly complete, vessels (Table 12.1), including designated mortuary receptacles: one ossuary and four burial jars. These, however, were not used to contain the skeletal remains of the two individuals deposited in the chamber, indicating consequently that they were deposited empty. The occurrence of sherds in the assemblage is probably not only due to the modern disturbance and other disruptive events. It is probable that at least some of them were originally deposited as such.

	Complete	Incomplete	Total
Ossuary	1		1
Burial Jar	4	2	6
V-shaped bowl	6 (?)	16 (?)	22
Krater	4		4
Goblet	1		1
Pedestalled goblet + basket handle	2	1	3
Bottle	2		2
Jar	1	1	2
Holemouth	1		1
Ring	1		1
Total	23	20	43

Table 12.1: Composition of funerary chamber pottery assemblage (after, Goren and Fabian 2002: Appendix 3)

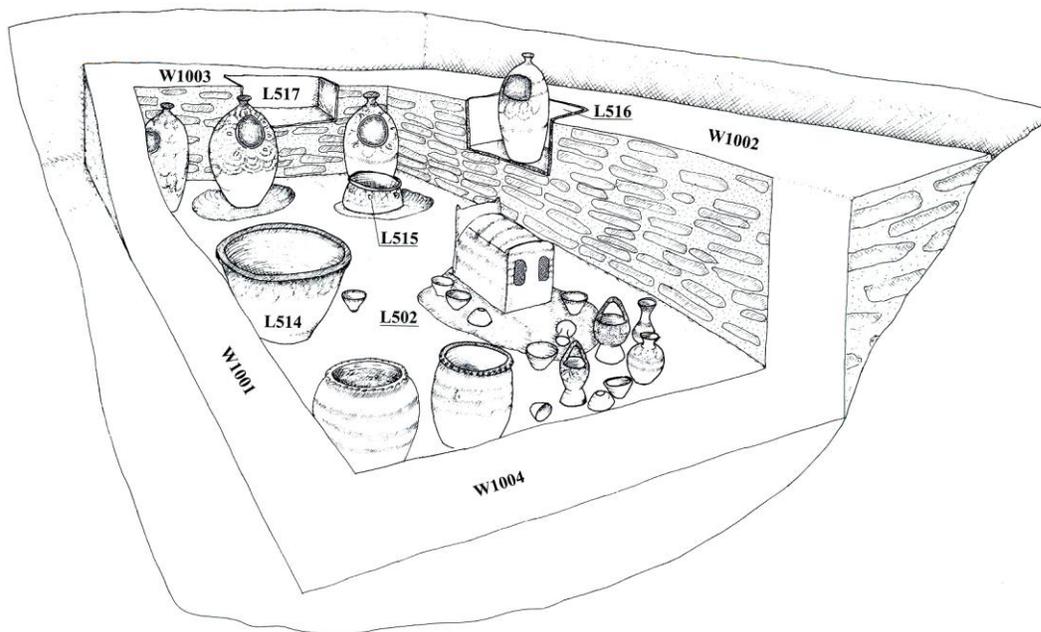


Fig. 12.2: Three-dimensional reconstruction of funerary chamber by Y. Goren (after Goren and Fabian 2002: Plan 2.5).

It is of note that the distribution of the vessels as presented in the three-dimensional reconstruction (Fig. 12.2) seems to suggest a carefully organised arrangement. The burial jars are restricted to the southern end of the chamber together with the krater used for one of the burials, most of the large vessels are arranged along the walls in the northeastern part of the chamber, and the small vessels (the bowl, goblets, bottles) cluster in the northern and northwestern part of the chamber near the ossuary that was located in the west-central part of the chamber.

### **Individual burials**

In close proximity to the rectangular chamber, several small pit burials have been recorded:

#### Loc. 503

A pit containing a burial, badly disturbed by modern trenching, was found approximately 2 m east of the rectangular chamber. It consisted of the articulated left and right tibiae and a fibula of an adult of unknown sex (Zagerson and Smith 2002; an adolescent or gracile adult according to Le Mort and Rabinovich 2002). The apparent articulation of the bones suggests to the excavators the possibility that this was a primary burial. This is unlikely, however, given the nature of the site. Porcupine gnawing marks were noted.

### Loc. 506

Loc. 506 is a pit located 2 m west of the chamber, containing the remains of an adult. The cranium was deposited inside a v-shaped bowl while the postcranial bones were laid upon a fragment of an ossuary roof. Carnivore modifications were recognised on the lower limbs, including puncture marks of a large carnivore.

### Loc. 507 and 508

Two additional burials were found immediately to the west of Loc. 506, probably deposited in a single pit, in which the remains of two adult individuals were deposited, one male (Loc. 508) and one female (Loc. 507), settled upon two halves of a single holemouth jar. The female is estimated to be 25 years of age. Post-mortem modifications were recognised in the form of carnivore scratches and a puncture. Yet the skull, mandible and the atlas were articulated, suggesting that the remains of this individual were deposited prior to complete defleshing. The male is estimated to be 30 years of age. The state of preservation was very poor, however, and no post-mortem modifications were recognised.

### Loc. 513

A possible fifth burial is represented by a large pit located approximately 4 m north of the funerary structure. It was badly damaged by bulldozers and only several cranial fragments were retrieved.

### **Collective burial**

15 m to east of the rectangular chamber a collective burial was found (Loc. 510). It consisted of a large pit, a significant part of which was cut by the bulldozer. It was 4 m in diameter and at least 1m deep. A large stone basin (L518), containing the remains of six individuals, was set upon a paved surface, containing the remains of four adults and two children, all mixed together, suggesting that they were all deposited in the vessel at once. The order of interment seems to have been anatomical: first the long bones of the lower limbs, then the long bones of the upper limbs, followed by the trunk bones, and finally the skulls were set on top.

Outside the basin, the remains of at least 10 more individuals were found (to Le Mort and Rabinovich 2002; 12 according to Zagerson and Smith 2002), at least one of which was deposited in a large bowl. These consisted of 8 adults, one adolescent and one child. Carnivore modifications were very frequent.

Two clusters of *mazzevot* were found in close proximity to the collective burial, accompanied by additional offerings, such as bowls and a churn. Some of the stones were found in what seems to be their original, upright position.

## **Discussion**

The site of Kissufim Road is clearly unique and exceptional in the mortuary landscape of the Southern Levant. It presents a range of features that, although drawing on prevalent motifs, have not been encountered elsewhere. The merit of the site is, however, also its weakness; its exceptional variability renders the observation of patterns very difficult, consequently minimising the range of phenomena that can be drawn upon for interpretation. Moreover, Zagerson and Smith (2002) note that, of a total of 54 individuals identified from the skeletal remains, 29 derived from the bulldozer dump, implying that the mortuary context of more than half of the population was lost. The following discussion will therefore be limited to noting several points and will refrain from any comprehensive interpretation.

In terms of spatial distribution, one readily discerns two clusters. On the one hand there is the rectangular chamber and the individual burials clustered around it at the western end of the excavated area, while, on the other, there is the collective burial located at some distance to the east (Fig. 12.1). Accordingly, it can be hypothesised that they represent autonomous phenomena that may differ in time as well as in meaning. The flip side of this hypothesis is that the chamber and the single burials comprise some form of unity, associated in meaning.

The two units differ sufficiently in content and quality to further substantiate this subdivision. First, as discussed by the excavators (Goren and Fabian 2002: 82-84) the composition of the mortuary assemblages is rather distinct for each: while the collective burial is marked by the use of rectangular stone basins, the designated receptacles deposited in the funerary chamber were ossuaries and burial jars. This alone suggests that the two differed markedly in the symbolic motifs they drew upon. Moreover, differences in conduct are also probable; most notably that the collective burial appears as a single event, in which the remains of multiple individuals were

deposited, while the funerary chamber and associated burials represent the accumulated effect of several events, in each of which the remains of one (and rarely two) individuals were deposited. Put in this way, the two units appear to constitute mutual oppositions. This, however, may be due to the limited exposure; had more features been excavated, the picture produced is likely to have been more subtle.

With reference to matters such as energy expenditure, planning, composition and completeness of the assemblage, the rectangular chamber is undoubtedly the most striking feature in Kissufim Road. Against this background, the deposition of only two relatively young individuals is rather surprising and even counter-intuitive, rendered even more curious by the emptiness of the designated mortuary receptacles. On the one hand, this may be due to a considerable gap between presuppositions held by the contemporary researcher and the Chalcolithic state of mind; on the other hand, it is also possible that the rectangular chamber became prematurely inaccessible and that subsequent inhumations intended for it had to be conducted on its circumference (cf, Goren and Fabian 2002: 82-84). Unfortunately there is very little data to draw upon to corroborate either of these; the post-depositional formation processes responsible for the sealing of the chamber are left unspecified. The single piece of evidence that very loosely matches the latter scenario is afforded by grave Loc. 503, which cuts through the foundation trench of the funerary chamber (Fig. 12.3), thereby testifying to its later date.

In all, Kissufim Road is a unique phenomenon, rendering it extremely difficult to interpret. A wider exposure of the cemetery or the discovery and excavation of another site bearing similar

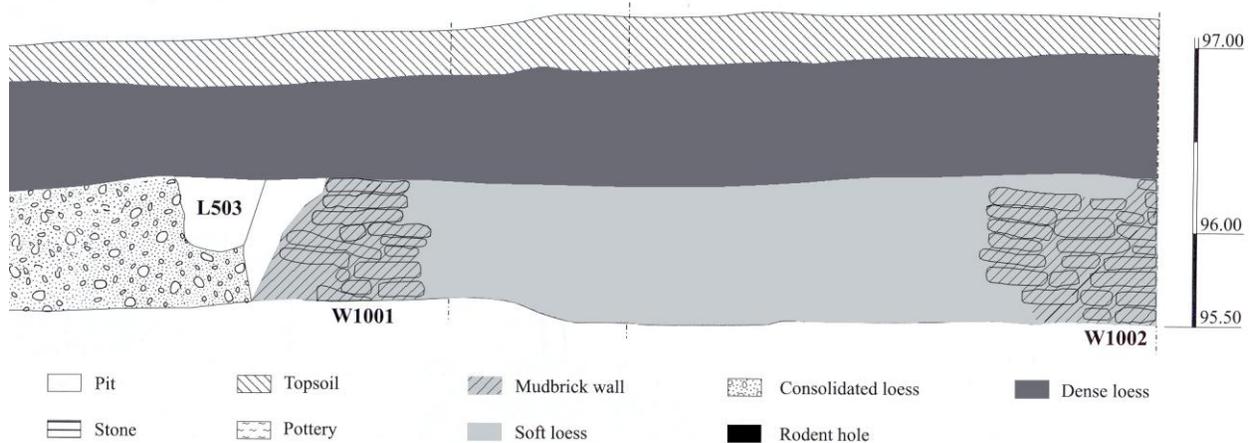


Fig. 12.3: Section through funerary chamber and Loc. 503, looking south (after, Goren and Fabian 2002: Plan 2.3).

traits is necessary before more substantiated hypotheses on meaning and function can be made. Indeed, given our current state of knowledge, it can be taken to represent anything from a carefully structured symbolic system that constructs and manipulates binary oppositions to an expression of a formative and incoherent discourse that simultaneously draws upon multiple motifs and concepts.

## Ch. 13: Discussion – Chalcolithic Cemeteries

Preliminary distinctions among the Chalcolithic cemeteries of the Southern Levant were at our disposal from the start, telling burial cave-cemeteries from mortuary-structure cemeteries and from occasional cases that differ from both (Rowan and Golden 2009:52-56). Although this subdivision is one of the very few points of sweeping agreement among the scholars investigating the period, it is strictly typological and offers only a crude sense of the variability and regional patterning of the period. While it clearly mirrors a different choice of symbols, it is much less clear to what extent the meanings that underlie them differ as well. At face value, the most substantial difference pertains to the cemeteries' position in the landscape. While the use of subterranean spaces renders burial caves and other subsurface features inconspicuous above the ground, implicit within their environment, cemeteries composed of above-ground mortuary structures are of a more assertive quality. The latter, moreover, are often located in relatively prominent location, further emphasising the importance of their visibility.

The emergence of formal cemeteries in the Chalcolithic period has often been considered in terms of claims for rights over resources and the definition of territorial boundaries (e.g. Levy 1995: 235). In this respect, the mortuary-structure cemeteries, such as Plamahim and Shiqmim, are fairly well suited, but cemeteries that were hidden within the landscape are unlikely to have participated in this kind of discourse (cf. Joffe 2003: 50-53). Thus, many of the cemeteries that crystallised during the Chalcolithic period represented other concerns. Moreover, a similar point can probably also be made for Shiqmim cemetery, which is clearly of the conspicuous type. For, given its proximity to the habitation sites that themselves lay claims on the resources in their vicinity, the cemetery appears fairly redundant in this regard.

On a perhaps simpler level, variations in a cemetery's visibility and assertiveness have direct implications for how it is experienced and perceived. Thus, whether intended or not, the appearance and conspicuousness of a cemetery carry an immediate effect on the manner in which the relationship between the living and the dead is structured. This was most apparent in the case of Shiqmim, where both cemetery and related village could be identified. It was suggested that the topographical and spatial relationship between the two rendered the dead omnipresent in everyday village life. A similar situation may have existed also in Palmahim (North), although it cannot be ascertained at this juncture. Conversely, when the cemetery is inconspicuous, the

relationship to the dead takes on a less tangible quality, no specific location can offer quotidian reality access to the dead, nor can the relationship between the two be said to follow any particular course. Thus, where the mortuary-structure cemeteries produce for daily life a well-defined, specific and closely involved representation of the dead, the subterranean cemeteries produce a comparatively loose, distant and indirect one; for the latter the dead must have been involved in a relatively vague and insubstantial manner compared to the former.

This being said, we may now turn to a more detailed consideration of the data brought together in the preceding pages and attempt to produce interpretations that can penetrate into the logic underlying the cemeteries' function and variability. This, however, must be done with caution and progression ought to be gradual. The main challenge is that of discovering order within the seemingly chaotic nature of both inter- and intra-site variability, which is probably also the severest obstacle for the production of meaningful interpretations. The difficulties involved are the most acute for the burial-cave cemeteries, for which the most substantial number of cases is available and which, despite the considerable differences between sites are still regarded as a single, undifferentiated phenomenon (see, Rowan and Golden 2009: 50-56). The following discussion will therefore progress through a detailed consideration of the burial-cave cemeteries, which will be followed by a shorter discussion of the mortuary-structure cemeteries. Once this is done, an overview of Chalcolithic cemeteries in the Southern Levant will be produced.

### **Burial cave cemeteries**

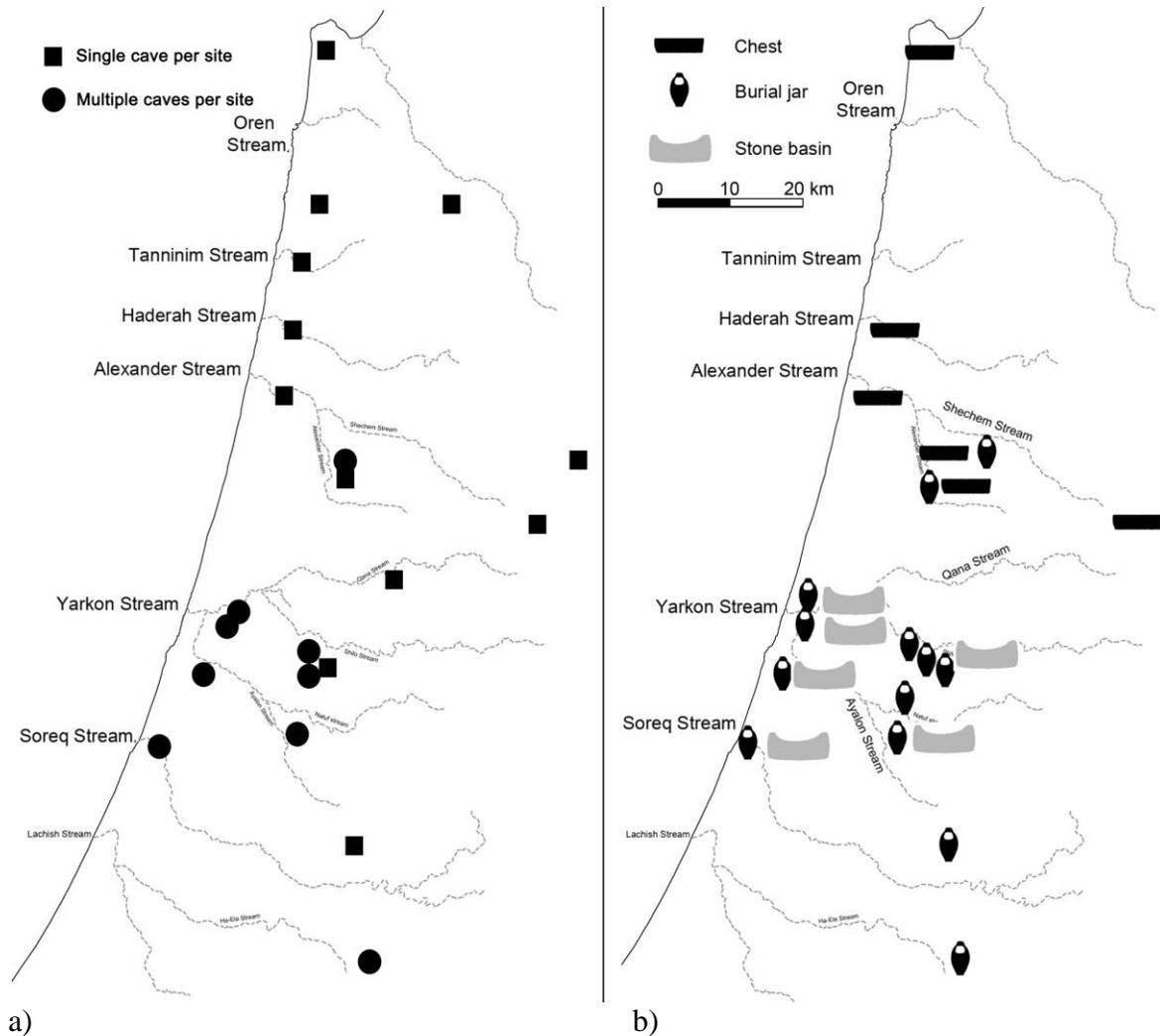
An often-noted distinction among Chalcolithic burial caves is that between those that exploited natural cavities in the bedrock and those that were artificially hewn (e.g., van den Brink 2005a: 175; Rowan and Golden 2009: 51). While this may have been of considerable significance, especially pertaining to the inauguration of the caves, the artificial/natural distinction is perfectly correlated with their geological settings and whether the rock formations in question are conducive to the development of cavities (e.g., limestone, dolomite) or not (e.g. kurkar, chalk). The weight of this difference, therefore, as an indicator of different cultural preferences or inclinations is fairly small. Moreover, other than the two exceptions (known to date) of Nahal Qanah (Gopher and Tsuk 1996) and Peqi'in (Gal *et al.* 1997), both of which have complicated, deep and multi-levelled plans, all burial caves (both natural and artificial) consist of simple,

shallow (descending only several meters below the surface) and fairly small (do not exceed a few dozen m<sup>2</sup>) subterranean spaces. Consequently, the experiences they facilitated in terms of access and the stay inside them were of more-or-less of the same quality. Access to the former, on the other hand, was much more difficult and often entailed crawling through narrow passages. They were also considerably damper, darker and permeated by speleothems. Besides the subterranean character, which is common for all caves, Nahal Qanah and Peqi'in offer an entirely different experience, which strongly suggests their divergence from the larger corpus of Chalcolithic burial caves.

This is not to say, however, that all other burial caves constitute a single homogeneous group. Still considering structural properties, an important feature that often goes unremarked but which nevertheless is rather striking is that, while some burial caves are found in isolation (e.g., Ma'abarot, Castra, Taiyiba), others are grouped together in clusters (e.g., Ben Shemen, Shoham, Giv'ataim). While the chance of discovery may be partially responsible for these variations, it cannot account for the rather distinctive geographical patterning they produce, whereby the single-cave cemeteries are of a relatively northern distribution, and the multiple-cave cemeteries tend to cluster further to the south (Fig. 13.1a; cf. Hanbury-Tenison 1986: 206). The distribution of the designated containers further strengthens this observation. While the spatial distribution of ossuaries is wide, encountered in almost all sites throughout the Southern Levant, burial jars and chests are of a more restricted distribution. This is clearly demonstrated in fig 13.1b below, in which it is observed that burial jars are mostly restricted to caves south of the Yarkon River, while chests were uncovered further to the north with little overlap in Sha'ar Ephraim and Taiyiba. Also stone basins are not evenly distributed and seem to be, despite their relative paucity, strictly a southern phenomenon.

This correspondence in distribution of two, principally independent traits (i.e. number of caves per site and assemblage composition), strongly suggests that a spatial distinction between north and south is a valid and culturally significant one. Thus, other than the complex karstic systems, two major spatial groupings among the burial caves cemeteries can be defined:

1. A northern group, characterised by single-cave cemeteries and an assemblage consisting of chests alongside ossuaries, distributed between the Alexander and Qishon rivers; and



a) b)  
 Fig. 13.1: Distribution maps of single and multiple cave cemeteries (a) and of chests, burial jars and stone basins.

2. A southern group, characterised by multi-cave cemeteries and an assemblage comprised of burial jars and stone basins alongside ossuaries, distributed mainly between the Yarkon and Soreq rivers.

It should be noted, however, that this regional division is not perfect, and not unexpectedly some intertwining can be noted. For example, the site of Sha’ar Ephraim (Oren and Scheftelowitz 1998; van den Brink 2005b; in press), situated along the Alexander River, consists of multiple caves, although geographically affiliated with the northern group. Conversely, the sites of Horbat Hani (Lass 2003) and Mesiliat Tsiyon (Perrot and Ladiray 1980, 104) seem to be single cave sites, although situated within the southern region. The meaning of this is not entirely clear, but it probably represents some form of inter-regional dynamics.

Notwithstanding these exceptions, it can now be stated that the Chalcolithic burial caves of the Mediterranean climatic zone consist of at least three distinct groups/types of cemeteries. Given problematic matters of preservation or the absence of a detailed report, however, the discussion that follows will not consider the complex karstic systems in greater detail. Instead, it will focus on the two abovementioned regional entities, for which more information is available, even if not always as reliable or complete as we would wish.

### The Northern Group

At least nine Chalcolithic burial cave sites comprise the northern group (H. Castra, Furedis, Midrakh 'Oz, Shuni, Hederah, Ma'abarot, et-Taiyiba, Fara (N) and Shechem), each consisting of a single cave, containing human remains and ossuaries, chests, or both. Unfortunately, the majority of the sites suffered severe disturbances during later periods or were poorly published. Nevertheless, two broad types of mortuary assemblages can be defined:

1. Those dominated by the use of ceramic receptacles, in which the skeletal remains of one and rarely more individuals were deposited; and
2. Those dominated by bone clusters on the cave surface or bench, representing one or more individuals.

Although pure examples of either are rare, most sites can be assigned to one of them. Thus Hederah, et-Taibiya and Shechem can be associated with the first, while Horvat Castra and Tell el-Farah (North) demonstrate closer similarities to the latter. The burial cave of Ma'abarot is associated with both, by token of stratigraphic distinction, the earlier phase dominated by the use of receptacles (type 1), while the later phase was under the sign of bone heaps (type 2).

The recovery of both assemblage types in stratigraphical order in Ma'abarot suggests a temporal distinction, according to which assemblages dominated by bone clusters are later than those marked by the extensive use of ceramic containers. This, however, is a crude distinction, and one ought to keep in mind that whether the cessation of use of ceramic receptacles was a swift or long process remains an open question. Moreover, the stratigraphic observation in Ma'abarot was made possible thanks to the partial collapse of the cave ceiling, which interrupted the ongoing accumulation of cultural deposits and created a subdivision within it. Had this not been the case, a temporally undifferentiated assemblage would have been observed comprised of bone deposits both within and outside ceramic vessels. This situation in fact can also be observed

during the earlier phase of Ma'abarot, where human remains were deposited without any discernable container above previously deposited kraters and ossuaries.

The implications of this change are not entirely clear. As a rule, the presence or absence of ceramic containers seems to have little effect on the essential structure of the mortuary procedure: the skeletal remains of an individual (or individuals) were retrieved, taken across an indeterminate distance from their temporary to final resting place and eventually deposited in the cave. Whether the absence of ceramic containers represents a categorical conclusion of the mortuary use of receptacles, or marks a shift from pottery to other materials, as suggested by some scholars (e.g. Porath 2006: 47), unfortunately cannot be determined at this juncture.

Yet, at least insofar as the handling of these vessels is concerned, some implications may be cautiously suggested. The size, cumbersome form and fragility of the ceramic receptacles, particularly the ossuaries, must have demanded a considerable degree of heedfulness. One need only consider the transportation of the ossuaries and the lowering of them down into the cave, to begin to envision the difficulties involved. A certain degree of tension, therefore, must have been implicated whenever an ossuary (or other ceramic receptacle) had to be transferred or installed. Thus the relinquishment of the use of ceramic containers may have had a relieving affect on the activities involved.

Closely linked to these issues is the matter of conspicuousness of the event(s). Generally speaking, the more effort needed for preparation and execution, the more conspicuous are the activities involved, both for those enacting them and those observing. Thus, relinquishing the use of ossuaries and other ceramic receptacles is likely also to have had the effect of rendering the event of deposition less apparent.

Furthermore, in view of the possibility, although definitely not certainty, that the bones were transported to the cave inside their receptacle, it is likely that the hazards of moving cumbersome and fragile vessels were closely linked to the symbolic implications of the transportation of the bones. A line is begged to be drawn between the real dangers of dropping and breaking an ossuary and the less tangible dangers of handling remains of the dead (Hertz 1960). In this respect, the relaxation of the tension, brought about by the handling of fragile vessels, suggests a certain lifting of the fears involved; perhaps the obligation to demonstrate hazards in the ritual was no longer felt; or a point that needed to be made and emphasised in the formative and earlier

phases became part of the unquestioned *doxa* (Bourdieu 1990: 68-69), no longer needing to be asserted.

Judging by the later phase of Ma'abarot and by loci 801 and 806 in H. Castra, this development seems to have gone hand-in-hand with a change in the spatial arrangement of the interments. Regardless of whether organic containers were used or not, the interments in these three cases appear to have been arranged around a single point typified by a ceramic chest or krater. While distinct clustering may be observed also in the earlier assemblages, the definition of a central point to which all other interments bear reference cannot. If this suggestion holds, it can be taken to indicate a change in the quality, perhaps even terminology, of the discourse unfolding within the community enclosed by the cave, where initially a subgroup was constituted by mere association it was later unified around a symbol or prime figure, implying a small-scale process of centralisation.

Another aspect of the northern burial cave sites worthy of some attention is that of the number of individuals represented in each. Generally speaking, assuming that each of these sites was used by a given community over several generations and that the pattern was strictly accumulative, one might expect to find large numbers of individuals ranging from many dozens to hundreds in each. In practice, however, the number of individuals is considerably smaller: 63 individuals were reported from Ma'abarot, 27 and possibly as few as 19 from Horvat Castra, no more than four from Tell el-Farah (North) and 30 from Midrakh 'Oz, many of which ought to be dated to the Early Bronze Age. Assuming that these figures are not severely distorted due to post-depositional processes, methodological shortcomings or empirical ambiguity, it is likely that each burial cave did not serve the community as a whole but only a particular part thereof. This is further reinforced by the observation that the population of Ma'abarot was predominantly and perhaps exclusively male, thereby suggesting that sex-based discrimination was involved. Unfortunately, comparable information for other caves of the northern group is unavailable and it cannot be determined whether this form of discrimination was a consistent factor.

The burial cave sites of the northern group were thus part of a mechanism of differentiation and discrimination. Whether this discrimination occurred between cave and non-cave burials or between different caves cannot be determined at this point. Also, the role of sex-based differentiation cannot be inferred, relying on the sole example of Ma'abarot. It is tempting, nevertheless, to postulate that each cave or site represents a particular lineage or kinship group,

reinforcing one's ties to the ancestors and structuring identity, perhaps along lines similar to those described by Bloch (1971) for highland Madagascar.

Summarising what has been said to this point, it seems that the Chalcolithic mortuary sites of the north consist of a single cave each, in which skeletal remains were repeatedly deposited. During the earlier part of the period, the burial assemblages were dominated by the extensive use of ceramic containers. These however were relinquished at some point, possibly substituted by textiles or basketry, a process that appears to have been accompanied by a certain degree of centralisation of intra-community subgroups. It was further suggested that the number of individuals in the caves is too small to represent an entire living community and these sites served as a means of discrimination and differentiation, although what or who was differentiated cannot be determined.

### The Southern Group

The burial cave cemeteries of the southern group are relatively abundant and distributed throughout the landscape, consisting of approximately 45 caves in 11 sites (Table 3.1; Fig. 3.1). All but two sites (Mesillat Tsiyon and Horbat Hani) consist of multiple burial caves with highly varied assemblages, at least partially attributable to differential use of three types of designated bone receptacles: ossuaries, burial jars and rectangular stone basins (Fig. 3.2).

Stone basins are the least widespread among the three types of designated containers, known to date from only six sites (Fig. 13.1b). In all but one (Azor), they seem to have been found in their original position, often arranged in pairs and spatially distinguished from others: Ben Shemen T516, Giv'atim Cave 2 and Qula Cave II.

Burial jars are much more widespread and, other than the contexts in which two stone basins are found, they are ubiquitous, encountered alongside ossuaries. Still, on several occasions, contexts were reserved for burial jars and jars alone, entirely or almost entirely excluding ossuaries: Ben Shemen T505, Shoham Cave 1, Qula Cave II, Giva'taim Cave 5, Horbat Zur Cave 1 and possibly Azor (Perrot and Ladiray 1980: 41).

Although reliable quantitative data are scarce, ossuaries seem to be the most prevalent among the designated receptacles. However, unlike the abovementioned contexts, those marked by ossuaries rarely show the degree of order and completeness observed with the burial jars and stone basins. A total of 26 contexts can be grouped under this heading, all of which demonstrate

severe degrees fragmentation (Table 13.1). In 46% of these, the designated containers are represented by fragments alone, where not a single specimen could be restored to completion (Fig. 13.2). One must assume, therefore, that the processes responsible were a constant and repeated feature throughout the cemeteries of the southern group.

It is often assumed that post-depositional processes, induced by both human and non-human agencies, were responsible for the fragmentation and disorder of these assemblages. Yet, hardly any effort was made to clarify the processes at work and it is extremely difficult to reconstruct from the published data the intensities and nature of processes such as sedimentation, water

<b>Cave</b>	<b>Description</b>	<b>Fragmentation of designated receptacles</b>
Azor	Over 70% of the assemblage is fragmented.	Medium
Ben Shemen, T502	No contextual information is available; contained several restorable ossuaries.	Medium?
Ben Shemen, T506	One restorable ossuary of 15	High
Ben Shemen, T510	No restorable vessels	Complete
Ben Shemen, T530	No restorable vessels	Complete
Benei Beraq, Kaplan	All ossuaries fragmented but one miniature specimen	High
Benei Beraq, A	Only fragments	Complete
Benei Beraq, B	Only fragments	Complete
Horbat Hani	Unspecified	Indeterminate
Giva'taim, 1	Two restorable ossuaries and fragments of at least eight more; considerable degree of spatial order.	Medium
Giva'taim, 3	Only fragments	Complete
Giva'taim, 6	Only fragments	Complete
Giva'taim, 7	One restorable ossuary and fragments of additional vessels	High
Mazor	Only fragments	Complete
Palmahim, 1	Unspecified	Indeterminate
Palmahim, 9	One restorable ossuary, many fragments	High
Qula, E1	Only fragments	Complete
Qula, K1, ph 3	Assemblage not restored but at least several restorable specimens can be assumed	Medium
Qula, K1, ph 2	Unspecified	Indeterminate
Qula, J1	Unspecified	Indeterminate
Shoham, 2	Two restorable ossuaries, numerous fragments	High
Shoham, 4	Only fragments	Complete
Shoham, NE	Only fragments	Complete
Yannai, St. 5	Only fragments	Complete
Yannai, St. 6	Only fragments	Complete
Horbat Zur, 3	Only fragments, possibly due to later disturbances	Indeterminate

Table 13.1: Categorisation of ossuary dominated contexts according to degree of fragmentation of designated receptacles.

percolation, artefact transportation, etc. Nevertheless, the recovery of a chaotic and fragmented assemblage is implicitly assumed to testify to the influence of such processes, resting upon the premise that the ‘original’ circumstances of deposition were of complete, neatly arranged vessels, containing human bones. This, however, need not be the case and

one can just as well assume that the fragmented and chaotic state of the assemblage may be part and parcel of the mortuary conduct proper. That this is in fact likely to be the case is best illustrated by the cases of Azor and Ben Shemen T510.

Despite the relatively large number of restorable ossuaries uncovered in the mortuary deposits of Azor (strata 9 and 8), some of them apparently found in their original place of deposition, over 70% were represented only by fragments. Given that the assemblage in question was sealed below the collapsed ceiling, that this event occurred within the timeframe of the cave’s original mortuary function and that looting activities were too limited to account for the severe shortages in the assemblage, one must assume that the process of fragmentation was contemporary and probably integral to the cave’s use for burial purposes.

For the case of T510 in Ben Shemen, a similar pattern can be suggested, although based on different observations. The assemblage was highly fragmented and not a single specimen of designated receptacle could be restored; and most of the bones were found in clusters directly on the cave surface, while others were deposited on sherds. Yet, in the midst of this severely fragmented assemblage, one observes the striking presence of complete and nearly complete kraters, possibly representing the last deposit, as suggested by the excavators (Perrot and Ladiray 1980: 65). Regardless of whether these vessels are later deposits or not, the striking contrast between the completeness of these vessels and the incompleteness of the remainder of the assemblage is sufficient to reject the notion of later post-depositional activities or processes as responsible for the observed fragmentation. In other words, as in Azor, the fragmentation of the

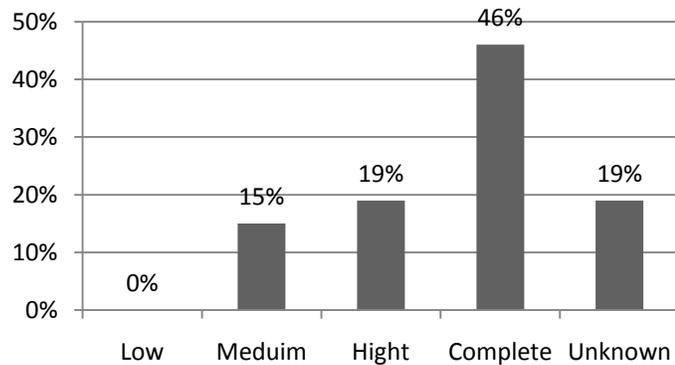


Fig. 13.2: Distribution of ossuary dominated contexts according to degree of fragmentation (N=26).

assemblage must have occurred during the Chalcolithic period while the cave still fulfilled its original mortuary function.

Similar observations have been made also for Mazor, where only ossuary fragments were recorded, but found alongside complete kraters, bowls and jars. Moreover, in a range of cases, including T506, T510 and T530 in Ben Shemen and cave K1 in Qula, bones were deposited directly on ossuary fragments, implying that not only complete vessels were employed but that fragments were manipulated as well, offering another indication that fragmentation occurred within the context of mortuary practices. Given that the fragments in question originated from complete specimens, their manipulation seems to testify to interments that were not accompanied by the input of new ossuaries and that the eventual formation of severely fragmented assemblages is also indicative of a temporal process whereby the input of ossuaries and other designated receptacles decreased over time.

Thus at least two inferences can be drawn:

1. Fragmentation of the assemblage occurred well within the mortuary 'use-life' of the caves; and
2. The use of ossuaries as containers for human remains was not a consistent factor and it is probable that a temporal trend, similar to that suggested for the northern caves, took place, whereby the input of ceramic receptacles was relinquished at a certain point.

The apparent inverse correlation between the decrease in the use of ceramic receptacles and the increase in their fragmentation suggests that the two went hand in hand, two aspects of a change in mortuary practice. The deposition of human bones on ossuary fragments might suggest that some form of recycling of existing vessels was involved: as human remains began to reach the cave without designated receptacles, pre-existing vessels were broken and their fragments used for the same purpose as the complete ones.

An even more substantial aspect of the phenomenon of fragmentation is that of circulation. The absence of large portions of a once-complete vessel strongly suggests that they were removed from the cave (see, Chapman and Gaydarska 2007). They may have been ceremoniously discarded but, in the spirit of recycling and reuse, fragments may have been removed from one cave to be deposited in another, facilitating interment where ossuaries or fragments thereof would be otherwise missing or, where the items present were regarded as

symbolically insufficient. This can explain the absence of caves dominated by ‘bone heaps’ as observed among the northern neighbours. Thus, there is reason to believe that, as fewer and fewer designated receptacles were produced, fragments of these were circulated throughout the southern group with growing intensity.

Yet the circulation of such fragments need not be restricted to the mortuary realm and may have circulated among the living as well. There is some evidence that something of the sort did take place as ossuary fragments were found in settlement contexts as well as other atypical non-cemetery contexts, e.g. Modi’in-Buchman (van den Brink, personal communication), Gilat (Commége 2006: Pl. 10.36: 3), Umm Qatafa Cave (Perrot 1992: 101\*) and Giv’at Ha-Oranim (Scheftelowitz and Oren 2004: 55).

The implications of the decrease in the use of ceramic receptacles were discussed above for the northern caves and need not be repeated here. The issues of fragmentation and circulation are, however, another matter. Although it still needs to be demonstrated (by means of petrographical analysis or extensive refitting projects), the currently available data suggests that circulation took place primarily among burial caves and cemeteries. This further suggests that the function of ossuaries and burial jars for the southern cemeteries was different from the functions they had for the northern ones, a difference that did not allow them to be simply replaced or relinquished.

Determining the kind of function this might have been is extremely difficult. Some insights and possible directions for thought might be gained by reinstalling these assemblages in the general context of the cemetery. As noted above, the extensively discussed assemblages marked by ossuaries are indeed the most prevalent, but they are definitely not the only kind either. Interestingly, these other assemblages, the so-called stone-basin and burial-jar assemblages, do not only differ in composition but also in their low degree of fragmentation.

Moreover, either one or both contexts are represented in most sites.<sup>1</sup> In Ben Shemen, Giv’ataim and Qula, both contexts were found; in Shoham, Nahal ha-Ela and probably also Azor (Perrot and Ladiray 1980: 41), burial jar contexts were found but not stone basins; and in Benei Beraq and Palmahim, contexts associated with a stone basin were found but not burial jar contexts. To date, stone basin and burial jar contexts have never been found in more than one

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<sup>1</sup> The sites in which neither was found were either single cave sites as Msillat Tsiyon and Horbat Hani or sites that were only surveyed as Ras es-Summaq and Nahal Bet ‘Arif (see, van den Brink 2005a).

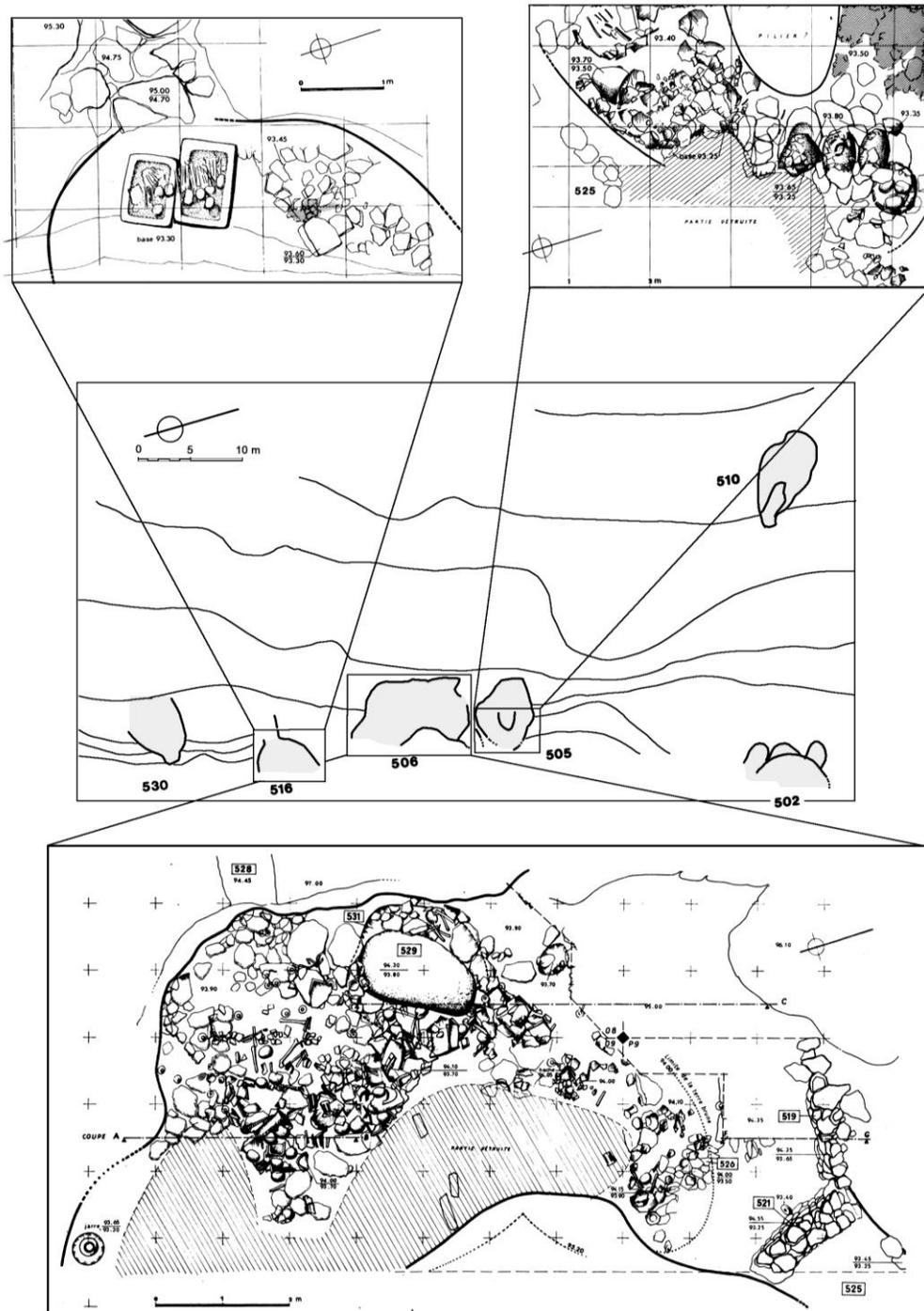


Fig. 13.3: The site of Ben Shemen with detailed plans of T505, T506 and T516, as a model of the southern group's tripartite cemetery structure, consisting of one stone basin context, one burial jar context, several contexts of often fragmented ossuaries and burial jars (after Perrot and Ladiray 1980, courtesy of Centre de recherche français de Jérusalem).

cave each per cemetery, even when a large number of caves are present. That is, these ‘special’ contexts stand-out against the background of fragmented ossuary and burial jar assemblages. This pattern is true for the southern group as a whole and for each site in particular. As a consequence, the structure of a single cemetery reflects the mortuary structure of the entire region, as if a predesigned template had been repeatedly prescribed (Fig. 13.3).

The assignment of different types of assemblages to different caves within the cemetery suggests a classificatory function, whereby the composition of the assemblage carried some weight in the assignment of an identity, a role or a meaning to a given cave, and by extension to the human remains it contained. A classificatory function of this kind accounts fairly well for the processes of fragmentation and circulation as due to the combined effect of an ongoing demand for these receptacles on the one hand and their decreasing availability on the other. The difficulties involved would have been particularly acute when cemeteries were extended or new caves were opened; it is, however, possible that the identities in question were negotiable and subject to change upon reopening, in which case these difficulties were more pervasive and chronic.

Moreover, stone basins on the one hand and burial jars on the other are oppositional in terms of material and form, the former being rectangular and made of stone and the latter circular and made of ceramic. Ossuaries, being ceramic vessels yet rectangular in form occupy in this regard the space in between the two ends:

	<b>Stone Basin</b>	<b>Ossuary</b>	<b>Burial Jar</b>
<b>Material</b>	Stone	Ceramic	Ceramic
<b>Form</b>	Rectangular	Rectangular	Circular

If classification indeed was involved and these parameters carried the relevant symbolic meanings, it appears to have been structured along a continuum, ranging between two opposing, possibly complementary concepts. Thus burial-jar and stone-basin assemblages represented the pure ends or concepts, while the remainder covered the broad range in between. It is probable, in view of the circulation of materials, that at least some degree of negotiation and manipulation of a cave’s position was allowed, and that at least for those occupying the intermediate positions these were relatively dynamic and fluid issues.

Summarising what had been said so far for the southern group, two interpretations of the archaeological data were offered:

1. The interment of human remains in the burial cave was associated with the use of designated ceramic receptacles. With time, such receptacles ceased to be produced and previously deposited vessels were fragmented and used in place of the complete ones. This development was accompanied by an increasing intensification in the circulation of these fragments among burial caves and possibly among the settlements as well.
2. The multiplicity of caves per cemetery served as a foundation for the classification of individuals and groups, which was further facilitated by the composition of their assemblages.

### **Mortuary structure cemeteries**

Given that only two sites could be discussed in detail, there is little point in trying to produce a comprehensive synthesis.<sup>2</sup> Generally speaking, the cemeteries in question consist of agglomerations of roughly equivalent and semi-autonomous mortuary structures that come together to represent communities of various sizes and structures. The articulation of internal relationships was based on variation in size and spatial proximity and, at least in the case of Palmahim, also on form. It is improbable, however, that the spatial and organisational patterns observed represent a constant and unchanging state of affairs that persisted from the cemetery's founding through to its end. Rather, they are more likely to represent the accumulative effect of ongoing processes that repeatedly added or removed features changing the cemetery's appearance and structure. This would constitute the cemetery as a locus of social discourse, negotiating the inception and position of specific units as well as the underlying structure of the community.

Although the evidence is not unequivocal, temporal trends of similar quality seem to have occurred in both Shiqmim and Palmahim (North), entailing the emergence and definition of new social units and the articulation of their position within the wider community. This is based on categorical distinctions implied within the sites' structure and on stratigraphical or structural relationships among them. The early phase of both cemetery sites, I would like to suggest, consisted of relatively few, large, clearly defined and distinct social units, circular in Shiqmim and rectangular in Palmahim, that represented the community as a juxtaposition of several

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<sup>2</sup> At least one such cemetery is known – Nahal Sekher (see, Gilead and Goren 1986; Goren and Gilead 1986) but no details are available to date.

monolithic and mutually exclusive yet equivalent units. The community articulated in such a manner would consequently constitute a static and unchanging phenomenon, perhaps alluding to an ideal, demanding of every act of deposition to adjust itself to this predetermined structure. The appearance of another type of structure that distinguished itself from the former either by size (Shiqmim) or by form (Palmahim), probably marks also the emergence of a new type of discourse. By token of their somewhat more ambiguous position, on the one hand being spatially distinct and on the other drawing their identity also from the earlier structures, these new mortuary features introduce a flexibility of definition, allowing more room for negotiation and expression of relationships of affiliation and association.

Painting the above in more live colours, it is suggested that the earlier phase of these cemeteries adhered to a rather strict ideal, according to which the living community is understood as a function of a given number of foundational units, perhaps representing specific forefathers. It is reasonable to assume that, as the community developed and transformed, it became increasingly difficult to accommodate the dynamic living community with the rigid model imposed by the cemetery's institution, eventually generating negotiation with the institutional model and within the community. The result of this negotiation was the coming into being of a new type structure that was relatively free of the previously imposed limitation: new ones could be built more readily, thereby allowing the designation and representation of new social units within the cemetery; and the identities ascribed to them were more fluid by token of the multiple relationships they maintained with their neighbouring units. This is not to say, however, that the earlier mortuary structures necessarily ceased to function or became mere passive symbols. It is quite probable that they continued to be used alongside the new ones, as also seems to be suggested by the archaeological record. In fact, under the new circumstance, these structures may have transformed from rigidly prescribed units into, given their primacy and relative physical prominence, symbols of privileged status for those individuals still associated with them.

The processes and traits discussed above, common to both Shiqmim and Palmahim (North), seem to suggest an overarching homogeneity for the mortuary-structure cemeteries, encompassing their long-term patterns of development as well as the devices of articulation at their disposal. These fundamental elements, while representing an underlying commonality of concepts and notions, nevertheless leave a considerable degree of latitude for the ideas they are

mobilised to express and articulate. This was clearly demonstrated for cemeteries 1 and 3 in Shiqmim, for which Plamahim offers another example.

Concerning the overall clustering, the case of Palmahim, with its tightly grouped mortuary structures, carries closer affinities to Shiqmim cemetery 1 than to cemetery 3, which, by contrast, consists of multiple, clearly distinct, small groupings. Yet the range of distinctions made in Palmahim is greater than that in Shiqmim 1 and, while the large structures in the latter are positioned in such a manner that they define and relate to the group as a whole, in the former they are not. Thus, while in Shiqmim cemetery 1 they appear to have a rather unifying function, in Palmahim they are more divisive.

## **Discussion**

All Chalcolithic cemeteries discussed throughout the foregoing pages are marked by the interment of disarticulated human remains that were deposited after the flesh was allowed to decompose. Evidence for active removal of tissues in the form of cut marks and perforations, as well as carnivore gnawing marks, is occasionally reported (Le Mort and Rabinovich 1994; 2002; Lupo 2008: 65), indicating that the practice was not necessarily as straightforward as we might be inclined to believe, and that intentional manipulation of the flesh or purposeful exposure to animals may have been involved. The available data on the subject is unfortunately too patchy to determine just how widespread these practices may have been.

Also, direct evidence for the primary phase of the sequence is extremely scarce and problematic. Perhaps the best candidate for such an example is the site of Hurvat Hor, located at the southernmost extension of the Yatir ridge. It consists of a cave that originally served for dwelling, and later as a refuse pit. In its final phase, following several episodes of roof collapse, it was used for burial purposes (Govrin 1987). The remains of a total of seven individuals were recorded: three females, one male, two adults of unidentified sex and one four-year-old child, most likely representing a single family. The human remains were fragmentary and disarticulated, but the differential representation of skeletal parts strongly suggests that this is a locus from which bones were removed rather than deposited, primarily the cranium and femur (Appendix I; Smith and Sabari 1995). Thus the site of Hurvat Hor offers the best contextual data known to date for the primary phase of the mortuary sequence; unfortunately, however, it presently cannot be linked with any particular cemetery.

Site	3 >	%	3 <10	%	10<	%	Unknown	%	Total	References
Besor Stream	3	75%		0%	1	25%		0%	4	Macdonald 1932; Perrot 1962
Fatza'el 2	2	100%		0%		0%		0%	2	Bar 2008: 540-544
Ghassul, str. IV-III(?)	33	72%	4	9%	4	9%	5	11%	46	Mallon <i>et al.</i> 1934; Koepell 1940; North 1961; Blackham 1999
Gilat	23	29%	16	20%	41	51%		0%	80	Levy 2006
Grar		0%	1	20%	3	60%	1	20%	5	Gilead 1995
Nahal Qomem	1	33%		0%	2	67%		0%	3	Yossi Nagar, IAA Anthropological Lab
Namir Road		0%		0%	1	100%		0%	1	Van den Brink 2006
Shiqmim	8	27%		0%	22	73%		0%	30	Levy and Alon 1987a; Dawson <i>et al.</i> 2003; Zagerson and Smith 2002: Table 10.2
Tel Abu Hamid (basal layers)	1	100%		0%		0%		0%	1	Lovell <i>et al.</i> 1997
Tel Ali, str. Ia	1	100%		0%		0%		0%	1	Garfinkel 1992: 341, Fig. 6
Tel esh-Shuna	2	100%		0%		0%		0%	2	Baird and Philip 1994: 113-114
Tel Kitan, str. X	1	100%		0%		0%		0%	1	Eisenberg 1976; 1993
Tel Sheva	2	11%	6	33%	10	56%		0%	18	Yossi Nagar, IAA Anthropological Lab; IAA archives
Tel Te'o, str. VI		0%	1	25%	3	75%		0%	4	Eisenberg <i>et al.</i> 2001
Total	77	39%	28	14%	87	44%	6	3%	198	

Table 13.2: A list of intra-mural burials in habitation sites (not including subterranean complexes).

Another possibility worthy of mention is that of the intra-mural inhumations. These have been encountered on a range of occasions, most of which are located in the Jordan Valley (e.g., Faza'el, Ghassul, Tel Kitan) and northern Negev (e.g. Grar, Gilat, Shiqmim) although some have been reported from other areas as well (Nahal Qomem, Namir Road). Excluding for the time being the subterranean complexes of the Beersheba Valley and Giv'at ha-Oranim, any attempt to link these burials with the formal cemeteries has to face up to severe inconsistencies among the sites. These pertain to such matters as differential representation of various age groups (Table 13.2) and choice between private (domestic) or public (open) spheres for burial. Some of the sites in question are located in regions in which no cemeteries have been recorded, the Jordan Valley being the most obvious example. In some sites (Ghassul, Besor, Faza'el 2), large sherds were used to contain the human remains, while in others this practice was absent. The greatest difficulty pertains, however, to the considerable difference in density of burials. While from some sites multiple inhumations were reported (Ghassul, Gilat, Shiqmim, Tel Sheva), from most the numbers are very small or burials are entirely absent. Consequently, it appears that intra-

mural burial was a practice that varied considerably in intensity from place to place, as well as in focus. Accordingly, the probable relationship of this practice to the secondary burials in formal cemeteries is variable at most. While in some cases a sequential relationship may have existed, for many it certainly did not, either because intra-mural burials constituted for them an entirely different matter or because it was not practiced in the first place. Moreover, patterns of disarticulation of the skeletal remains and the processes responsible (human manipulation, faunal activity, post-depositional influences, etc.) are extremely difficult to unravel, and, while some degree of intentional manipulation is likely to have been involved, there is also evidence for this being an on-site practice rather than one connected to the cemeteries, as demonstrated by the absence, or isolated deposition, of particular skeletal parts, most notably the skull (Mallon *et al.* 1934: 48-50; North 1961; Macdonald 1932: 7; Smith *et al.* 2006).

Concerning the subterranean complexes that are known primarily from the Beersheba Valley (Perrot 1955a; 1955b; 1957; 1958; 1960; Dothan 1959; Rosen and Eldar 1993) but also from Giv'at ha-Oranim, a little further to the north (Scheftelowitz and Oren 2004), the situation is equally complicated and uncertain. There is little agreement about either the function of these features or their stratigraphic position. Some maintain that they were used for dwelling purposes and represent the earliest phase of occupation at the sites in question, preceding the appearance of above-ground architecture (e.g. Perrot 1984; Levy *et al.* 1993: 88-89). Others, on the other hand, maintain that they were contemporaneous with the above-ground architecture and fulfilled more specific functions, such as storage or as specialised workshops (Gilead 1986; Gilead *et al.* 1991). Human remains were found in both articulated and disarticulated conditions, representing all ages and both sexes. While formation processes for most disarticulated remains cannot be determined with certainty, some strongly suggest secondary interment while several others might be taken to represent acts of removal. For instance, in Bir Safadi, the remains of three adults were piled against the wall of the chamber with the skulls on top (Perrot 1958) and, in Abu Matar, the fragmentary remains of a 12-15-year-old adolescent and a 6-8-year-old child were deposited on the floor of silo X and subsequently sealed below a fill of rubble (Perrot 1957: 28), both suggesting that they were deposited in this manner. Conversely, the recovery of an articulated hand in silo 210 in Abu Matar (*ibid.*) may indicate that the rest of the skeleton was removed. A wide range of practices involving the manipulation of human remains is therefore likely to have taken place in these subterranean structures, including primary and secondary

interment and circulation of skeletal parts. This breadth of practices seems to represent a case of overlap with those associated with the formal cemeteries rather than one of complementarity. Thus, while links between the subterranean features and the formal cemeteries may exist, it is definitely not necessarily the case and to a considerable degree they are likely to have been entirely independent.

Hence, despite the substantial amount of evidence for mortuary behaviour outside the formal cemeteries, there is little that can be considered as fully complementary to them or clearly linked. Rather, multiple mortuary procedures seem to have coexisted, including a variety of treatments and contexts, encompassing both primary and secondary depositions as well as less obvious manipulations of human remains. A host of possibilities for the treatment of the dead seem therefore to have been at the disposal of the people of the Chalcolithic period, for which the formal cemeteries represent only one, a state of affairs that is also widely documented ethnographically (e.g., Ucko 1969: 270; Malville 2005). The formality of the cemeteries should therefore not be mistaken for standardisation nor should they be considered as representing a yardstick for mortuary procedure, but as one component among several. Moreover, given the possibility of ongoing manipulation of human remains, one cannot assume that the cemeteries necessarily represent the final resting place of human remains and that much more complex patterns of circulation may have been involved. A detailed treatment of these questions is, however, beyond the scope of the current study, the focus of which is limited to the formal cemeteries. It will suffice for our purposes to remain cautious of their position.

Yet, at least in one respect, the cemeteries are entirely distinct from all other burial contexts, namely, their exclusive focus on secondary burial of disarticulated human remains. Following Hertz (1960) and van Gennep (1960), this act of secondary interment can be taken to mark the end of an extended liminal period, during which the corpse, society and the spiritual/cosmological<sup>3</sup> order were in a state of flux. This phase is liminal in that it is situated between two clearly defined positions or conditions and is located in neither; it is fraught with dangers and ambiguities because it escapes definition. It is manifested in the physical transformation of the corpse, in the exclusion of the bereaved from society as they endure

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<sup>3</sup> Hertz speaks of the soul but, as Metcalf & Huntington (1991: 111-113) point out, concepts of a soul and an afterlife are by no means universal.

various taboos and prohibitions, and in the separation of the deceased from the living and his or her incorporation among the dead.

Thus the secondary deposition of human remains entails also freeing the bereaved from mourning and allowing their return to society; the tensions and risks brought upon the social body by the corpse are lifted as well. This general scheme of things is likely to have been the case for all cemeteries in question, and indeed the basic structure of procedure seems to have been consistent throughout, constituting a broad common base for all. The differences among cemeteries do not concern therefore variations in attitude toward the corpse, the skeletal remains, death or the dead as such, as they represent different ideas for which the dead are the medium. The cemeteries differ primarily in their choice of symbolism, structure and consequently in the breadth and quality of the discourse for which they offer a platform. In other words, while leaning on similar means of coping with the event of a death and the death of an individual, cemeteries constitute institutionalised representations of the collective dead, their organisation and internal distinctions among them.

The Chalcolithic cemeteries are thus embodiments of a society of the dead. Given, however, that cemeteries and mortuary phenomena often represent ideals that may be at variance and even contradiction with living social reality (cf. Bloch 1971; Hodder 1982: 195-201; Parker Pearson 1982; Ucko 1969), no straightforward correlation between the two can be assumed. Cemeteries are thus best regarded as loci for the articulation and negotiation of ideals, and not necessarily of social reality.

In all, five types of cemeteries have been discussed throughout the foregoing pages, each with its particular pattern of organisation:

1. Single-cave cemeteries, designated the northern group;
2. Multiple-cave cemeteries, designated the southern group;
3. Cemeteries in large active karstic systems;
4. Mortuary-structure cemeteries; and
5. Kissufim Road.

Each of these, it is assumed, embodies different ideas and facilitates different discourses. The task ahead of us is accordingly the disclosure and characterisation of the concepts involved and the appreciation of the variability and range of the mortuary institutions of the Chalcolithic period. Given that the greatest detail is available for the single- and multiple-cave cemeteries,

they also offer the most convenient point of departure. What follows will therefore begin with these cemeteries and will then continue to consider the others in their light.

### Single- and multiple-cave cemeteries

Starting with the commonalities, it is of note that both single- and multiple-cave cemeteries seem to have undergone a similar process, entailing a decrease and probably a complete cessation of the input of new ceramic receptacles. Given the likelihood of association of these cemeteries with the closure of a prolonged liminal period, it is fairly easy to see how the handling of the cumbersome and fragile ossuaries contributed to this act of final burial and how putting an end to their use (at least in their complete form) would have had a relieving effect, removing the hazards of breakage upon transportation. As such, both cemetery types not only share concepts of mortuary practice and employ similar motifs, but they also undergo similar processes of change.

Yet, against these similarities, important differences are observed, mainly concerning the organisation of the cemetery and the functions of the designated receptacles. As noted above for the multiple-cave cemeteries, there are several indications that the mortuary assemblage and the designated receptacles in particular had a function of articulating meaning and identity of a cave and its 'inhabitants'. This primarily unfolds against the background of multiple caves constituting a cemetery, in which each cave occupies a given position within the whole. For the single-cave cemeteries this was evidently not an issue; the singularity of the cave did not demand the articulation of its function or position. The manner in which the two groups differed in their reaction to the diminishing input of ossuaries can be readily seen to follow from these differences in function that rendered the vessels in question indispensable for the first and replaceable for the second. Hence, the fragmentation and circulation of ossuary fragments among the multiple-cave cemeteries and the straightforward decrease among the single-cave cemeteries.

Digressing for a moment from our main line of discussion, it is noteworthy that these suggestions raise some interesting questions about how the production of ossuaries and other designated receptacles was organised. Most notably, it seems that change in use of these vessels was more in the nature of a reaction to an alteration in circumstances than an aspect of developments in the mortuary practices themselves. The persistence of the multiple-cave group's use and reuse of these vessels is particularly suggestive in this regard. If this be the case, the

production of the designated mortuary receptacles must have been organised along lines independent of those of the mundane assemblage, perhaps by specialised (travelling?) artisans.

Anyhow, it is becoming increasingly evident that the two cemetery types differ primarily in structural and organisational features of their cemeteries. The multiplicity of caves characteristic of the one group affords a medium for differentiation and classification, whereby each cave represents a given sub-group or social category, defined against the others. It is the consistent multi-faceted structure of these cemeteries that sets them up as systems, whereby interrelated elements come together to create a whole, representing perhaps an idea of social or cosmological order. Whatever the specific meanings, different individuals were allocated different roles or positions within this system, complementing and presupposing each other to facilitate the whole.

It is by token of the very juxtaposition of caves that the multiple-cave cemeteries crystallise into systems, and it is this systemic representation that is absent from the single-cave cemeteries. In the latter, the single component is all there is; the one burial cave stands on its own without being accompanied by additional elements. Every cemetery thus constitutes a singular totality, emphasising distinctions from without, and claiming unity from within. While the structure asserted by the multiple-cave cemeteries, whether ideological or social, was conceptualised and legitimised by reference to an overall scheme, structuring individual identities in relative terms, the structure of the single-cave cemeteries was founded upon a claim of being absolute, eternal and indivisible. In other words, while the single-cave cemeteries represent monolithic units, the multiple-cave cemeteries represent multi-component systems that function according to a given set of principles, in which a varying number of semi-autonomous components can find their place, negotiate their roles and meanings and, in doing so, contribute to the whole.

The rhetoric invoked by the cemeteries was evidently different in the two groups. Although drawing on similar symbols and motifs, they were mobilised to facilitate different concepts and ideals. Going any further, however, into the contents of these structures is extremely difficult and precarious. Nevertheless, given the observed variations in quality, it is probable that the single- and multiple-cave cemetery functioned as representations of utterly different ideas. In terms of the above, it seems that the prime concern of the single-cave cemetery was to establish a direct link between past and present via its monolithic structure. For the multiple-cave cemetery, however, such equivalences were apparently of less importance. Instead, it was the ongoing

articulation of a (dynamic) system, consisting of multiple components, that was their prime concern.

A focus on one's past as suggested for the single-cave cemetery is highly suggestive for a portrayal of an ancestral line, in which case it is the lineage that is represented by the cemetery. Because of their apparently weaker connections with the past, the likelihood that a lineage is the focus of the southern cemeteries too is less probable. Rather, considering its more systemic character, the community as a multi-faceted and dynamic phenomenon is a more likely entity to be signified by the cemetery. Thus, one might venture to say that, while the single-cave cemetery represented the lineage, the multiple-cave cemetery represented something more communal.

#### Cemeteries in active karstic systems

Cemeteries in complex, active, karstic systems may be viewed to an extent as a conflation of the two types discussed thus far. On the one hand, they consist of an isolated subterranean cavity that stands on its own and does not maintain relationships with others in its vicinity; on the other hand, it is composed of halls, galleries, cells and niches that produce multiple and complicated spatial subdivisions. Accordingly, the structure of these cemeteries strongly emphasises their unity and their singularity in their wider geographical and cultural settings, but internally multiple distinctions and subdivisions are made. Based on the currently available data, the probability that a systemic concept, analogous to that employed by the multiple-cave cemeteries, was involved is very unlikely; such a concept seems also rather superfluous when all subgroups explicitly occupy the same space, rendering their membership in a common unit evident.

Thus, concerning their fundamental structure, it seems that the cemeteries occupying active karstic systems bear close resemblance to the single-cave cemeteries, differing primarily in scale, both of the site and of the population. This difference in scale is not a mere technicality, however; there is good reason to suspect that it carried considerable qualitative implications. First, the increase in size of the cave entails also the formation of multiple spaces, many of which are arranged in sequence. Differences in location consequently often entail also differences in depth and accessibility, which might suggest an arrangement by order. Second, an increase in population brings with it also the potential increase in the number of subgroups and distinctions drawn, which further complicates the discourse by demanding more nuanced and varied means for articulating their positions and mutual relationships.

Suggesting therefore that the active karstic caves are much like the single-cave cemeteries writ large implies that much of the internal dynamics that are moderately or tacitly expressed in the latter are more explicitly and conspicuously expressed in the former. Thus, distinctions that in the single-cave cemeteries were manifested simply by clustering, communicated in the large karstic contexts also qualitative differences, articulated via their relative position within the complex sequence of subterranean spaces and augmented by an apparently more intensive use of prestige objects, most notably copper and electrum/gold.

The combination of sequential ordering and prestige items seems to point towards an explicit concern with matters of rank and status. However, given that the temporal aspect of the formation of these assemblages and the breadth of the social unit represented by the cemetery are still indeterminate, a demand for moderation ought to be maintained in our interpretations. Accordingly, a suggestion forwarded recently for Peqi'in that variations in the presence and type of ceramic containers reflects social variations in power and status (Gal *et al.* 2007: 46), must be augmented by a demonstration that temporal processes or other lines of meaning were not involved, processes that have been shown to be of significance elsewhere. Moreover, if one accepts Nagar's suggestion that the cemetery of Peqi'in, and by extension also Nahal Qanah, served a population that covered an area greatly exceeding their immediate vicinity, one must also consider the complexities introduced pertaining to the articulation of relationships among numerous groups. In all, the discourse in active karstic systems seems to have unfolded along lines of location, and to a certain extent, accompanying artefacts. Assuming that it began modestly and that the demand for differentiation and distinction increased as the number of interments grew, it is probable that the use of the deeper reaches of the caves and the more impressive prestigious objects represents a relatively advanced stage of the caves' mortuary function.

It is of note in this regard that in Nahal Qana the spatial distribution of prestige items hardly penetrates into the deeper parts of the cave, most of which are found in the Main Hall. Indeed, it seems that the deeper the inhumation, the simpler it is. While one might wish to conclude that the deep reaches suggest diminished status, it is more likely that spatial distinction and the deposition of accompanying artefacts operated on different levels. Because each successive level within the cave entails crossing through those that precede it and because in many respects it represents greater effort and emphasis on the features already presented (deeper, further,

darker...), it is reasonable that the deeper burials are also the more valued ones. Leaning as they do on distinct spatial divisions within the cave, they are explicit and unambiguous and demand little emphasis. In the Main Hall, however, where most individuals were interred, ambiguity was the norm, for a considerable number of interments populated a single and continuous space. A relatively intensive use of funerary gifts and prestige items may very well have been part and parcel of a discourse negotiating the relationships and status of cohabiting groups and individuals. Thus it is hypothesised that, in the active karstic systems, the use of successive spaces constituted an institutionalised form of differentiation and probably ranking, while variability in the associated material assemblages, accompanying artefacts in particular, represents discourses negotiating the ambiguous relationships among individuals and groups.

#### Mortuary-structure cemeteries

Moving from the subterranean mortuary contexts to those located above ground, it seems that a wholesale change of tone and temperament is involved. Indeed, only a few loose points could be cited as features common to both: that the cemeteries consist of discrete units as in the multiple-cave cemeteries and that some kind of hierarchy exists among them as in the large karstic systems. These similarities hold, however, only in a very general sense and, once their specific characteristics are considered, significant divergences come to the fore. Unlike the multiple-cave cemeteries, the units comprising the mortuary-structure cemeteries are not fully equivalent. They consist of several types or categories, usually two or three, represented by distinctions in size, form or both. Consequently, the cemeteries in question are a combination of elements that vary from one case to the next in number, organisation and relative proportion, consequently producing in each case different patterns, relationships and representations of the social unit as a whole.

The differences in type or category among units comprising a cemetery are readily observed to carry some hierarchical weight. This receives its clearest expression when distinct size groups occur; while retaining the same form, the larger units are by definition more conspicuous, more prominent and more comprehensive, suggesting that they occupy a somewhat more prominent position within the cemetery's community. It does not, however, necessarily imply social ranking or differential distribution of power in the strict sense. Indeed, hierarchy can be logical, it can be a matter of precedence or inclusiveness; it may also be of order and temporal sequence.

The meanings that can be read into a hierarchical patterning of elements go far beyond matters of ranked social organisation. Moreover, the cemeteries in question appear to represent a rather diffused phenomenon. First, there are usually several supposedly high-ranking structures within a cemetery and there is little to suggest that they negotiated for prominence among themselves. Rather, they are equivalent, marked by the same symbol (form and size of structure). Second, there is reason to believe that differentiations in size and form are at least partially also a temporal phenomenon and that the more prominent structures are relatively early within the cemeteries' sequence, later to be accompanied by more modest structures.

Accordingly, the hierarchy in question appears to be more concerned with matters of identity and relationships. As suggested in the detailed discussions of Shiqmim and Palmahim (North), it seems that the more modest structures assert their distinctiveness and at the same time are defined by the relations they maintain with the larger ones. Ultimately, the discourses driving the ongoing development of the cemeteries were concerned with the definition of emerging and existing social units via their mutual interrelationships and their association with a prominent social entity, one from which they probably descended.

Regardless of whether one accepts the particularities of this interpretation, the important point to stress here is that these cemeteries employed a limited set of structure types in a grammatical fashion, negotiating their mutual positions and relationships and consequently producing a different pattern in each case. Thus, in Shiqmim cemetery 3, several small and mutually exclusive groups are represented, each centred around one prominent structure. Conversely, in Shiqmim cemetery 1, one large group is represented, where all members are associated in conjunction with four large structures, which define the cemetery's perimeters. And in Palmahim (North), three structure types (grammatical elements) were used, producing a representation of tight, interconnected, yet variable interrelationships.

Hence, compared with the various types of cave cemeteries, the mortuary-structure cemeteries are considerably more dynamic and flexible. The former seem to adhere to a rather strict outline or framework that is imposed on the particular members, functioning as a yardstick or a scale along which all are situated and defined. In the case of the single-cave cemeteries, it is a monolithic and unitary construct; among the multiple-cave cemeteries, a systemic framework is articulated by means of a binary opposition, according to which a range of intermediary positions are defined. And in the karstic cave cemeteries a hierarchical scale is produced by the sequence

of spaces. Rather than imposing a predetermined conceptual framework upon their particular manifestations, the mortuary-structure cemeteries work from the other end, that is, from the bottom up, from the particular element to the cemetery as a whole. There is no overarching organising principle, but only a set of agreed-upon symbols that are subjected to manipulation.

The manner in which the mortuary-structure cemeteries set the grounds for a comparatively highly vibrant discourse, the flexibility of which exceeds by far that of the other cemeteries, is now apparent. The relatively large number of units constituting these cemeteries is itself an important indication for the highly dynamic negotiations for which the cemetery was the setting. Each structure constituted the definition and proclamation of a social unit, thus every time a new one was erected, the emergence of a new (self-defining?) social unit was asserted, demanding a position within the overall social fabric.

### Kissufim Road

Lastly, the cemetery of Kissufim Road is left to be discussed. Given, however, its singularity and limited exposure, it is extremely difficult to interpret, for only a few patterns can be inferred or assumed. Nevertheless, when compared with other cemeteries some interesting points for consideration come to the fore. Evidently, several distinct types of features constitute it: the subsurface rectangular structure, large collective burial, and single inhumations. Much as in the mortuary-structure cemeteries, these strongly suggest that categorical distinctions were at play and that their interrelationships were a matter of discourse and articulation. Moreover, in a similar vein, it is also probable that some form of hierarchical order was also implicated. Whether it had reference to social ranking or not cannot be determined, however. Thus one might find close similarities in the logic and patterning of Kissufim Road to those observed for the mortuary-structure cemeteries. Yet divergences clearly do exist. One of importance is the quality of difference between the types of mortuary features, which is much more striking than those of the mortuary-structure cemeteries, to such an extent that it appears as if the distinctiveness and difference between them was of greater importance than their collective association.

On the other hand, the patterning of the mortuary assemblage carries rather close affinities to the patterns noted for the multiple-cave cemeteries. The composition of the mortuary assemblage is the most striking in this matter, especially the distinction between contexts affiliated with

stone basins and those affiliated with ossuaries and burial jars. Also noteworthy is the use of an ossuary fragment for one of the single burials (Loc. 506), which can be taken to represent participation in processes of fragmentation and circulation of mortuary vessels discussed for the multiple-cave cemeteries. Thus, perhaps, rather than embodying a logic similar to that of the mortuary-structure cemeteries, Kissufim Road might in fact be following a line similar to that of the multiple-cave cemeteries, articulating positions and relationships by means of assemblage composition. If this is indeed the case, it might have some further implications for the understanding of the function of the cave cemeteries, particularly as it states the possibility that at least parts of the mortuary assemblage have been deposited in advance with the intention of future use.

## **Conclusion**

In the attempt to achieve closure following a long and winding discussion, it can be asserted that Chalcolithic cemeteries embody a convergence of at least two institutions: (1) the religious or ritualised treatment of the corpse and the body; and (2) the physical representation of social and cultural ideals. Although our knowledge of the former is lacking in detail, there is reason to believe that manipulation of human remains, including their secondary deposition, was a fairly widespread phenomenon in the Southern Levant. It is clearly common for all the cemeteries discussed here and it had also been observed in many contexts and regions in which no cemeteries are known. Risking exaggeration and crudeness, I would suggest that many aspects of mortuary practice were common to most Chalcolithic societies occupying the Southern Levant.

The physical representations embodied by the cemeteries, on the other hand, are highly diversified. At least five types have been defined, each articulating different ideas and operating according to different principles. Three of these use caves and function under relatively rigid guidelines, signifying a unitary and monolithic concept of the social body (single-cave cemeteries), a hierarchical sequential order (karstic cave systems), or a systemic principle based on a binary opposition (multiple-cave cemeteries). Although maintaining internal discourses and often complex patterns of development, they are all encompassed by a predetermined idea that bounds them and defines their outer limits.

Other than this, the differences between them are considerable; the ideals embraced and embodied by the cemeteries were widely divergent. While the multiple-cave cemeteries embody

an ideal of a society that is constituted by two opposing principles that converge in various ways, generating a spectrum along which individuals are positioned (a position that is itself open to negotiation), the single-cave cemeteries and those occupying karstic systems embody a monolithic concept. The former is stricter; due to its smaller scale it embodies a greater emphasis on exclusiveness and singularity. The latter, also due to its scale, contains much more internal strain and variability that subsequently draw hierarchical distinctions among its members that in the final analysis share the same denomination.

The mortuary-structure cemeteries do not work according to such overriding principles, but employ a small number of symbols in a syntactical fashion to produce relatively intensive discourses and varied meanings. These may range from small, centralised units, as in Shiqmim cemetery 3, to large units that contain complicated interrelationships, as in Palmahim (North). Accordingly, it can be said that, while the cave cemeteries embody a predetermined meaning, the mortuary-structure cemeteries afford the means of expression and the setting, while leaving the meanings undetermined.

As for the fifth cemetery type, represented to date by Kissufim Road alone, the data is too fragmentary to allow a reliable interpretation to be offered. Given our current understanding it can be understood in either way.

Lastly, a note is in order about the manner in which mortuary practice and the physical representations of the cemeteries come together. The latter evidently demonstrate the greater variability, shifting and changing across the physical and social landscape. The relative uniformity of the former, conversely, may be taken to suggest an overarching ideological commonality among many otherwise divergent Chalcolithic societies, at least insofar as the treatment of human remains is concerned.<sup>4</sup> Thus, if we were to try and characterise the quality of the relationship between the two, it could be said that cemeteries constitute appropriations of the mortuary practice and associated beliefs to express local ideals and notions. On a broad regional scale, it could perhaps be further suggested that, while sharing eschatological views, cemeteries were a device for the expression and negotiation of social ideals that were anything but common.

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<sup>4</sup> Fahlander and Oestigaard (2008: 3-5) have noted that the material experiences of death are often more diversified than those that may be labeled religious or eschatological.

**Part II:**

**The Contemporary  
Cemeteries**

## Ch. 14: Introduction and Method

Although occupying a pivotal position within the current study and corresponding with a wide range of concerns (chapters 1 and 2), the present analysis is by no means exhaustive. It is not meant to offer a comprehensive account of contemporary Jewish<sup>1</sup> cemeteries in the Southern Levant, but aims to achieve the much more modest goal of sketching an outline and hopefully distinguishing some key features of their organisation and development. For this purpose, eight cemeteries were sampled, chosen so as to represent four basic categories: closed civil cemeteries (Trumpeldor and Netzah), open civil cemeteries (Morasha and Shiqun Vatiqim), civil Qibutz cemeteries (Ma'abarot and Yaqum) and military cemeteries (Qiryat Shaul and Ben Tzion). Each of the four types represents a particular combination of features, concerning community size, religious regulation and social or organisational affiliation:

<b>Closed cemetery</b>	<b>Open cemetery</b>	<b>Qibutz cemetery</b>	<b>Military cemetery</b>
Small (100s)	Large/medium (10,000s)	Small (100s)	Small-large
Civil	Civil	Civil	Military
Religious	Religious	Secular	Religious

Together, these basic forms represent the context of burial for the overwhelming majority of Jewish population in the Southern Levant over the past 100 years and providing equal representation for each was a primary criterion for the choice of cemeteries for analysis. Another concern was the representation of the author's personal background. In order to answer this concern, two cemeteries from the town of Netanya (Shiqun Vatiqim and Ben Tzion), the author's hometown, were selected for analysis. Beyond these matters, the choice of cemeteries for analysis was fairly random, constrained mostly by considerations of accessibility.

With the exception of the above, the present study will refrain as much as possible from any further conscious use of non-archaeological (or non-material) data. The reason for this is the expressed effort of the present research to conduct an archaeological analysis of a contemporary material phenomenon with as little influence as possible from other sources of information. Accordingly, no attempt was made to gather background information on any of the cemeteries analysed, nor was any effort made to trace policies and managerial decisions. Of course,

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<sup>11</sup> By 'Jewish' I am referring to national identity, which does not necessarily coincide with explicit religious convictions. The exclusion of cemeteries affiliated with Muslim, Christian and other minorities in Israel is due to the present study's effort to represent the cultural background of the author.

complete isolation is impossible and some previous knowledge of these institutions, undeniably culturally significant, cannot be ignored. Most importantly, this includes the following. The cemeteries in question serve local populations. Most are managed by agencies following orthodox religious imperatives and prescriptions while others, as most Qibutz cemeteries, are managed by non-religious communal committees of the settlement. The burial is invariably primary and tombstones are erected 30 days after burial or 12 months after death (in the religiously minded cemeteries). All cemeteries consist of single graves, clustered together in more or less orderly fashion forming distinct rows and plots.

The following analyses' focus is on the single grave. A sample, ranging between 165 and over 200 entries, was produced for each cemetery, aspiring to represent the temporal continuum and micro-spatial relations. As a rule, this was achieved by recording spatially continuous areas in different plots, each of which covers a particular time-range. In cases that several plots in a given cemetery represented more or less the same time period, one of them was arbitrarily selected. A caveat of this method of sampling that ought to be mentioned is that it runs the risk of missing macro-spatial patterns, pertaining to variations among plots. If such differences do exist, they will go unnoticed by the present analyses.

This being said, outlining the external frame for this part of the study, the remainder of the present chapter will progress through two main sections. The first is concerned with the data collected, the particular variables involved, their source and presumed significance. The second section focuses on the methods of analysis and guidelines for interpretation.

### **Data production**

Generally speaking, analysis is geared towards three basic features: representation, interrelationships among graves and temporal processes. Every grave sampled was plotted into a database, in which it constituted an entry. A fixed set of parameters was recorded for each, consisting of its spatial and temporal position, anthropological data, basic structural properties, and various attributes and additions. Admittedly, more parameters could be incorporated and some degree of arbitrariness is involved in the choice of features for analysis.

Yet the choices made are not random. Anthropological data accounts for the buried individuals; these are, in the final analysis, the objects of funerary conduct, of which the cemetery is the result and, therefore, central. Properties of the tombstone were recorded with

particular concern for matters of representation and visual experience. The properties recorded can be assigned to three structural, hierarchical positions: the material, the form and particular motifs, whence the material provides the background for the form and the form provides the background for the motifs applied. Finally, temporal and spatial data were recorded in order to provide a means for the analysis of relationships among graves and burials.

### Spatial and temporal position

The spatial position of each grave was recorded in terms of the plot, row and its place within the row, counted from either the left or right side. Every grave was thus assigned particular coordinates, representing the spatial affiliations with others. In addition the year of burial was also recorded for each grave, thereby locating them along the temporal axis as well.

It should be noted that, while the recording of the spatial data was straightforward, derived from direct observation, the year of burial was borrowed from the information inscribed on the tombstone. The tombstone inscription, however, refers to the year of death and not to that of burial, a discrepancy that invites distortions into the database. Nevertheless, because primary burial is the norm, such biases are expected to be minimal, occurring only in exceptional cases (e.g., the transference of remains from one burial place to another, retaining a body in refrigeration for an extended period of time, etc.).

### Anthropological data

Only the most basic anthropological data was collected: sex and age of the deceased. Like year of burial, this information was gathered from the inscription on the tombstone. The name of the deceased was often sufficient to determine the sex, but other parts of the inscription were helpful as well, such as those saying ‘son/daughter of...’ or ‘our mother/father’. Age, on the other hand, although sometimes stated explicitly, often could only be determined by token of year of birth, which was commonly noted alongside that of death.

### Structural properties

This refers to various properties of the tombstones, concerning their form, the materials from which they were fabricated and the nature of their interrelationships. Generally speaking,

taxonomy was produced for each of these aspects, trying to account for the greater majority of manifestations.

Regarding form, the grave marker can be said to consist of two basic components, erected on a concrete infrastructure: a low box-like structure that superimposes the backfilled pit, to which an appending element is often added, attached above it at one of its ends. Although the height and size of the lower part may vary slightly, it is the form of the upper part that shows the greatest diversity. A typology of tombstones was thus produced based upon these forms, defining six basic types (Fig. 14.1):

1. *Type 1* – consisting of a rectangular slab set up vertically;
2. *Type 2* – the same as type 1, but with a curved upper part instead of an angular one;
3. *Type 3* – the same as type 1, but with a small arched segment on top;
4. *Type 4* – usually consists of an elongated slab in front of which two columns are set up holding up a roof-like element;
5. *Type 5* – consists of only the lower part without any addition; and

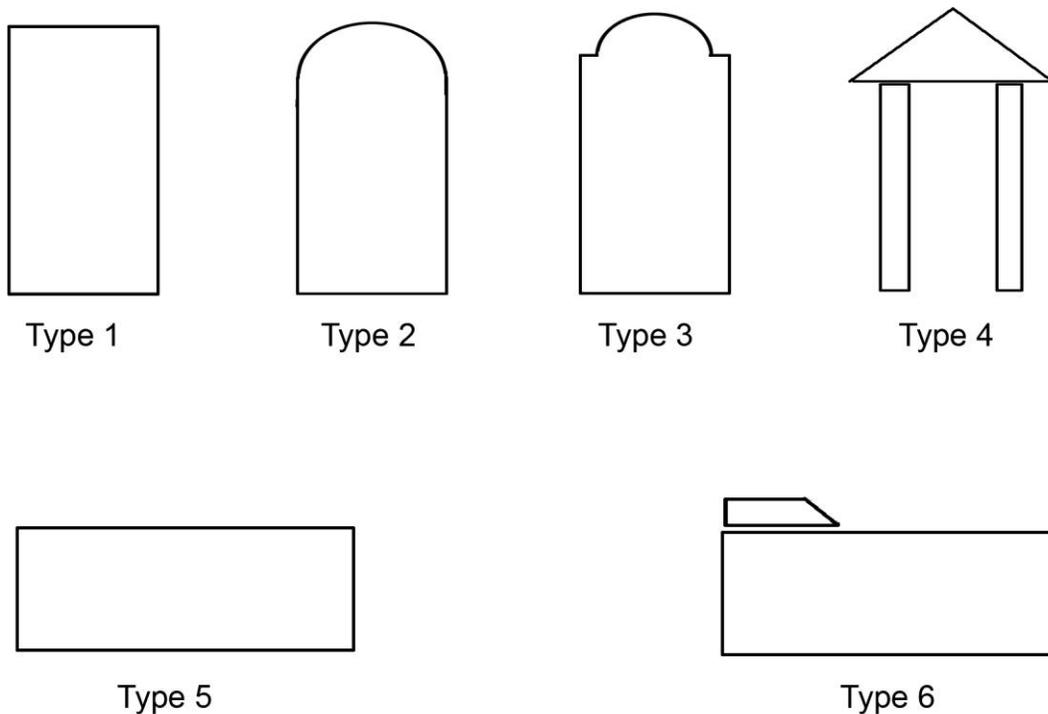


Fig. 14.1: Schematic scheme representing the typology of tombstones employed. Note that types 5 and 6 represent a side view and include the lower component whereas types 1-4 represent a front view without the lower part.

6. *Type 6* – consists of a small slab set horizontally above the lower part, resembling a pillow.

The assignment of each tombstone in the sample to one of these types was based upon direct observation. Usually this was very straightforward and immediate and did not demand much thought, although few ambiguous cases were encountered. Whenever a tombstone could not be assigned to any of the abovementioned types it was labelled ‘*varia*’.

Turning to the issue of raw materials, four basic types were readily distinguished, each with its own unique visual effect and texture:

1. Cement<sup>2</sup> – relatively rough-textured and grey, although it appears that at least sometimes it was originally white-washed;
2. Limestone – often polished, producing a smooth white to beige surface;
3. Turkish marble – always polished, producing a highly lustrous pale blue to greyish surface; and
4. Granite – always polished, producing a highly lustrous dark grey to black surface.

Because each of the categories differs considerably from the others, the assignment to either one or sometimes two of them by direct observation was fairly easy. Yet, only materials that constituted a significant part of the tombstone were registered. Thus, for example, if a narrow band of another material was used to circle the tombstone, or a single slab of marble was used to cover its lower part, these were not recorded. It should also be noted that each of the categories could be further sub-divided into variants; for the sake of simplicity, however, it was decided not to go into further detail in this matter.

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<sup>2</sup> This refers to the superstructure marking the grave, not to be confused with the foundation underfoot.

The last structural property considered is that of the interrelationship between the graves, manifested by the tombstones. In all cemeteries sampled, each grave is occupied by the remains of a single individual, set in rows one beside the other. Usually, a tombstone is set up for each grave, so that each one stands on its own. Sometimes, however, neighbouring tombstones are linked together. Usually no more than two graves are involved in such an association, but rarely larger groupings were recorded as well. Accordingly three types of associations were defined: ‘singles’, ‘pairs’ and ‘collectives’.

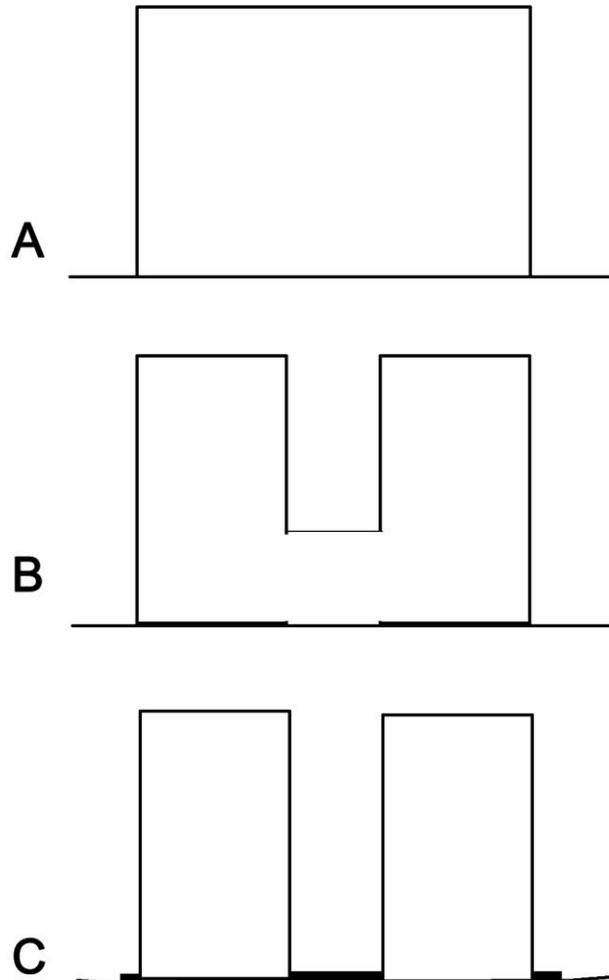


Fig. 14.2: Typology of association types among graves.

Three manners in which such associations of graves were observed, were arbitrarily labelled A, B and C (Fig. 14.2). Association type A consists of a single large tombstone shared by two or more graves; type B consists of two or more graves, sharing the lower part of the tombstone but for which separate upper parts were erected for each; lastly, type C consists of entirely independent (although often identical) tombstones that are linked at their base by a paved surface. One ought to keep in mind that these observations are indicative of associations that have a material manifestation; instances in which more subtle expressions of association were applied could not be observed here.

### Attributes and additions

By attributes and additions I am referring to a variety of elements that may or may not be applied to a tombstone. They are probably best regarded as extras, elaborating on the fundamental

structure of the grave. A comprehensive treatment of this aspect demands considerable heedfulness to a great number of facets: the motif, the structure, the mode of representation, the material, the relationship to the tombstone, etc. Such an analysis, however, is beyond the scope of the current study, which compromises for a focus on the motif alone. Ten elements or motifs were thus systematically recorded for each tombstone in terms of presence and absence:

1. *Candle* – A structural element designed to house one or more candles. This feature is often observed in one of two forms: either (a) a relatively small tin or iron vessel with a door in the front and a domed ‘roof’, capable of containing one and possibly two candles, or (b) a relatively large structure, made of stone or tin and capable of containing a large number of candles at any given moment. Both forms may be found either in the front or the rear of the tombstone; the first variety is sometimes set into a predesigned recess in the tombstone.
2. *Installation* – A structure, usually with upper part open, often encountered as a recess on the tombstone, although observed as an addition as well.
3. *Chalice* – A vessel made of plaster, ceramic or glass deposited on or around the tombstone. These vessels are narrow and tall and are sometimes found in large numbers.
4. *Book* – A stone engraved addition, shaped as an open book, invariably located on the lower part of the tombstone.
5. *Vegetal motif* – A representation of vegetal elements, usually branches and leaves. Such motifs are either engraved onto the tombstone, or represented by the tombstone being modelled after a vegetal theme, producing an irregular form.
6. *Hands* – An engraved depiction of two hands, in which the index and middle fingers are held at a slight distance from the ring finger and the pinkie.
7. *Menorah* – An engraved depiction of a seven-branched lamp.
8. *Star of David* – An engraved depiction of a geometric symbol.
9. *Portrait* – A depiction of an individual either by means of a photograph or an engraved portrait.
10. *Engraved slab* – A rectangular stone slab, usually set at the foot of the grave, carrying an inscription.

## **Analysis**

As implied in the above, the analytical approach is essentially quantitative, which seems to be the most suitable considering that contemporary cemeteries consist of aggregates of individual graves. Five aspects of the cemeteries will be considered in detail: tombstone typology, raw materials, the application of attributes, associations among graves and spatial relationships between the sexes. The components of each will be counted, presented in table form and graphically summarised to demonstrate their distributions along the temporal axis.

The first three are treated from the start as temporal phenomena. The relative portion of the components of each analysed aspect is produced against the total number of graves per decade. These figures are plotted along a temporal axis consisting of a continuous numerical scale of absolute years, arranged in 10 year intervals. Thus, frequency curves are produced, representing changes in relative portions of various elements from one decade to the next.<sup>3</sup>

The last two aspects of analysis consist, however, of spatial phenomena and therefore cannot be considered as primarily temporal. Unlike the former, which were treated as part of a temporal unit – a decade, these are analysed as members in a spatial unit – a plot or a cluster. As far as the issue of explicit relationships among graves are concerned, the treatment is fairly straightforward. It consists of counting the number of individual graves bearing explicit relationships to others compared to those standing on their own and calculating their percentages against the total number of graves occupying the spatial unit or plot in which they are lodged.

Comparatively, analysis of the spatial relationship between the sexes is considerably more complex, demanding that multiple variables be accounted for. In all, each grave is spatially flanked on both sides by graves associated with either female, male or neutral (usually if unoccupied grave or end of row) individuals. Thus, a total of nine possible combinations exist for each individual. To this one must add that each individual may be female or male, thereby doubling the number of possible combinations to 18. The relative frequencies for each of the possible combinations are calculated, by assigning one of them to every individual in the analysed spatial unit.

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<sup>3</sup> Graphically, the most straightforward mode of representation is that of linear time-series. But this might not be enough when several aspects of an analysed component need to be examined. This is the case with the attributes, for which bar graphs are occasionally used to provide information on several aspects at once, usually the number of attributed graves and the distribution of different levels of elaboration by means of attributes.

The patterns produced are rather complex, however. They tend to produce a certain redundancy by distinguishing between mirror images of otherwise identical combinations (e.g. M-F-F and F-F-M); they also tend to suffer from some problems of statistical reliability due to a relatively small number of entries being distributed among numerous categories of relations. Thus, for the sake of simplicity and clarity, the discrete relations are grouped into more basic and larger forms that encapsulate the essential content of the relations between the sexes: (1) forms in which members of only one sex are represented (e.g. F-F-F, F-F-X, M-M-M), (2) forms in which individuals have only one neighbour of the opposite sex (e.g. F-M-M, M-F-F) and (3) forms in which individuals are flanked on both sides by members of the opposite sex (F-M-F and M-F-M). As such, these three forms represent different positions along a continuum of the relations between the sexes structured by the cemetery and, in order to preserve some sense of their continuous relation, will be termed ‘homogeneous’, ‘varied’ and ‘heterogeneous’ respectively.

The degree, however, that the resulting pattern is a function of purposeful intervention or merely due to the relative ratios of males and females cannot be determined from the observed distribution alone. It is necessary to augment these patterns with those that could be expected if the same number of females, males and empty graves were randomly distributed in the same area. This is achieved by calculating the probability of each of the 18 possible combinations.

First, the ratio of females, males and neutral graves needs to be determined. While the first two may be considered as given, the third needs to be increased so as to include also the number of times a grave is located at the end of a row, which is by definition sexually neutral. Next, the probability of each individual having a neighbour of male, female or neutral sex is calculated. Thus, if the individual in question is female, the ratios are calculated as follows:

For a female neighbour	$(F-1)/(Total-1)$
For a male neighbour	$M/(Total-1)$
For a neutral Neighbour	$N/(Total-1)$

Accordingly, the probability of a given female individual having a female neighbour on one side and a male on the other is calculated by multiplying the value attained in the first row above and that attained in the second. Thus the probabilities of the entire range of combinations can be determined and summed up into the three essential types of relations noted above. Against the expected ratios thus produced it is possible to demonstrate whether the empirically observed

patterns deviate significantly from a random one, whether one kind or another of purposeful intervention was at play and what was the direction to which it pulled.

### **Interpretation**

Analysis will be conducted separately for each cemetery with interpretation geared toward the narration of discourses. Two premises underlie their analysis and interpretation: (1) each cemetery is regarded as representing a community; and (2), as a rule, the grave is a product of several well circumscribed events that were not subjected to further manipulation, most notably the burial and the setting up of the tombstone. Based upon these premises, the cemeteries can be approached as representing social units, the internal dynamics of which can be observed, their structures and patterns derived from the accumulated effect of individual choices pertaining to each grave on its own.

But there are some problems with these premises that must be addressed. The notion that a spatial phenomenon as a settlement or a cemetery is a focus of social life is a commonsensical one with which archaeologists approach their objects of research. However, the degree to which this is applicable to contemporary society, the social relations of which have been decentralised and dispersed, is somewhat questionable. Indeed, modern towns and even small settlements cannot be considered as communities in the naive organic sense of the term. Yet it would be a mistake to deny them any communal features, which they definitely do retain even in a restricted and limited sense. By the same token, cemeteries cannot be considered to represent communities in the simple intuitive sense of the term, but, even if only due to the grouping of individuals in a given space, they do represent a community, although not in the full sense of the term.

That the act of burial was a single event not subjected to further manipulations is hypothetically demonstrated by the human remains being anatomically articulated. Making a similar claim, however, for the tombstone is a more precarious matter. The tombstone bears no strict relationship to the burial, as it stratigraphically superimposes the two meters of backfill sealing the human remains. There is therefore no material evidence that the setting up of the tombstone took place shortly after the burial; theoretically it could have occurred long after.<sup>4</sup> Thus, if the year of death can be assumed to be also the year of burial, it is not at all obvious that

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<sup>4</sup> Although we know this not to be the case.

it is also the correct date for the tombstone. Moreover, because the tombstone was erected above ground, it may have been subjected to repair and even outright replacement, which would have amended its original properties. A procedure that assumes correspondence between the year of death, burial and the age of the tombstone must therefore take into account that distortions might be introduced. Entirely ridding the database of such biases is impossible, but, considering the relatively young age of most graves, the systematic marking of graves with tombstones and the patterns produced by them, it seems that such distortions were limited and that they could be contained.

Consequently, processes of development and change occupy the foreground of analysis and interpretation. This is not merely due to a well justified interest in evolutionary processes, but more so to the tendency of these processes to epitomise social and cultural discourse.

Such discourses are integral to the process by which one cultural, social or material form replaces another, which is rarely devoid of tensions, difficulties and unforeseen implications. The old rarely gives way immediately to the new and often continues to linger on for a while before it disappears entirely. Partially depending on the sensitivity of the issues at stake, the replacement of one form by another may be an altogether straightforward process or, conversely it may experience setbacks and retreats in its advancement. Such processes may be swift or they may demand extended periods of time.

Generally speaking, every form is expected to demonstrate a unimodal distribution along the temporal axis, whereby ‘...the relative, or proportional, abundances of each historical type will initially be rare, eventually rise to a single peak abundance... and finally decrease in abundance until it no longer occurs’ (O’Brien and Lyman 1999: 116). Accordingly, the process of change can be graphically represented as a sequence of unimodal, partially overlapping curves, each representing the abundance frequencies of a given form so that the increase in one is correlated with the decrease of another. Graphic representations of this kind demonstrate, however, that episodes dominated by a single unchallenged form are rare and that the coexistence of forms destined to replace or to be replaced by others is the rule. These forms are by definition mutually exclusive alternatives, the juxtaposition of which, therefore, necessarily embodies a tension, a competition for primacy.

Thus, it is assumed that a graphic representation of a sequence of forms, demonstrating their changing frequencies, is also a representation of an unfolding social discourse, allowing us to

trace its development, its shifts of focus and its variations in intensity. The first question is that of the issue(s) at hand. These are best disclosed by distinguishing the major transitions and the juxtaposition of mutually exclusive alternatives. By defining and characterising the quality of the gap between the antagonistic forms, the matters at stake can be observed. Given sufficient breadth of perspective, one can distinguish several consecutive topics, each represented by a different set of protagonists at different junctures, thereby demonstrating the unfolding and transformations of the social discourse in a particular arena, in the current case, the cemetery.

The second question is that of the importance or sensitivity of a given issue for the community involved. This is at least partially expressed in the dynamic interplay between the two (or more) protagonists, as demonstrated by the (presumably correlated) variations in their frequencies. The duration of the process is one factor to consider. Insofar as a consistent trend is demonstrated, it may range from a swift and intense change to one that is slow and relatively mild. However, the cases associated with the greatest tension and the most heightened sensitivity are those the patterns of which distinctly diverge from the expected unimodality, demonstrating two and sometimes more peaks. In such cases, oscillations in frequency distribution are akin to a seismograph recording a tremor that challenges the existing state of affairs, producing a pattern where the push and pull dynamics between the opposing forces are evident.

However, phenomena other than heightened sensitivity may be at the root of observed oscillations, demanding of us consideration and care in our interpretations. Poor sampling strategies may introduce considerable distortions and inconsistencies into the measurements; if a given form is looked into under too high a resolution, inconsistent fluctuations are likely to be observed, due to increased weight given to random factors, and, if the theoretical constructs (the types and forms) defined for the study do not correspond properly to the real categories at work, what is being measured may differ from what was intended, bringing about significant distortions. It is thus evident that one must not rush to infer that a sensitive situation is at hand every time the expected unimodal pattern is not observed.

Nevertheless, if the case at hand does answer several circumstantial conditions, the likelihood of increased sensitivity can be assumed to be high. Generally speaking, the divergence from the expected unimodality should be observed against the backdrop of altogether consistent patterns of development. That is, if the observed oscillation is seen to be circumscribed in time, with consistent trends both before and after it, or if the observed oscillation is seen to characterise one

or two forms, while others demonstrate the same expected patterns, the likelihood that it is due to matters of social sensitivity is high.

All that had been said up to this point concerning the measurement of temporal trends is true for only three of the five aspects considered in detail in the course of the study. These include matters of tombstone typology, raw materials and the attributes, all of which, by token of their singularity, can be stripped away from their spatial settings and arranged along the temporal continuum. The two remaining foci of analysis are essentially spatial and therefore cannot be divorced from their immediate surroundings in favour of the more abstract concept of time: associations among graves and spatial relationships between the sexes.

Yet, as it has been made clear above, temporal observations are of prime importance for the present study. Spatial phenomena, lacking the temporal dimension, would therefore be of little value for they would remain divorced from the main body of data. Also, one cannot observe patterns of transformation and discourse within a static picture, and the need for a trajectory is indispensable. Fortunately, the impossibility of positioning spatial relationships along a continuous temporal axis does not mean that temporal observations are rendered inaccessible. It is often observed that spatially grouped graves tend to demonstrate also temporal clustering, and therefore can be considered as temporally bounded units that can be arranged in order. Accordingly, the frequencies of spatial phenomena within a given spatial unit can be positioned in relative order, thereby displaying trajectories of development and allowing some inference into the processes at work.

## Ch. 15: Netzah Cemetery, Ramat ha-Sharon

Netzah cemetery is located on the eastern outskirts of Ramat ha-Sharon, but well within the confines of the inhabited area, surrounded by residential buildings. It is situated on the eastern slope of a moderate hill. All graves are set in an east-west orientation, where all (with the exception of a family plot of 10) face east. Generally speaking, the cemetery is closed, although every once in a while several new inhumations can still be noted. The total number of buried individuals is estimated to be many hundreds and possibly as much as a thousand.

The sample surveyed for this cemetery was collected during April 2009 and consists of a total of 206 cases (Appendix 2), including 81 females (39%), 105 males (51%) and 20 empty grave plots (10%).<sup>1</sup> The earliest inhumations in the cemetery date to the early 1930s, while the most intensive period of use was during the 1960s, after which the number of inhumations was in a steady decline. Three different plots were sampled, arbitrarily titled A, F and K, situated in the northwestern end of the cemetery, the middle-southern part of the cemetery and the south-eastern end of the cemetery. The distribution of date of burials for each plot demonstrate that they are roughly consecutive (Fig. 15.1), according to which plot F is the earliest followed by A which is followed by K. It seems therefore that at first the cemetery expanded to the west and later to the east.

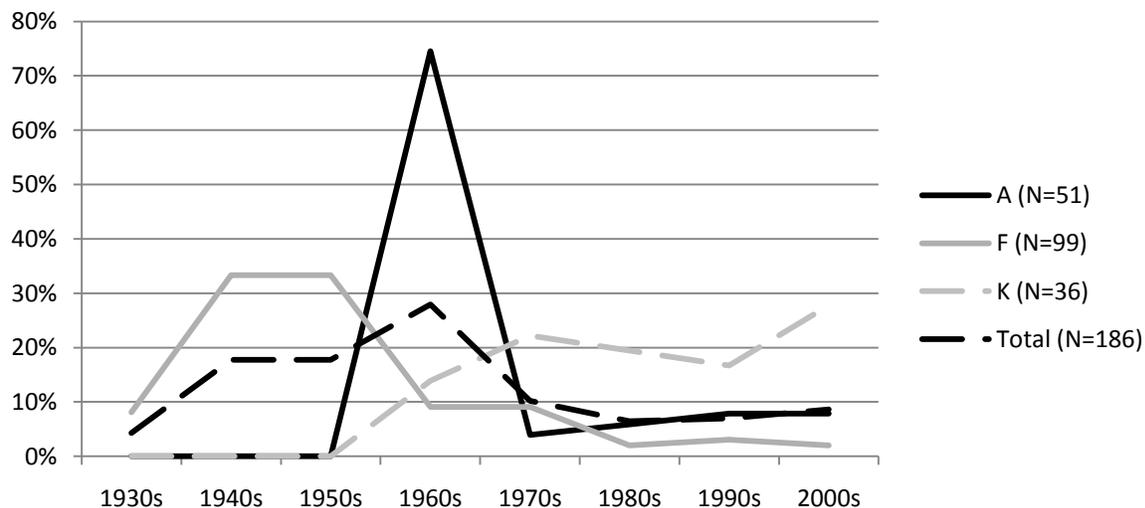


Fig. 15.1: Temporal distribution of 'year of burial' per plot.

<sup>1</sup> The difference in representation between females and males was found to be statistically insignificant by chi-square test against an expected equal representation ( $P=0.4596$ ).

## Typology

All seven tombstone types are represented in Netzah cemetery, but type 1 – the rectangular upright headstone – is overwhelmingly dominant, constituting 69% of the sample. Far behind, it is followed by type 5 with mere 12%, while all other types vary between 2% and 6%. Table 1 presents the data of the distribution of the tombstone types per decade and Fig. 15.2 offers a graphic representation of the temporal trends for the most dominant types, while the remainder are collapsed into a single category.

The dominance of tombstone type 1 throughout the cemetery’s history is clearly demonstrated, with the exception of the earliest years. The low representation of type 1 tombstones during the 1930s, however, might be somewhat over-emphasised due to the small sample size. Anyhow, type 1 shows a steady rise in popularity until the 1970s, after which it

	1930s	1940s	1950s	1960s	1970s	1980s	1990s	2000s	Total
Type 1	1	17	18	43	17	10	11	11	128
Type 2	1	3	6					1	11
Type 3	1	2	2						5
Type 4			1	2					3
Type 5	3	3	6	4	2	1	2	1	22
Type 6	1	4		1		1		1	8
Varia	1	4		2				2	9
Total	8	33	33	52	19	12	13	16	186

Table 15.1: Quantitative distribution of tombstone types

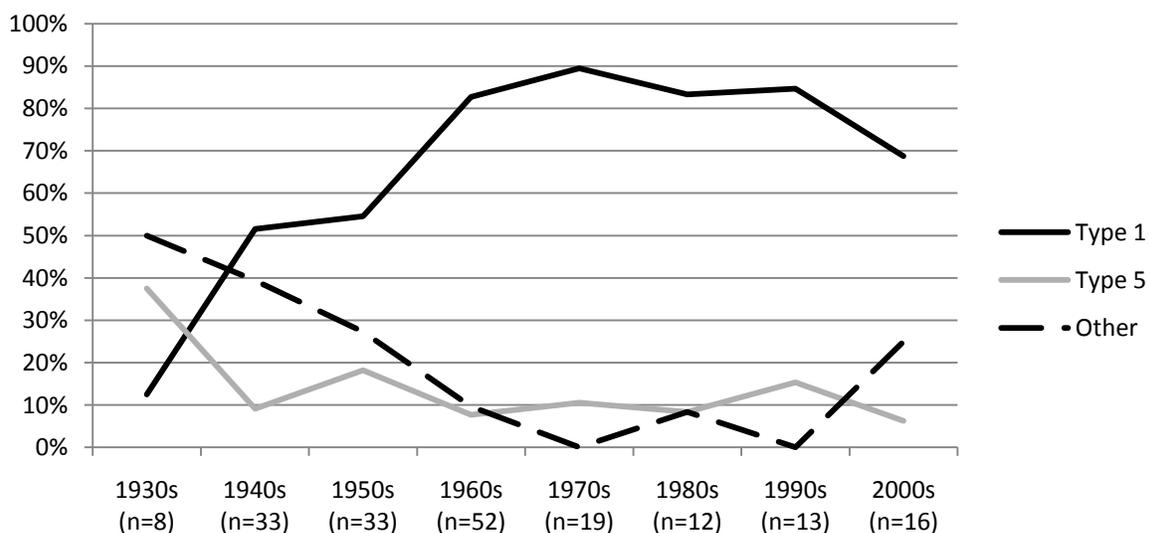


Fig. 15.2: Temporal distribution of tombstone types per decade

keeps its position, only to decrease a little bit in the first decade of the 21<sup>st</sup> century. Type 5, on the other hand decreases in popularity between the 1930s and 1940s, but remains relatively stable throughout, showing only minor fluctuations. All other tombstone types, considered as a single group, demonstrate a very steady decrease in popularity until the 1970s, staying low for the next 20 years until it increases again in the 2000s.

In all, it seems that, insofar as tombstone typology is concerned, the 80 years of Netzah Cemetery can be subdivided into two main periods with the 1970s as the turning point. The first is marked by a homogenising process, whereby tombstone type 1 steadily increases to unchallenged dominance. Other tombstone forms occur in relatively small numbers, none of which can be said to be strongly correlated on its own with the rise of type 1. The latter, therefore, did not sustain a discourse with a given alternative form, but with all others as a group. Consequently, the increasing preference for type 1 tombstones is probably best conceptualised as rising out of a relatively incoherent state of affairs, whereby all forms were drawn upon in almost random fashion. Such a process of homogenisation might point towards the solidification of the community, or alternatively the crystallisation of the symbolic meaning of tombstone form.

The second half of the cemetery's history represents an altogether stable state of affairs where type 1 tombstones maintain their dominance while other types fluctuate slightly near the bottom of the chart. A slight change might be indicated, however, towards the end of the continuum. But it cannot be determined at this point the degree to which it constitutes a challenge to the otherwise stable situation.

## **Raw Materials**

The quantitative distribution of tombstone composition is presented below in Table 15.2 and summarised graphically in Fig. 15.3. Somewhat echoing the observation made for tombstone typology, the general pattern of development suggests a subdivision into a minimum of two periods. The first is marked by the combined presence of limestone and cement, while the second is marked by the unchallenged dominance of limestone. A possible third phase is suggested for the last ten years by the sudden increase in the use of granite and Turkish marble, corresponding to the drop in limestone.

	1930s	1940s	1950s	1960s	1970s	1980s	1990s	2000s	Total
<b>C</b>	3	14	11	17	1				46
<b>L</b>	3	5	5	25	16	12	12	6	84
<b>C + L</b>	2	13	18	9	2				44
<b>TM</b>							1	6	7
<b>G</b>				1				2	3
<b>L +G/TM + G</b>		1		1				2	4
<b>Total</b>	8	33	34	53	19	12	13	16	188

Table 15.2: The Quantitative distribution of tombstone composition (C=cement; L=limestone; TM=Turkish marble; G=granite).

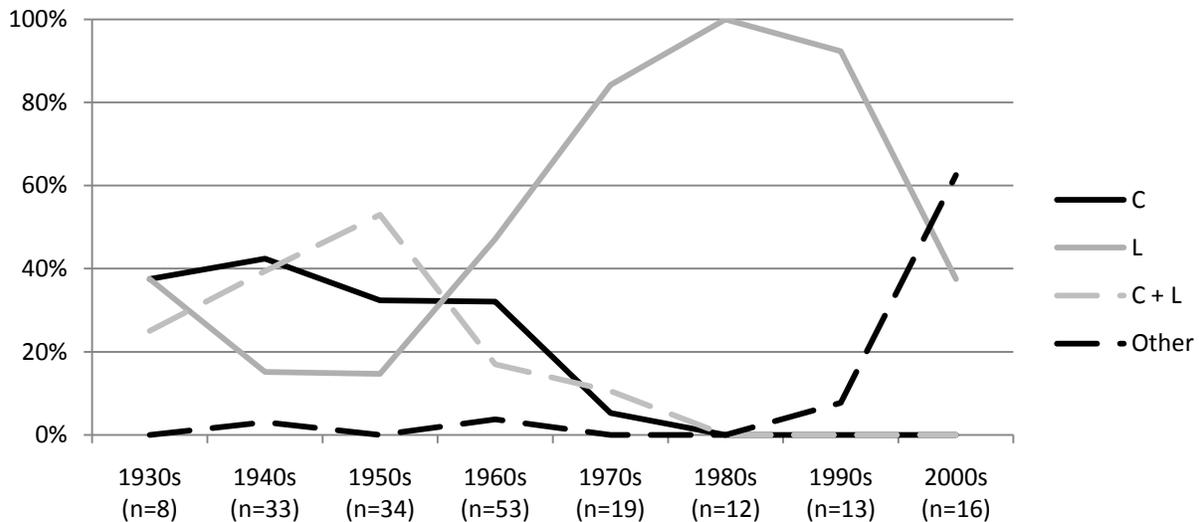


Fig. 15.3: Temporal distribution of raw materials (C=cement; L=limestone).

It is tempting to consider markers composed of both cement and limestone as hybrid forms, marking an evolutionary middle ground between the first and second sub-phases. However, there are several reasons to doubt this possibility. First, the trajectories of cement on the one hand and cement and limestone on the other seem to be positively correlated ( $r=0.84457$ ), and it is particularly telling that they both cease to occur at the same time, with neither one outliving the other. Second, compared to stone, cement is not particularly durable, demanding greater efforts of maintenance. It is therefore probable that parts of cement tombstones were later replaced by stone, some indications for which have occasionally been observed directly, in the form of poorly cemented fit of one into the other. If this be the case, it seems that one is necessarily a function of the other and the two should not be considered as independent. Hence, although this

latter suggestion cannot be asserted with certainty for all cases, it seems better to consider the earlier phase of the cemetery as under the sign of cement alone, containing the so-called hybrid forms in it.

Leaving the 1930s aside (due to the small sample size), all tombstone compositions agree with the expected unimodal trend, a succession of partially overlapping curves. Cement was replaced by limestone, in the course of a relatively long and moderate transition, after which limestone dominated the landscape in its entirety, peaking in the 1980s. This however did not last long and, in a rather severe and swift development, granite and Turkish marble challenged the preference for limestone, causing its frequency to drop dramatically in the 2000s by more than 50%. Hence, two consecutive discourses are noted: that between limestone and cement and that between limestone on the one hand and Turkish marble and granite on the other, which was apparently more intense.

The gap between cement and limestone is one of multiple aspects. One is fabricated by casting and the other by reduction; cement produces a grey rough surface while limestone is white and often smoothed; as noted above, the durability of limestone significantly exceeds that of cement; and the expenses involved in the fabrication of a limestone tombstone are higher than those of a cement one. Each of these differences has further value-laden implications as they structure very different experiences for the people involved. For example, the poorer durability of cement tombstones is likely to have demanded greater involvement of the living, whether merely in keeping an eye on them or in active maintenance. The movement to limestone, which demands considerably less heedfulness to its condition and fewer acts of maintenance, would consequently distance the living by minimising their involvement. The choice of limestone over cement also has the effect of stressing the timelessness of the grave by erecting a long-lasting marker.

With such implications involved, one might expect the replacement of one for the other to raise great tensions and resistance. Indeed the long time needed for cement to finally disappear is suggestive of its deeply ingrained position. The trend, however, was a very consistent one, demonstrating a constant and stable direction, indicating that, although cherished, the resistance was a relatively passive one, and that the qualitative shift did not cause great social distress.

The gap between limestone on the one hand and Turkish marble and granite on the other, which nourishes the second discourse, is relatively more focused. The most evident difference is

that of colour. While limestone is white and therefore essentially colourless, Turkish marble and granite are colourful; in addition, polishing gives the latter a conspicuous lustre, which is lacking in limestone. The origin of these materials is also of importance. Limestone is a local material accessible at a short distance; the closest source for granite, on the other hand, is in the southernmost reaches of the country almost 300 km away, while Turkish marble, as suggested by its name, is imported from Turkey (<http://www.matzeva.co.il/>). Because the expenses increase with the distance, Turkish marble and Granite are the more expensive ones whereas limestone is the cheapest among them. Juxtaposed to Turkish marble and granite, limestone can thus be described as local, cheap, colourless and lustreless; a very uncomplimentary description indeed. The other two substances, on the other hand, can be viewed as a form of conspicuous consumption.

Because we currently witness only the inception of this discourse and are unable to observe its further development and conclusion, it is very difficult to assess the tensions that might be stirred up by it. Yet, considering that the issues at stake are particularly those of prestige and aesthetics, they might hint at some form of power struggle within the community, perhaps suggesting a certain breakdown in internal solidarity.

### **Attributes**

The quantitative distribution of the different attributes is presented in table 15.3, below. The candle is the most common attribute, found on 23% of the tombstones; the chalice is the next most popular, attribute recorded on 13% of the tombstones, and is followed by ‘installation’ and ‘Star of David’ on 9% of tombstones each. All other attributes occur sporadically and are associated with 1%-4% of the cases. In total, 40% of the gravestones are accompanied by one or more attributes. It is evidently a common phenomenon to employ figurative and constructional additives, but it is not the dominant trait.

The temporal trends of the four dominant attributes are summarised graphically in Fig. 15.4. No pattern can be observed. The fluctuations demonstrated are erratic and bi-modal at best. Such inconsistencies demand the consideration of several possibilities. First is the issue of the sample size, which is particularly relevant for the later part of the cemetery’s use, when the number of burials decreased. However, considering that other aspects (e.g., those discussed above) did

	1930s	1940s	1950s	1960s	1970s	1980s	1990s	2000s	Total
Candle		2	8	23	2	3	4	2	44
Installation		3		11		2		1	17
Chalice	1	2	2	7	3	2	2	5	24
Book			1	3		2	1		7
Vegetal motif		1	1	2					4
Hands		2	1						3
Menorah				1			1		2
Star of David	1	1	5	8			1		16
No. of attributed graves	2	10	12	31	4	4	4	8	75

Table 15.3: Quantitative distribution of tombstone attributes

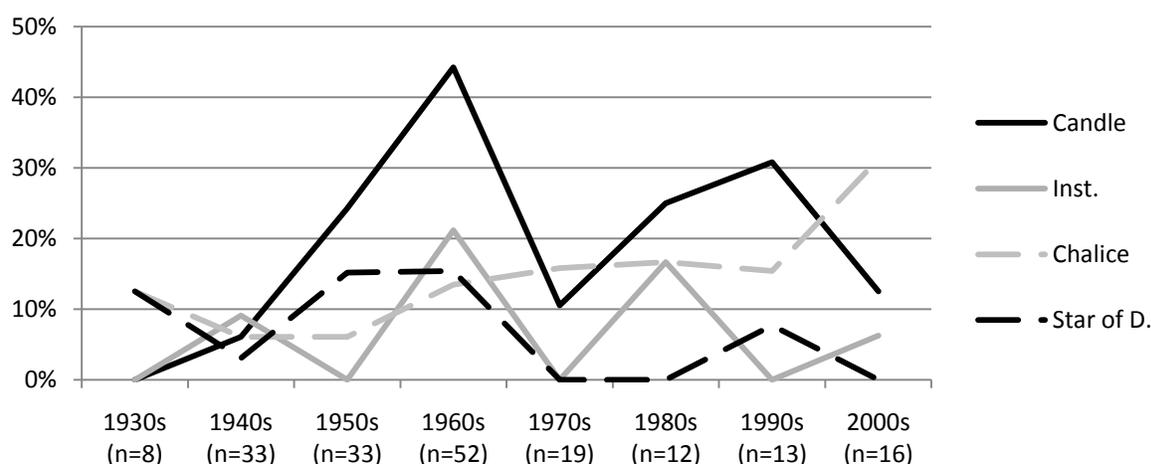


Fig. 15.4: Temporal trends of selected attributes.

demonstrate clear temporal trends, the inconsistencies in the distribution of the attributes cannot be ascribed to sampling problems alone. This would amount to more of an excuse than an account of the phenomenon. At most, one could claim that it overemphasises the fluctuations.

It is likely, therefore, that the inconsistencies signify a quality integral to the application of these attributes. One possibility is that these motifs were continuously and repeatedly negotiated, with meanings and significations assigned and reassigned over and over. If this were the case, each rise of the curve would mark also the crystallisation of a new meaning. The implication of this would be that the community in question is in a continuous state of heightened flux and lacks symbolic coherence, or at the very least that the realm with which the attributes of the

graves are associated is a very poorly defined one. An alternative to this is that the inconsistencies in grave attributes' dynamics are not so much a function of ongoing processes of negotiation and redefinition as their application is associated with smaller parts of the community. That is, while the materials of construction and the morphology of the tombstones represent trends that were common to the community as a whole (represented by the cemetery), the attributes considered here are associated with smaller, semi-autonomous elements within it. These smaller components of the community drew upon various motifs in order to express certain sentiments. What these sentiments were, whether they were expressions of grief, affiliation or distinction, unfortunately, cannot be determined by the material data.

Hence, there is good reason to assume that these symbols and additions to the basic tombstone are sensitive to an indeterminate range of circumstances. This sensitivity, however, producing dramatic fluctuations, runs the risk of obscuring other important patterns. It might be worth our while to take 'a step back' and consider these patterns in a slightly rougher manner. This could be done on at least two distinct scales: one concerning the time intervals used and the other concerning the content and distinction among attribute types.

Let me take the latter first. One can simplify the erratic quantitative distribution by reducing all types of attributes to a single value. Accordingly, each grave will receive a value equivalent to the number of attributes it carries, ranging, in the current case, from 0 to 4. The obtained distribution is shown in Fig. 15.5, below.<sup>2</sup> Until the 1960s, a distinctive trend is observed, whereby both the number of attributed graves and the number of attributes per grave increase steadily (observed in the decrease in the number of non-attributed graves and the increase in the number of columns presented). This trend is reversed in the 1970s, whence the pattern closely resembles that of 20 and 30 years earlier, and is resumed once again in the course of 1980s and 1990s. With the turn of the century, another turn takes place, with the number of attributes per grave again limited to one but encountered in half of the recorded cases.

Because of its position at the end of the temporal continuum, it cannot be determined whether the change occurring during the first years of the 21<sup>st</sup> century is of significance. It may however be correlated with the shift to materials other than limestone for the construction of the markers, occurring at this time (see above). But the break of the 1970s from the trend of the preceding years is pronounced, and although not statistically significant ( $\chi^2=8.847$ ,  $df=4$   $p=0.0643$ ) it does

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<sup>2</sup> For the choice of a bar graph see, Ch. 14, footnote 3.

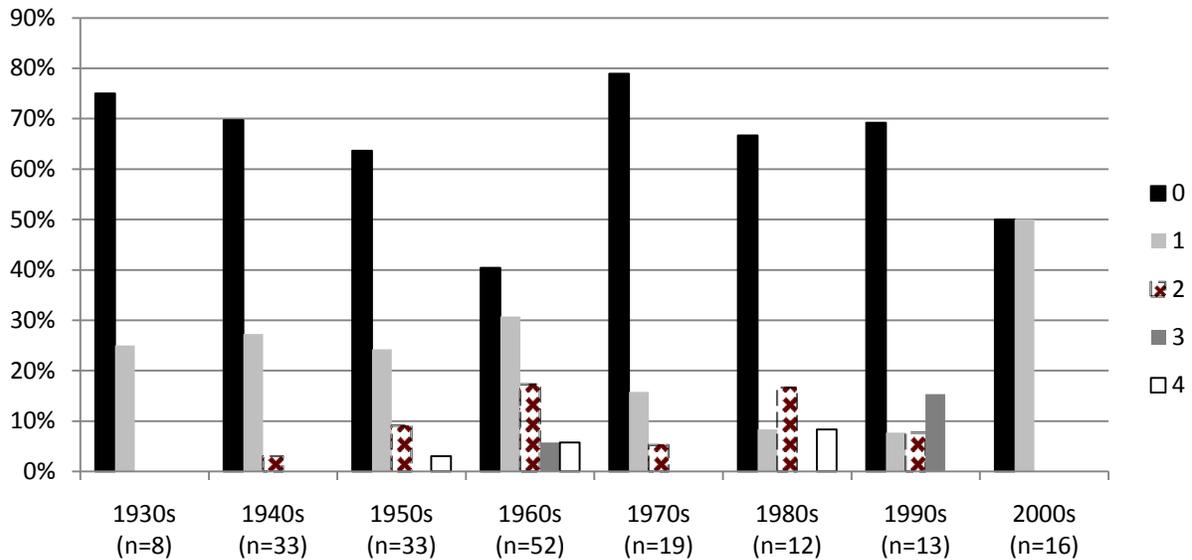


Fig. 15.5: Temporal distribution of ‘number of attributes per grave’.

not seem to be coincidental; it seems to point towards an event that took place at this time. An event did take place at this time: The number of individuals brought to be buried at Netzah cemetery decreased dramatically by 64% after a steady rise that lasted about 40 years. That this decrease was systemic rather than coincidental can be seen by observing the relatively low intensity of burials that took place since (Fig. 15.1).

Thus, only a fraction of the population represented in the cemetery until the 1960s continued to be represented after. Together with the suggestion that the various attributes are not associated with the community as a whole but with particular components in it, the decrease in the intensity of burial in Netzah cemetery can account for the bi-modal pattern observed. The part of the community that ceased to be buried in the cemetery is that that was more inclined to elaboration of the tombstone by additions and attributes. The part of the community that continued to be represented, on the other hand, was more minimalistic in attitude, and for the most part stuck to the basic forms.

It is easy to see, now, how the exclusion of certain parts of the population would cause the break observed in the 1970s from the preceding years. Yet it did not bring about a halt in the processes observed during the early years, as it pushed back and hindered its advancement. But advance it nevertheless did, as is demonstrated by the increase in the number of attributed graves and the number of attributes per grave throughout the 1980s and 1990s. Thus, the part of the community represented in the cemetery after 1970, although relatively minimalistic, was also

caught in the trend of increased elaboration, just somewhat delayed compared to other groups. We can thus conclude that Netzah cemetery signifies a pattern of development of increased elaboration of the tombstone by means of a variety of figurative and constructional additions.

Against the backdrop of the aforementioned observations, we may now return to the particular attributes. But this time rather than using 10-year intervals that probably offer too high a resolution and present dramatic fluctuations, 20-year intervals will be employed in order to consider more general patterns (Fig. 15.6).

It is easily observed that, compared to the hectic pattern seen in Fig. 15.4, above, the curves have been considerably normalised. The ‘candle’ and ‘Star of David’ attributes still show, however, a bi-modal pattern. This is probably linked with the aforementioned processes of the exclusion of certain parts of the community from the cemetery and the accompanying hindrance of the general process of intensification of tombstone elaboration. Thus, at the turning point of the cemetery’s biography, the ‘candle’ and ‘Star of David’ attributes were more closely associated with those parts of the population that were excluded than with those that remained. Conversely, the ‘chalice’ and ‘installation’ attributes do not seem to have been affected by these processes. The chalice steadily increases in popularity and the installation steadily decreases after reaching a peak during 1950-69. By the same token, that the Star of David and the candle were said to be more closely associated with the excluded part of the community, so can the chalice and installation be said to be more closely associated with the parts of the community

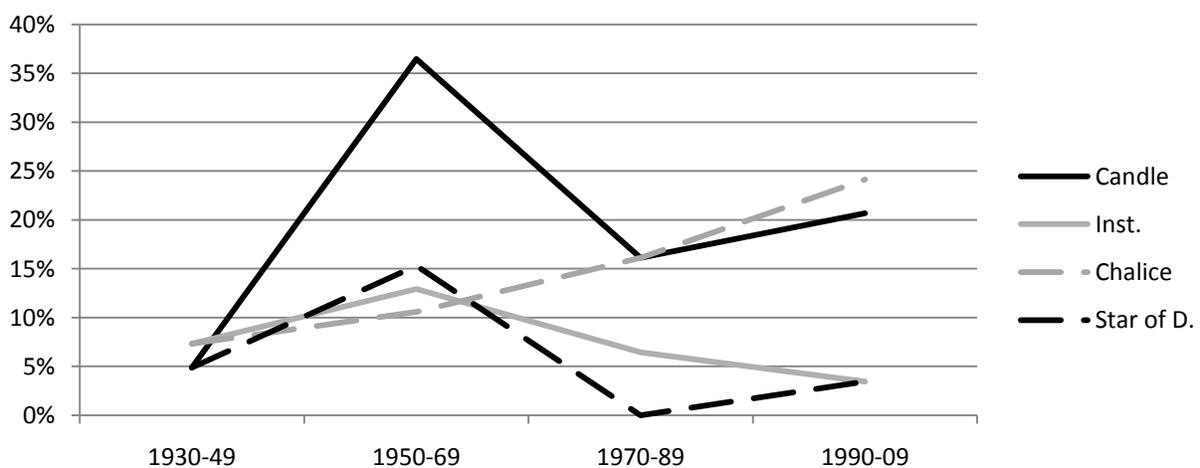


Fig. 15.6: Temporal trends of selected attributes (20 year intervals).

that continued to use the cemetery.

Perhaps we can begin to consider social distinctions within the population represented in Netzah cemetery. Two rough groups can be defined: one is inclined towards the elaboration of the tombstone and for the most part ceases to be represented in the cemetery after 1970; the other is more minimalistic and continues to be represented after 1970. The correspondence between the degree of elaboration, on the one hand, and the continued or discontinued representation in the cemetery, on the other, suggests that the distinction was an important one and that some form of social discourse was involved. In such a milieu, the gradual increase in elaboration noted during the earlier years could very well indicate an intensified need of one group to distinguish itself from the other. We may thus be witnessing a process of the formation of factions within the community, whether via internal development or external influences.

Concerning the later part of the cemetery's biography it is difficult at this point to say whether the renewed increase in elaboration testifies to processes of the same quality that were witnessed during the first half of its use.

## Spatial Arrangement

### Associations

Although the graves themselves are isolated and singular, arranged in rather tidy rows and carefully spaced, some tombstones express a relationship between adjacent burials, by means of a tombstone that is common to both. The absolute figures and relative distribution of both types of association are presented in Table 15.4 and Fig. 15.8.

Of a total of 195 marked graves in the sample, 30% are associated with a common tombstone for two graves, representing 29 pairs. Of these, the

	Pair	Single	Unmarked	Total
Plot F	14	85	4	103
Plot A	16	36	2	54
Plot K	28	16	5	49
Total	58	137	11	206

Table 15.4: Number of individuals per association type.

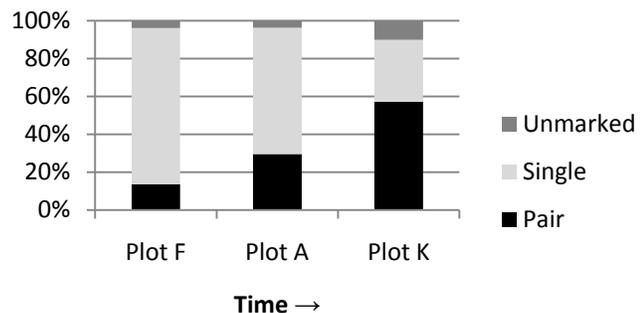


Fig. 15.7: Distribution of single and paired tombstones.

graves of three pairs (10%) were vacant. In another three (10%), only one grave was occupied. The graves of the remaining 23 pairs consisted without exceptions of one member of each sex. This consistent representation of both sexes in the paired graves strongly suggests a marital or at least a familial bond between the two, perhaps a representation of the nuclear family.

The phenomenon of double-grave markers as a whole, moreover, does seem to suggest a temporal trend. As seen in Fig. 15.7, the sequential arrangement of the plots according to their relative temporal position demonstrates a consistent increase in the representation of pairs. As such, there seems to be a shift of emphasis from the graves that stand on their own to graves that are grouped together. Assuming that such groupings represent marital or familial relations of one kind or another, the observed trend suggests a growing concern with the immortalisation of the (nuclear) family.

In this respect, one should also consider the possibility of more subtle and less definite expressions of association between graves. The very juxtaposition of members of the opposite sex raises the possibility of their affiliation. Sometimes it is explicitly expressed as in the case of two identical tombstones that differ from their surroundings. But the situation is often ambiguous, demanding caution concerning the interpretation of these cases in terms of affiliation. Generally speaking, nevertheless, it seems that most juxtaposed females and males are indeed related and that the explicitness of expression of this relation increases with time (Fig. 15.8).

#### Relative distribution of the sexes

The correlation observed above between the spatial juxtaposition of both sexes and the expression of affiliation suggests that, while males and females occupied the same plots and were buried side by side, their relative distribution was not random and some degree of control and regulation was maintained. The table below (Table 15.5) presents an attempt to clarify these

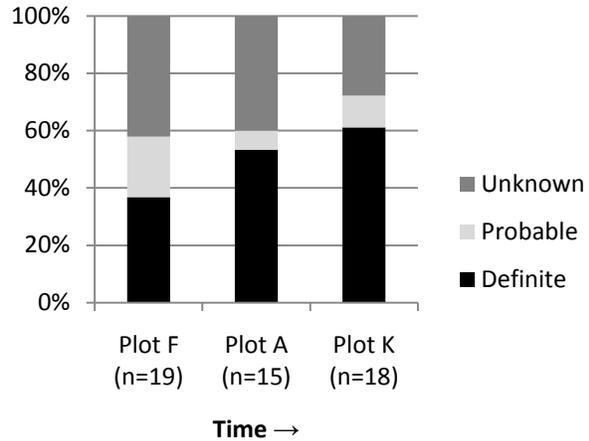


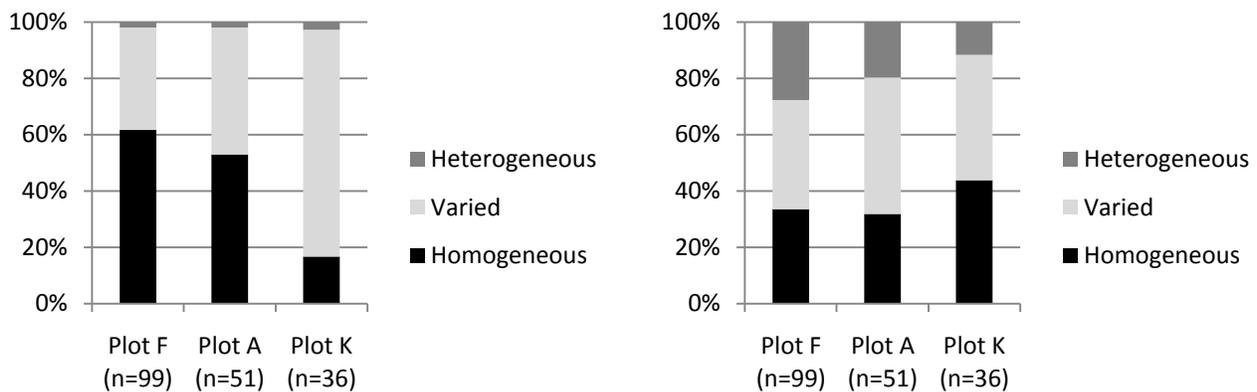
Fig. 15.8: Distribution of relative probability of juxtaposed males and females being associated.

relations by means of a quantitative expression of the neighbours on either side of every individual, which is summarised graphically in Fig. 15.9.

Two observations can be immediately noted for the distribution of relations presented in Fig. 15.9A: (1) ‘Heterogeneous’ forms of relations are almost entirely absent, constituting a mere 2-3% of the cases; and (2) by token of the relative sequential order of the plots, one can distinguish a temporal trend whereby the ‘homogeneous’ form of relations gradually gives way to the ‘varied’ form. That these patterns have cultural significance can be demonstrated against the distribution that could be expected if it were governed by random processes (Fig. 15.9B). The differences are evidently considerable and statistically significant.<sup>3</sup>

	Plot F	Plot A	Plot K	Total		Plot F	Plot A	Plot K	Total
M-M-M	39	8	1	48	F-F-F	15	13		28
M-M-F	8	5	3	16	F-F-M	5	5	4	14
M-M-X	2	1	2	5	F-F-X	2	2	1	5
F-M-M	8	5	5	18	M-F-F	7	4	4	15
F-M-F				0	M-F-M	2	1	1	4
F-M-X		2	5	7	M-F-X	3			3
X-M-M	2			2	X-F-F		3		3
X-M-F	4	1	3	8	X-F-M	1	1	5	7
X-M-X			1	1	X-F-X	1		1	2
Total	63	22	20	105	Total	36	29	16	81

A) B)  
Table 15.5: Relative distribution of the sexes in terms of neighbours on each side for males (A) and Females (B).



A) B)  
Fig. 15.9: Relative distribution of the three forms of relations between the sexes. A) observed distribution; B) expected random distribution (for details see chapter pp. 183-184).

<sup>3</sup> The chi-square test results are as follows: for plot F:  $X^2=30.31$ ,  $df=2$ ,  $P<0.05$ ; for plot A:  $X^2=10.261$ ,  $df=2$ ,  $P<0.05$ ; and for plot K:  $X^2=10.101$ ,  $df=2$ ,  $P<0.05$ .

Hence, the observed patterns reflect cultural preferences and trends. The rare occurrence, therefore, of ‘heterogeneous’ relations, whereby both neighbours of a given individual are of the opposite sex, indicates that this type of spatial relation was purposefully avoided and the few cases where it did occur are probably best considered as rare exceptions. The ‘homogeneous’ form, on the other hand, represents a tendency of individuals of the same sex to cluster together and, as a consequence, keeping the two sexes apart. This pattern was the most prevalent in plots F and A, but it was consistently challenged and eventually overtaken in plot K by the ‘varied’ form. Based upon the observations presented in the previous section, it is apparent that most cases of this form represent affiliated individuals, i.e. pairs.

One can view the interplay between the ‘homogeneous’ and ‘varied’ forms of relations as involving competing concepts or priorities, whereby the former is concerned with the burial of singles and keeping the sexes apart while the latter is concerned with immortalisation of affiliation in terms of spatial proximity, which by definition challenges the idea of separation. The temporal trend, therefore, demonstrates a gradual shift of emphasis from one to the other and a growing concern for the representation of pairs within the cemetery.

Yet the systematic avoidance of ‘heterogeneous’ forms of relations points out that, while the insistence on separation of men and women was considerably moderated, it was not removed entirely. Rather, the affiliation of individuals seems to be the only circumstance under which the juxtaposition of members of the opposite sex is found. Thus, as a rule, females and males are kept apart unless they are affiliated, in which case their juxtaposition is allowed.

The observed temporal process can thus be seen as negotiating the spatial relations between the sexes, reaching a compromise between the demand to separate women from men and the growing concern to allow affiliated individuals of the opposite sex to be buried one next to the other. The result is that the latter concern was established as the sole exception from the rule. With time, however, it seems that the exception became the rule, at least in-so-far as Netzah cemetery is concerned.

## **Summary**

Based upon the gathered empirical data, it can be stated that Netzah cemetery was founded in the late 1920s. During the first decades of its use it saw a constant intensification in the number of individuals buried in it. This lasted into the 1960s, after which a dramatic decrease occurred that

eventually levelled out on a fairly regular but low intensity. This change did not have only quantitative effects, but carried qualitative ramifications as well. A considerable portion of the social body of the community represented by the cemetery until 1970 was no longer represented. Only a selected portion of the community remained.

A sudden change such as this in the social fabric had the effect, at least concerning their external appearance as material phenomena, of hindering certain processes and pushing forward others. Thus the intensification of the elaboration of tombstones experienced a considerable setback because the portion of the community associated most with this process stopped being buried in the cemetery. The dramatic increase in the ratio of pairs to singles noted in plot K compared to that of plot A may represent a mirror image of the former. It is thus possible to speak of at least two social groups represented within the cemetery. The first is concerned with the elaboration of tombstones with various attributes and tends to bury its dead in singular graves, while the other is characterised by more modest graves but with greater concern for marking affiliation spatially. The extent to which these two groups continued to practice relatively independent trajectories after 1970 cannot be ascertained at this point. The resumed increase in elaboration of the grave markers might nevertheless suggest some degree of convergence between the two.

Conversely, other patterns of development seem hardly to have been affected by the change in the social body represented in the cemetery. The replacement of cement by stone for the construction of markers is a case in point. Also, the consistent dominance of type 1 and type 5 tombstones as well as the insistence on the separation of men and women who are not affiliated, seem to have retained their hold throughout the cemetery's history. Therefore, unlike the issues of elaboration and affiliation, these aspects do not bear on social variations within the community but represent aspects common to all.

## Ch. 16: Trumpeldor Cemetery, Tel Aviv

Trumpeldor cemetery is located in the centre of Tel Aviv, on Trumpeldor Street, surrounded by residential buildings on all sides. The cemetery generally does not receive additional burials although some better-off individuals are still being inhumed there. The sample for analysis was taken from four distinct locations: from plot A in the northeastern part of the cemetery, plot B slightly to the west and two places in plot D in the southwestern part of the cemetery and near the centre.

The surveyed sample was collected during March 2009 and consists of a total of 225 entries (Appendix 3), 81 of which are female, 106 are male, 7 are empty grave and 31 are of unknown sex (Anonymous graves, 'Galmud'). The earliest burials are dated to the first decade of the 20<sup>th</sup> century and the latest (in the sample) to the 1990s. The intensity of burials was at its highest during the 1930s, after which it ceased almost completely to a rate of three or four burials per decade (Fig. 16.1). It is also noteworthy that plots A, B and D are roughly consecutive in time, indicating that the cemetery expanded from east to west.

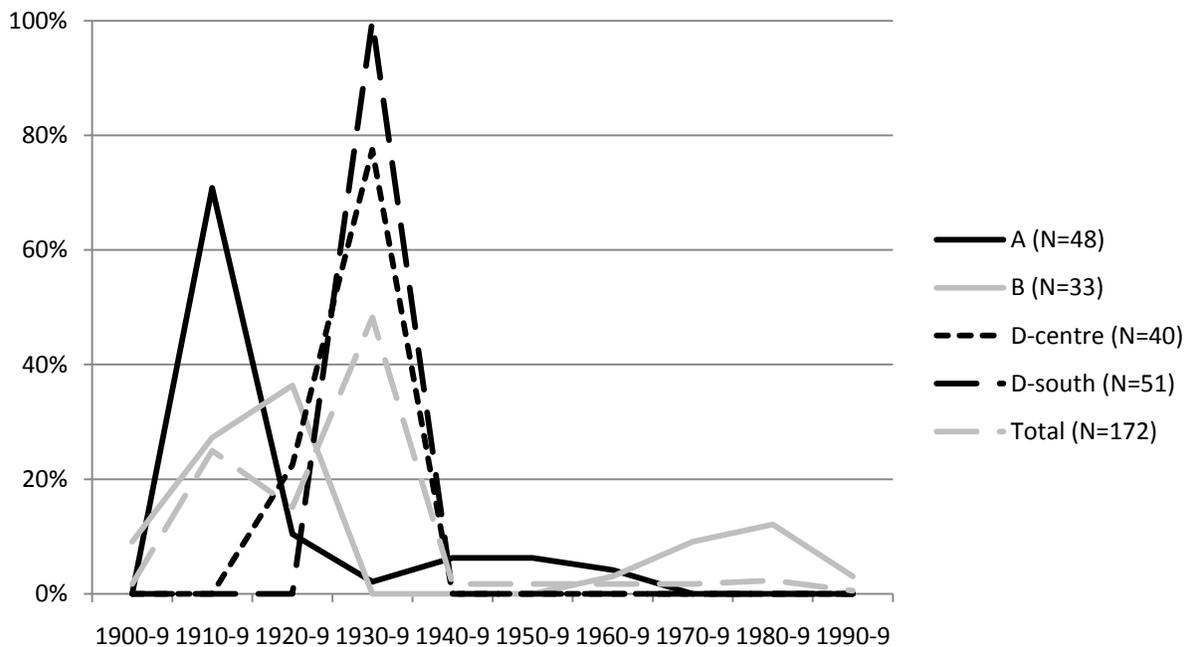


Fig. 16.1: Temporal distribution of 'year of burial'.

The orientation of all graves, except for those located in the westernmost part of the cemetery, which were not sampled, is east-west. The total number of burials is estimated at approximately 5000.

### Typology

All tombstone types, other than type 4, are represented in the sample. The simple horizontal form of type 5 is clearly the most popular of all, constituting 55% of the sample, followed by types 3 and 1, comprising 17% and 15% respectively. Among the remainder, varia comprises 8% of the sample, type 6 comprises 3% and type 2 only 2%. The absolute figures are presented in Table 16.1, below. It needs to be noted, however, that a considerable number of graves (n=47) are omitted from this discussion because their year of burial could not be determined. All of these cases, however, consist of type 5 tombstones.

	1900s	1910s	1920s	1930s	1940s	1950s	1960s	1970s	1980s	1990s	total
Type 1		2	5	14	2				1	1	25
Type 2			1	3							4
Type 3			7	22		1					30
Type 5	3	40	10	31		1	3	3	3		94
Type 6			1	5							6
Varia		1	2	8	1	1					13
Total	3	43	26	83	3	3	3	3	4	1	172

Table 16.1: Quantitative distribution of tombstone types.

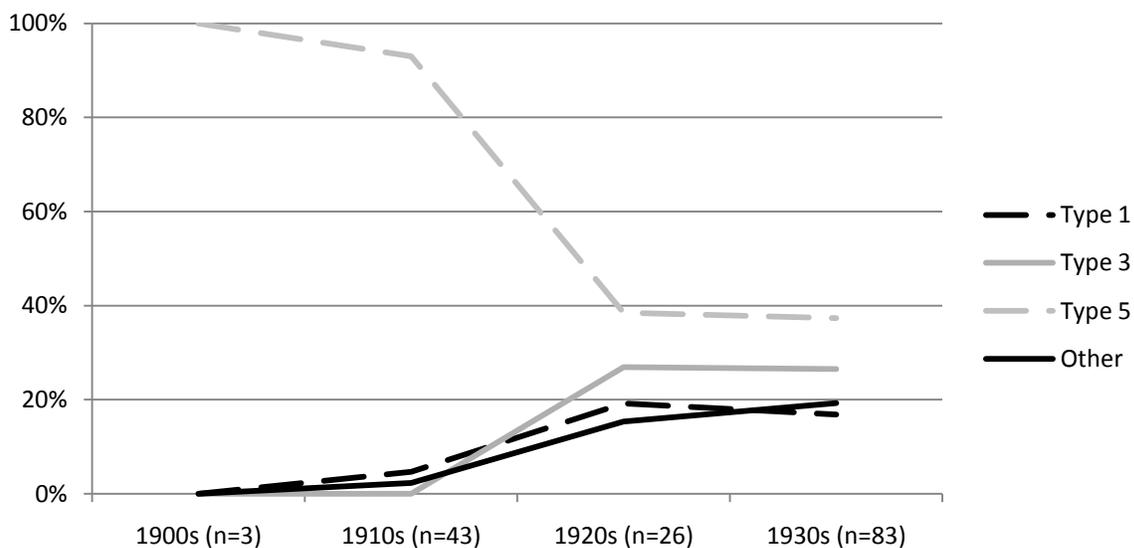


Fig. 16.2: Distribution of tombstone types.

The graphic representation of the trends involving tombstone morphology (Fig. 16.2) was limited to the first 40 years of the cemetery's use, because the sample size per decade after 1940 is too small to allow a reliable portrayal of the patterns of development involved. Nevertheless, in the course of these three decades, the trend seems to be fairly clear: the undisputed dominance of type 5 is consistently challenged and systematically eroded by other types. Types 1 and 3 are the greatest protagonists of this process, although also the other types seem to steadily increase their ratios.

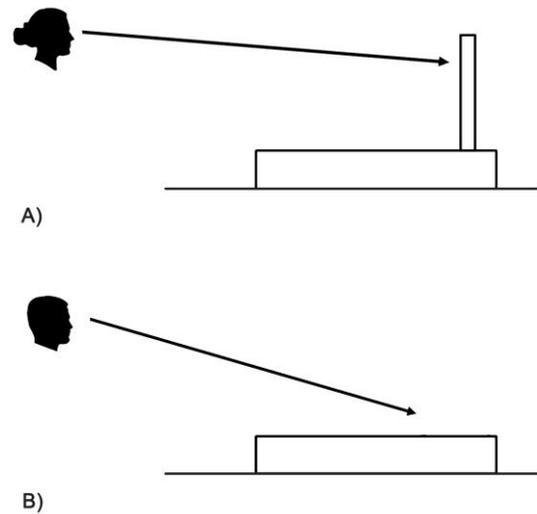


Fig. 16.3: Relationship between onlooker and tombstone, types 1(A) and 5 (B).

The meaning of the observed process can be considered from at least two points of view. The first is that of the horizontal tombstone being challenged by the vertical one. Other than issues of size and expenditure that seem to have had limited significance, the most compelling difference between horizontal and vertical markers concerns the access they afford the onlooker onto the significations of the grave. The vertical headstone faces the visitor and allows easy observation of the text and the symbols, while the horizontal one faces the sky. In other words, a vertical headstone allows direct access of the observer to the significations of the grave, an access that is hindered in horizontal markers (Fig. 16.3). As such, the growing preference for vertical markers may be indicative of a growing concern for the maintenance of direct face-to-face contact between the visitor and the representation of the dead.

The second aspect that warrants consideration is that of movement from a homogeneous and uniform choice to a heterogeneous one. The early years of the cemetery saw a repeated and consistent choice of type 5 grave markers, which *en mass* produced a uniform scene that lasted for a period of almost 20 years. The inconspicuousness of the single grave and the use of roughly the same design for all generate an atmosphere of equality and solidarity, at least in-so-far as the graveyard is concerned. Beginning in the 1910s but gaining momentum only in the 1920s, the preceding uniformity breaks down and a plethora of forms shows up. Although some forms are more popular than others, the differences between them are not obvious at this point, and more

than competing with each other for dominance they represent together a burst of expression. Perhaps this is the pendulum swing to the opposite side of the uniformity, where in each case one is free to employ whatever she or he sees fit, thereby creating a seemingly irregular situation that lacks structure. To what extent this reflects the social atmosphere at the time is difficult to assess. It is likely, nevertheless, that the uniformity of the early years does represent a considerable degree of solidarity among the members of the community, or at the very least a demand for such solidarity. The change that took place in the 1920s could therefore represent either the collapse of such an ideal or otherwise the removal of the demand for it.

### **Raw Materials: Cement and Stone**

Like the morphology of the tombstones, also the raw materials from which they were constructed demonstrate a very clear pattern of development. The numerical data (Table 16.2) and the graphic representation (Fig. 16.4, until 1930s) are presented below. In all, there is a gradual but consistent decrease in the use of cement for the construction of grave markers, correlated with the increase in the use of limestone. By the 1930s, cement was still the preferred material, although not by much, and it is probable that had it been possible to continue to trace the development it would not be long until stone became dominant.

Hybrid forms, part cement part stone, are few in Trumpledor Cemetery and no particular significance can be assigned to them. They may represent occasions of renovation and partial fixing of damaged markers. In this case, the intensity and effort put into the maintenance and upkeep of tombstone was probably relatively low. On the other hand, the possibility that some cement markers were entirely replaced by stone cannot be dismissed, in which case they would be indistinguishable from those that were originally set up with stone.

	1900s	1910s	1920s	1930s	1940s	1950s	1960s	1970s	1980s	1990s	Total
Cement	3	40	17	49	1	1					111
Cement+Limestone			2	11					1		14
Limestone		3	6	23	2	2	3	3	3	1	46
Total	3	43	25	83	3	3	3	3	4	1	171

Table 16.2: Quantitative distribution of material composition.

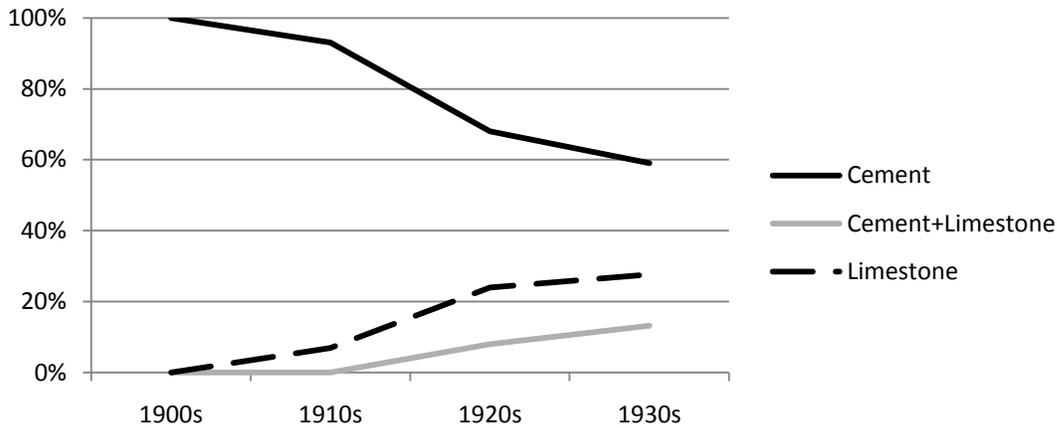


Fig. 16.4: distribution of material composition.

### Attributes

Of the eight attributes considered, only four were found in sufficiently large numbers to allow any consideration of possible patterns. The most popular attribute is the ‘Star of David’ (n=35) that was found on 20% of the tombstones; it was followed by vegetal motifs that were found on 10% of the tombstones (n=18); and the remaining two attributes are the picture/portrait recorded on 8% of the tombstones and the installation found in 4% of the sampled cases. Occasions of other attributes were noted as well but with very marginal significance.

	1900s	1910s	1920s	1930s	1940s	1950s	1960s	1970s	1980s	1990s	total
Candle			1						1		2
Installation		1	1	4	1						7
Chalice					1	1			1		3
Book			1								1
Veg.	1	4	5	8							18
Hands				2							2
Star of David		7	6	22							35
Portrait			1	12							13
No. attributed	1	11	10	37	2	1			1		63

Table 16.3: Distribution of tombstone attributes.

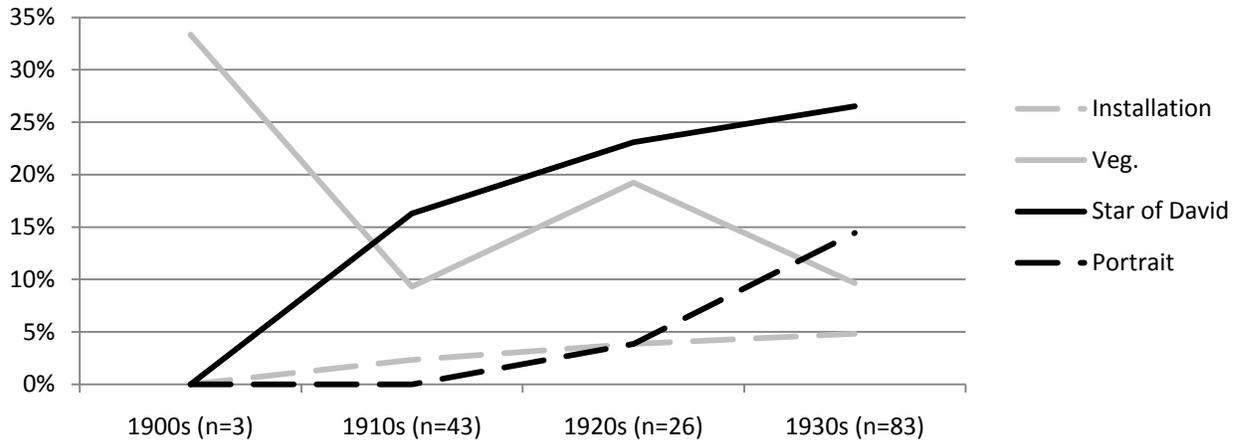


Fig. 16.5: Temporal trends of selected attributes.

As seen in Fig. 16.5, three of the four most popular attributes demonstrate a consistent increase in ratio from the early 1900s until the 1930s. The ‘star of David’ demonstrates the most conspicuous rise among them, while the rises in portrait and the installation are considerably more moderate. Each of the three abovementioned attributes represents, however, a particular aspect of a more general trend.

Although never reaching 50%, a consistent increase in the number of attributed graves is evident (Fig. 16.6).<sup>1</sup> Moreover, there also seems to be a slight inclination towards the increase of number of attributes per grave as well. Unfortunately, the particular meanings of each of the attributes and symbols cannot be inferred via the analysis of material patterning alone; but the very increase in the application of attributes and in the number of attributes employed already points towards a steadily intensifying discourse within the represented community. Whether this concerned issues of identity and affiliation or more personal sentiments, it is evident that a growing concern to express them was at work. It should also be noted that this process appears to be in close agreement

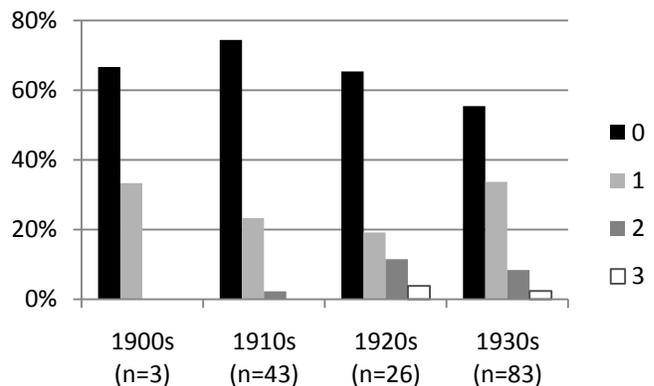


Fig. 16.6: Temporal distribution of ‘number of attributes’.

<sup>1</sup> For the choice of a bar graph see, Ch. 14, footnote 3.

with the patterns of development observed above for the tombstone types.

Attributes of vegetal motifs are the only ones that clearly diverge from the general pattern (Fig. 16.5). Due to the very small sample size of the 1900s, the first decrease is probably best ignored, thereby considerably moderating the observed fluctuations. The remaining 30 years see at first an increase, reaching a peak during the 1920s, and subsequently decreasing again. While the increase accords well with the general developments taking place in the cemetery at the time, the decrease that follows suggests a break. The reasons for this are extremely difficult to determine, and the most that can be said with confidence is that they concern the position of the vegetal motif within the ongoing discourse.

Granted that vegetal motifs were integral to the intensifying discourse, it is probable that the subsequent decrease in their use was related to developments in the discourse as well. Going hand-in-hand with proliferation of the kind that is suggested here, one could expect to find also a negotiation of the sentiments expressed and the means of their expression. It is possible therefore that the initial increase in the use of various attributes was also characterised by a negotiation of the meanings they convey as well as the vehicles of their expression. In this respect, the decrease in the use of vegetal motifs may be due to a failure of the vegetal motifs to crystallise as a sufficiently coherent symbol, or due to their significance being rendered irrelevant to the discourse.

## **Spatial Arrangement**

### Association

Generally speaking, the expression of associations among graves is a rare occurrence in Trumpeldor cemetery, which is clearly inclined toward singular burials (Table 16.4, Fig. 16.7). Nevertheless, one can still distinguish between two types of associations among the cases that were observed: those that consist of two individuals, i.e. pairs, and those that include more than two individuals, i.e. collectives.

Collectively associated burials were recorded only in plot A, consisting of two groupings, one of four individuals and one of five. The latter contained both males and females while in the former only males could be cited with certainty, and the sex of the other two could not be determined. While the association between the individuals was unequivocally attested, either by means of a shared base or a shared body, it did not manifest itself in terms of internal

homogeneity. On the contrary, the differences between the markers were sometimes striking. The group with the five members is particularly noteworthy in this regard in that it included a pyramidal form, trapezoidal forms as well as simple rectangular forms.

Pairs are a little more common with five cases, encountered in all plots but D-south. Usually they consist of one member of each sex, but one exception that consists of two females is of note as well. All forms of association were noted (A, B and C) and, unlike the collective associations, the pairs did seem to care for the identical appearance of both parts.

No differences in ratio between the plots can be noted, indicating that little change in attitude took place.

Both pair and collective associations between graves are exceptional occurrences and the singular grave is definitely the rule, a pattern that remained unchanged throughout the first 40 years of the cemetery's use. Although not statistically significant, the occurrence of collective associations in plot A alone might suggest that it was an early practice, only the last gasps of which are found in Trumpledor cemetery. If this is the case, a certain pattern of development can nevertheless be suggested, whereby some degree of concern with the representation of affiliation among multiple individuals was forfeited. Whether this concern was formerly a central one, whether it was replaced by another and whether the transition was swift or gradual cannot be determined on the basis of the current data.

	Collective	Pair	Single	Unmarked	Total
Plot A	9	2	44	5	60
Plot B		4	56		60
Plot D-centre		4	40	1	45
Plot D-south			60		60
Total	9	10	200	6	225

Table 16.4: Number of individuals per association type.

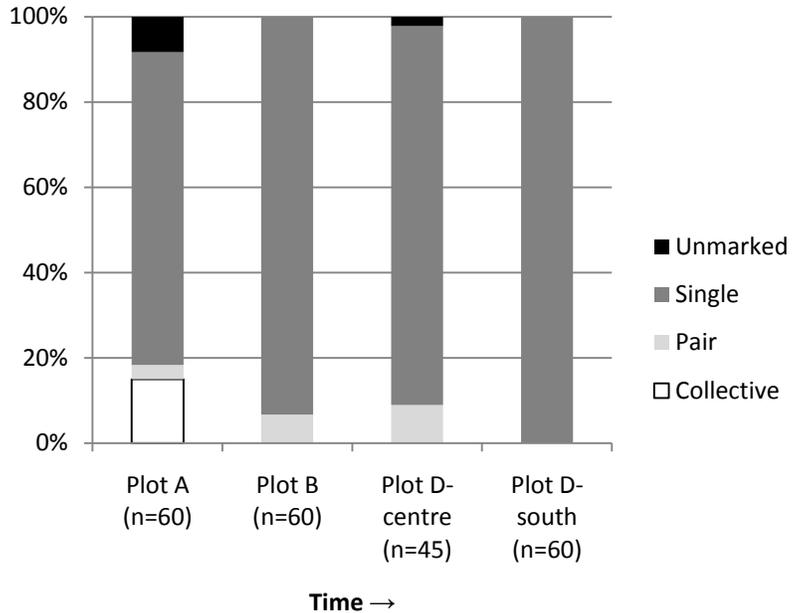


Fig. 16.7: Distribution of association types.

The sheer composition and number of the collective associations, however, undoubtedly embodies social affiliations that are different from those embodied by pairs and definitely by singles. Whether familial or other, the social units represented by these associations are definitely larger than the others and are therefore concerned with the immortalisation of larger social units. Subsequently, it can be further suggested (cautiously) that a process of fragmentation may have taken place in the structure of the basic social units or otherwise that a shift of emphasis from large social units to smaller ones occurred.

### Relative Distribution of the sexes

Although males and females are proportionately represented in the sample (the difference is statistically insignificant,  $P=0.1954$ ), their distribution is anything but random. As demonstrated in Table 16.5 and Fig. 16.8, each one of the plots is unequivocally dominated by either one of the sexes, while the other constitutes at most a small minority. Graves occupied by individuals of indeterminate sex, however, are a potential source of distortion. For most plots it is of little consequence, but in Plot B they are especially numerous ( $n=21$ ) and hence capable of shifting the balance. This is very unlikely but, even if so, it would definitely constitute an exception compared to the other three.

Thus, Trumpeldor cemetery, as a rule, is characterised by keeping females and males apart, achieved by designating different sectors of the cemetery to either one sex or the other. This rule was rather strictly upheld, as the exceptions to it are very few, indicating that it was of high priority. The exceptions are nevertheless of considerable interest.

	Female	Male	Unknown	Empty	Total
Plot A	4	48	3	5	55
Plot B	35	4	21		60
Plot D-centre	42	1	1	1	44
Plot D-south		54	6		60
Total	81	107	31	6	219

Table 16.5: Distribution of the sexes per plot.

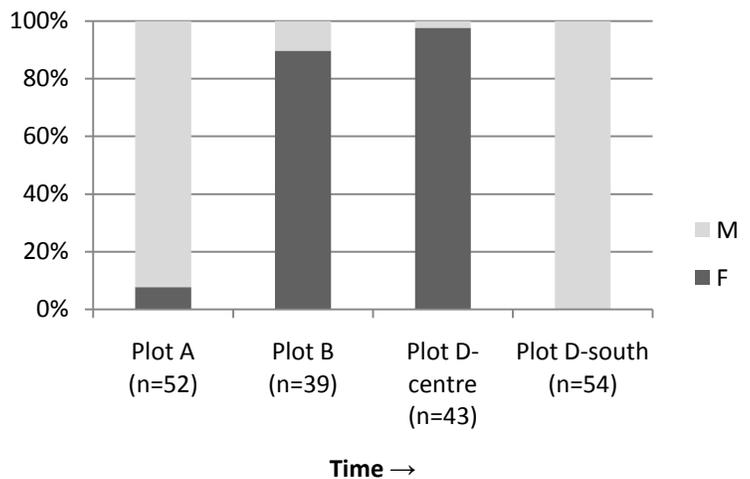


Fig. 16.8: Ratio of males to females per plot.

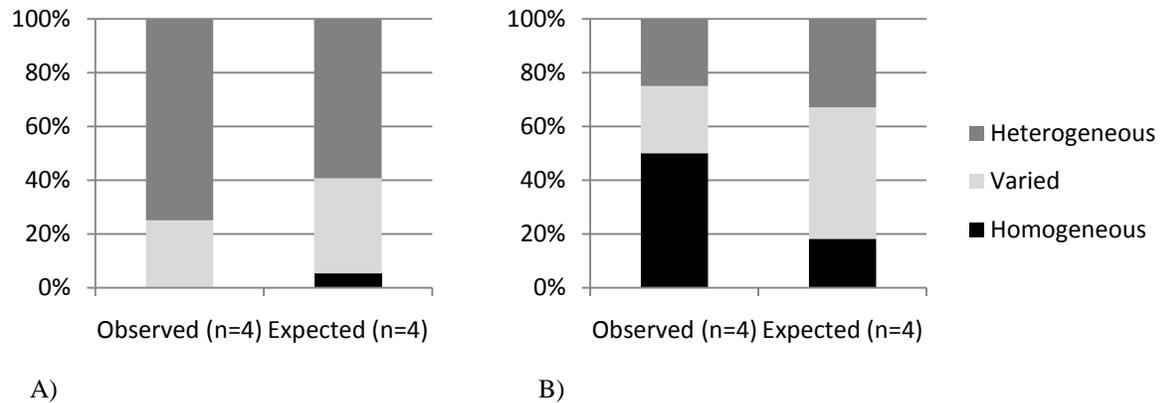


Fig. 16.9: Observed versus expected distribution of the minority sex in Plot A (A) and Plot B (B)

It is noteworthy that most individuals buried in a plot designated to the opposite sex are members of pair or collective associations. This is the case for three of the four females buried in Plot A and three of the five males buried in plots B and D-centre. A considerable part of the few exceptions to the rule can therefore be seen to derive from a contradictory concern to offer a material and spatial expression to the social relations and units that included members of both sexes.

Although the figures are too small to offer any degree of statistical reliability, it may be worthwhile to observe how individuals were integrated into plots designated for the opposite sex. Fig. 16.9 compares the observed distribution of the form of relations maintained by members of the minority sex in plots A (females) and B (males) with the expected distribution of these forms if they were due to random processes.

The integration of the few females into generally male Plot A closely resembles the pattern that could be expected if it were randomly done. Conversely, there is some discrepancy concerning the males integrated into generally female Plot B. The observed pattern demonstrates an inclination towards homogeneous forms of relations which are the least expected if the distribution was random. This raises the suspicion that there might have been greater concern in minimising male's proximity to females, rather than the other way around. Unfortunately, this cannot be substantiated at this point and must remain a suspicion.

## Summary

Trumpeldor Cemetery represents the first decades of the 20<sup>th</sup> century in the Tel-Aviv area. Some of the patterns observed are consistent throughout its principal years of functioning; these

concern issues of spatial relations among the dead: the emphasis on singular graves and the separation of the sexes. Conversely, aspects that pertain to the marking and representation of the grave show a clear trajectory of development: a growth in diversity, observed both in the types of tombstones erected and in the application of additional attributes to them.

Hence, the main arena of discourse was that of commemoration, representation and interface with the dead, while the treatment of the dead and their relations among themselves remained unchanged. Against the rather homogeneous background of the first years, the diversity that followed might suggest a loosening of an early sense of solidarity and growing social fragmentation. It may also represent distinctions between different social groups and a negotiation of sentiments expressed in the context of the cemetery, as well as the symbols applied in order to convey them.

While it is difficult to refine the nature of the abovementioned discourse and the quality of the tensions involved, it is in the relatively static and stable relationship between the sexes that such a tension can be defined, perhaps because the crux of the issue can be identified. It involves the tension between the principle that women and men would be kept apart and the occasional concern to allow the manifestation of social units, in which both sexes take part, in terms of spatial proximity.

## Ch. 17: Morasha Cemetery

Morasha Cemetery is located in an open area, characterised by Hamra Soil. It is situated just above a kilometer north of the Yarkon River and between three urban agglomerations of Ramat ha-Sharon-Hertzelia, Petah-Tiqva and Tel Aviv. It occupies an area of approximately 32 dunams and consists of tens of thousands of graves. It was founded in the 1960s and continues to be systematically used until this day.

The sample was collected in March 2009 consists of a total of 216 entries (Appendix 4), collected from three different parts of the cemetery: Area A Plot A, Area B Plot C and Area E Plot F (henceforth plots A, C and F respectively). They include 85 females, 87 males, four cases of indeterminate sex and 40 unoccupied graves. The distribution of the year of burial per plot is represented in Fig. 17.1. Both plots A and C experienced initially high intensity of burials (the former in the 1960s and the latter in the 1970s) followed by a steady decrease that stabilises at a low rate. Plot F was apparently opened only during the 2000s and therefore demonstrates only the initial high intensity of burials.

It is also of note that the 1980s and 1990s are underrepresented in the sample. This is not due to fluctuations in the cemetery's use, but to a bias in the sample. The relatively sharp curves seen in Fig. 17.1 suggest that the different plots filled up very fast during their early years, so that each of them represents a rather limited period of time. It is therefore evident that three plots are

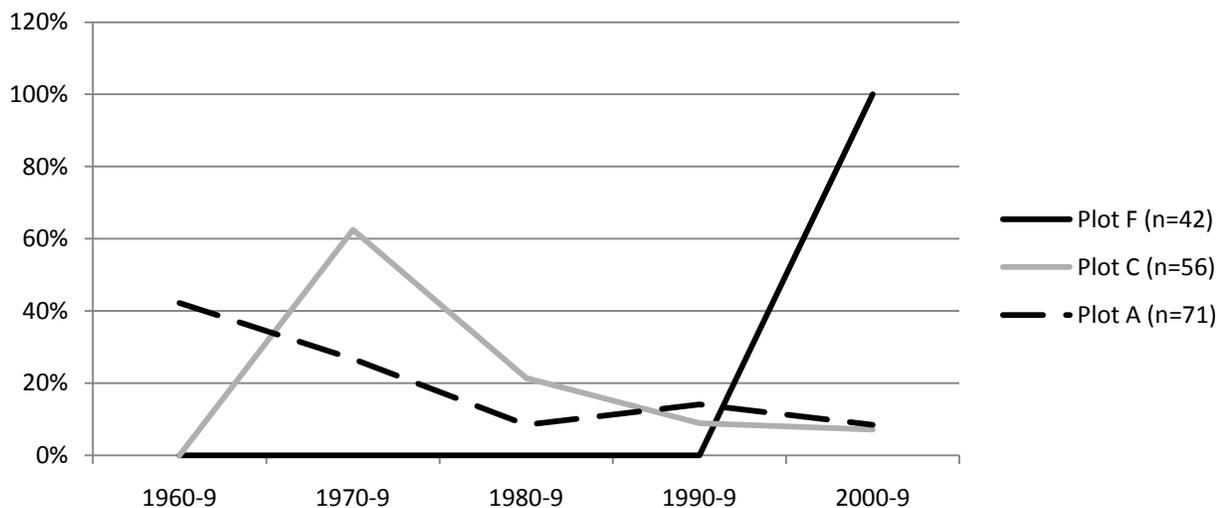


Fig. 17.1: Distribution of 'year of burial' per plot.

incapable of properly encompassing a period of 50 years. This deficiency is not as severe as it may seem at first glance, however, something the following pages will demonstrate; but it does serve to emphasise that some degree of distortion is nevertheless expected due to the gap between the sample size and the represented population.

### Typology

All Tombstone types other than type 3 are represented in Morasha Cemetery. Type 1 is the most common of all, comprising 53% of the sampled cases. Far behind, each comprising 18%, are the two horizontal types 5 and 6. The varia category comprises 9 % of the sample and types 2 and 4 comprise no more than 1% each (Table 17.1).

	1960s	1970s	1980s	1990s	2000s	Total
Type 1	18	32	12	4	23	89
Type 2					1	1
Type 4		2				2
Type 5	5	9	5	3	8	30
Type 6	4	7		6	14	31
Varia	3	4	1	2	6	16
Total	30	54	18	15	52	169

Table 17.1: Quantitative distribution of tombstone types.

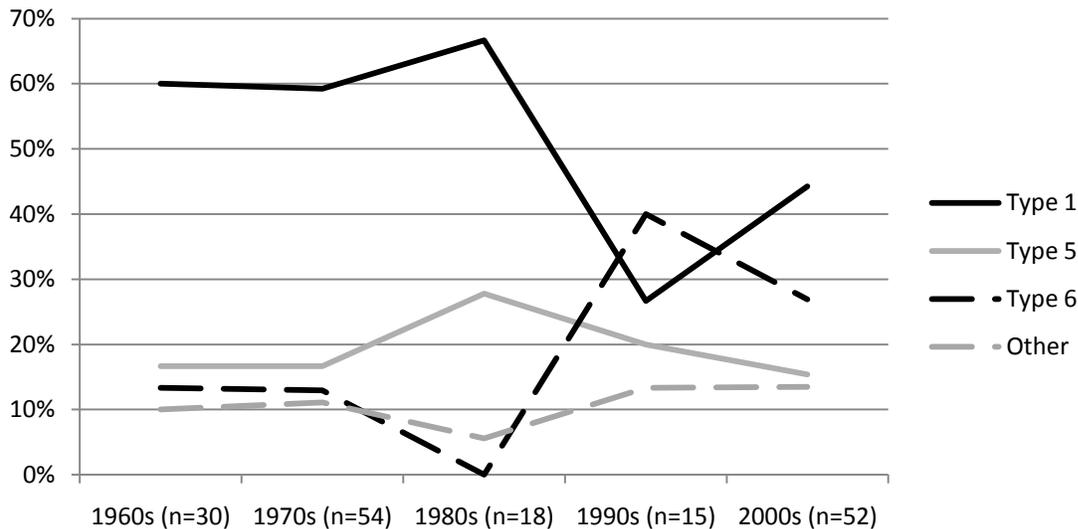


Fig. 17.2: Temporal distribution of tombstone types.

The temporal trends of development demonstrated by the different tombstone types (Fig. 17.2) are rather intriguing. During the first 20 years, there is hardly any change and the ratios of the different types seem to have remained constant. However, from the 1980s onwards, fluctuations appear. For most tombstone types, the fluctuations seem to have been rather moderate but, for types 1 and 6, they were especially severe, dramatically shifting between increasing and decreasing tendencies. Moreover, types 1 and 6 are practically mirror images of each other, strongly correlated so that the increase in one is equally expressed in the decrease of the other ( $r = -0.98072$ ).

The dramatic fluctuations demonstrated by types 1 and 6 suggest that a nerve had been struck bringing about circumstances of heightened tension. A little bit like a seismograph, the occurrence of such oscillations, especially against a relatively stable background (1960s and 1970s as well as the other types of tombstones), point toward a tremor that challenges the existing state of affairs. The strong, almost perfect correlation between the two types in question further suggests that they represent the crux of the issue at stake, that the core of the matter is articulated and expressed between the two morphological types of tombstone.

The two types in question differ primarily in the form of the headstone, which carries most of the literary and symbolic content. Type 1 consists of a rectangular slab set up vertically whereas type 6 consists of a pillow-shaped addition, the main axis of which is horizontal. Thus the two types are contradictory in terms of their main axis. This difference in axis could possibly be correlated with the notion of standing upright as distinct from lying down, or with that of a more straightforward and assertive tombstone, by token of the direct eye contact it facilitates, sometimes even towering above the observer, as distinct from a tombstone that is more docile and passive in character, upon which the observer can look down (Fig. 17.3). The two types in question therefore facilitate different kinds of relationships with the living, with the person standing in front of

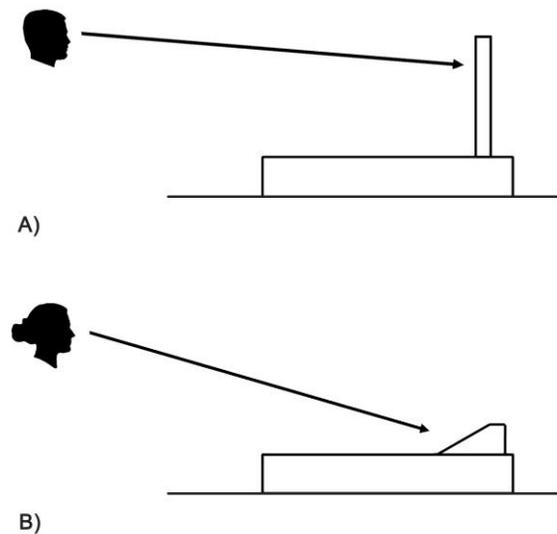


Fig. 17.3: Relationship between tombstone and onlooker, types 1 (A) and 6 (B).

them and as a consequence the preference of one form upon the other is also a choice of the kind of relationship structured.

This could very well be the issue at stake, located at the base of the movement of these tombstone types to and fro: the attitude and relationship one structures with her or his dead. Sometime during the 1980s, an intense negotiation began concerning the quality of one's relationship to the grave and the representation of the deceased. The hitherto popular and taken-for-granted vertical tombstone began to be conceived as somewhat assertive, perhaps even domineering, standing up face-to-face with the observer. Accordingly, the more modest horizontal tombstone began raising its head as a calmer, more relaxed, perhaps even passive alternative. However, is this how one wishes to engage with his or her dead? Would it not be more dignified to the deceased to have some degree of ability to assert its presence rather than merely lie at one's feet? Such an 'argument' or 'discussion' could continue along these lines indefinitely; and it is probably this kind of discourse and considerations that produced the observed oscillations.

### Raw Materials

In most cases, a given tombstone was constructed of only one of the four basic raw materials available, but occasionally a combination of two was noted as well.

Table 17.2 presents the number of occurrences of the different raw materials per decade, both alone and in combination. It is interesting to note that different materials seem to have different tendencies. For example, while limestone, Turkish marble and cement appear almost exclusively on their own (89%, 89% and 95% respectively), granite appears alone in only three out of its 19 occurrences. This is

probably due to a general preference for bright colours and that the use of granite was almost exclusively aimed at the creation of contrast. Moreover, in 16 of the 17 tombstones composed of

	1960s	1970s	1980s	1990s	2000s	Unknown	Total
L	16	41	16	3	28	7	111
TM	2	4		7	16	4	33
G					3		3
C	10	4	2			3	19
G+TM	1			2	1		4
G+L	1	4		3	4		12
C+L		1					1
Total	30	54	18	15	52	14	183

Table 17.2: The occurrences of raw material and combinations thereof per decade (C=cement, G=granite, L=limestone, TM=Turkish marble).

two materials, granite is one of them (94%), suggesting that, as a rule, the combination of materials was contrast-oriented. This is further strengthened by the absence of any compositions employing both limestone and Turkish marble.

By token of these observations and in order to simplify the graphic representation of the temporal trends, all occurrences of granite can be joined together under a single heading, as representing an aesthetic choice of producing a grave marker that is either dark or contrasting. In addition, the single case of a tombstone composed of cement and limestone was joined to the cement category on the basis of an observation from elsewhere that suggests that this is a result of renovation (see Ch. 15). The resulting pattern is presented in Fig. 17.4.

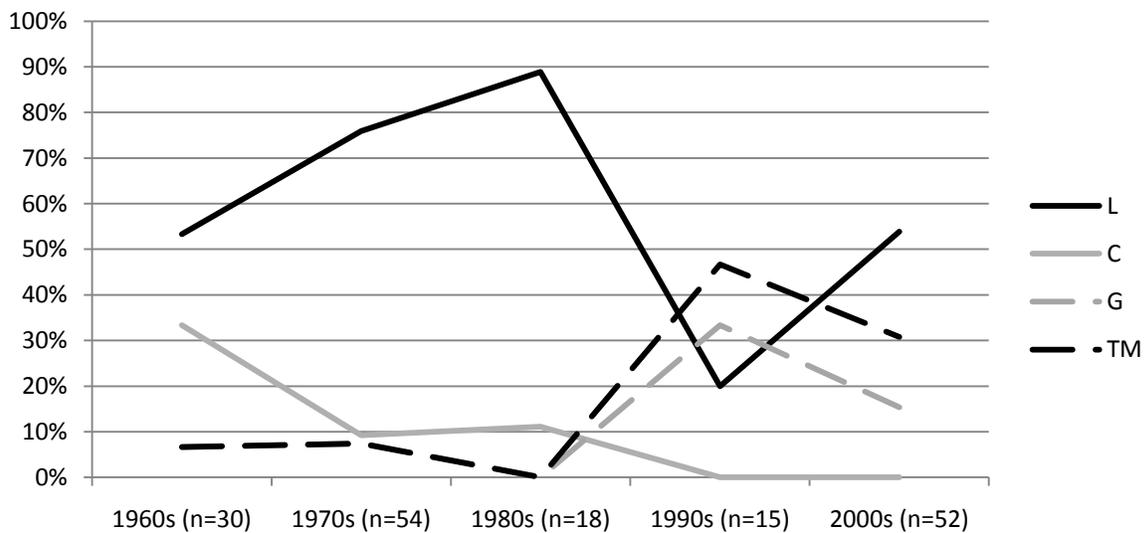


Fig. 17.4: Temporal distribution of raw materials (C=cement, G=granite, L=limestone, TM=Turkish marble).

Like the patterns observed for the tombstone types, also for the raw materials the period from the 1980s onwards demonstrates considerable fluctuations. This time, the dynamics are between limestone on the one hand and granite and Turkish marble on the other. The only raw material that seems to go through a consistent process is the cement, which steadily decreases until it disappears entirely in the 1990s, fully replaced by stone. Granite and Turkish marble occur in small numbers during the first 20 years, decrease to 0 during the 1980s, which are followed by a dramatic increase and then a decrease again. Limestone, conversely, demonstrates a consistent rise until the 1980s, after which it drops and rises again in the 2000s.

While cement goes through the ‘natural’ evolutionary process of gradually giving way to other materials, the fluctuations of the three types of stone during the later years point elsewhere.

In the same vein discussed above for the tombstone morphology, these patterns suggest an intense negotiation manifested in the interplay between the substances. The core of the issue therefore resides in the difference between limestone on the one hand and Turkish marble and granite on the other. The most evident difference is that of colour. Whereas limestone is white and therefore essentially colourless, Turkish marble and granite are colourful; in addition, polishing gives the latter a conspicuous lustre, which is lacking in limestone.

The origin of these materials is also of importance. Limestone is essentially a local material accessible at a short distance; the closest source for granite on the other hand is in the southernmost reaches of the country almost 300 km away, while Turkish marble, as suggested by its name, is imported from Turkey (<http://www.matzeva.co.il/>). Because the expenses increase with the distance Turkish marble and granite are the more expensive ones whereas limestone is the cheapest among them.

Juxtaposed to Turkish marble and granite, limestone can thus be described as local, cheap, colourless and lustreless; a very uncomplimentary description indeed. The other two substances on the other hand can be viewed as a form of conspicuous consumption. The presumed negotiation can therefore be considered in terms of prestige. The previously unchallenged and most common material for construction of grave markers was challenged as simple and dull, faced by fancier and visually appealing alternatives. The response to this may be that simplicity ought to be regarded as a virtue and that the new materials are signs of extravagance and ostentation. It seems that this discourse continues to this day and it is still too early to consider its outcome.

### **Correlation between tombstone morphology and raw material?**

Given the above, the apparent correlation between tombstone morphology and raw material cannot go unmentioned. This is not so much the mere possibility or probability of correlation that is of interest, but that they may represent two aspects of the same discourse. Fig. 17.5 presents the variations in ratios of the raw materials for tombstone type 1 (A) and 6 (B). It is clear that despite the fluctuations limestone is the preferred material for the construction of type 1 tombstones, while markers of type 6 demonstrate a consistently increasing ratio of granite and Turkish marble.

The correlation is made even clearer when one considers the relative distribution of the raw materials as a function of the relative ratio of types 6 and 1 grave markers in the sample. It is evident that type 6 markers are strongly and positively correlated with the use of granite and Turkish marble, and negatively correlated with the use of limestone (Fig. 17.6A), whereas the opposite correlation is found for type 1 (Fig. 17.6B).

The strong correlation between tombstone morphology and raw material substantiates the impression that the intense discourses observed for each of them separately are in fact two aspects of a single negotiation. Accordingly, two ‘camps’ can be defined. One, the older of the two, stands for vertical, direct and somewhat assertive tombstones constructed of cheap, local and simple material, whereas the other, the relatively recent one, stands for horizontal, indirect and somewhat passive tombstones constructed of expensive, distant and colourful material.

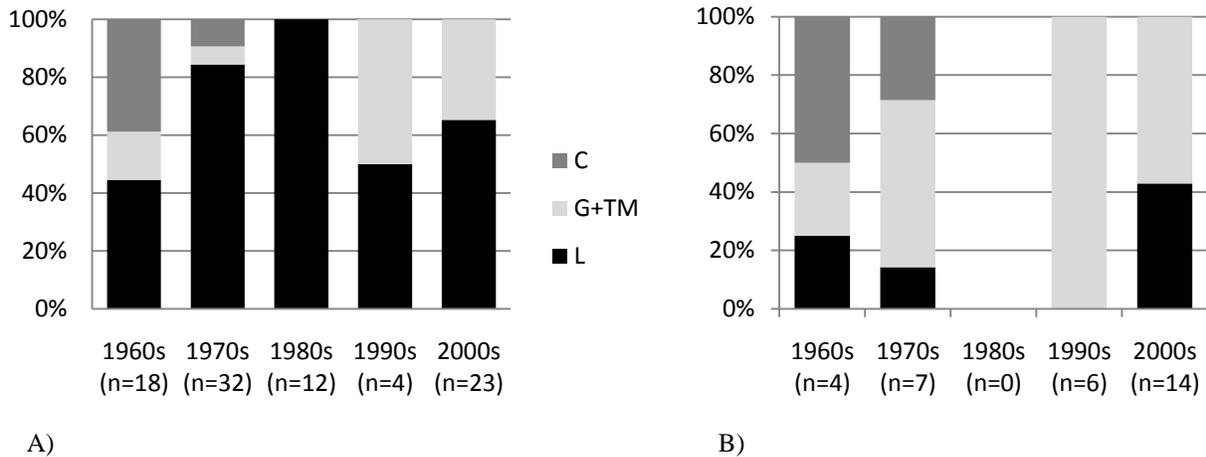


Fig. 17.5: Ratios of raw materials for tombstone type 1 (A) and type 6 (B).

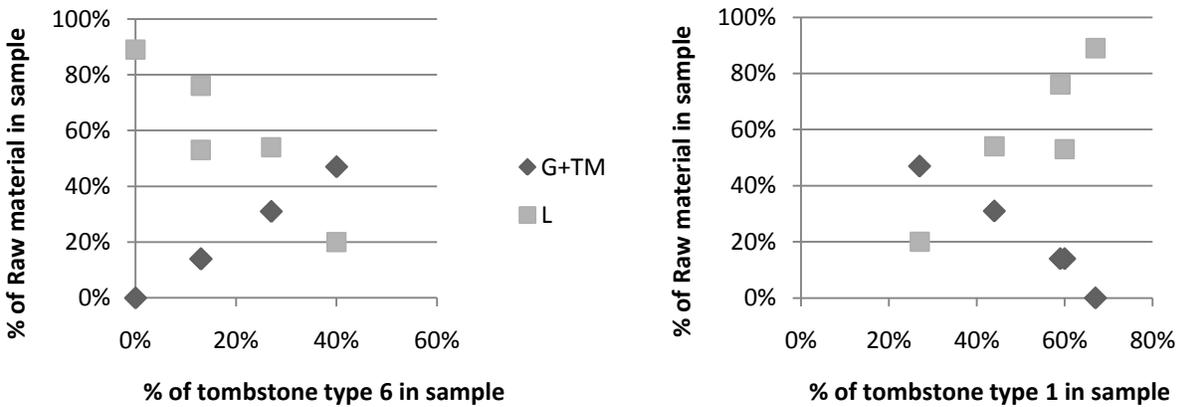


Fig. 17.6: Correlation between relative ratio of tombstone types 6 (A) and 1 (B) with raw material.

These evidently manifest different approaches to the representation of the deceased and they structure different relations between the grave and the person standing in front of it.

It appears that the two aspects inform and contextualise each other and could be summarised as follows:

	<b>Group 1</b>	<b>Group 2</b>
<b>Form</b>	Present	Past
<b>Matter</b>	Simple	Impressive

Whereas the passiveness of the horizontal form suggests that it has little claim on the present, the vertical form asserts its presence and its relevance to the here and now. Thus for the one group the dead are still active while, for the other, it belongs to the past and constitutes a memory. The choice of lustrous, colourful and expensive materials for the latter is thus oriented towards the glorification of a past. In a similar vein, the modesty of the former is a characteristic of its asserted presence, which does not claim greatness but only relevance.

In broad terms, therefore, the investigated sample from Morasha Cemetery manifests a vibrant discourse that expresses a shift in attitude towards the dead, considering them as past and as a memory, the glorification of which may very well be also a mode of compensation for the loss of their relevance to the present.

### Attributes

Most of the attributes recorded were not found on more than 5% of the tombstones (Table 17.3). These include vegetal motifs, hands, Star of David, Menorah and portraits. The most common attribute is the candle found on 60% of the grave markers; the second in popularity is the chalice with 24%, followed

by the installation and the book with 10% and 7% respectively. The temporal distributions of these attributes are presented in Fig. 17.7.

	1960s	1970s	1980s	1990s	2000s	Unknown	Total
Candle	14	30	10	14	34	8	110
Installation	4		2		11	1	18
Chalice	8	11	5	3	14	3	44
Book	3	4		3	3		13
Veg.	2	2		1			5
Hands	1						1
Star of David		5		1	1	1	8
Menorah		1	1				2
Portrait		1			1		2
No. of TS	30	54	18	15	52	14	183

Table 17.3: Quantitative distribution of attributes per decade.

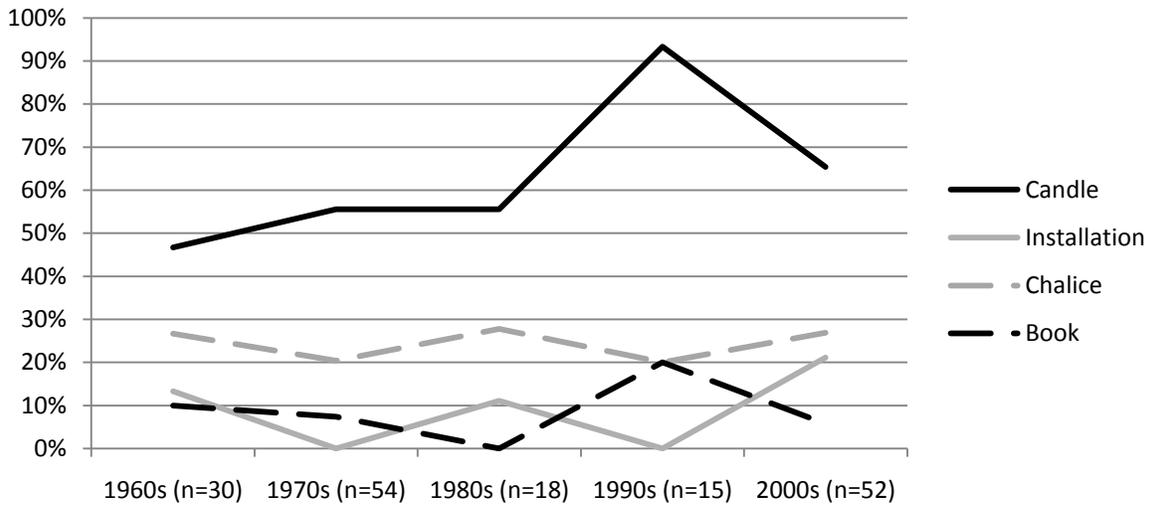


Fig. 17.7: Temporal distribution of selected attributes.

In all, the ‘candle’ is the only attribute demonstrating a clear uni-modal temporal pattern, peaking in the 1990s and then decreasing. All other attributes tend to fluctuate from one decade to the next, although there is a general consistency in their relative ratios. This overall consistency in ratios suggests that little temporal change took place and that the relative appeal as well as the meaning attached to the different motifs was not subjected to intense negotiation. The apparent contradiction posed by the fluctuations observed from one decade to the next is probably best understood as demonstrating heightened sensitivity to random circumstances, such as individual whims and preferences, although sampling error cannot be excluded.

The distinctive pattern demonstrated by the ‘candle,’ however, suggests that this attribute was linked with other concerns. The dramatic increase in 1990s and the equally dramatic decrease in the following decade point towards an event that accentuated the relevance of the ‘candle’, or for which the ‘candle’ was particularly relevant. With this in mind, the similarity of the pattern demonstrated by the ‘candle’ attribute to that of the type 6 tombstone and to those of the granite and Turkish marble is difficult to ignore. There is good reason therefore to believe that the accentuated relevance of the ‘candle’ was linked to the new concepts introduced into the cemetery.<sup>1</sup>

<sup>1</sup> It is worth noting that candles are considered as ‘memory candles’, which matches particularly well to the changes in attitude toward the dead suggested above.

## Spatial Arrangement

### Association

Graves in Morasha cemetery are either associated with one neighbouring grave (i.e. pair) or otherwise stand for themselves as singles. Of a total of 216 sampled graves, 72 were associated with another (33%), 122 were singular (56%) and 22 were unmarked (10%). Most unmarked graves were found in plot F (82%, Table 17.4), which is also the latest of the three (Fig. 17.1), suggesting that, unlike plots A and C, it was not yet exhausted spatially, and these graves are destined to be occupied in the future.

Upon arranging the plots in their relative temporal order, it is easily observed that the relative number of paired graves increases with time (Fig. 17.8), indicating a growing concern for the explicit expression of a social relationship by means of spatial juxtaposition and a common tombstone. The overwhelming majority of the recorded ‘relationships’ consisted of one member of each sex (n=18, 50%) or of a single individual, either male or female, associated with an unoccupied grave (n=16, 44%). As most of the latter were encountered in plot F (n=14), it is reasonable to consider the partially occupied pairs as a temporary condition, destined to resemble the fully occupied ones.

The social relationships embodied in the cemetery therefore manifest repeatedly an association of a female with a male,<sup>2</sup> a pattern that renders it safe to assume that the social unit represented is that of the nuclear family, probably embodying the marital relationship. Evidently, the observed temporal trend points towards a gradual and consistent shift from a single autonomous grave that stands on its own to one affiliated and identified with the abovementioned

	Pair	Single	Unmarked	Total
Plot A	12	67	3	82
Plot C	20	37	1	58
Plot F	40	18	18	76
Total	72	122	22	216

Table 17.4: Number of graves found in association and alone.

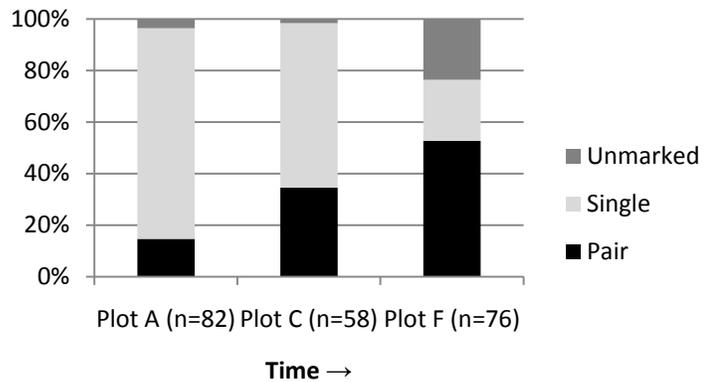


Fig. 17.8: Ratio singles to pairs.

<sup>2</sup> A rule for which only one exception was noted (Plot C, 5/5-6).

social unit. Thus, one could suggest that we are witnessing a shift from an essentially individualised society to one that pays greater respect to the basic familial unit.

However, there are two sides to the material expression of the social affiliation in question. While it positively manifests a bond and a strong relationship between the two graves or individuals, it also differentiates and clearly demarcates this bond, thereby distinguishing it from the rest of the community. Accordingly, it is precisely the ‘autonomy’ of the single grave that allows it to be part of a larger collective and community, to maintain an association with numerous others by token of their mutual proximity and grouping together. The ‘pair’ therefore prioritises its relationships, first inwards and only later outwards, while the single grave does not. Instead, it maintains a vague but all inclusive relationship. Thus, the gradual shift to the representation of pairs manifests a change in priority, the assignment of greater importance to the smallest social unit possible (two people) instead of to a more abstract collective. The grouping of pairs is thus not as much a sign of growing collectivism within the community as it is of social fragmentation.

#### Relative distribution of the sexes

The increasing emphasis on the spatial and commemorative representation of the marital social unit, comprised of one male and one female, may have considerable effects on the relative distribution of the sexes. Table 17.5 presents a quantitative expression of the neighbours on either side of every individual, with the exclusion of children under the age of 10. The results are summarised graphically in Fig. 17.9A and are supplemented, for purposes of comparison, by the distribution that could be expected had they been due to random processes. It should be noted that plot F was omitted and will not be considered further. This is because of the large number of unoccupied graves in plot F, which exceeds both the number of males and females (34, 24 and 18 respectively), is indicative of the plot’s temporal trajectory rather than its nature, and because it biases the distribution to a degree that it cannot be compared with those of plots A and C.

	Plot A	Plot C	Plot F	Total
F-F-F	8	10	1	19
F-F-M	3	7	3	13
F-F-X	1	1	2	4
M-F-F	3	7	3	13
M-F-M		1		1
M-F-X		1	1	2
X-F-F	1	1	2	4
X-F-M		1	1	2
X-F-X			5	5
Total	16	29	18	63

A)

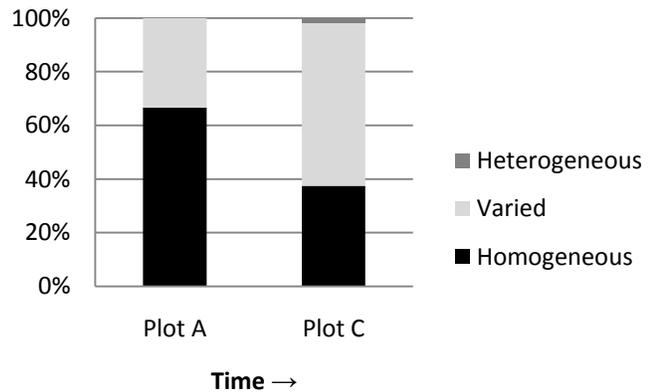
	Plot A	Plot C	Plot F	Total
M-M-M	9	6		15
M-M-F	1	9	1	11
M-M-X	2	1	6	9
F-M-M	3	8	2	13
F-M-F	0			0
F-M-X	0	1	2	3
X-M-M	1	2	5	8
X-M-F	1		3	4
X-M-X			5	5
Total	17	27	24	68

B)

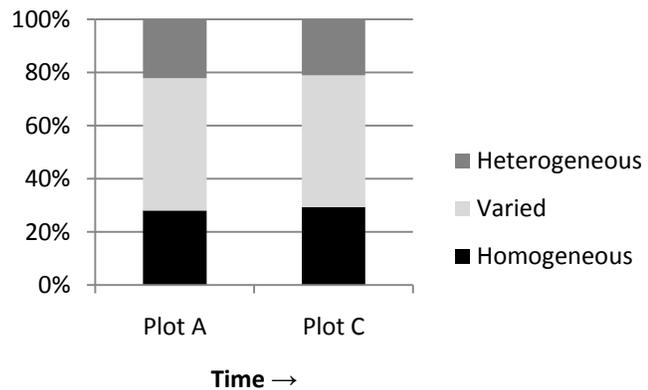
Table 17.5: Relative distribution of the sexes in terms of neighbours on each side for females (A) and males (B).

The deviation of the observed distribution from the expected random distribution is statistically significant for both Plots A ( $X^2=13.365$ ,  $df=2$ ,  $p=0.0013$ ) and C ( $X^2=10.564$ ,  $df=2$ ,  $p=0.0051$ ), thereby indicating that they both represent non-random patterns generated by intentional and purposeful intervention.

The most obvious and consistent aspect of the patterning of the relations between the sexes is the systematic underrepresentation of heterogeneous relations, in which an individual is flanked on both sides by members of the opposite sex. Situations of this kind, which could be expected for approximately 20% of the population (Fig. 17.9B), were thus intentionally avoided and evidently undesirable. It seems therefore that the degree of



A)



B)

Fig. 17.9: Observed (A) and expected random distribution (B) of the three forms of relations between the sexes.

contact or immediate proximity of the sexes was controlled and that limits were set to the possible variations.

The 'varied' and 'homogeneous' patterns were, conversely, more acceptable. Yet, given that plots A and C differ considerably in their observed distributions, it cannot be determined if there was any preference for either one of them. The difference between the two plots is nevertheless striking in view of the almost identical patterns demonstrated by the expected random distributions (Fig. 17.9B). Moreover, the difference between the two is too great to be explained as merely due to random circumstances ( $X^2=17.264$ ,  $df=2$ ,  $p=0.0002$ ), indicating that cultural/social processes were involved.

A partial account for the change that occurred between plots is afforded by the increase of explicit associations of males with females discussed above (Fig. 17.8). That is, the growing importance attached to the manifestation of the basic familial unit in the cemetery entails also a change in the patterning of the relations between the sexes. This suggests that the default preference is for keeping females and males apart, a preference that is countered and is at variance with the growing demand to commemorate the smallest social unit consisting of one member of each sex. However, while 61% of the population in plot C is grouped in 'varied' forms of relations only 34% is explicitly associated as couples. This could be understood in at least two ways: (1) alongside the increased juxtaposition of males and females in representation of the familial social unit occurred a general relaxation of the demand for separation so that more occurrences of neighbouring females and males could take place under more random circumstances; or (2) in a similar vein as the relationships made explicit by means of a marker common to two graves, the same kind of relationship may occur in a more subtle way, as matching but separate tombstones.

Deciding between the two is not a simple matter. Yet, the second possibility leaves some room for further observation. By defining a scale of confidence for the existence of a relationship between two juxtaposed graves of a female and a male, one could assess the probability of the second hypothesis. Thus, a scale ranging from 1 (definitely associated) to 4 (unlikely to be associated) can be devised as follows:

- 1 – A marker common to two graves;
- 2 – Separate but identical markers that differ from those around them;
- 3 – Separate but identical markers that resemble those around them; and

4 – Separate and different markers.

Of 19 juxtaposed males and females in plot C, nine (47%) are definitely associated, five (26%) can be said to be associated with a high degree of confidence, three (16%) may be associated but this cannot be said with confidence, and only 2 (11%) are probably not related and are juxtaposed due to reasons foreign to the demand of representing the familial social unit.

Thus the overwhelming majority of the juxtapositions (73%-89%) can be safely attributed to the concern of commemorating a social unit comprised of members of both sexes, thereby strengthening the impression that a tension exists between the preference of keeping the sexes apart and the wish to represent social units that are comprised of members of the both sexes.

### **Summary**

In conclusion, it can be said that Morasha Cemetery embodies in the last decades at least three fields of discourse concerning (1) the representation and memory of the dead, (2) prioritisation of social affiliations and (3) the spatial relationship between the sexes. If the force of the oscillations produced by these discourses along the temporal line is indicative of its intensity, of the push and pull dynamic between two parties, then it is undoubtedly the first concerning the attitude towards the dead that is the most sensitive, touching an exposed nerve.

The other two subjects of debate appear to have a more gradual but consistent pattern of development, which points towards a more moderate form of discourse. This is not to say that there is no tension involved, but only that it is less than that involved with the first.

## Ch. 18: Shiqun Vatiqim Cemetary, Netanya

Shiqun Vatiqim Cemetery is located at the eastern outskirts of Netanya, bordering cultivated fields on three sides, and although in growing proximity could still be considered as outside a residential area. It is rather large, covering an area of roughly 190 dunams and containing tens of thousands of graves. A total of 218 entries, surveyed in June 2009, were recorded from four plots (G, 2, 19 and 44), consisting of 103 females, 105 males and 10 empty plots (Appendix 5).

The temporal distribution of each plot is presented graphically in Fig. 18.1. The first burials are dated to 1960s, when the cemetery began to serve uninterruptedly until this day. It is readily observed that each plot represents almost exclusively one decade (and possibly even less) after which the intensity of inhumations decreases dramatically although it does continue at a very low pace. Other than the first decade of the 21<sup>st</sup> century, the sample offers a relatively balanced representation for the entire time-span of the cemetery's biography.

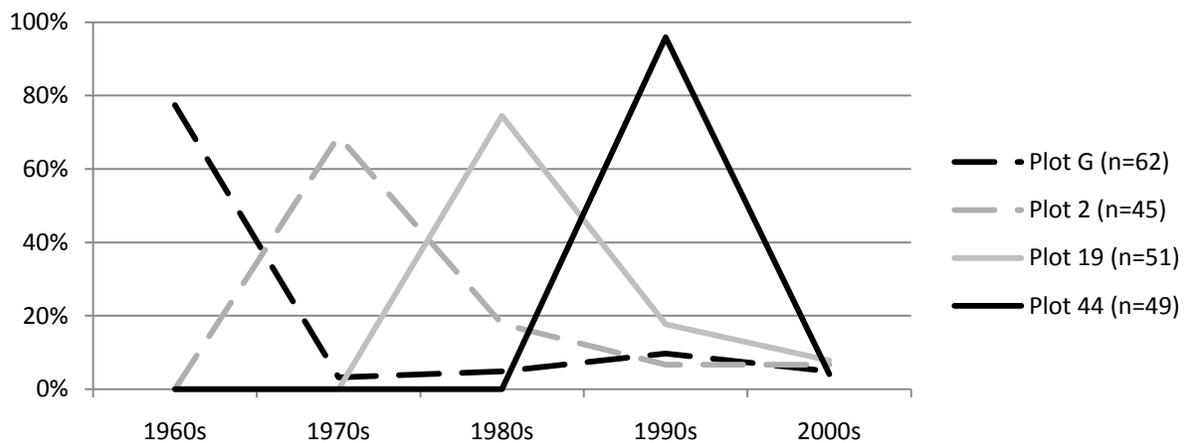


Fig. 18.1: Distribution of 'year of burial' per plot.

### Typology

All tombstone types were recorded in Vatiqim Cemetery (Table 18.1). Type 1 is undisputedly the most popular of all, comprising 47% of the sample; types 5 and 6 follow far behind with 19% and 11% of the sample, respectively, while the remainder varied between 4% and 8%. The temporal trends are anything but clear, however, and show severe fluctuations (Fig. 18.2). Most form types show bi-modal curves of abundance and discrete relationships between forms can

hardly be discerned. Generally speaking, therefore, the observed trends are best described as irregular.

The reasons for this are not clear and may originate from a variety of circumstances. It is probable, for instance, that the sample is too small compared to the population it presumes to represent, thereby

	1960s	1970s	1980s	1990s	2000s	Total
Type 1	15	6	30	42	5	98
Type 2	7	3		1		11
Type 3	7	2		1	2	12
Type 4	1	2	4	1		8
Type 5	8	12	8	9	3	40
Type 6	10	3	5	3	1	22
Varia		5	2	8	1	16
Total	48	33	49	65	12	207

Table 18.1: Quantitative distribution of tombstone types

overemphasising some aspects while neglecting others; alternatively, the temporal axis may offer too narrow a perspective for the depiction of the processes involved, entailing a harsh reduction of the complicated intertwining of mechanisms to a single continuum. Another hypothesis worthy of consideration is that the typological division employed does not match the real categories involved, i.e. there may be a lack of compatibility between the theoretical constructs that make up our taxonomy of tombstone types and the objective types.

One may try to compensate for some of these difficulties by means of reduction that can lessen the interference of some factors while preserving others, although in somewhat coarser terms. One such possibility is contextual, where the myriad of types are grouped together into

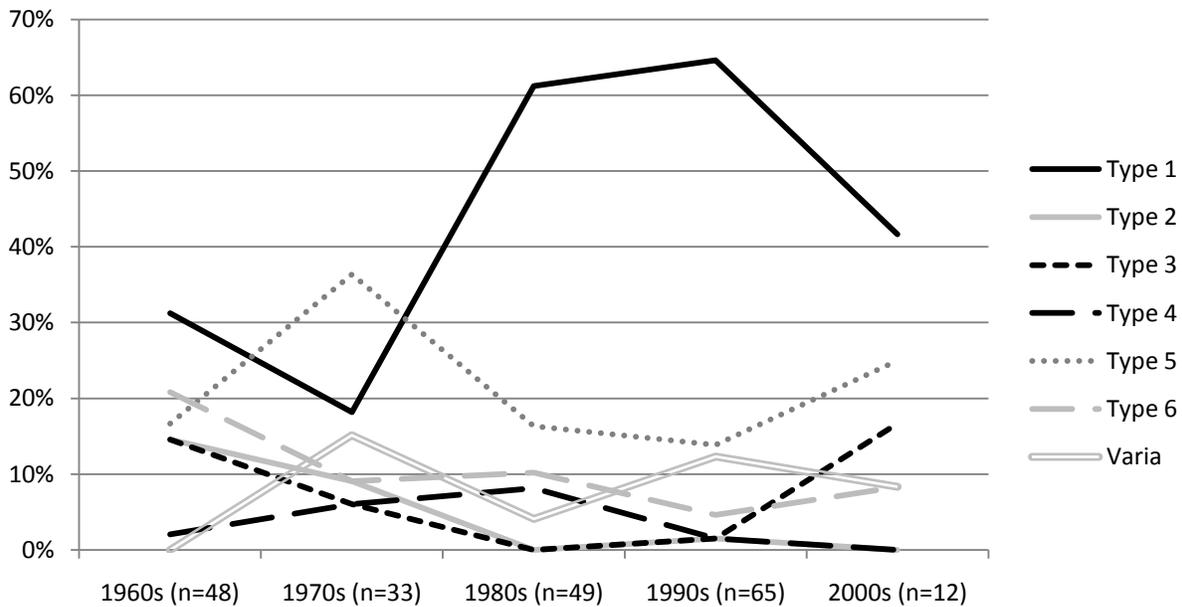


Fig. 18.2: Distribution of tombstone types.

vertical forms (types 1 to 4), horizontal forms (types 5 and 6) and varia. This is expected to diminish the problems of compatibility noted above but, as observed in Fig. 18.3, it does not produce patterns that can be assigned to clear processes of development. In the absence of uni-modal curves that may be

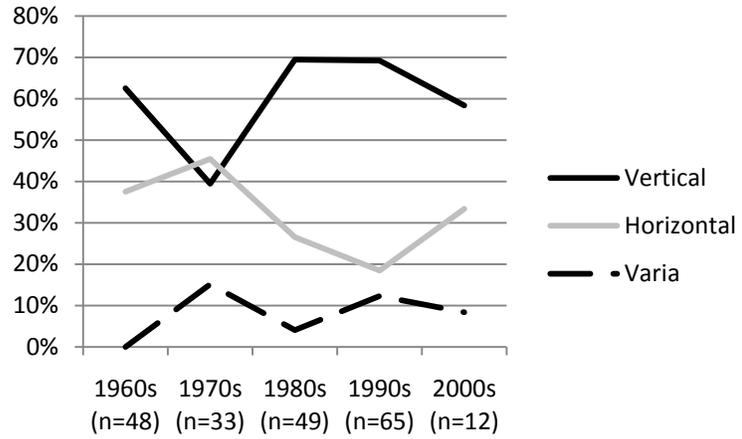


Fig. 18.3: Temporal distribution of basic form types.

considered as a background for the more hectic ones, the inconsistent picture noted above persists. It also suggests that the suspicion of poor compatibility between the theoretical categories and the supposedly real ones is not likely to be the cause for lack of coherence.

Another possibility is to reduce the temporal resolution, which will highlight more general temporal trends at the expense of more detailed and sensitive phenomena. For example, some of the fluctuations may be due to intensifying discourses after which one type will gain precedence over another; a reduction in the temporal resolution would demonstrate the change in their relative positions but would be blind to the quality of their discourse. Indeed, the hectic fluctuations and inconsistent curves observed above have been considerably normalised in Fig. 18.4 and can now be grouped according to their underlying trend of development in course of the

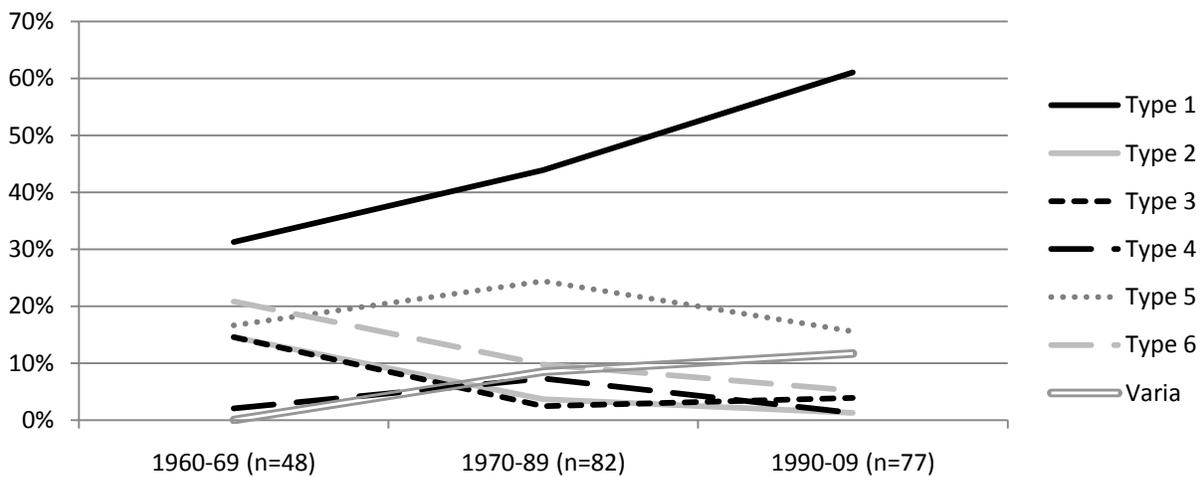


Fig. 18.4: Reduced temporal distribution of form types.

past 50 years: (1) types 1 and 'varia' increased steadily, (2) types 6, 2 and 3 decreased and (3) types 5 and 4 peaked in the 'middle years'.

Yet, although normalised, it is extremely difficult to offer an interpretation of these trends that goes beyond the abovementioned impression of incoherence. This is mostly because of the lack of agreement among the members constituting each group, rendering them ambiguous. For instance, types 2 and 3 of group 2 may both be considered as similar in that they are vertical and constitute variants of type 1, so that their sharing the same trajectory makes sense; in this regard, however, grouping them together with the horizontal type 6 makes little sense and is even contradictory, and the same can be said also of the other two groups.

Thus, the temporal distribution of the various tombstone forms presents an altogether irregular picture, in which no distinctive trajectory or discourse can be observed. One may take this to imply that random factors played a considerable part in the choice of tombstone form and that the incoherence observed is an integral aspect of the phenomenon. An alternative and more likely interpretation, however, is that considerable discrepancies exist between the sample and the population it presumes to represent. This is not merely a matter of size but more of complexities the sample fails to represent clearly, due to it being geared primarily to the depiction of linear processes, entailing one discourse at a time. But granted that multiple discourses of equal importance could occur simultaneously, especially in a group as large as that embodied by Shiqun Vatiqim cemetery, they would be severely distorted by the means available to us.

It is cautiously suggested, therefore, that multiple discourses occurred simultaneously and that each made somewhat different uses of the existing forms, each reading different meanings into them and manipulating them to convey different messages.

### **Raw materials**

Often only one of the four basic types of raw materials was used for the construction of a tombstone. Occasionally, however, a combination of two and even three was noted. In any case, the distribution of the various raw materials is presented numerically in table 18.2 and graphically in Fig. 18.5. The temporal trajectories of the different raw materials suggest that at least two phases ought to be distinguished, for which the 1980s constitute the turning point. The first phase is marked by the increase in frequency of limestone, Turkish marble and granite,

occurring concomitantly to the decrease in the occurrence of cement; the second is characterised mostly by the conspicuous and seemingly negatively correlated fluctuations of limestone and Turkish marble, while granite increases moderately.

Each of the phases represents a different discourse with different foci. The earlier of the two is primarily concerned with the replacement of cement with other materials. Compared to the former, these materials are natural, solid, smooth upon finishing and

durable; they are also relatively expensive. Thus, the replacement of cement by stone suggests an emphasis both on aesthetic issues as well as a concern for durability, which might indicate that the permanence of the marker was regarded in high esteem, perhaps ‘an eternal memory.’

Cement disappeared almost entirely in the 1980s, making way for a new concern, the main protagonists of which are the limestone on the one hand and Turkish marble on the other. Against the background of the moderate trajectory of the granite, the correlated oscillations of the two materials suggest a heightened tension between the two. As noted in the previous chapter, when opposed, limestone tends to be characterised as local, cheap, colourless and lustreless, as well as simple and modest, while Turkish marble comes to be conceived as the reverse (i.e. expensive, colourful, etc.), viewed as a form of conspicuous consumption. The presumed negotiation can therefore be considered in terms of prestige, where the previously unchallenged material for construction of grave markers was contested as simple and dull, faced by fancier and visually appealing alternatives, which in itself tends to be ostentatious (see Ch. 17 for a detailed discussion of a similar pattern).

	1960s	1970s	1980s	1990s	2000s	Total
C	16	6	1	1		24
L	30	23	44	22	7	126
TM	3	3	8	40	4	58
G	4	5	14	17	4	44
No. of graves	48	33	49	65	12	207

Table 18.2: Distribution of raw materials (C=cement; L=limestone; TM=Turkish marble; G=granite).

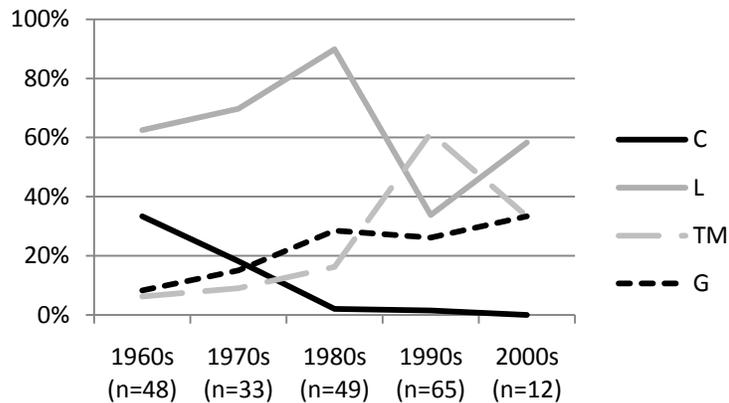


Fig. 18.5: Temporal distribution of the occurrence of raw materials (C=cement; L=limestone; TM=Turkish marble; G=granite).

## Attributes

Of the nine attributes recorded throughout the cemetery, four occur at very low frequencies, comprising at most 4% of the sample (Table 18.3; Installation, Vegetal motif, Hands, Portrait). Conversely, the most popular attribute is the

	1960s	1970s	1980s	1990s	2000s	Unknown	Total
Candle	38	28	36	59	11	2	174
Installation	1	2	1				4
Chalice	7	15	25	41	2	1	91
Book	2	10	8	3	1		24
Veg.	2	2		4			8
Hands	1		1		1		3
Menorah	1	9	8	5	3		26
Star of David	37	17	21	15	5		95
Portrait			1	3		1	5
No. of TS	48	33	49	65	12	2	209

Table 18.3: Quantitative distribution of attributes per decade.

‘candle’ encountered on 83% of the sample; it is followed by the ‘chalice’ and Star of David, which also enjoy a considerable degree of popularity with 45% and 44% respectively; the ‘book’ and ‘menorah’ attributes enjoy 11% and 12% rates of popularity.

The graphic representation of the temporal trends (Fig. 18.6) portrays a similar picture whereby each attribute occupies a particular range of popularity: the ‘candle’ is consistently and undisputedly the most popular addition to the grave; it is almost standard, occupying the upper reaches of the chart. The menorah and the book, on the other hand, cover the lower reaches of the chart, while the chalice and Star of David cover the range in between.

The meanings behind the observed trends are difficult to assess. This is mostly because the various attributes draw their meanings from associations they maintain with phenomena external to the cemetery. Moreover, they are additions to the basic form of an existing structure and as such constitute an elaboration of an expression of sentiments; they allow and often manifest greater complexity and variability. As a consequence, the lack of coherence observed above for the tombstone forms is expected to be even higher when considering the attributes; and the various fluctuations are unlikely to portray a linear pattern of development as a severely reduced and distorted image of multiple discourses.

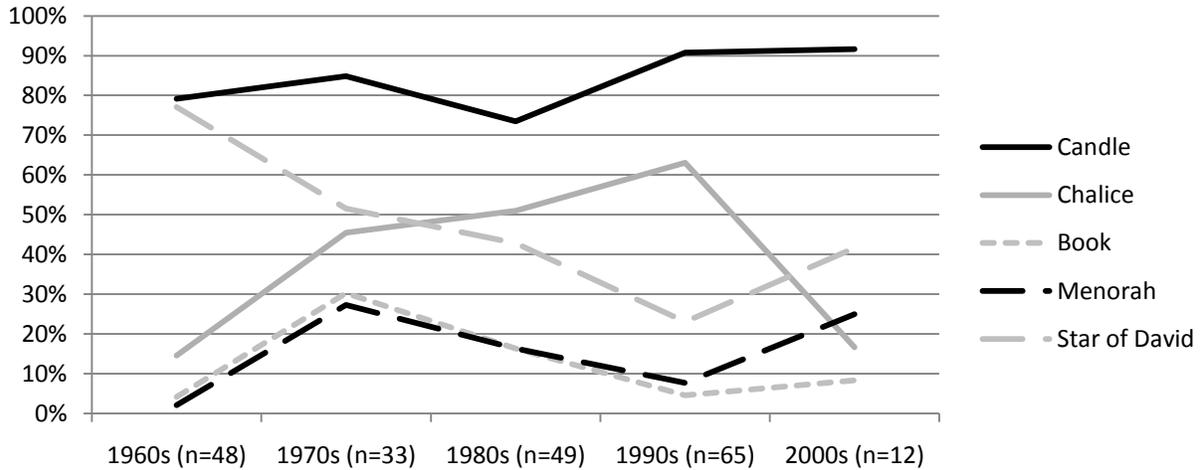


Fig. 18.6: Temporal distribution of selected attributes.

Some further support for this is observed by considering the number of attributes per grave. Given that each attribute, by token of its autonomy, conveys a given meaning or sentiment, it is reasonable to assume that the greater the number and diversity of attributes per grave, the more elaborate is its expression or message. By the same token, the greater the number of graves, within a given population, carrying additional attributes beyond their form and materials, the more intense is the discourse, in which they are involved. In this regard, Shiqun Vatiqim cemetery can be readily described as involving an intensive discourse, entailing the expression of elaborate concepts and messages (Fig. 18.7).<sup>1</sup> Over 90% of the graves in the sample carry additional attributes, the great majority of which involve two or more.

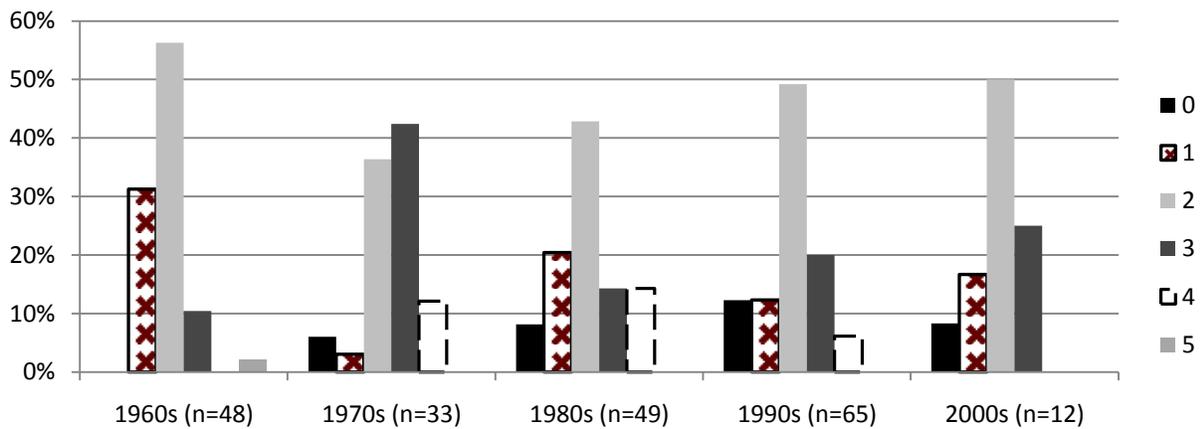


Fig. 18.7: Temporal distribution of number of attributes per grave.

<sup>1</sup> For the choice of a bar graph see, Ch. 14, footnote 3.

The temporal trends do not disclose any definite trajectory of development concerning the intensity of the discourse. Although somewhat fluctuating, with their centre of gravity swinging from one decade to the next, the intensity and complexity of the expressions seems to have remained relatively constant. The preservation of such an intense and elaborate state of expression suggests that we are not witnessing one discourse dealing with a particular focal issue, but numerous voices continuously intersecting and poorly focused as a whole.

### Spatial arrangement

Of a total of 218 entries constituting the sample of Shiqun Vatiqim cemetery, 184 are of single graves (84%), 26 are explicitly associated with another (12%) and eight are empty plots (4%) (Table 18.4). The low portion of empty plots suggests a considerable degree of spatial exhaustion in the sampled area, while the few cases of paired burials point toward an emphasis on single autonomous burials. Such pairs always consist of one member of each sex and differ from the more common singular form primarily in that they prioritise their relationships by assigning greater importance to their association with one neighbour than to others. The single burial, on the other hand, although not equally adjacent to all others, does not explicitly state a preference for one relationship over another, and therefore is represented primarily as a member in a larger community of the plot or the cemetery (see detailed discussion in Ch. 17).

Viewing the plots in their temporal order (Fig. 18.8), one cannot ignore the gradual increase in the occurrence of pairs, which reaches its peak in plot 19 (1980s) and then decreases once more. However, the plots differ only slightly in this regard, suggesting that the underlying organising principles remained unchanged and that whatever distinctions are noted they may be due to random causes. One

	Pairs	Singles	Unmarked	Total
Plot G	6	57	2	65
Plot 2	6	39		45
Plot 19	12	40	4	56
Plot 44	2	48	2	52
Total	26	184	8	218

Table 18.4: Quantitative distribution of association types.

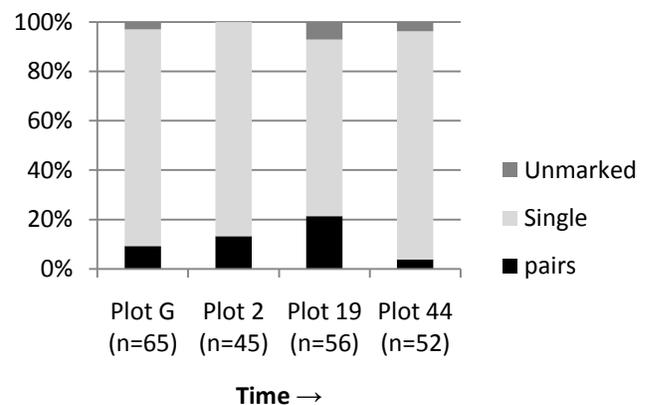


Fig. 18.8: Distribution of association types.

might postulate that such an underlying principle was the avoidance of prioritising relationships and giving precedence for the association with the general community over more personal ones. This, however, contradicts previous observations of the simultaneous existence of multiple discourses, for these indicate that several distinct communities are represented.

Another candidate for such an underlying principle can be found in the relationship between the sexes. A detailed quantitative breakdown into 18 forms of relations is presented in Table 18.5. These figures are summarised graphically in Fig. 18.9A.

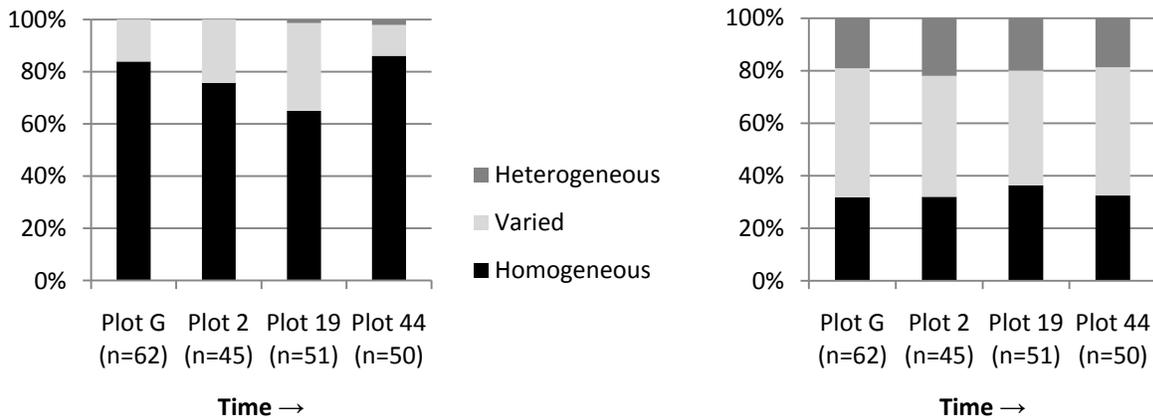
As is readily observed in Fig. 18.9A, homogeneous forms are dominant throughout the sample, indicating a tendency to keep the sexes apart. Their variation between the plots is correlated almost exclusively with that of the varied forms, while situations in which both

	Plot G	Plot 2	Plot 19	Plot 44	Total		Plot G	Plot 2	Plot 19	Plot 44	Total
F-F-F	22	21	5	18	66	M-M-M	21	9	20	18	68
F-F-M	2	2	4	1	9	M-M-F	2	2	2	1	7
F-F-X	2	2	1	2	7	M-M-X	3	1	4	1	9
M-F-F	2	3	4	1	10	F-M-M	3	2	2	1	8
M-F-M	0	0	0	0	0	F-M-F	0	0	1	1	2
M-F-X	0	0	0	1	1	F-M-X	0	0	1	0	1
X-F-F	2	1	1	2	6	X-M-M	2	1	4	1	8
X-F-M	1	0	0	1	2	X-M-F	0	1	1	0	2
X-F-X	0	0	1	1	2	X-M-X	0	0	0	0	0
Total	31	29	16	27	103	Total	31	16	35	23	105

A)

B)

Table 18.5: Relative distribution of the sexes in terms of neighbours on each side for females (A) and males (B).



A)

B)

Fig. 18.9: Observed (A) and expected random distribution (B) of the three forms of relations between the sexes.

neighbours of an individual are of the opposite sex (heterogeneous forms) are extremely rare. It is interesting to note that the temporal trend of these relationships closely resembles that observed for the types of association (Fig. 18.8), suggesting a positive correspondence between the varied forms and pairs and between homogeneous forms and single graves.

Thus, given that associated/paired graves are constituted by one member of each sex, they do not differ from the singles only in that they prioritise their relationships but also in that they introduce the juxtaposition of the sexes, which is otherwise avoided. It seems therefore that the underlying principle is not so much the emphasis on communal solidarity as it is on the separation of women from men, a principle that is occasionally challenged by the associated graves. It is likely that the challenge posed by these associated graves is not so much aimed against the efforts to keep the sexes apart per se as it is founded on the prioritisation of the relationships, manifesting the existence of a strong bond between two individuals. It is the wish to offer a material and spatial expression for this bond that tends to contradict the principle of the separation of the sexes.

For the sake of clarity, it may be advisable to compare the observed spatial distribution of the sexes (Fig. 18.9A) with the expected distribution if it were entirely due to random processes (Fig. 18.9B). And indeed the differences seem to be great; not only do the graphic representations differ considerably but the differences are also statistically significant:<sup>2</sup>

	$\chi^2$	DF	P
Plot G	36.222	2	< 0.05
Plot 2	22.903	2	< 0.05
Plot 19	15.133	2	< 0.05
Plot 44	30.52	2	< 0.05

It can thus be securely stated that observed patterns are a function of intentional and purposeful intervention in the spatial arrangement of the cemetery, aiming toward the separation of women from men and challenged by the occasional demand to express affiliation between two individuals.

<sup>2</sup> For the sake of clarity the expected frequencies are all above five and, therefore, meet the test's assumptions:

	Plot G	Plot 2	Plot 19	Plot 44
Homogeneous	19.68	14.37	18.51	16.25
Varied	30.50	20.75	22.34	24.41
Heterogeneous	11.82	9.87	10.15	9.35

## **Summary**

Shiqun Vatiqim cemetery demonstrates considerable complexity, which obscures our ability to distinguish definite patterns. This is apparently because it consists of multiple autonomous communities, each engaged in its own concerns, and conducting its own discourses, which are reduced by the chosen means of analysis to a fluctuating line along a single axis. This is especially true for the tombstone forms and attributes that were probably employed in different manners by different communities.

However, other aspects of the cemetery's material culture did reveal some consistent patterns. This refers primarily to the choice of raw materials for construction and the spatial arrangements. Thus, despite the great diversity and multi-faceted social character of the cemetery, some aspects are common to all.

## Ch. 19: Ma'abarot Cemetery

Qibutz Ma'abarot cemetery is located approximately 500m north of the settlement, on the opposite side of Alexander River. It is situated on the southern slopes of a moderate kurkar ridge upon which rises Tel Ifshar (Tel Hefer). All Graves are set in a north-south orientation and are divided by paths into four main sectors.

The sample to be analysed was collected in March 2009 and consists of 163 entries (Appendix 6), recorded from three of the four sectors of the cemetery (NE, NW and SE). The total number of graves is estimated by the several hundreds, of which the sample constitutes half and possibly even more. It is composed of 75 males, 69 females and 19 empty spaces. Generally speaking the cemetery began to function during the mid 1940s and continued steadily ever since, showing an altogether rather consistent rate of inhumations with only slight fluctuations (Fig. 19.1). The expansion of the cemetery was probably primarily from south to north and secondarily from west to east.

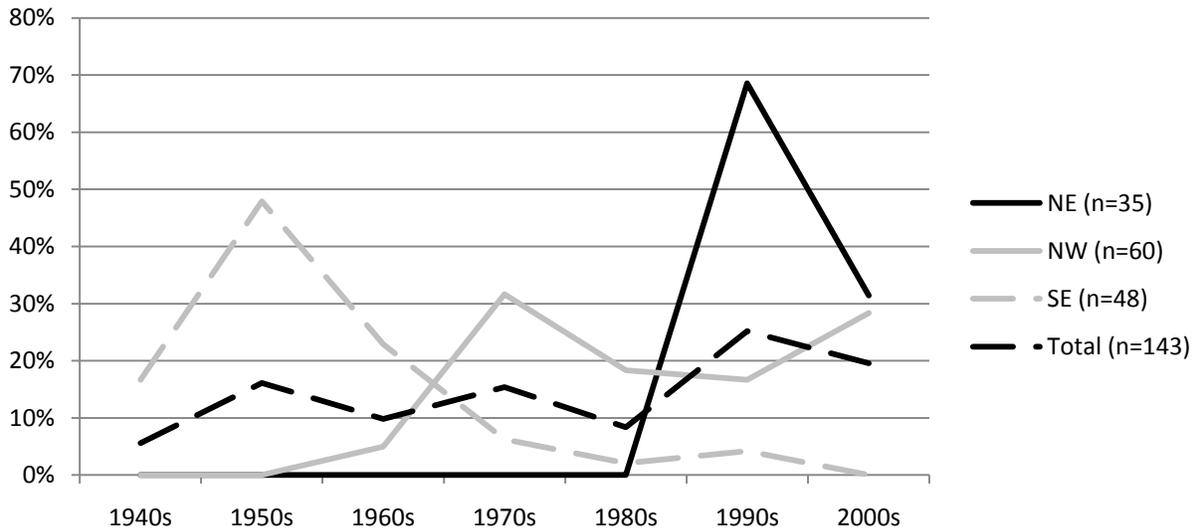


Fig. 19.1: Distribution of number of burials per decade.

### Typology

In all, five categories of tombstone types were recorded in Ma'abarot Cemetery: types 1, 3, 5, 6 and 'varia'. Type 1 is undisputedly the most popular of all, comprising 90% of the assemblage, with all others lagging far behind (Table 19.1). With the possible exception of the two ends of

the temporal continuum, the quantitative distribution of the various types is remarkably consistent (Fig. 19.2). The dominance of type 1 hardly changes, although a slight and very moderate

	1940s	1950s	1960s	1970s	1980s	1990s	2000s	Total
Type 1	5	23	13	21	11	33	22	128
Type 3	1				1	1		3
Type 5							1	1
Type 6	2			1		1	1	5
Varia			1			1	4	6
Total	8	23	14	22	12	36	28	143

Table 19.1: Temporal distribution of tombstone types.

decrease might be observed. In all, it seems that, at least insofar as the form of the tombstone is concerned, uniformity and conservatism were the rule in Ma'abarot, which, with other than the random exceptions stuck by an unchanging, predetermined form.

### Raw materials

Only two types of raw materials were systematically employed for the construction of grave markers: cement and limestone, accounting for 98% of the sample. The remaining 2% include two tombstones, one made of Turkish Marble and another that used ceramic tiles. Despite, or perhaps because of the limited number of materials on offer, hybrid forms, part cement and part limestone, were relatively common (Table 19.2).

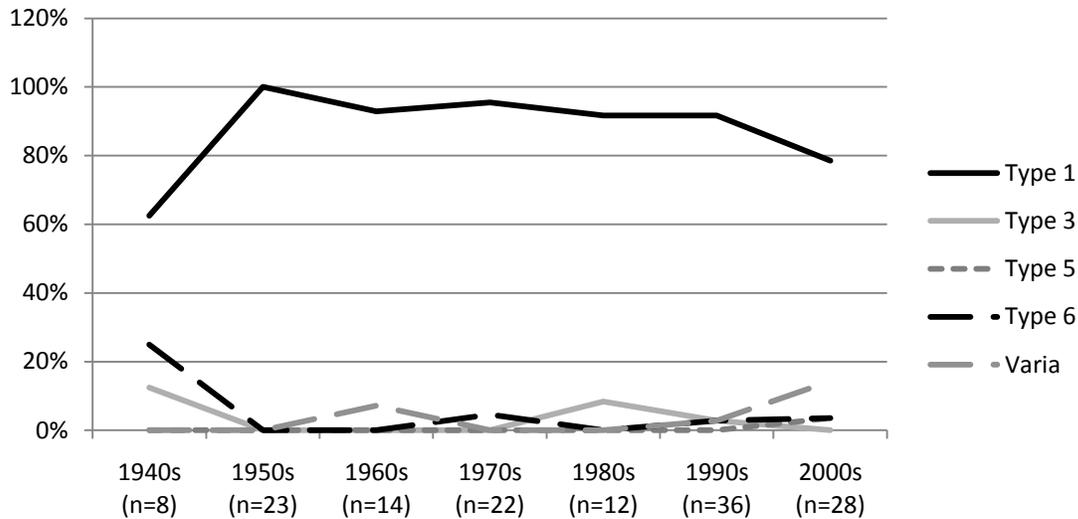


Fig. 19.2: Temporal distribution of tombstone types.

	1940s	1950s	1960s	1970s	1980s	1990s	2000s	Total
Cement	4	4	5	13	5			31
Cement + Limestone	1	18	4	2				25
Limestone	3	1	5	6	7	35	27	84
Varia				1		1	1	3
Total	8	23	14	22	12	36	28	143

Table 19.2: Quantitative distribution of raw materials used per tombstone.

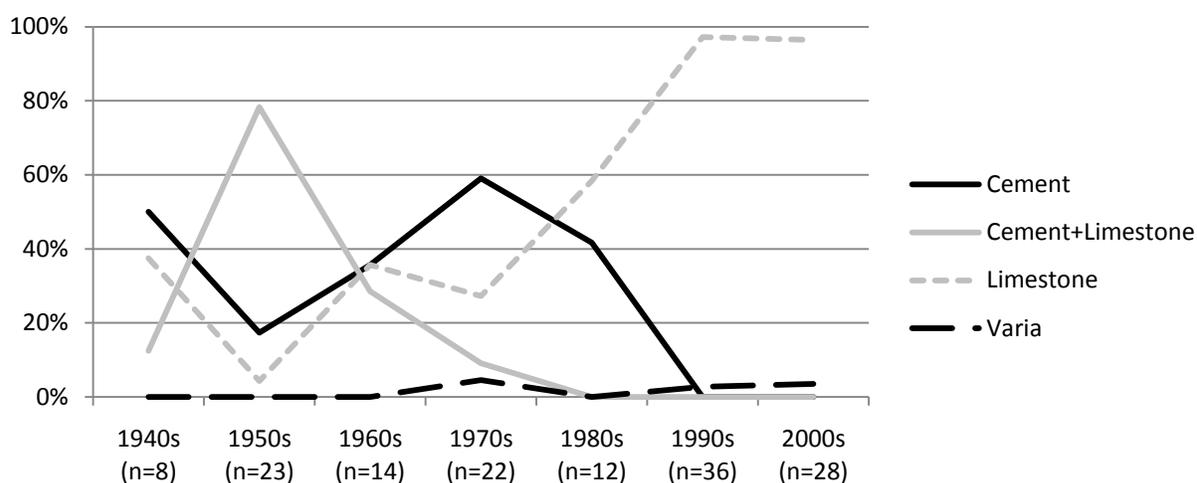


Fig. 19.3: Temporal Distribution of raw materials per tombstone.

Although the picture portrayed above is fairly simple and straightforward, the temporal distribution reveals anything but a simple succession of materials (Fig. 19.3). Bi-modal curves were produced for both cement and limestone, consisting of a decrease followed by an increase. Their trajectory is fairly parallel until the 1970s, after which the latter continues to increase in popularity while the former decreases until it eventually disappears in the 1990s. Tombstones composed of cement and limestone, on the other hand, do display a uni-modal abundance curve, peaking in the 1950s and then decreasing steadily until their disappearance in the 1980s.

How are we to interpret these trends? First, we may observe that the bi-modality of the ‘cement’ and ‘limestone’ are strongly related to the peak of the hybrid form. That is, it is the occurrence of the hybrid form that is responsible for the drop in abundance of the pure forms, as well as their subsequent second increase. A second observation is that, although fully distinct,

both pure forms share the same trajectory. There are at least two mutually exclusive ways to understand these phenomena. One, considering the observed patterns as genuine, would point out that the materials used disclose a discourse between the use of a single material on the one hand and hybrids of both materials on the other, which later transformed into a discourse between cement and limestone.

Alternatively, the reliability of the chart presented above, as representing a continuous temporal development, may be challenged by considering the possibility of substantial interventions of acts of maintenance and renovation, which could easily distort the patterns. If this be the case, limestone that eventually took over entirely was used to replace cement tombstones or parts thereof, which were damaged by the ravages of time. Some support for this might be found in the trends observed for the occurrence of each raw material as a resource drawn upon (Fig. 19.4). Whereas cement presents a roughly uni-modal distribution, that of limestone is distinctly bi-modal. Thus while the bi-modality of cement was largely ‘normalised’ when considered in terms of occurrences, that of limestone was retained and even accentuated. Acts of maintenance and repair offer a straightforward account for this bi-modality, whereby the apparently high occurrence of limestone during the earlier years is in fact due to later efforts of maintenance drawing upon raw materials of their time. The occurrence of limestone during the earlier years is therefore anachronistic, and it can be asserted accordingly that the true distribution is that of two uni-modal curves representing the gradual replacement of cement with limestone.

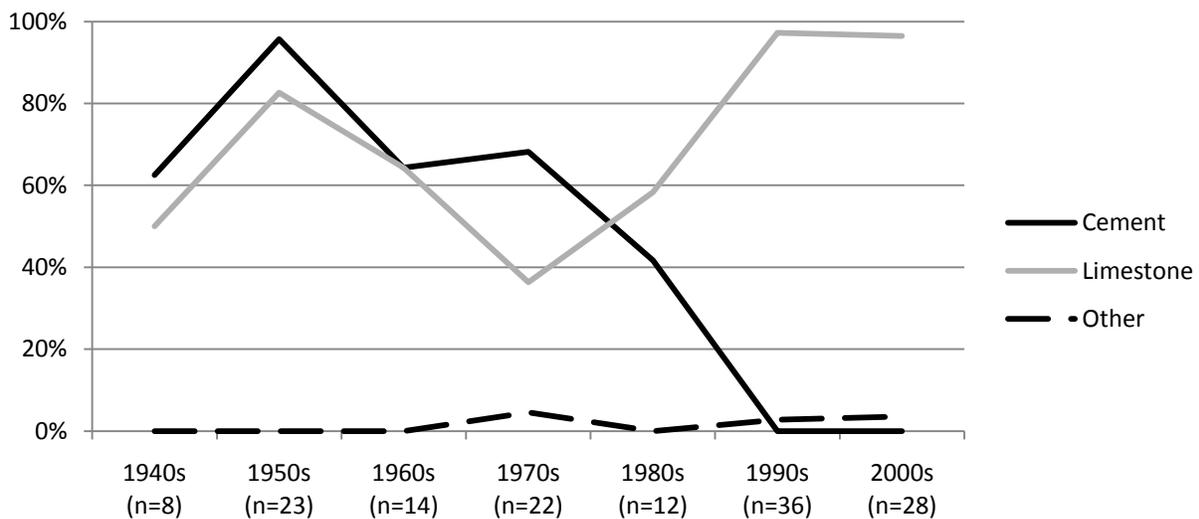


Fig. 19.4: Temporal distribution of occurrence of raw materials.

The alternative for this interpretation is relatively cumbersome, but should probably be spelled out. Taking the observed curves at face-value suggests that limestone entered into use in two ‘waves’, going through a long and very slowly developing ‘wrestling of arms’ with cement. The distinct bi-modality of the distribution would further suggest that the meaning of the use of limestone transformed; while it was at first conceived in conjunction with cement it was later set up to stand on its own.

### Attributes

Less than half of the sampled graves carried attributes of any kind (47%). Of the nine attributes recorded, only two carried any actual weight: the installation (25%) and the chalice (23%). All other attributes were either altogether absent or occurred in very low frequencies of no more than 3% (Table 19.3). The temporal distribution demonstrates that, other than an initial increase, ‘installations’ were generally on the decline, while the ‘chalices’ were gradually ascending in popularity (Fig. 19.5).

The installation differs from the chalice in that it is a feature integrated into the tombstone, while the latter is a movable artefact that can be deposited, moved and discarded. Thus, while the installation is strongly associated with the erection of the tombstone, the chalice was deposited at a later date, and is therefore more closely associated with ongoing activities, interactions and repeated visitations. The increase in the occurrence of chalices therefore might be taken to suggest a growing emphasis and importance ascribed to the demonstration of ongoing and repeated attendance of the living to the dead instead of a single but lasting commemorative

	1940s	1950s	1960s	1970s	1980s	1990s	2000s	Unknown	Total
Candle	1			1	1	1	1		5
Installation	2	17	4	7	2	2	2		36
Chalice	1		1	4	3	13	11		33
Book									0
Veg.							1		1
Hands									0
Menorah		1							1
Star of David								1	1
Portrait		1					1	1	3
No. of TS	8	23	14	22	12	36	28	1	144

Table 19.3: Quantitative distribution of attributes per decade.

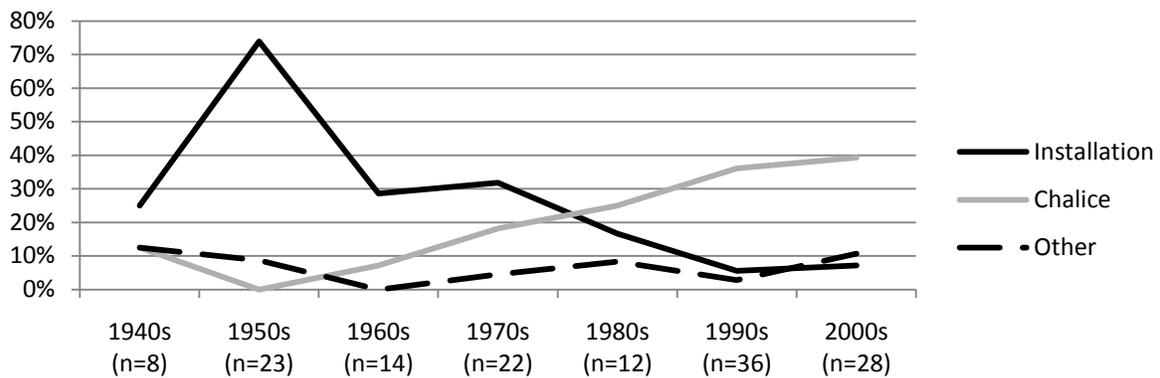


Fig. 19.5: Temporal distribution of attributes.

effort. It should be noted, however, that by the very nature of it being moveable one could expect that the observation of chalices would diminish the earlier a burial's date is. The suggested hypothesis ought to be taken, therefore, with a grain of salt and caution.

### Spatial Arrangement

Of the 163 entries recorded for Ma'abarot cemetery, 19 consisted of yet unoccupied spaces (12%) and only eight consisted of individuals that bore explicit relations to another (5%); all other entries consist of single burials, i.e. graves that carry no explicit reference to another and as such stand on their own. Fig. 19.6 presents the distribution of these association types among the three sampled sectors of the cemetery, arranged in their temporal order (cf. Fig. 19.1).

It is readily observed that the relative portion of empty spaces increases among the later parts of the cemetery, indicating that they are not yet exhausted spatially. The ratio of 'pairs' on the other hand, although marginal, decreases consistently and is entirely absent from the north-eastern and latest sector. Given that this trend is genuine, it indicates a steady reluctance to explicitly associate neighbouring individuals and a general

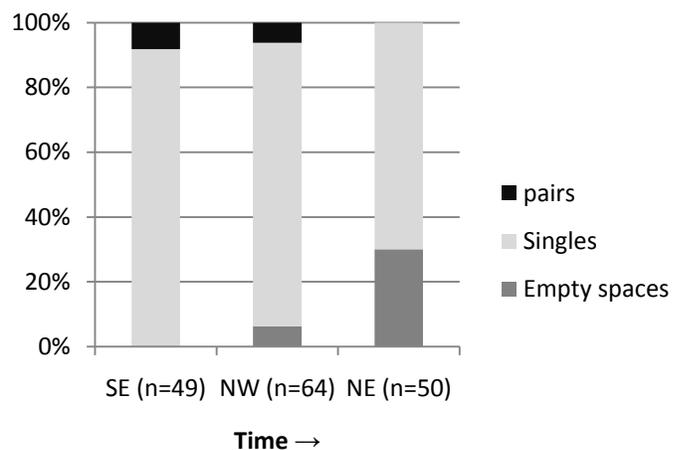


Fig. 19.6: Relative distribution of association type per area.

agreement for standard single burials,<sup>1</sup> which rejects the prioritisation of relationships and places stress on the community as a whole.

The data concerning the relationships between the sexes is presented in Table 19.4 and summarised graphically in Fig. 19.7A. Although some trends might be suggested, especially regarding the apparent increase in the ‘homogeneous’ relations, they are most probably influenced by the number of empty spaces, and should therefore be considered with caution. A

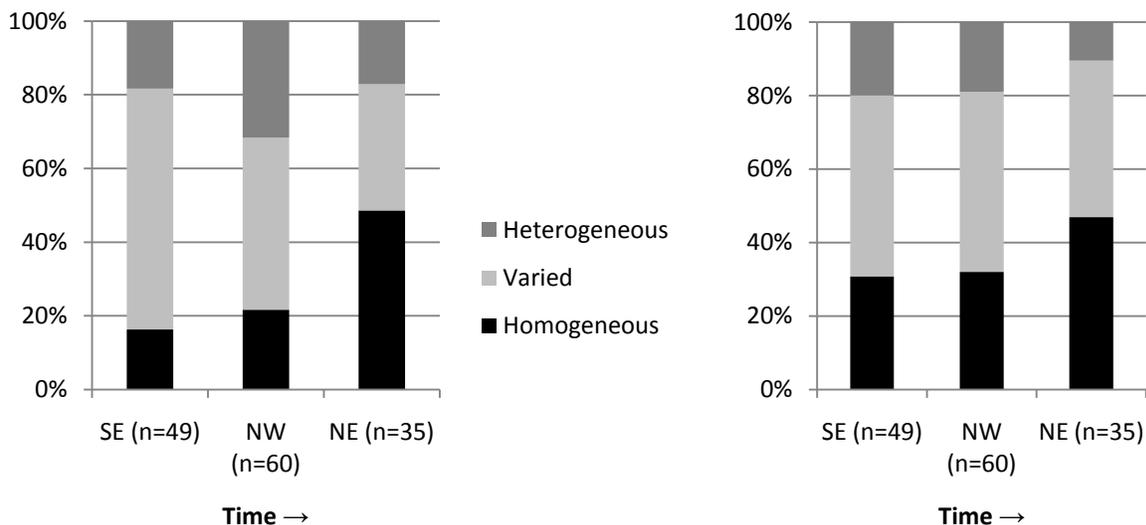
	SE	NW	NE	Total
F-F-F	1	3	1	5
F-F-M	7	9	1	17
F-F-X		1		1
M-F-F	7	7		14
M-F-M	4	8	3	15
M-F-X	1	1	3	5
X-F-F		3	1	4
X-F-M	2		2	4
X-F-X	1		3	4
Total	23	32	14	69

A)

	SE	NW	NE	Total
M-M-M	4	1		5
M-M-F	7	5	1	13
M-M-X	1	1	3	5
F-M-M	7	4	1	12
F-M-F	5	11	3	19
F-M-X	1	2	2	5
X-M-M	1	2	3	6
X-M-F			2	2
X-M-X		2	6	8
Total	26	28	21	75

B)

Table 19.4: Relative distribution of the sexes in terms of neighbours on each side for females (A) and males (B).



A)

B)

Fig. 19.7: Observed (A) and expected random distribution (B) of the three forms of relations between the sexes.

<sup>1</sup> The seemingly decreasing portion of singles seen in Fig. 19.6 is mostly due to the presence of yet unoccupied spaces and should not therefore be read as a genuine trend.

comparison with Fig. 19.7B, presenting the expected distribution if it were entirely due to random processes, further supports this impression. In all, the differences between the observed and expected distributions are of little importance and also lack statistical significance. As such, the relationship between the sexes is for the most part random and little if any purposeful intervention took place in this regard.

### **Summary**

The patterns observed for Ma'abarot cemetery suggest a very stable and altogether conservative attitude. Very few processes of change took place, rendering internal tensions almost entirely absent. Hardly any signs of discourse concerning the treatment, representation or concepts of the dead could be observed. Moreover, there seems to be strong emphasis on the internal cohesion of the community, demonstrated both by the adherence to a standard forms and materials and the avoidance of prioritising one's relationships.

## Ch. 20: Yaqum Cemetery

The cemetery of Qibutz Yaqum is located on the north-western outskirts of the settlement only several dozen meters from the residential area. It is situated on the eastern slope of a moderate hill, covering an area of 1 dunam at most. All graves are arranged in an east-west orientation, with the head to the west and the legs to the east. The number of graves is estimated to be a few hundreds. The cemetery was initiated during the late 1940s and continues in use to this day.

The sample was collected in April 2009 and consists of 179 entries (Appendix 7), which undoubtedly represents the greater part of the cemetery's population, taken from the central and most densely populated part of the cemetery. It includes 66 females, 79 males, one individual of unidentified sex and 33 empty spaces. Except for a slight hiatus in the 1970s, the number of inhumations increased steadily until the 1990s, after which a sharp decrease is noted (Fig. 20.1). Although this decrease might signify demographic trends, it is more likely that it is due to the spatial exhaustion of the central part of the cemetery and later inhumations branching out to its periphery (which was not sampled).

In terms of spatial arrangement the main part of the cemetery is not divided

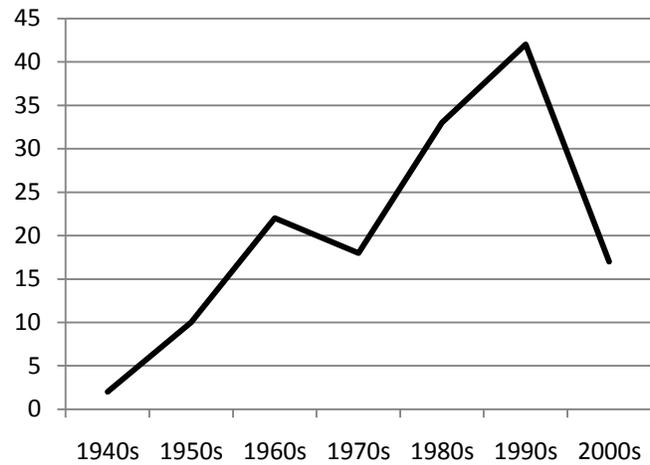


Fig. 20.1: Distribution of number of burials per decade (n=144).

	NW	SW	NE	SE	Total
1940-69	23	11	0	0	34
1970-89	17	21	6	7	51
1990-09	1	3	29	26	59
Total	41	35	35	33	144

Table 20.1: Spatial distribution of temporal segments.

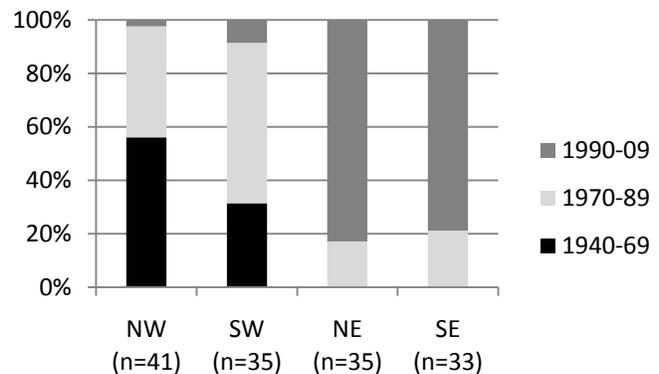


Fig. 20. 2: Spatial distribution of temporal segments.

into plots. Therefore, in order to allow some spatial observations the sampled area was arbitrarily divided into four sections, with lines drawn between rows 3 and 4, and between columns 15 and 16, thereby defining north-western, south-western, north-eastern and south-eastern sections. In addition, for the sake of simplicity, the temporal span of 70 years was subdivided into three: 1940-69, 1970-89 and 1990-2009. The resulting distribution (Table 20.1, Fig. 20.2) demonstrates a strong distinction between east and west, indicating that the main axis of expansion was from the latter to the former. The quantitative distributions also suggest that, during the earlier part of the cemetery's use, the expansion was from north to south.

### **Typology**

All tombstone types other than type 4 were recorded in Yaquim Cemetery (Table 20.2); type 5 is the most popular among them, constituting 38% of the sample. It is followed by type 1 with 24%, type 6 with 15%, type 2 with 13%, while types 3 and 'varia' linger behind with 6% and 4% respectively.

The graphic representation of the temporal distributions of these types reveals an intricate pattern of continuously changing preferences, an almost anxiously shifting from one choice to another (Fig. 20.3). The complexity of this pattern renders it rather difficult to approach directly; I will therefore begin with some more general observations. Simply in terms of presence and absence, for which a quick glance at the table below suffices, a clear trend of steady increase in the proliferation of tombstone types with time is observed, a gradual movement from a homogeneous pattern produced during the early years to an increasingly diversified one.

Taking the quantitative distributions into account (Fig. 20.3) allows further refinement of the above observation. Although fluctuating, until the 1980s there were always one or two forms of tombstones that clearly dominated the landscape. From the 1960s onwards, additional morphological types began tagging along, but they remained marginal at best, providing some 'background noise' for the prevailing trend. The 1990s constitute a turning point in this regard; no longer does one tombstone type or another clearly dominate the landscape, but a broad range of forms covering a similar quantitative range are observed. It is as if the members of the community that had hitherto gone through a common trajectory of development broke off and began turning in multiple directions at once. Compared to this trend of bifurcation, perhaps signifying an intensifying discourse among the members of the community, the earlier years

	1940s	1950s	1960s	1970s	1980s	1990s	2000s	total
type 1	1	9	15		4	3	2	34
type 2					1	13	4	18
type 3						7	1	8
type 4								0
type 5	1	1	4	9	23	14	3	55
type 6			3	8	5	3	3	22
Varia				1		2	3	6
Total	2	10	22	18	33	42	16	143

Table 20.2: Temporal distribution of tombstone types.

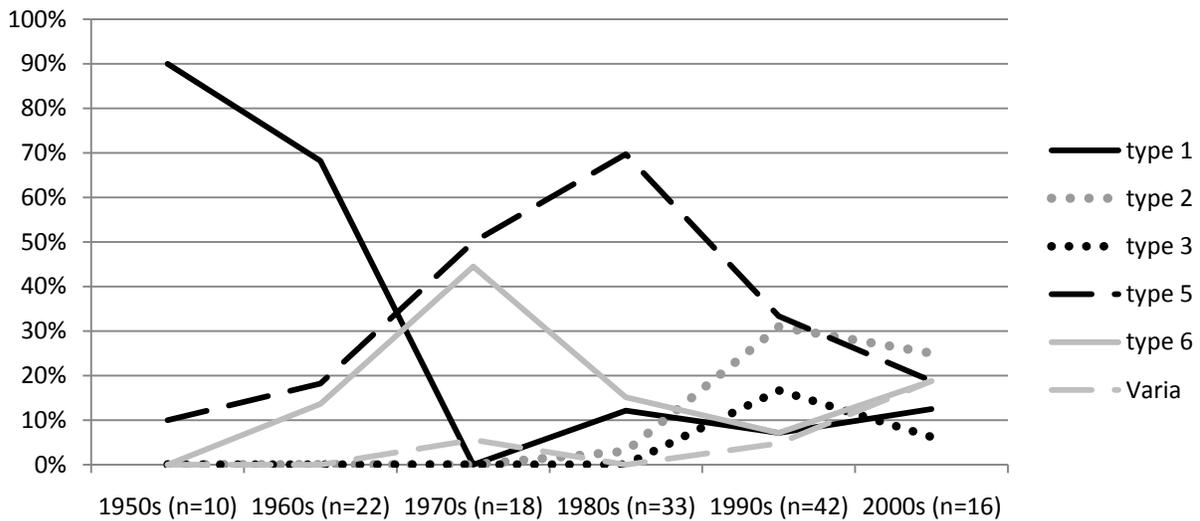


Fig. 20.3: Temporal distribution of tombstone types.

(until the 1980s) seem to have advanced under the sign of solidarity, which was undermined from the 1990s onwards.

Underneath the long-term process of disintegrating solidarity, one can find, in the fluctuating curves of Fig. 20.3, the details of a complex and fast-transforming discourse. Generally speaking, the first 20 years or so were dominated by the simple vertical tombstone, type 1. The tables turned in the 1970s when type 1 lost its popularity and was replaced by types 5 and 6, both horizontal. This continued into the 1980s but with the precedence of only one of the two horizontal types – type 5. From the 1990s onwards another shift occurred, whereby the dominance of a single form was replaced by the coexistence of multiple forms, occupying similar quantitative positions. This marks a change not only in the issues at stake but also in the structure of the discourse itself that moved from a bi-vocal structure to a multi-vocal one.

All these shifts in preference, however, are not merely matters of one ‘taste’ replacing another or even changes in attitude and outlook. Before all that, the faltering lines of Fig. 20.3 are positions taken on a given issue, their content and their strength varying from one decade to the next. Each of the shifts noted above in the relative position of one component or another in the sample thus marks also the close on one issue and the opening of another; or perhaps more accurately the transformation of the discourse and its focal concerns.

The first 20 years were thus under the sign of a discourse between tombstone type 1 on the one hand and types 5 and 6 on the other. The main distinction between them concerns their main axis, the former carrying a horizontal one, while the latter being vertical. This difference in axis could possibly be correlated with the notion of standing upright as distinct from lying down, or with that of a more straightforward and assertive tombstone, by token of the direct eye contact it facilitates as distinct from a tombstone that is more docile and passive in character, upon which the observer can look down. The two types in question therefore facilitate different kinds of relationships with the living and two different forms of objectifying the dead: as present and active or as past and passive (see, Ch. 17 for detailed discussion on the matter).

Thus, in the 1970s, the more passive objectification of the dead gained precedence over the more ‘active’ one, thereby putting a close on the issue of producing a standing or a lying representation of the dead and making way for a new concern, of which tombstones type 5 and type 6 were now opposed poles. It is noteworthy that as long as the vertical type 1 was the main ‘adversary,’ both horizontal types acted as one; it was only after the fall of the former that the two horizontal types broke off from the common trajectory, revealing a discrepancy between them. Indeed, as they both share a horizontal axis, the quality of the gap between them is anything but great. They differ primarily in the presence (type 6) or absence (type 5) of a relatively small, usually slightly inclined and modest headstone. Although minor, from the vantage point of the onlooker the presence of such a headstone allows direct access to the inscribed details, by token of the angle in which it is set, the spectator and the headstone are oriented towards each other (Fig. 20.4B). Conversely, in its absence, the relationship is indirect; the angle from which the onlooker observes the grave is not complemented by direction to which the inscription is oriented – upwards (Fig. 20.4A).

Thus the discourse that was preoccupied with whether the deceased will be represented by an active or passive form transformed into a discourse focally concerned with whether the relationship constituted between the grave and the onlooker would be a direct or indirect one. By the 1980s, this discourse was mostly decided in favour of the indirect relationship, although representatives of the direct relationship still occurred. As before, the closure on one issue made way for another. However, unlike the preceding

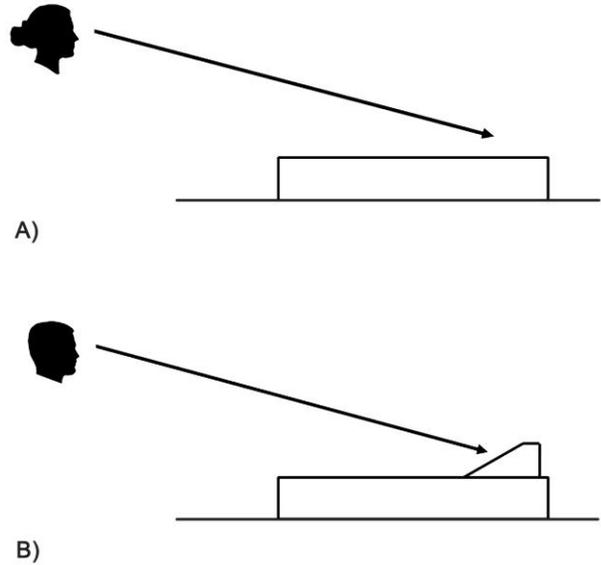


Fig. 20.4: Illustration of difference of types 5 (A) and 6 (B) tombstones' relationship to onlooker.

cases, from the 1990s onward, it is extremely difficult to define an issue that constitutes the focal interest of the ongoing discourse. This is because, as noted above, it had become multi-vocal; there is no longer a louder conversation that can be distinguished from the background noise. It is now just noise, resulting from the intersection of numerous voices, pointing in various directions, without necessarily considering the others. As such it is a discourse that lacks coherence, suggesting a heightened state of flux, of instability, a reshuffling of the cards out of which something new can be expected to emerge.

With the absence of an emergent order, it is very difficult to identify the issue at stake. But considering its severity, it likely touches upon something of greater importance than the previous subjects of controversy. It seems to penetrate deeper into the social and cultural fabric, touching something that was hitherto a taken-for-granted condition, upon which the previous questions – whether a grave or the deceased ought to be objectified in an active or passive form and whether the relationship to it ought to be direct or indirect – were based.

### Raw Materials

Table 20.3 presents the number of occurrences of the different raw materials per decade, both alone and in combination. It is noted that, as a rule, the different materials were not used in

	1940s	1950s	1960s	1970s	1980s	1990s	2000s	Total
C	1	9	14		1			25
L	1	1	6	17	30	37	12	104
G			1		1	3	1	6
TM						2	2	4
C+L			1		1			2
C+TM					1			1
G+TM				1			1	2
Total	2	10	22	18	34	42	16	144

Table 20.3: The occurrences of raw material and combinations thereof per decade (C=cement, G=granite, L=limestone, TM=Turkish marble).

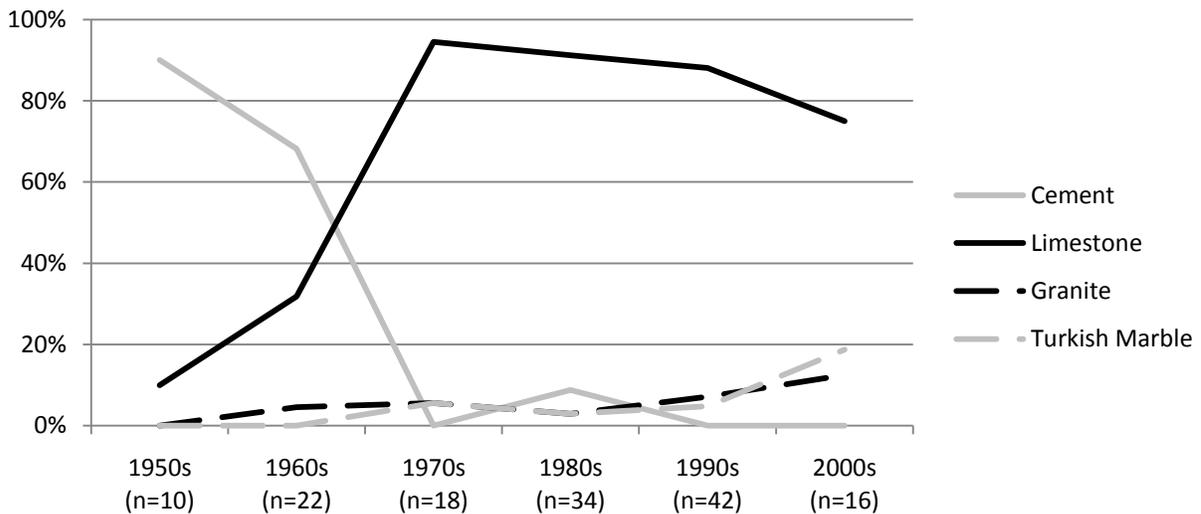


Fig. 20.5: Temporal distribution of the occurrence of raw materials.

conjunction with others, but each constituted a category in itself. The temporal distribution of the occurrence of each raw material is presented in Fig. 20.5.

Compared to the hectic patterns observed for the tombstone forms, the temporal distribution of the materials is rather unspectacular. After approximately 20 years during which cement dominated the scene, it was quickly replaced by limestone in the 1970s, which retained its position until the present. To date the Granite and Turkish Marble can be said at most to tag along, although they are responsible for a slow yet consistent gnawing at the limestone's primacy. The distinction between limestone and cement that fuelled the earlier part of the discourse may be summarised as follows:

	<b>Limestone</b>	<b>Cement</b>
<b>Origin</b>	Natural	Artificial
<b>Forming</b>	Reduction	Casting
<b>Colour</b>	White-Beige	Grey (however might be white washed)
<b>Durability</b>	Good	Fair?
<b>Texture</b>	Smooth	Rough
<b>Cost</b>	Expensive	Cheap

It is clear that the difference between the two types of raw material is considerable; and the list above contains only the most obvious differences and can easily be extended. In fact, other than both being used for the erection of tombstones, there is nothing they have in common. The shift, therefore, from cement to limestone entails a wholesale shift in all respects: production, appearance and cost. As such, the discourse between the two could have centred on anyone of several foci, which cannot be prioritised based upon the current data. Indeed, they all may have played a part. In all, we could probably characterise the shift as one that entailed an increase in expenses and complexity of execution but which in return offered a finer and more durable result (in terms of texture and colour).

Thus, compared to limestone, cement appears as a cheap, simple and rough material, suggesting that the former possessed some qualities of conspicuous consumption. Given, however, that the community as a whole relinquished the use of cement and turned to limestone, there was little room for such displays, which seem to have been tightly regulated.

To this, one might add the almost perfect correlation between the chosen raw material and tombstone morphology. Until the 1970s, 25 tombstones of type 1 were erected, 24 of which were fabricated from cement (96%) and only one of limestone; conversely, of the 26 tombstones of types 5 and 6, 24 were made of limestone (92%), one of Granite (4%) and one of cement (4%). Hence, an almost perfect correlation between tombstone morphology and material can be observed (Fig. 20.6). In other words, the discourses among the raw materials and among the various forms of the tombstones observed during the earlier years of the cemetery are in fact two aspects of the same discussion.

Thus the discourse could be said to have been conducted between a passive representation of the grave made of durable and fine material and an active representation of the grave made of relatively rough and less durable material. Granted that the former represents an acknow-

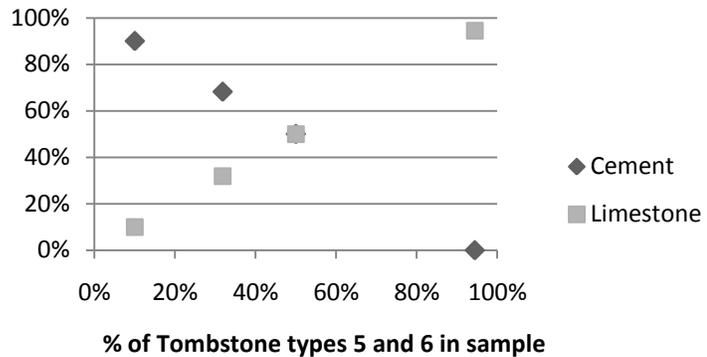


Fig. 20.6: Correlation between distribution of tombstones types 5 and 6 with the use of cement and limestone.

ledgement of the ‘pastness’ of the deceased, its strong association with limestone, as distinct from cement, suggests a strong emphasis on the durability of the marker and as a consequence of the memory as well. Thus the difference upon which the early discourse was centred was one spanning between presence and memory, between a deceased who retains a hold on the present and an absence marked by an eternalised memory.

### Attributes

Of the nine attributes recorded, only three occurred in Yaquim cemetery with any degree of consistency. The chalice was the most common, found on 41% of the graves; it is followed by the installation with 21% and the candle with 8%. ‘Vegetal motifs’ and ‘portraits’ were encountered in very small numbers, while the remainder were entirely absent (Table 20.4). The temporal distribution of these attributes demonstrates that, while the installation is mostly associated with the early years, the ‘candle’ and the ‘chalice’ (although fluctuating) demonstrated a general tendency to increase.

Other than how they differ temporally, the installation is set apart from the candle and the chalice in that it is an integral part of the tombstone, built into it, while the latter two are additives.<sup>1</sup> They are not irrevocably attached to the marker; they can be deposited, removed and rearranged. Thus, contrary to the installation, the candle and the chalice stand for a dynamic aspect of the grave that plays against the static background of the tombstone. It is created and

<sup>1</sup> Although candles are often integrated into tombstones, this is not always the case. In Yaquim cemetery, candles were as a rule an addition to the grave.

transformed via repeated visits to the grave, as a materialisation of the discourse between the dead and the living.

It is perhaps not surprising therefore that the temporal curves produced by the candles and chalices are almost perfectly parallel, suggesting that they both partake in the same trajectory. Moreover, in 10 of the 12 cases in which candles were recorded, they accompanied chalices (83%), suggesting a strong link between the two. However, this does not work both ways; while the majority of candles are encountered alongside chalices, most chalices (64%) occur on their own. It seems therefore that the candles represent an extension of or an elaboration on the function already fulfilled by the chalice.

Another point of interest is that it seems that the intensification of the ongoing and repeated engagement of the living with the dead, suggested by the chalices and candles, goes hand-in-

	1940s	1950s	1960s	1970s	1980s	1990s	2000s	Total
Candle				3	1	4	4	12
Installation	1	9	14	2	2	1	1	30
Chalice	1	3	8	8	9	20	10	59
Book								0
Veg.							1	1
Hands								0
Menorah								0
Star of David								0
Portrait							2	2
No. of TS	2	10	22	18	33	42	16	143

Table 20.4: Quantitative distribution of attributes per decade.

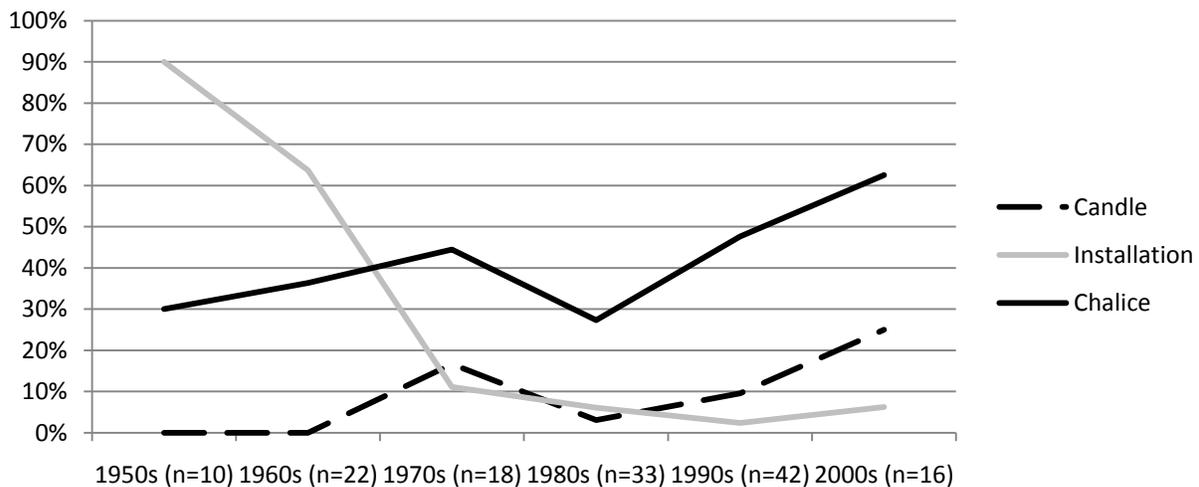


Fig. 20.7: Temporal distribution of attributes.

hand with the shift from cement to stone and from the vertical form to the horizontal form. Thus the growing emphasis on the dynamic relationship between the living and the dead accompanied the change in attitude toward the dead as such.

Interestingly, while the choice of attributes seems to have been associated with the first shift observed in the material and morphology of the tombstone, the intensity of application is apparently related to the second shift, marking the aforementioned breakdown of the communal solidarity (Fig. 20.8).<sup>2</sup> The first 40 or 50 years of the cemetery witnessed a gradual and consistent trend whereby the number of attributed graves as well as the number of attributes per grave decreased. This development peaked in the 1980s, after which it was reversed and both the number of attributed graves and the number of attributes per grave increased again. This is likely to represent another, perhaps subsidiary, aspect of the multi-vocal state of flux noted above.

### Spatial Arrangement

In all, three types of association could be readily observed in Yaqum Cemetery with reference to the number of graves grouped together: single graves that bear no direct relationship with their neighbours, pairs that consist of two graves that are explicitly related to each other and

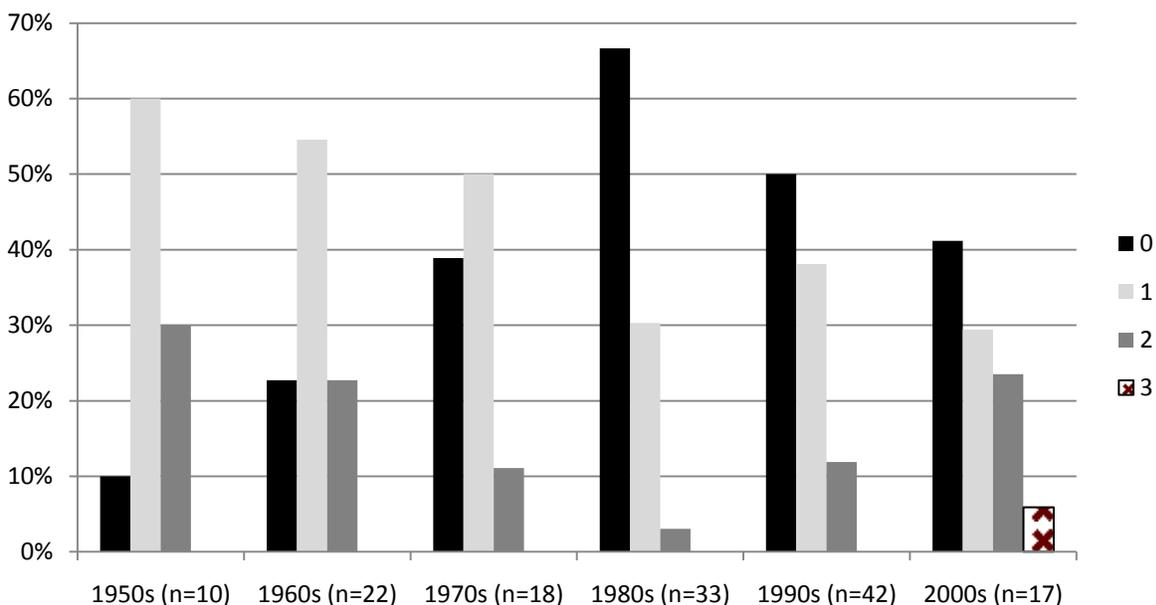


Fig. 20.8: Distribution of number of attributes per grave.

<sup>2</sup> For choice of bar graph see, Ch. 14, footnote 3.

collectives that consist of three or more associated graves. The first are clearly of greatest abundance, comprising 69% of the entries; pairs account for 10% and collective associations comprise 3%. The latter, it should be noted, consist of a single homogeneous cluster. Empty spaces interestingly comprise 17% of the entries, thereby suggesting that the area sampled was not yet spatially exhausted.

As can be observed in Fig. 20.9 (based on the temporal order of the different sectors of the cemetery established in Fig. 20.2), the single grave is evidently the overriding norm, only sporadically challenged by explicit forms of associations. A slight increase in the occurrence of single graves is nevertheless noted, apparently correlated to the decrease in collective associations. In all, little change in grave affiliation is observed between the early and late part of the cemetery, suggesting general stability in this regard.

The affiliated burials prioritise their relations by placing greater importance on their neighbour than on their general affiliation with the community (see Ch. 17). It could be suggested therefore that the clear preference for single graves suggests that communal sentiments were maintained, even in the face of the disintegration of solidarity noted from the 1990s onwards. However, the division of the cemetery into two main time units may not be sufficient to distinguish the effects of the abovementioned processes on the association of graves.

Nevertheless, it should also be borne in mind that juxtaposed graves may have been associated in less explicit ways as well, such as two separate but identical markers. However, due to the general tendency to make use of similar forms and materials, such cases, if there are any, cannot be distinguished.

Table 20.6 presents the quantitative expression of the neighbours on either side of every individual. These figures are summarised graphically in Fig. 20.10A. As is readily observed in Fig. 20.10 that the actual distribution of the relations between the sexes (A) follows

	Single	Pair	Collective	Empty	Total
W	63	10	5	12	90
E	60	8		42	89
Total	123	18	5	33	179

Table 20.5: Distribution of association type per area.

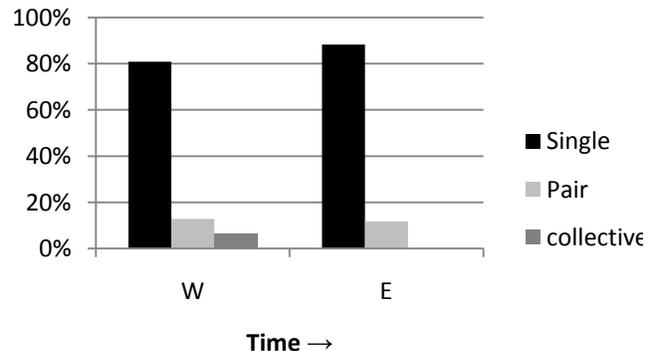
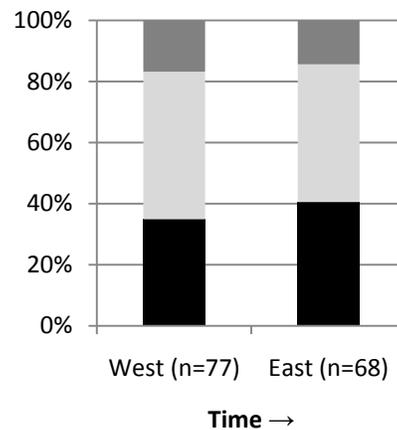
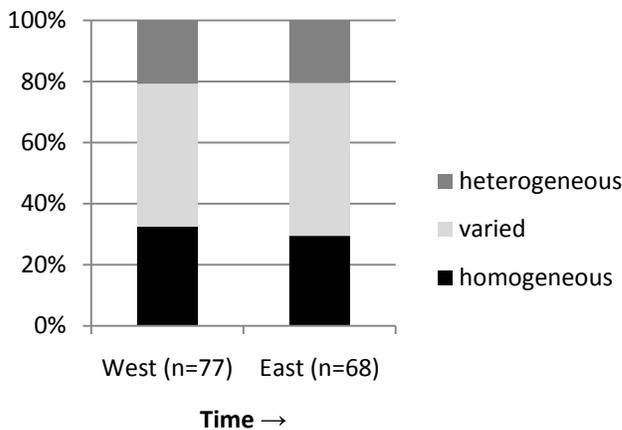


Fig. 20.9: Relative distribution of association type per area

	West	East	Total
F-F-F	7	1	8
F-F-M	6	3	9
F-F-X	4	1	5
M-F-F	7	4	11
M-F-M	8	9	17
M-F-X	2	1	3
X-F-F	3	0	3
X-F-M	3	5	8
X-F-X	0	2	2
Total	40	26	66

	West	East	Total
M-M-M	4	2	6
M-M-F	5	5	10
M-M-X	4	3	7
F-M-M	8	5	13
F-M-F	8	5	13
F-M-X	1	7	8
X-M-M	1	3	4
X-M-F	4	4	8
X-M-X	2	8	10
Total	37	42	79

A) Table 20.6: Relative distribution of the sexes in terms of neighbours on each side for females (A) and males (B).



A) B) Fig. 20.10: Observed (A) and expected random distribution (B) of the three forms of relations between the sexes.

rather closely the expected distribution if it were entirely due to random processes (B). This suggests that purposeful intervention in this regard was minimal at most and that there was little or no concern for the spatial relationship of male and females.

## Conclusion

While demonstrating a relatively high degree of consistency and stability concerning the spatial relations among its members, the cemetery of Yaquum embodied intense discourses referring to a range of aspects. The main vehicles of this discourse were the forms and materials of the tombstones, which were mobilised to articulate stands on issues such as conceptions of the deceased, the relationships between them and the living as well as social cohesion.

Generally speaking, until the 1990s the issues of concern embodied by the cemetery were focused on the relationship the living established with their dead, whether the latter were conceived as present, active and relevant or as past, passive and a memory, each of which structured different forms of relationships. From the 1990s, the focus seems to have shifted to the community as a whole and its very quality, which now appears to be disputed, undermining the very basis of the hitherto stable grounds of its solidarity.

## Ch. 21: Ben Tzion Cemetery, Netanya

Ben Tzion cemetery is located in the centre of the town of Netanya, adjacent to the old (civilian) cemetery and surrounded by residential buildings. It occupies an area of approximately 6 dunams and contains several thousands of graves. The graves are arranged in clearly demarcated plots oriented in an east-west orientation.

A total of 197 entries were recorded in March 2009, from five plots (Appendix 8), covering a time-span from the late 1940s to the present, where each plot is associated with one to two decades (Fig. 21.1). The sample consists of 162 males (82%), 10 females (5%) and 25 empty spaces (13%), indicating a strong bias in favour of

males ( $X^2=83.457$ ,  $df=1$ ,  $p < 0.05$ ). No consistent process of change, however, could be observed along the temporal axis concerning the relative representation of females, which appears like a marginal and almost random distribution (Fig.21.2).

### Typology, Raw materials, Attributes

Ben Tzion Cemetery is highly consistent concerning the materials and forms of the grave markers. All graves are topped by a horizontal marker with a headrest (i.e. type 6 tombstones), made of limestone. They all have a candle and an installation, where the latter is integrated into the main part of the tombstone which is left uncovered. Very few exceptions to these

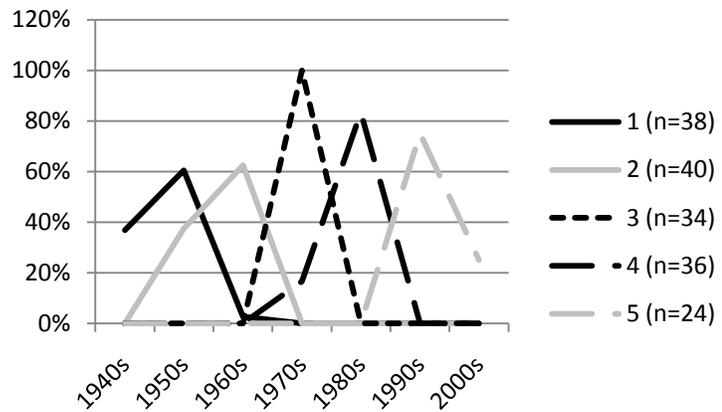


Fig. 21.1: Distribution of number of burials per decade.

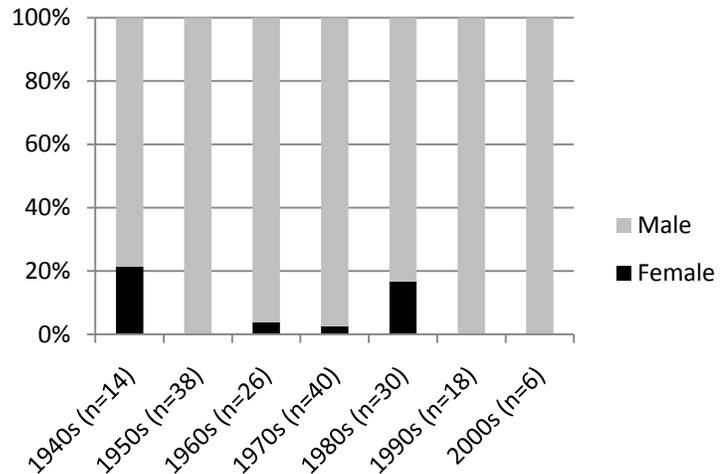


Fig. 21.2: Temporal distribution of ratio of females to males.

observations have been noted, reifying an uncompromising sense of homogeneity, according to which all tombstones answer persistently held standards. It is of note, however, that those exceptions that were recorded consist of markers without headstones above unoccupied graves. A total of 15 such cases were recorded. Two mutually exclusive interpretations can be suggested: either they served as a means of reserving a plot for designated individuals or they were used to render remaining plots inaccessible. Which of the two is more likely is difficult to determine but, considering that these burials were found in the earlier plots (1 and 3) and that each such plot had a relatively restricted time frame, the second seems more probable, presenting closure to the plot.

In any case, attributes deposited on or near the tombstone constitute the most variable phenomenon of the cemetery. These include mainly chalices, engraved stone plaques deposited either above or at the foot of the grave, portraits, and book-shaped stones carrying engravings

(Table 21.1). At first glance, the temporal trends presented in Fig. 21.3 suggest two sets that replaced each other, whereby the earlier includes the chalice and the book and the later includes the stone plaque and the portrait. Given, however, that the main function of both the ‘book’ and the ‘plaque’ was to carry an engraved text, and given that they are temporally ‘juxtaposed’, it is probable that one was replaced by the other. Consequently the book is discovered as a precursor of the plaque and thus ought to be grouped together with the portrait and the plaque.<sup>1</sup>

	Chalice	Plaque	Book	Portrait	No. of graves
1940s	1				14
1950s	8				38
1960s	11				26
1970s	26		2		40
1980s	21		9	1	30
1990s	10	7		2	18
2000s	2	6		2	6
Total	79	13	11	5	172

Table 21.1: Distribution of attributes.

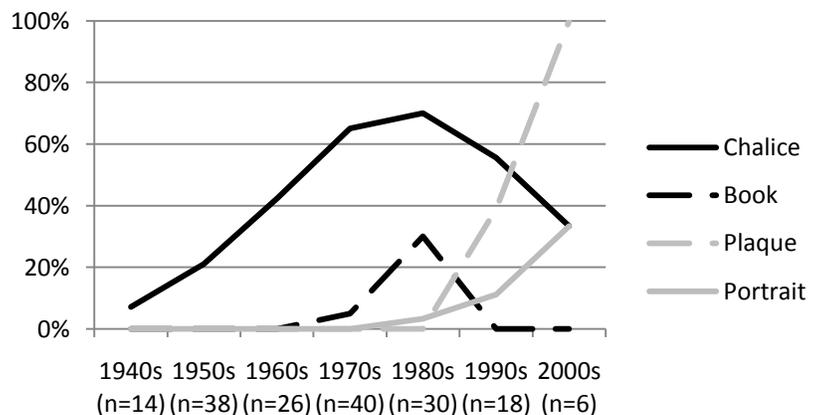


Fig. 21.3: Temporal distribution of attributes.

<sup>1</sup> This is not to say, however, that favouring the plaque over the book is meaningless. Evidently the main change in this case concerns the form of the object carrying the text, which ‘transformed’ from a representation of a book to an abstract rectangular object. While on the one hand representing a simplification, it also has the effect of drawing greater attention to the text rather than to the form, which might point towards a slight change in priorities.

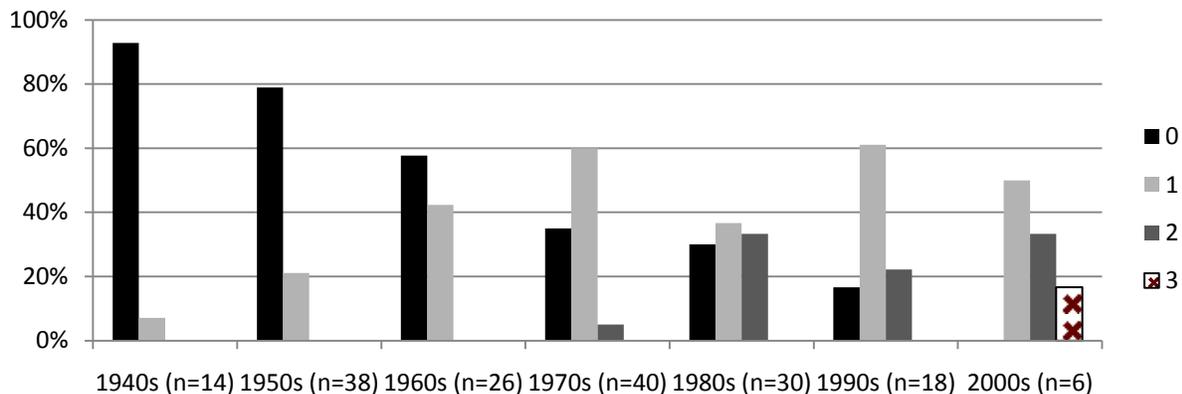


Fig. 21.4: Temporal distribution of number of attributes per grave (not counting the 'candle' and the 'installation').

This suggestion is somewhat reinforced by consideration of the quality of the difference among the attributes. The chalice is the only one among the four attributes that does not convey or carry an explicit expression of sentiment, whether by textual means or by figurative ones. Rather, it is subtle, implicit and ambiguous; it does not necessarily carry an explicit statement. Somewhat simplifying the temporal distributions, one could observe a gradual process that replaces a subtle and ambiguous mode of expression with an explicit and direct one.

Against the background of uncompromising uniformity in form and material, the addition of comparatively movable attributes to the grave constitutes the sole resort for deviation from the standard expression of solidarity. Accordingly, it is likely that, the larger the relative portion of attributed graves and the greater the diversity of attributes per grave, the more intense and forceful is the expression. Indeed a gradual and consistent increase on both parameters can be readily observed (Fig. 21.4),<sup>2</sup> testifying to an ever-intensifying recourse to additive attributes to allow expressions that are at odds with the underlying solidarity. It is interesting to note that the 'negotiation' by means of additives does not constitute a direct confrontation, but takes advantage of the poorly defined and undetermined margins. Thus, although somewhat contradictory to the overall impression of solidarity, the application of various attributes to a grave may be considered as complementary as well as subversive.

<sup>2</sup> On the choice of bar graph, see Ch. 14, footnote 3.

## Spatial Arrangement

Of the 172 burials in Ben Tzion cemetery, 156 were single (91%) and 16 were collective, bringing together three or more individuals (9%). Temporally speaking, other than two exceptional cases, collective burials were confined to the 1940s. It should be noted, however, that, unlike associated burials in other cemeteries, those observed here hardly manifest a prioritisation of relations, for the entire row was grouped together. Moreover, 13 of the 15 cases of type 5 tombstones, noted above, were encountered in this context. It seems that emphasis upon the solidarity and uniformity of the community remained unchanged and that initially an attempt was made to convey it by joining all graves together.

Concerning the relationship between the sexes, any detailed discussion is rendered superfluous due to the general underrepresentation of females (Fig. 21.2). Nevertheless and despite poor statistical reliability, a suspicion arises concerning the positioning of the females when compared with the expected distributions (Fig. 21.5). It seems that at least some degree of control was exercised to minimise the proximity of females to males, especially avoiding situations where a female has two male neighbours.

Although extra caution is needed, these patterns suggest that, despite the emphasis on solidarity and communal cohesion, the incorporation of females into the generally masculine population posed some difficulties. The precise quality of these difficulties is difficult to



A) B)  
Fig. 21.5: Observed (A) and expected random distribution (B) of the relative positioning of females in plots 1 and 4.

determine based upon the available data, but they appear to be handled with a delicate combination of playing down their importance (allowing the occasional male neighbour) and minimising their obtrusiveness (avoiding situations of two male neighbours).

### **Summary**

In all, Ben Tzion cemetery presents a male-dominated homogeneous and uniform community with a strong emphasis on social cohesion. Deviations from this pattern are restricted to the application of various additives to the grave, which allow some degree of differentiation. It was observed that the recourse to this mode of expression steadily intensified along the diachronic axis and that the quality of the expressions had become more explicit and direct.

## Ch. 22: Qiryat Sha'ul, Tel Aviv

Qiryat Sha'ul cemetery is located on the northern fringes of Tel Aviv, just to the west of the residential area. It covers a large area of approximately 25 dunams and contains a rough estimate of tens of thousands burials. The cemetery was founded in the late 1940s and continues in use to this day. The plots are very neatly arranged in clearly demarcated and raised platforms. All graves are set in an east-west orientation, with the heads to the east. This orderly and very tidy arrangement as well as other

features to be discussed below clearly distinguished this cemetery from another adjacent one.

The studied sample was collected in March 2009 and consists of a total of 191 entries (Appendix 9), including 179 males (94%), seven females (4%) and five empty grave plots, indicating a clear bias in favour of males ( $X^2=101.151$ ,  $df=1$ ,  $P<0.05$ ). This bias remained constant throughout the years of the cemetery's function, although an increase in the representation of females is noted during the later years (Fig. 22.1).

These entries were collected from five different plots (1, 14, 15, 16 and 18), each confined to a very narrow temporal range (Fig. 22.2). Plot 18, the latest of the five, is the only one that has a temporal breadth of two decades.

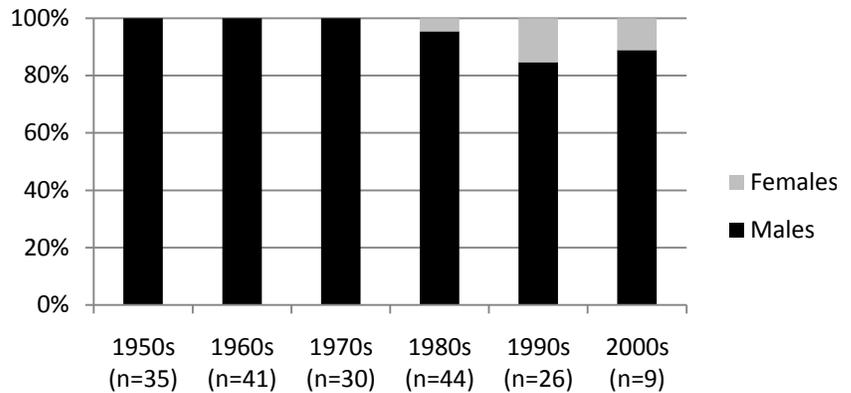


Fig. 22.1: Temporal distribution of ratio of males to females.

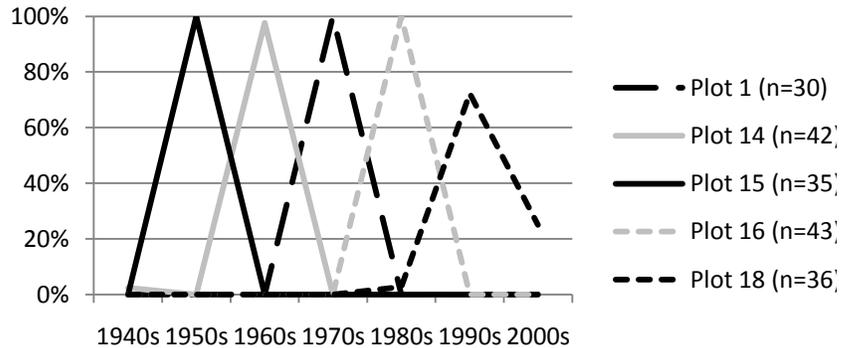


Fig. 22.2: Distribution of number of burials per decade.

## Typology, Raw materials, Attributes

Qiryat Sha'ul cemetery demonstrates extraordinary uniformity. All tombstones are made of limestone and are fashioned as a horizontal marker with a headrest, i.e. type 6 tombstones. They all have a candle and an installation, where the latter is integrated into the main part of the tombstone, which is left uncovered. No exceptions to these observations have been noted, reifying an uncompromising sense of homogeneity, according to which all tombstones answer to persistently held standards.

Nevertheless, some room for variation is made available by the applications of various additives to the constant template, the most conspicuous of which are chalices and engraved stone plaques (Table 22.1)<sup>1</sup>. Along the temporal axis one can readily observe that the preference for the chalice, which reached its peak in the 1970s, was gradually replaced by the engraved plaque and the portrait that have risen considerably in popularity during the last 20 years. Although all essentially movable items, they differ substantially in their approach. By their very nature, both the inscription and

the portrait (or photograph) are explicit and direct expressions of sentiments addressed either to the deceased or to his or her commemoration; they state their case by overt figurative (given that it represents the deceased) or verbal means. The chalice, on the other hand, does not carry an explicit statement or convey specific meanings; it is a much more subtle symbol. Accordingly, the replacement of the chalice with the plaque and the portrait is a

	Chalice	Book	Plaque	Portrait	No. burials
1940s					1
1950s	6				35
1960s	12				41
1970s	18	1			30
1980s	15		6		44
1990s			5	2	26
2000s	1		8	4	9
Total	52	1	19	6	186

Table 22.1: Distribution of attributes.

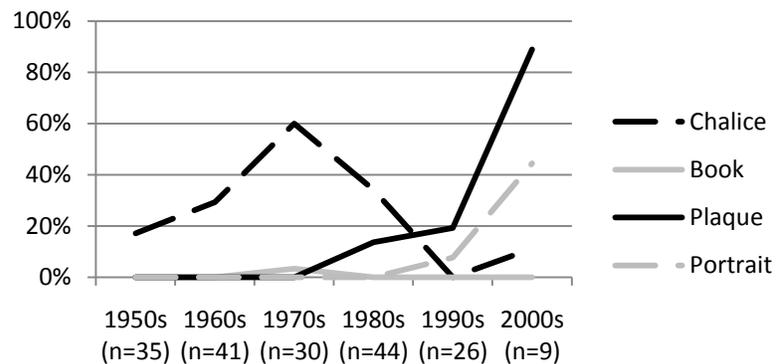


Fig. 22.3: Temporal distribution of attributes.

<sup>1</sup> It is necessary to note, however, that, despite the recurrence of several features, many others such as flags and unit symbols and other idiosyncrasies were noted as well.

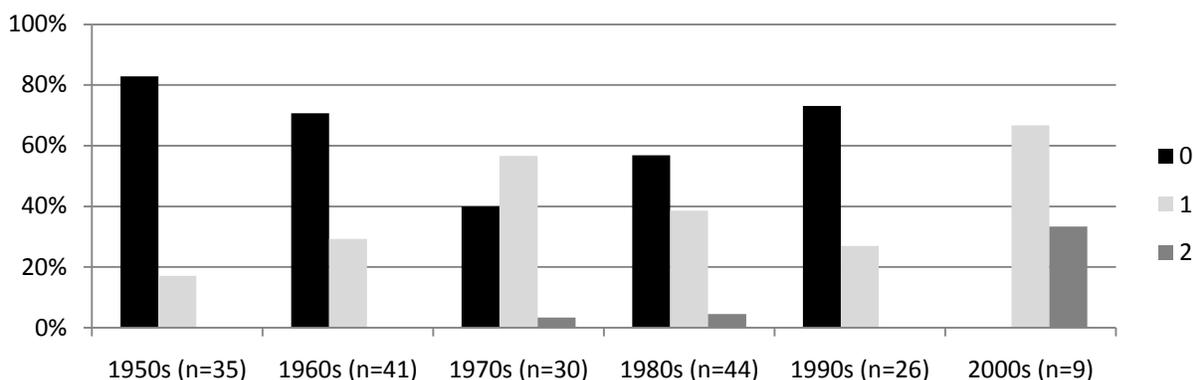


Fig. 22.3: Temporal distribution of number of attributes per grave (not counting the ‘candle’ and the ‘installation’).

replacement of a subtle and implicit mode of expression with an obvious and direct one.

Against the background of uncompromising uniformity in form and material, the addition of more-or-less movable attributes to the grave constitutes the sole resort for deviation from the standard expression of solidarity. In terms of the intensity of reference to this resort, one can speak of two ‘waves’ with a hiatus in between (Fig. 22.3).<sup>2</sup> The first peaked in the 1970s and was associated with the chalice while the second peaked in the 2000s associated with the portrait and the engraved plaque. Two separate foci of negotiation with the standard uniformity are thus observed, the earlier taking a more subtle and mild approach while the later one opted for an overt and direct attitude. It is interesting to note that the ‘negotiation’ by means of additives does not constitute a direct confrontation, but exploits the poorly defined and undetermined margins. Thus, although somewhat contradictory to the overall impression of solidarity, the application of various attributes to a grave may be considered as complementary as well as subversive.

### Spatial Arrangement

Of the 186 occupied graves sampled in Qiryat Sha’ul, all but two were singles (99%). Evidently such an association of individuals was highly exceptional and otherwise the standard of single graves was kept. Like the consistency in form and matter, the insistence on single graves denies the possibility for prioritising relationships and objectifies every case as an equal member in the community.<sup>3</sup>

<sup>2</sup> On the choice of bar graph, see Ch. 14, footnote 3

<sup>3</sup> Nevertheless it is noteworthy that adjacent graves were often linked near their heads by narrow, built segments.

Concerning the relationship between the sexes, any detailed discussion is rendered superfluous by the striking underrepresentation of females (Fig. 22.1). Nevertheless, all females in the sample (n=7) were found beside males, a pattern that could be expected under such circumstances. In view of clear evidence for efforts made in other cemeteries at keeping males and females apart, however, it is noteworthy that no such effort could be observed in Qiryat Sha'ul. On the contrary, although underrepresented, women seem to have been fully integrated into the collective representation of the community.

### **Summary**

Qiryat Sha'ul Cemetery exemplifies extraordinary uniformity and consistency in all respects. The cohesion and solidarity of the community was evidently strongly upheld, leaving only the addition of various attributes as the sole means of more individualised expression. Such expression was confined to the poorly defined margins of plaques and portrait, while the underlying substrate remained unchanged. Accordingly, any signs of temporal development are very limited and discourse was confined to the additional attributes which seem to have transformed in attitude from subtle and implicit to direct and covert. Another change that, although marginal, might be significant, concerns the gradual increase in the presence of females that, as a rule, are hardly represented.

## **Ch. 23: Discussion – Contemporary Cemeteries**

The foregoing analyses of contemporary cemeteries set the foundation for a discussion that will allow us to offer a crude sketch of the modern Jewish cemeteries in Israel, as seen through their material expressions. Several themes, such as organising principles, social discourses and temporal trajectories, have been raised repeatedly throughout these discussions. It is unnecessary to reiterate them here, but only to note the inescapable impression of variability among them, and that in the final analysis they are primarily local and communal phenomena.

To a considerable degree this was inevitable, as the structure of their analysis, treating each case as a singular and independent entity, was predisposed to emphasise and acknowledge processes taking place within the one cemetery rather than encompassing several. Ultimately, it is the aim of the current discussion to consider the kind of picture produced when these separate and yet overlapping cases are brought together. The question is what the best way to go about it is. Something of importance that should be taken into consideration is that the different material categories analysed showed considerable degree of mutual independence. That is, it often seems that the pattern of development demonstrated by tombstone forms has little to do with that of the raw material or the attribute; and this goes without saying for the association of graves and the spatial relationship of sexes, which are of an entirely different order.

Several questions follow from this: What is the quality of the relationships between the different material categories? Do the variations among the cemeteries carry discernable implications for the structure of these relationships? Are the different material categories related to different concerns and, if so, which? Ultimately, the five categories in question were drawn out of two different aspects of the cemeteries' material manifestation: the tombstone and the spatial relationships among graves; and it is along these lines that the relationship between the categories can be traced.

### **Tombstone**

The tombstone, as a structural feature erected above a grave occupied by a single individual, functions simultaneously as a representation of and a memorial for the deceased. Thus, the choice of form, material and additives constitutes an act of describing and representing the deceased. As a (at least potentially) permanent structure of memory, it also functions as a locus

of repeated visitations and continuous relationships of the living with the person who passed away. Thus the three material categories derived from the properties of the tombstone are involved in the representation and conceptualisation of the deceased and in structuring her or his relationship with the living.

The form and the material of the tombstone are inseparable and together account for the monument as a structural element: its size, shape, texture, impression, etc. The various additives, on the other hand, are either applied to the surface of the stone or deposited around it. Consequently, the relationship between the various additives on the one hand and the form and the fabric on the other is akin to the relationship between a painting and a canvas, or between the actors and the stage. The former is the centre of focus, the element carrying the finest details and the main narrative, whereas the latter is the setting, frame, or context that make these expressions possible and give them an outline and meaning.

This is not to say that the latter carry no meaning other than supporting the literal and figurative expressions of the former. As the detailed analyses and discussions have shown, this is definitely not the case. It does indicate, however, that, comparatively, the discourse carried out at the level of the morphology and material of the tombstone was comparatively a crude and cumbersome one. This structure of relations, moreover, is also suggestive of difference in the range of the discourses. While the specific motifs and elements inscribed onto the tombstone or plotted around it can be viewed and appreciated only from a very short distance, the form and material can be regarded from further away. Accordingly, it is likely that the various additions applied to the stone are geared directly toward the visitor lingering in front of it; the shape and material of the stone itself offers a more general statement of presence and character towards a wider range of spectators. To paraphrase, one could say that if form and matter are active on a relatively wide social level, the additions are active on the personal level.

### Morphology

The morphology of the tombstone has proven to be the most revealing of a community's preoccupations, internal discourses and temporal trajectory. This is best illustrated in the relatively lengthy discussions they received. Yet, upon comparing the patterns produced for the different cemeteries, one observes that they do not repeat themselves and are of an idiosyncratic character. Each cemetery has a trajectory of its own, some being stubbornly homogeneous (e.g.,

Q. Shaul, Ma'abarot), while others can best be described as irregular and lacking any discernable pattern (e.g., Sh. Vatiqim); some suggest movements between states of solidarity and discord (e.g., Trumpeldor, Netzah), while others are suggestive of ongoing and intensive negotiations (e.g., Morasha, Yaqum). This lack of consistency from one cemetery to the next coupled with the altogether intelligible trajectories of development (with the exception of Sh. Vatiqim) indicates that tombstone morphology is primarily involved in local communal concerns and discourses.

Given, as noted above, that the tombstone's form and fabric constitute the first element of a deceased's representation and relationship with the living, it follows from the negotiations surrounding it that our concepts of the dead are still negotiable, rather than fixed. The range, however, is not great and, from what could be gathered from the detailed analyses, they centre on the two oppositions passive/active and direct/indirect. One's choice of position within the space, demarcated by these oppositions, is regarded *in practice* as a community affair. For it is on the communal level, represented by the cemetery, that this matter is either decided or negotiated, implying that it is a social identity rather than a personal one that is in question. All cemeteries demonstrate this but Sh. Vatiqim, which apparently hosted more social subgroups than the other cemeteries analysed.

Based upon the above, we may now reconsider the trajectories of the different communities in terms of their social conceptions of the dead. Cemeteries that have a distinct preference for one tombstone form (e.g., Q. Sha'ul, Ma'abarot) can be seen to have a stable concept of the matter while those that are marked by inconsistency and multiplicity of equally preferred options (e.g., Sh. Vatiqim) are probably best regarded as in a state of flux and negotiation.

### Raw Materials

Unlike the forms of the tombstones, the raw materials go a longer way in showing a line of development common to all cemeteries. Generally speaking, cement was replaced by limestone, which was followed by Turkish marble and granite. Yet, while some cemeteries express the entire sequence (Netzah, Morasha, Sh. Vatiqim and possibly Yaqum), others show only parts thereof, either involving cement and limestone (Trumpeldor and Ma'abarot) or limestone alone (Q. Sha'ul and Ben Tzion). Chronological differences are evidently irrelevant, as all cemeteries, other than Trumpeldor, are more or less contemporary.

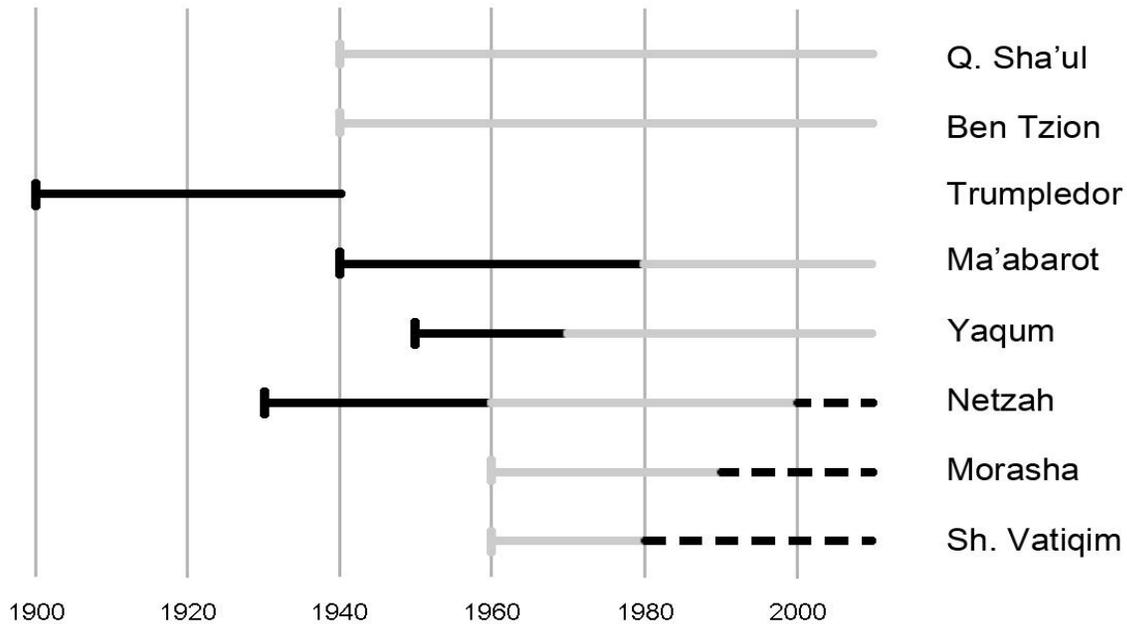


Fig. 23.1: A simplified comparison of three-phased sequence in choice of raw material (black = cement and limestone; grey = dominance of limestone; broken=limestone and Turkish marble and/or granite).

Fig. 23.1 offers a simplified graphic comparison of the three-phased sequence for each of the cemeteries. It is readily observed that each of the five cemeteries represented in the lower part of the figure occupies a particular position with reference to the others. Beginning with Ma'abarot and moving down towards Sh. Vatiqim, the thresholds marking the decisive moments of change consistently recede in time. Accordingly, the different cemeteries analysed could be said to be located at various 'distances' from the core of the process and, while Sh. Vatiqim is located in its centre, Ma'abarot is located in the outer circle of its periphery. Granted that the change in preferences of raw materials do indeed represent a general process that implicates the society at large, the different positions noted are suggestive of a variety of attitudes towards the societal mainstream, ranging from a reserved and conservative approach to an involved and more liberal one.

However, three of the eight cemeteries analysed do not conform to these observations and seem to be located outside the general pattern. This is observed in the absence of any distinct changes in preference of raw material throughout their history: Trumpledor cemetery showing a clear, although gradually decreasing, preference for cement, while Q. Sha'ul and Ben Tzion cemeteries make use only of limestone. As suggested above, the case of Trumpledor cemetery may be explained by its singular chronological position (Fig. 23.1). Further support for this is

found in the observation that limestone and cement coexisted, and that shift of preference would have been anticipated had the process continued uninterrupted, rather than end in the 1930s.

Such an explanation, however, does not hold for Q. Sha'ul and Ben Tzion cemeteries, both of which showed an absolute preference for limestone before all other cemeteries and unquestionably stuck by it after many had turned to alternative materials. The absence of any other fabric, even as a minor component, rejects the possibility of a negotiation of even the most subtle kind. Accordingly, it seems that these two cemeteries had removed themselves entirely from the general process of shifting preferences of tombstone fabrics and materials, in which all other cemeteries were engaged.

Summarising the above, it seems that, insofar as the choice of material for the tombstone was concerned, most cemeteries were involved in a common process whereby limestone replaced cement and was later accompanied by Turkish marble and granite. The cemeteries differed nevertheless in the degree to which they embraced these processes or shunned them, which was apparently related to the degree of cohesion of their communities and the nature of the discourses they maintained within them. Two cemeteries have nevertheless excluded themselves from this process and by implication from the wider social context.

### Attributes

The attributes are undoubtedly the most difficult category for material analysis of the kind conducted here. Other than the fact that they received here only preliminary treatment (see, ch. 14), they are particularly evasive because their symbolism is primarily anchored in references to abstract notions rather than in practice or experience. Consequently, relying on their material patterning alone, without recourse to other sources of information, one is destined to face a perplexing situation with little resolve. Another difficulty concerning the attributes is their autonomy and lack of any distinct form of interrelationship among them. Unlike the morphology and material of the tombstone, the choice of one attribute does not exclude another, thereby allowing the formation of complex symbolic structures, bearing multiple references. The absence of a distinguishable relationship among attributes therefore does not afford an anchor for interpretation either.

Nevertheless, the application of attributes in the first place is not a consistent phenomenon, and in some cemeteries it is evidently more common than in others (Fig. 23.2). In the cemeteries of Ben Tzion and Qiryat Sha'ul the application of additional attributes is clearly standard procedure, observed on all sampled tombstones without exception. This is clearly due to the systematic application of 'candle' and 'installation' attributes along with the invariable form and material, which together reinforce

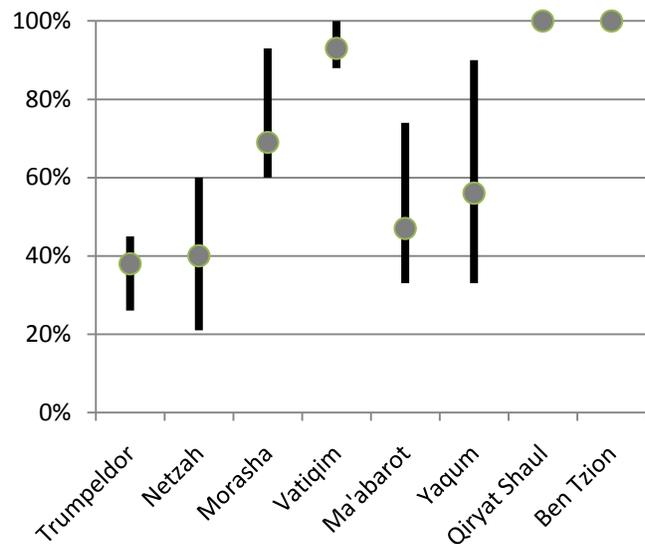


Fig. 23.2: Mean and distribution of the application of attributes per decade across sampled cemeteries.

these cemeteries as constituting an independent category. The remaining cemeteries, on the other hand, present a broad range both in terms of the mean percentage of attributed tombstones in the sample, as well as the range of temporal variability from one decade to the next.

Against the tombstone and its involvement in communal and societal discourses, the choice for or against the application of additional attributes that communicate, as noted above, on a more personal level, is probably best understood in terms of how necessary the expression of additional and finer meanings or sentiments was felt to be. Accordingly, for cemeteries in which attributes were applied sporadically, the basic structure of the tombstone must have been considered sufficiently representative, implying that the addition of finer meanings on top of the societal and communal ones was of relatively little importance and concern. Conversely, in cemeteries that are characterised by generous use of attributes, the more personal meanings were rendered more important.

This seems to bear some correspondence to the size of the community in question. Generally speaking, the larger the community, the more common the application of additional attributes. Thus, Sh. Vatiqim and Morasha cemeteries, which are the largest in the sample (tens of thousands of burials, accumulated in the course of the last 50 years), are also those in which the use of additional attributes is the most pronounced. Conversely, Trupeldor, Netzah, Ma'abarot and Yaqum cemeteries are much smaller (comprised of hundreds or thousands of burials at most,

accumulated over a similar time period) and in which additional attributes were employed in a much more sporadic fashion (Fig. 23.2). Given that the position or status of the single grave, the fundamental constitutive component of the cemetery's community, decreases as the population size increases, recourse to finer meanings, directed specifically to the visitor standing in front of the tombstone, suggests a reaffirmation of the single grave or individual. In other words, when facing the prospect of being swallowed up within the collective mass of burials, the identity of the single member is reinforced and more carefully defined.

#### Discussion: tombstone patterning

From the above, an impression emerges, according to which the three analysed aspects of the tombstone partake in different discursive scales: the raw material is involved in a general societal process, encompassing all or most cemeteries; the morphology of the tombstone participates in community- (i.e. cemetery-) level concerns, regarding the conception and relationship to the dead; and the application of additional attributes to and around the tombstone is primarily engaged in an interpersonal relationship with the onlooker, often emphasising individualised identity against the collective in which it is immersed. Thus, although constituting aspects of a single phenomenon, separated only by analytical means, they still demonstrate considerable autonomy, functioning and conversing on distinct spheres. This is best demonstrated by the general lack of correspondence among the three aspects observed in most cemeteries, each undergoing an apparently independent pattern of development.

Yet, although it has been demonstrated that each constituent of the tombstone is closely involved with a particular matter, it is wrong to suggest that it is not implicated in the others as well. First, despite the fact that every grave represents an individual case, it is clearly also a member of the cemetery's community and of society at large. Moreover, as it carries properties that address concerns that are most clearly articulated at higher social levels, every grave could be said to participate simultaneously in several discourses, unfolding at different social levels. Second, notwithstanding the occasional exception, every aspect seems to demonstrate a fairly limited range of motifs upon which to draw, so that in each case a selection of choices is found. Even if cemeteries vary in the range of choices at their disposal, the very existence of a finite range is suggestive of a symbolic or conceptual framework agreed upon at the wider social level.

Consequently, the entire range of motifs, articulating concerns on the personal, communal and societal levels, is all predetermined at the most inclusive social level.

Thus, generally speaking, while each of the three aspects of the tombstone (the attributes, the form and the material) is focally involved in a discourse that unfolds at a particular social level (the personal, the communal or the societal), it is implicated in the others as well. In most cases the involvement of one aspect in the concerns of another is peripheral at best, preserving their mutual autonomy. Yet, at times, the distance between them is breached and more direct or active involvement of one in the affairs of another can be observed. The conflation of previously autonomous trajectories of form and material during the later years of Morasha Cemetery is a good example of this; the strict homogeneity of both form and material in the cemeteries of Ben Tzion and Q. Sha'ul is another.

But these cases followed different paths. In the case of the latter two, the otherwise autonomous aspects of material and form collapsed into one to speak in a single voice of standardisation and uniformity. In doing so they refused both negotiation and change, presenting themselves as constant and timeless phenomena. In the case of Morasha Cemetery, not only that negotiation was not suppressed, it was the cause for the fusion of trajectories of material and form, each breaking up into two factions representing the 'old' and the 'new'. More importantly, however, this negotiation was ultimately a communal affair that did not go beyond the boundaries of the cemetery in question. Thus, rather than the two aspects speaking in a single voice and equally referring to both societal and communal issues, as in Ben Tzion and Q. Sha'ul cemeteries, in Morasha, the union of the two aspects addressed specifically communal matters.<sup>1</sup>

Also, the attributes demonstrate communal involvement, despite their primarily personal significance. It has already been noted that there is an apparent correspondence between the tendency to employ them and the size of the community in question, which in itself is a social statement concerning their context. Nevertheless, more specific and detailed occurrences can be observed. Sometimes a given attribute seems to have been closely affiliated with one side or another of a discourse conducted at the communal level. Thus in Yaqum cemetery the 'installation' attribute was affiliated with the type 1 tombstone as it was being challenged by those of types 5 and 6; and in Morasha cemetery the sharp rise and fall in the popularity of the 'candle' in the later part of the cemetery's sequence coincided with that of tombstones of type 6

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<sup>1</sup> A similar case can also be made for the earlier phase of Yaqum cemetery.

as it wrestled with the otherwise undisputed dominance of type 1. In at least one case, furthermore, the use of attributes could be associated with a particular subgroup within the community, as suggested for Netzah cemetery.

Yet the most striking and forceful involvement of attributes in communal matters can probably be observed in Ben Tzion and Q. Sha'ul cemeteries. First, the 'candle' and 'installation' attributes were a standard feature in these cemeteries, applied (other than in rare exceptions) to all tombstones. As such, they joined the material and form of the tombstone to convey a message of uniformity and solidarity. Other attributes, however, were also recorded, breaking away from the otherwise strict homogeneity of these cemeteries, including, most notably, the chalice, the inscribed plaque and the portrait. By introducing variability, even if on a minor scale, and allowing time, as in change and movement, to enter the community, these attributes represent some form of negotiation with the single and unitary voice of these cemeteries. Consequently, the application of these attributes to a grave does not only constitute an elaboration of a personal memory but also a challenge to the homogeneous and timeless representation of these communities, suggesting that the break between them and the other cemeteries is not as absolute as it may appear at first and the strength of their solidarity is not entirely unquestioned. Moreover, as noted in the discussion of these cemeteries, there seems to have been a shift from an implicit mode of expression to an explicit one, possibly indicating an intensification of the abovementioned challenge.

Given the above, it seems that, at least insofar as the tombstones are concerned, the cemeteries analysed ought to be divided into two groups: Ben Tzion and Q. Sha'ul on the one hand and all the others on the other. The latter are primarily characterised by considerable variability regarding the raw materials, tombstone morphology and the application of attributes, each demonstrating a relatively autonomous trajectory. Despite their diversity, they share a common structure of relations, whereby each of the tombstone aspects advances along a relatively autonomous trajectory, occasionally intervening in that of the others. When observed, these interventions appear to carry a subsidiary role by promoting one aspect or another of the communal discourse, as a rule represented by the form of the tombstone. Furthermore, it is of note that, while the trajectories of tombstone morphology and the additional attributes are singular and unique for each cemetery, reflecting internal concerns, that of the raw materials is common to all, presenting a general process in which all take part. The cemeteries differ

nevertheless in their attitude toward this process: some embrace it while others shun it and hinder its introduction.

The cemeteries of Q. Sha'ul and Ben Tzion are characterised by a different structure. Rather than variability and relative autonomy, a strict orchestration of the various tombstone aspects is observed, prescribing a homogeneous pattern on all levels. By removing themselves from common processes undergone by other cemeteries and refusing any form of internal negotiation, Q. Sha'ul and Ben Tzion cemeteries convey uniformity within and distinction without. Moreover, the lack of autonomy of the different tombstone aspects, contrary to that seen in other cemeteries, suggests that they were all geared toward the manifestation of a single, albeit multi-faceted, idea, defined first and foremost at the societal, rather than communal or personal, level. That is, while in most cemeteries a dialectic relationship between the different social levels could be observed, in the cemeteries of Ben Tzion and Q. Sha'ul, the lower levels were subordinated to the upper one(s). As already noted, however, this is not the whole story, and some fissures in this otherwise unvarying mirage can be seen to rise from its base, whence individualised sentiments and notions are introduced at the personal level, consequently challenging the communal homogeneity and social distinction.

### **Spatial relationships**

Generally speaking, the cemeteries in question consist of a cluster of single graves, occupied by one individual each, arranged in more or less tidy rows and marked by a tombstone. Such a singular and isolated representation of the dead tends to promote a depiction of the community as an aggregate of isolated and self-contained individuals. Moreover, their neat and well controlled arrangement in rows precludes the formation of spontaneous spatial relationships and consequently minimises the possibility for prioritisation and differentiation of social ties. Such prioritisation of relationships does occur, however, manifested (materially) in the use of a common tombstone, or a part thereof, for two or more graves, thereby declaring a close association between these otherwise singular individuals.

In the broadest possible sense, declarations of this kind seem to emphasise personal relationships against an otherwise particularistic representation of the individual. Interplay is thus observed between two representations of the individual: one by which it is conceived as a self-contained entity and another constituting it as a social being defined by the ties and relationships it maintains with others. In

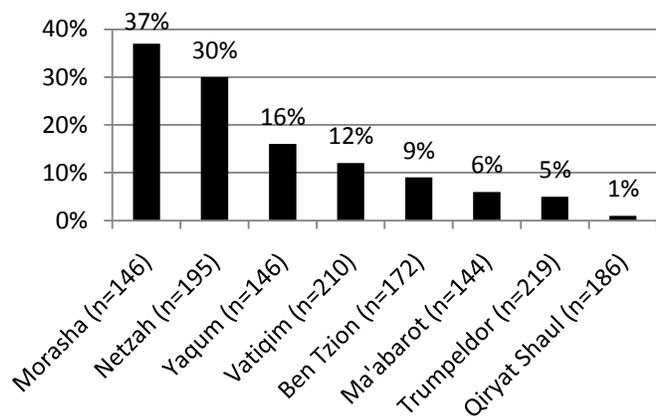


Fig. 23.3: The relative abundance of explicit association among graves.

most cemeteries this interplay is limited, however, because only a small portion of the graves is explicitly associated with others, thereby strongly bending toward an isolated, self-contained representation of the single agent. Two cemeteries nevertheless stand out in this regard: Netzah and Morasha, in which 30% and 37% respectively of occupied graves sampled show explicit affiliation with at least one more (Fig. 23.3). Moreover, these are the only two cemeteries (of the eight analysed) to demonstrate a steady increase with time of associated burials (Ch. 15, 17), thereby suggesting a gradual shift of emphasis from the isolated individual to the socially constituted one.

There is more to this however. Structurally speaking, membership in a cemetery constitutes membership in a community (of the dead) and, although a wide range of circumstances may intervene, being singular and autonomous is often a precondition for one's affiliation (i.e. identification, mutual representation, etc.) with the community to be a strong and harmonious one. If, however, one's identity is structured primarily in terms of the interpersonal relationships with others, it necessarily follows that her or his communal affiliation is of secondary importance. Thus, at least for the cemeteries of Netzah and Morasha, it may be suggested that the increasing emphasis on interpersonal relationships had also the effect of gnawing at the importance of the community in one's identity.

Yet it would be wrong to consider the relationship between the personal and communal affiliations a straightforward one. As noted above, the structure and organisation of the cemetery hinders the representation of interpersonal ties. Thus the occurrence of such representations need

also be understood as working against an underlying organisational principle. As a result, the concept of the single individual as a self-contained autonomous entity should not be conceived only as the prevalent attitude but also as the institutional position. Hence a tension, even if a slight one, is revealed here between the personal and institutional spheres, whence the former occasionally wishes to express a sentiment that is at odds with the concepts promoted by the latter. A question is begged to be asked: could the variations among cemeteries, concerning the relative abundance of associated graves, be also a function of the ability of individuals to negotiate successfully with the overriding organisational principle? That the representation of personal ties does not naturally occur within a cemetery strongly suggests that some effort had to be put into it in order for it to be realised. The absence of manifestations of personal ties may therefore be equally a function of the aptitude at negotiation with the institutional powers as of the very inclination to do so in the first place.

In some cemeteries, moreover, the relationship between the sexes is also involved. These are Trumpeldor, Netzah, Morasha and Vatiqim cemeteries, all of which clearly demonstrate non-random patterns of distribution of the sexes, especially avoiding situations in which neighbours on both sides of a given grave are of the opposite sex. The divergence from the random pattern that would be expected if it were spontaneously produced is indicative of purposeful regulatory intervention that must be attributed to the institutional level. That is, the spatial relationship between females and males was institutionally monitored and regulated, indicating that their relationship was a matter of concern and, while some forms were considered legitimate, others were not. Indeed, it seems that the great majority of juxtaposed males and females is encountered in contexts of commemoration and representation of interpersonal ties. Accordingly, notwithstanding a few exceptions, almost all explicitly associated graves in these cemeteries consist of both female and male members, and many of the juxtapositions recorded also in the absence of a common tombstone seem to be due to the application of subtler forms of associations of the kind noted above. It can therefore be suggested that it is the context of interpersonal relationships that renders the juxtaposition of females and males legitimate.

Hence, once more, we are witnesses of a dialectic relationship between the institutional and personal levels. The default institutional policy on the matter is to keep the sexes apart, best illustrated by Trumpeldor cemetery where plots were almost exclusively populated by either females or males. This policy, however, is repeatedly confronted by demands from the personal

level to commemorate social relationships that entail the juxtaposition of male and female members. It is through the question of the legitimacy of these relationships that the institutional policy is negotiated, and it is the acceptance of their legitimacy which demands better control of the spatial distribution of the sexes.

But, not all cemeteries follow such policies of separation or demonstrate negotiations of the kind discussed above. Q. Sha'ul and Ben Tzion cemeteries are noteworthy for the striking underrepresentation of females in their buried population. Consequently, there are very few opportunities for the juxtaposition of members of the opposite sex, rendering the matter almost superfluous. In Ma'abarot and Yaqum cemeteries, on the other hand, both sexes are equally represented, but their spatial distribution is nevertheless random, indicating that the relationship between them is hardly an issue in these contexts.

Thus the consideration of spatial relationship of the sexes in the different cemeteries reveals important differences in institutional policy and attitude: while in some it is monitored, restricted and negotiated, in others it is left almost entirely to the spontaneous development of the site. It is important however to acknowledge that policy is the application of a concept and that the differences among the cemeteries run deeper into ideological and conceptual matters. A policy of separation must be rooted in an understanding that the association of females with males is potentially hazardous or at the very least problematic. It perhaps carries the qualities of joining oppositions, which must be conducted with care. In a similar vein, the contrary policy, or more accurately the lack of a policy, suggests that sexual identity of an individual was of little concern, at least upon death, and that it did not demand consideration.

Attempting to summarise the points made for the spatial patterns, it is particularly striking that they illustrate a complicated dialectic relationship between the cemetery as an institution enforcing organising and ideological principles and the individual members applying their personal concerns of representation and remembrance. Ultimately, three basic issues are at stake: (1) the concept of the individual, whether singularly or socially constituted; (2) one's relationship to the community; and (3) the mutual relationship of the sexes. Crudely put, the cemetery as an institution promotes a self-contained and autonomous concept of the individual, manifested by the strict regime, according to which every grave is occupied by one individual only. This also tends to promote a concept of the community as an aggregate of single agents. The concepts in question are usually manifested above ground just as much as under, when the cemetery is seen

to be constituted by a multitude of tombstones, one for each grave. It is the tombstone nevertheless that is often found to contest these ideas, by explicitly expressing a bond between otherwise discrete burials. In doing so, the tombstone challenges the idea of the autonomous individual by presenting her or him as socially constituted and questions the importance of one's affiliation with the community by prioritising more personal relationships. Moreover, given the structure and organising principles of the cemetery, the very association of graves demands some form of negotiation. For the institutional particularistic approach tends to hinder the possibility for specific affiliations. Thus, the individual efforts to commemorate and manifest interpersonal relationships within the cemetery is seen simultaneously to negotiate one's position and association to the community, in which she or he is a member, and confront the institutional particularistic approach to the dead. Further, in four of the eight cemeteries analysed, these endeavours are also forced to negotiate with a policy and ideology aiming to keep females and males apart.

## **Discussion**

When trying to integrate the two strands of analysis and interpretation presented above, one is struck by the differences in content and terminology. While the tombstones were shown to embody and participate in social discourses on various levels, ranging from the single agent to broad societal structures, the spatial patterning inside the cemeteries revealed negotiations between institutional policy and personal demands. Yet, despite these apparent discrepancies both the tombstone and the spatial arrangement are closely linked. Most important is that, while the cemetery constitutes an embodiment of a social community, the organising principles have considerable impact both on its overall concept and on its internal structure. Accordingly, the representation of the community as a loose cluster of single autonomous agents is a direct result of the insistence on singular burials, where each deceased individual has a grave to her or himself.

This is the only characteristic, going hand-in-hand with the arrangement of the graves in neat rows, which is common to all cemeteries analysed. Indeed, the data does seem to emphasise the autonomy of the different cemeteries, each following its own independent course. Nevertheless, if we were to try and group them into categories, it would be misleading to consider all aspects analysed as equally relevant. As observed above, different aspects are associated with different

social and institutional levels. It is thus understandable why, upon considering phenomena relevant mostly for the communal or interpersonal levels, the pattern produced would be one of stupefying variability. It is necessary therefore to begin with the higher and more inclusive levels.

As already noted above, the tombstone patterning, pertaining to a cemetery's participation in general processes as well as to the quality of the internal discourse it maintains, suggests a distinction between two groups. The first group consists of six of the eight cemeteries analysed, which partake, although varying in their 'enthusiasm', in a common trajectory represented by the changing preferences of raw material for tombstone construction (cement → limestone → Turkish marble and granite). These cemeteries also host a wide range of internal discourses, mediated by the form of the tombstone and the application of additional attributes, pertaining to issues of communal cohesion, one's relationship to the deceased and the proper forms of representation and commemoration. The second group, comprising of the two remaining cemeteries (Ben Tzion and Q. Sha'ul), constitutes an almost perfect opposition to the first. It disassociates itself from other societal processes by sticking to one substance and avoiding the introduction of others, and it reduces internal discourse to a minimum by hosting only one form of tombstone, the prime medium for communal discourse in other cemeteries. Looking back to the introduction (Ch. 14) and the choice of cemeteries for analysis, it is of further note that the distinction between these two groups corresponds to that between civil and military cemeteries.

Moreover, as suggested by the foregoing discussion, the cemetery is not merely a site of burial, but also an institution with policies and regulations. By policies and regulations I mean enduring principles that are consistently implicated in the practices taking place within the cemetery (cf. Giddens 1984). For the first group, comprising the majority of the cemeteries, two such principles are observed: (1) one body per grave; and (2) arrangement of graves in rows. All other aspects, especially concerning the tombstone and its elaboration, do not seem to be regulated and are of a rather spontaneous character. In the case of the second group, on the other hand, consisting of Ben Tzion and Q. Sha'ul, one observes deeper institutional involvement, penetrating also into matters of individual representation and the particularities of the tombstone. The form of the tombstone, its material and at least two additional attributes (installation and candle) are all predetermined, thereby prescribing beforehand a common mode of representation and overall homogeneity. It is consequently fairly clear that the relationship between (a) the

cemetery as institution, prescribing and regulating what occurs within its midst, and (b) the cemetery as a locus for personal sentiments and remembrance of the dead is very different in the two groups. While the institutional policies of the first (civil) group are primarily concerned with matters of organisation and distribution, those of the second (military) group go further and regulate also matters of individual commemoration and representation; where the first group leaves the characteristics of the tombstone explicitly undefined, making way for communal discourse and personal expression, the second group enforces uniformity, rendering communal discourse impossible.

Corresponding to the different degrees of institutional involvement one also finds differences in form and content of the negotiations with them. As already noted, discrepancies between institutional and personal notions in the first, less regulated, group circle matters of the constitution of the individual, whether a self-contained entity or a socially constituted one. The general policy tends to reinforce the first, receiving a potent expression in the multitude of tombstones, representing single individuals, neatly arranged in rows; but it is challenged by the occasional demand to manifest interpersonal relations by means of spatial juxtaposition and a common tombstone. For the second group, the more tightly regulated of the two, the constitution of the individual is not so much an issue as is its representation, whether it be identical to the others or more autonomous. The institutional policy on the matter is that all individuals are the same, clearly observed in the consistent and repeated application of the same form of tombstone; some room for negotiation is left open nevertheless through the application of additional attributes, allowing elaboration of a basic form and introducing more personalised representations.

Moreover, given the strong connection, noted above, between cemetery as institution and cemetery as community, it is evident that intertwined in the aforementioned negotiations is also a discourse with the communal structure. That is, challenges mounted at the cemetery's policies and regulations also contest an institutionally structured concept of the community, or an aspect thereof. This is easily observed in the second, tightly regulated (military) group, where the elaboration of specific graves by means of additional attributes introduces variability into an otherwise homogeneous pattern, which consequently has the effect of undermining the unified and cohesive representation of the community produced by identical tombstones. Hence, the negotiation with institutional policy concerned with individual representation tends also to put in

question the uniform and egalitarian image of the community. In the (civil) cemeteries, in which personal expression and representation is less restricted, the situation is somewhat more complex. Essentially, the issue at hand is that of one's relationship to the community in which she or he is a member. Generally speaking, an individual that explicitly expresses the existence of interpersonal ties with another prioritises these personal relations over the association to the community. Thus, negotiation concerning the constitution of the individual also carries implications for the constitution of the community.

One must be cautious, however, in drawing the line between the negotiation at hand and the structure of the community; that there is such a line to be drawn is not doubted but it does not necessarily mean that it is a straightforward one. One approach to examine the relationship between the socially constituted individual and the structure of the community is through the patterns produced by tombstone morphology that were also said to mirror communal qualities. Upon a quick overview of the different cemeteries it is easily observed that no form of correspondence between frequency of associated graves and trends in tombstone morphology can be discerned and that they seem to follow autonomous paths, suggesting that their engagement is of a different quality. Indeed, while matters of affiliation are constituted through varying relationships among the graves, the form of the tombstone concerns issues of representation, anchored in their relationship with or to the living. Given therefore that the community is founded on the quality of the relationships among its individual constituents, it follows that differing forms of affiliation are directly engaged in the community's formation; trends in tombstone morphology, on the other hand, attest to matters of social cohesion only in a derivative and secondary manner, through the way a discourse is maintained regarding the form of representation. In other words, we may say that, while social affiliation is an agent directly influencing internal communal relations, trends in tombstone morphology are witnesses.

This, however, still constitutes an insufficient answer to the observed incompatibility of the patterns demonstrated by the two phenomena. It is necessary to consider the manner in which each of them offers access to community as a social unit. Beginning with the latter, the testimony of tombstone morphology represents the general frame of mind concerning the representation of the dead. That is, the persistence of a preferred form of representation or the rise of a focused discourse is indicative of concepts that are shared, dominated and contested across the community. Thus, matters of communal solidarity and cohesiveness are represented via the

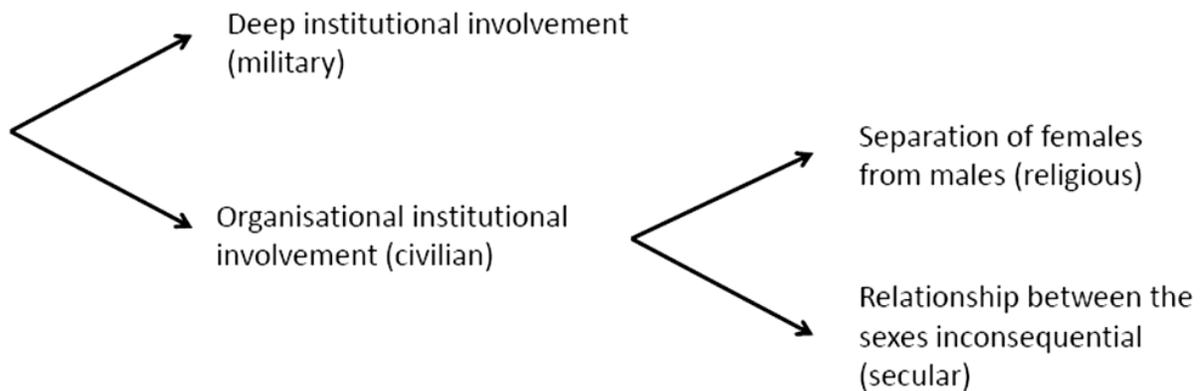
interplay of concepts and their hold on the social unit. Grave association, on the other hand, does not offer a view upon the communal structure, but constitutes an influence on it. Consequently, inferences about the communal, based upon the quality of such associations, are in fact anticipations of its impact. This would be successful, however, only insofar as the observed influence is the decisive one. But if other influences are involved to similar or greater extents, the result is likely to be very different. Considerable doubt is therefore cast on inferences made about communal solidarity drawn from the occurrence of associated graves. Given the lack of compatibility with the patterns of tombstone morphology, their implications for the community's structure are best regarded as real but not decisive. In the final analysis, it is becoming fairly plain that tombstone morphology and grave association operate on entirely different planes. The patterns produced by the first are more capable, albeit indirectly, of capturing the communal phenomenon as a whole, while those of the second represent one influencing factor among several that structure the community and therefore always constitute an insufficient criterion.

At this juncture, it can thus be stated that two basic categories, or types, of cemeteries are readily defined, corresponding to that of military and civilian: there are those marked by considerable institutional involvement that go so far as to prescribe the mode of representation at the personal level, and there are those that are much less involved and for the most part limit their preoccupation to organisational considerations. Consequently, the two categories differ immensely both in outward appearance and in internal dynamics. While the one has a well ordered and uniform appearance, the other is at least seemingly disordered and highly varied; while one is characterised by internal discourses, exchanges and negotiations of various intensities, the other is marked by limiting such expressions and engagements to their minimum. An interesting correspondence between the cemetery as a representation of a community on the one hand and as an institution on the other was discussed. It was observed that negotiations of institutional policies and regulations have an impact on communal matters as well, and that, while in one group it consists of an almost direct challenge to the strict homogeneous representation of the community, in the other it is much more subtle and of almost questionable effect.

Yet, there is still an institutional policy that was not considered; namely, the policy concerning the relationship of females and males. It was observed that the cemeteries differ in their attitude toward the juxtaposition of the sexes; some considered it a matter that demands

caution and care while others regarded it as inconsequential. It is interesting to note that the two military cemeteries, constituting the institutionally rigid category (Ben Tzion and Q. Sha'ul), are excluded, to a considerable extent, from this discussion due to their almost purely male population, rendering any policy on the matter obscure. The socially engaged civil cemeteries, on the other hand, are divided between the two opposed positions on the subject: (1) Trumpeldor, Netzah, Morasha and Vatiqim cemeteries consider the juxtaposition of members of the opposite sex problematic and consequently exercise control with the aim of minimising situations of unwelcome spatial proximity; and (2) The cemeteries of Yaqum and Ma'abarot regard the issue as inconsequential and therefore do not set limitations or make efforts at regulation. Once more, a correspondence is noted between these observations and distinctions noted in the introductory chapter (Ch. 14), this time pertaining to the distinction between religiously inclined and secular cemeteries.

Given that the more specific quality of policy concerning the juxtaposition of the sexes, it is probably best considered as secondary to the more wide-reaching policies. Thus, if we were to graphically represent the categorisation produced it would be as follows:



Closing a circle with the opening notes, one finds a high degree of correspondence between the four categories of cemeteries, initially employed for sampling purposes, and the distinctions that were eventually attained through detailed analysis of their material patterning. The only distinction that was not observed in the analysis of material patterning is that of the closed and open civilian cemeteries, which are ultimately grouped into one. But probably more important is the structure of relations between the cemeteries which, unlike their categorisation, was not

presumed in advance. It is fairly clear that the great opposition among the analysed cemeteries is that between the civilian and military cemeteries, between those in which the institutional policies go so far as to regulate processes at the personal level and those in which they remain at the more general organising realm. The attitude towards the sexes allows further distinction by token of its more specific concerns, thereby subdividing the civilian cemeteries into religiously minded and secular, the former regarding the relationship between the sexes with caution while the latter do not consider it of any consequence.

**Part III:**

**Between Past  
and Present**

## Ch. 24: Between Past and Present, Chalcolithic and Contemporary Cemeteries

...Cemeteries have always appealed to me. They are well kept, unequivocal, logical, masculine, alive. In the cemetery a person can gather his courage and reach decisions, only in cemeteries does life begin to have clear outlines – and I do not mean the plots of graves – and if you'd like, to have meaning.

(Günter Grass, *The Tin Drum*)<sup>1</sup>

Looking back on observations and analyses made throughout the foregoing chapters, it is clear that the meanings read into the material patterns of contemporary and Chalcolithic cemeteries were of entirely different orders and that the gap between them is formidable. The juxtaposition of the two cases at hand is, of course, by design, with the intention of prying into the gaps between them. This is based on an attempt of the present study to drive to its limit the claim that research focused on the qualitative appraisal of cultural (as well as more minute) gaps, a comparative approach rarely taken explicitly, is a legitimate and worthwhile endeavour.

It is of note, however, that the comparative approach in question was applied already in previous sections, albeit in more subtle form. Most notably are the discussions of the different types of Chalcolithic cemeteries and of the internal discourses within the contemporary ones. These discussions, just like the forthcoming one, were founded on articulation of the quality of the gaps between socio-cultural material phenomena. As such, one could claim that the point had already been made, as in the various examples given in chapter 2. The difference, however, resides in the quality of the relationships; while in all the above cases the gaps are among neighbouring or temporally succeeding cultural phenomena, those now at hand are sufficiently removed from each other to deny the existence of any contextual relationship. Yet, before plunging into a detailed analysis of the gap in question, a concise summary of what has already been said about Chalcolithic and contemporary cemeteries is likely to be useful.

The treatment of both Chalcolithic and contemporary contexts was preoccupied with distinguishing between different types of cemeteries. For those of the Chalcolithic period, this

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<sup>1</sup> Based upon the Hebrew translation by Haim Issac.

was achieved via the principles underlying their organisation, according to which five types were defined, each occupying a more or less distinct and continuous area:

- *Karstic-cave cemeteries* were encountered relatively inland, in the hill region of Samaria and the Upper Galilee. These are cemeteries that made use of large, complex and active cavities in the rock. They feature a consecutive order of spaces that is likely to have been harnessed for hierarchical ordering. The funerary assemblage of these cemeteries is relatively rich and conspicuous.
- *Single-cave cemeteries* are primarily distributed between Alexander and Qishon rivers, along the coastal and Samarian piedmont, although a few were found further inland as well. These consist of single and shallow cavities, either artificial or natural, depending on local geomorphologic circumstances. Elaborate ossuaries and other designated funerary vessels seem to be more closely associated with an earlier phase of the period, after which they stopped to be of use.
- *Multiple-cave cemeteries* are predominantly found between the Yarqon and Soreq rivers, along the coastal plain and Shefelah. These cemeteries consist of a cluster of single and shallow caves, which may be either artificial or natural depending on the local circumstances. The cemetery structure seems to be governed by an underlying tripartite structure, representing pure ends and the range in between, articulated by means of their funerary assemblages. The assemblages of the caves occupying the intermediary range strongly suggest intensive processes of intentional fragmentation and circulation, which went hand-in-hand with the diminishing occurrence of new ossuaries.
- *Mortuary-structure cemeteries* are known from the Northern Negev and the Southern Coastal plane. These cemeteries consist of a tight cluster of multiple structures that usually vary in size and sometimes in form. They seem to operate according to an open-ended syntactical logic that defines the means of expression (the funerary structures), but does not restrict their application, thus providing a platform for a relatively highly dynamic discourse.
- *Kissufim Road*. Although consisting of a single example, it is sufficiently different to be taken to represent a distinct type. It includes a collective burial and a sunken rectangular funerary structure surrounded by single burials. Given the relatively limited exposure and

that each of the elements occurs only once, it is very difficult to substantiate an interpretation.

Although the Chalcolithic period is acclaimed as marking the emergence of the first full-fledged cemeteries,<sup>2</sup> these continued to coexist alongside other, less formal, contexts of disposal. The cemeteries appear to have embodied a convergence of two distinct institutions: that of the funerary practice and that of the social ideal. It appears that it is the latter that is accountable for the greater part of diversity among the cemeteries, suggesting regional variations in social ideals.

Unlike those of the Chalcolithic period, the distinction among contemporary cemeteries was not found in their fundamental organising principles but in policies of management and regulations applied internally to the individual burials. This allowed cemeteries to be distinguished according to the degree of institutional control exerted: there are those in which institutional involvement ceases at the level of spatial organisation, and there are those in which it goes so far as to regulate the mode of individual expression (the tombstone). The latter corresponds with military cemeteries while the former with civilian ones. A further distinction among the civilian cemeteries could be observed in the presence or absence of a policy of keeping the sexes apart; those applying such a policy were identified with religiously inclined programmes while those that did not were principally secular.

Other than the regulating mechanisms governing their structure and organisation, it was observed that the cemeteries supported widely diverse and local discourses that unfold at the community level, mainly concerned with matters of representation and commemoration. Moreover, the institutional policy was often seen to be negotiated and challenged by these seemingly marginal discourses. This is most striking in military cemeteries, where the increasing application of additional attributes to the tombstone undermines the institutional insistence on homogeneity. Another striking case involves the juxtaposed graves of associated individuals of the opposite sex, challenging the institutional preference for keeping the sexes apart.

This said, we may now venture to determine the quality of the gap between Chalcolithic and contemporary cemeteries. What follows is an attempt to exhaust the data, information and understandings produced throughout the present dissertation in order to articulate and define the quality of the gap between contemporary and Chalcolithic cemeteries. Ultimately, it is expected that such an effort will allow us to pry deep into the cultural qualities of both phenomena and to

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<sup>2</sup> See, however, Ch. 1, footnote 1.

demonstrate that the approach in question is capable of subsuming gaps of any kind and breadth. In doing so, the following discussion will progress through a series of topics, pertaining to various characteristics and aspects of the cemeteries in question, ranging from their overall definition within their cultural milieu, through their internal structure and dynamics.

### **Definition and context**

The most crucial aspect of the present study is probably one that was determined in advance; namely the choice of cemeteries as the object of investigation. As such, all cases discussed in the foregoing pages could be readily defined as purposefully bounded places, carrying the specific function of housing the remains of the dead. The existence of such sites is in itself an important cultural phenomenon and by no means a universal one. Many cultures do not have designated burial grounds and in many others they are not readily distinguished from the space regularly occupied by the living. Thus, right from the start, an important common ground can be found between the Chalcolithic and contemporary cultures: both are cemetery-bearing cultures, suggesting a common concern with collective representation of the dead.

This is an important qualification; it sets limits to the gap in question as one spanning modes of collective representation and not the question of their very existence. Indeed, belonging to the same category, Chalcolithic and contemporary cemeteries are roughly equivalent and have a wide range of traits in common. Most noteworthy are the strict spatial distinction between the living and the dead and the production of a durable representation of the dead as a community. Yet, the cultural contexts in which these cemeteries operate are evidently very different, occupying divergent positions with reference to their overall funerary milieu. Whereas contemporary cemeteries constitute the final destination for (almost) all human remains in modern Israel, this seems unlikely to have been the case for the Chalcolithic. As discussed in Ch. 13, there is little evidence to suggest that the cemetery was the sole destination of human remains and a range of alternative destinations are likely to have been at the disposal of the Chalcolithic population. It is consequently reasonable to assume that the very institution (or category) of the cemetery has different roles or functions in the two contexts; or at least that different aspects were deemed important.

The gap here ranges between a contemporary cultural context, for which the cemetery is singular and all-inclusive, and an ancient context, for which it is a component. The contemporary

cemetery is singular and inclusive in the sense that it does not need to compete with other, coexisting alternatives and that ultimately the entire population is subsumed under it. In a sense, it is a conceptual monopoly: it is obvious, unquestioned and trivial. The mortuary procedures following a death will inevitably lead to the cemetery, consequently substantiating a straightforward relationship between the two. In a similar vein, an equivalence of death, the dead and the cemetery is suggested, as complementary aspects of the same unified phenomenon.

In the Chalcolithic context, on the other hand, the cemetery was found alongside other contexts of disposal, generating a negotiation concerned with the proper representation of the dead. Consequently, various features and traits are emphasised and rendered explicit. To be sure, these features, which are likely to include issues of representation and durability, are characteristic of contemporary cemeteries as well, but are dulled and blurred by triviality. Hence, the symbolic potency of the concept of ‘cemetery’ was considerably greater during the Chalcolithic period than it is today. It is worth recalling in this regard that the cemetery was a relatively new phenomenon in the Chalcolithic period. It is therefore probable that its coexistence with other modes of disposal is due to it being a nascent phenomenon, strongly engaged in a negotiation over its position within the social and physical landscape.

### **Analytical methods and the elemental constitutive units**

One often comes across assertions of how the questions asked and the methods applied predetermine the results attained by an analysis. While this is undoubtedly true, the present study stresses also the opposite. It is difficult to understate how different are the methods of analysis used for the Chalcolithic and contemporary cemeteries. While one is fairly rigid and quantitative (contemporary cemeteries) the other is mostly qualitative and only loosely defined (Chalcolithic cemeteries). Nevertheless, their goals were similar: to disclose the underlying logic governing the structure and organisation of the cemetery, to determine the main categories and concepts at play, to distinguish different discourses and determine how they unfold. The differences in method are therefore not due to variations in the questions asked, but stem from the necessity to accommodate to the particularities of the material record and its patterning. Thus, by a somewhat peculiar reversal of order, a consideration of the methods applied is likely to offer some insights into their objects of investigation.

As already mentioned, the most striking difference in method is that, while contemporary cemeteries were analysed quantitatively with strong emphasis on the production of frequency curves, the treatment of the Chalcolithic cemeteries was qualitative in nature, piecing information together in a much more context-specific fashion. While the line of interpretation for contemporary cemeteries was primarily anchored in reading diachronic frequency distributions as unfolding discourses and negotiations, interpretations of the Chalcolithic cemeteries relied heavily on the definition of discrete spatial units and deciphering the quality of their interrelationships. A range of circumstantial and technical reasons, such as the pronounced difference in chronological control and sampling strategies, can be cited to account for these divergences. Differences of this kind refer to matters of completeness and accuracy of the available data and consequently the interpretations drawn from it. Indeed, while the analysis of the Chalcolithic cemeteries can be said to be based upon a fairly complete but somewhat distorted corpus of data (relying on all published sites, but whose original condition was transformed by various agencies – site formation processes, natural and human agencies, professional limitations pertaining to methods and inclinations), the analysis of contemporary cemeteries consists of fairly accurate but incomplete data, drawing on carefully recorded samples.

Yet, the considerations from which these divergences rise and that are pragmatic and technical on the surface are in fact rooted in fundamental traits of the material cultures investigated. The use of sampling for the investigation of contemporary cemeteries is not only demanded by necessity of producing a manageable database but is also enabled by the consistent and invariable use of individual graves marked by tombstones. The contemporary cemeteries present themselves almost instantly as sites of fastidiously repeated acts of burial, producing the same patterns over and over again. Hence, sampling methods that assume that a portion can represent the whole are particularly appropriate. These same qualities are also highly favourable for quantitative analyses for, against the consistent background of single inhumations topped by tombstones, variation is readily defined and easily contained, allowing the relative frequencies of various traits to be recorded and analysed as part of a population.

In Chalcolithic contexts, on the other hand, the single burial constitutes a very elusive analytical unit. This is due to a wide range of factors, some of which are clearly cultural (e.g., various examples of collective burials where the remains were mixed together), others are

natural- and human-induced disturbances, and still others result from shortcomings in analysis and data available. Consequently, the single burial could not serve as the main focus of analysis. There are, however, additional, more contextual reasons for its inappropriateness. Unlike contemporary cemeteries, for which the burials populating them can readily be shown to constitute them as wholes, the relationship of burials to cemetery during the Chalcolithic period is often mitigated by intermediary structures that join varying numbers of individuals into subgroups. As a rule, all Chalcolithic cemeteries consist of such mitigating components,<sup>3</sup> each clearly circumscribed in space and containing the remains of multiple individuals along with further deposits. Hence, the elementary constitutive unit of the cemetery is the subgroup rather than the individual, for the latter does not stand on its own and is defined primarily as a member in a (sub-) group.

Thus, structurally speaking, the Chalcolithic cemeteries are more complex than the contemporary ones, producing three-tier hierarchies (burials → subgroups → cemetery) rather than two (burials → cemetery). This appears to suggest a slight difference in focus. While the contemporary cemeteries focus on the individual burials in straightforward manner, those of the Chalcolithic period do so only via the mediation of social and spatial units, to which they are assigned. Hence, for the latter, as systems or as symbols, the individual burials were secondary to the inclusive units under which they were subsumed. That is, the Chalcolithic cemetery appears to be focally concerned with the representation of social structures of larger scale, for which the interred individuals fulfil a subsidiary function.

This difference is of considerable importance. But it gains further weight when the point of view is turned around to consider the role of funerary practice and human remains within these sites. If, as suggested above, contemporary cemeteries are primarily concerned with the dead and their remains, while Chalcolithic ones are preoccupied with social structures produced (or represented) by them, it is fairly clear that the position of the funerary realm for these institutions is not a trivial matter. There is little doubt that the central pillar of contemporary cemeteries is constituted by the mortuary practices, the dead and their representation; the funerary practice and materiality is their *raison d'être*, their justification as well as purpose. These funerary features are by definition crucial for the Chalcolithic cemeteries as well. Indeed they provide justification

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<sup>3</sup> This is also true of the 'single-cave cemeteries,' although their caves are also the cemetery. Given the cultural milieu in which they operate, these cemeteries constitute a conflation of categories of sub-group and cemetery. It is upon this conflation that their assertion of exclusiveness is based.

for these sites and the ultimate foundation upon which they build; but given the apparent preoccupation with the definition and articulation of social structures, whether as an ideal or something negotiable, the funerary domain cannot be assumed to constitute also their purpose. Hence, unlike in contemporary contexts, cohesion and unity of means and purpose cannot be observed; the medium and the message are not two faces of the same coin, but distinct components in which funerary behaviour and materiality provide the vehicle for other concerns, namely social structure and relations.

Social structure and negotiation was thus a focal issue of the Chalcolithic cemeteries. That this is not the case for the contemporary ones, however, does not imply that they are devoid of such concerns; in fact, the emphasis on individual burials can be considered a social statement in itself. More accurately, it constitutes an a-social statement: by arranging the single graves in tightly regimented rows and plots, the cemetery minimises the possibility to spatially articulate relationships and associations and in many respects denies the existence of a social unit other than itself. It is, consequently, against the background of denied sociality that funerary practice, ritual and the dead gain their primacy. The difference between Chalcolithic and contemporary cemeteries is not therefore a matter of presence or absence of social concerns but of something more subtle and nuanced. This is eloquently demonstrated by the observation that, while the social dimension is institutionally denied by present-day cemeteries, discourses pertaining to social matters are spontaneously generated via the varying modes of representation of the individual dead.

These observations demand that some rethinking of the definition of cemetery be made. As it has been stated in different parts of the dissertation, a cemetery is broadly defined as an area set apart for purposes of burial. Insofar as the technicalities of the definition are concerned – the spatial distinctiveness and the systematic acts of burial – the definition is equally appropriate for both Chalcolithic and contemporary cases. Yet, it implies or assumes the primacy of burials. This, however, is only partially true for the Chalcolithic cemeteries, which are at least equally concerned with categorisation of subgroups and the articulation of their interrelationships. It is probable therefore that this definition would have felt out of place to Chalcolithic ears. The people of the Chalcolithic period, if I should venture a guess, are more likely to have defined a cemetery as a place in which the deceased is assigned her or his appropriate position in society and the world.

### **Inter-cemetery variability**

One does not need to look too hard in order to observe that the landscape produced by Chalcolithic cemeteries is much more diverse than that of the contemporary ones. Indeed, comparatively, the present-day funerary landscape is exceedingly homogeneous; every cemetery is a variation of the others, manifesting the same structure (single burials, neatly ordered in rows and plots, each topped by a tombstone) while the variations among them can be plotted in relative terms along a continuum, ranging from strict uniformity to considerable variability. Among the Chalcolithic cemeteries, on the other hand, at least five distinct types were observed. These, although often employing similar motifs, differ in kind, some concerned with exclusiveness while others with compatibility to a systemic concept, some imposing a predetermined structure while others are open-ended (see below).

The most straightforward inference to be drawn from these observations is that the social landscape of the Chalcolithic consists of multiple regional groups, each entertaining a distinct social ideal, while contemporary society is comparatively homogeneous, at least ideologically. Given, however, that Chalcolithic and contemporary cemeteries were shown in the previous section to differ in focus, this interpretation may be a little premature. In both contexts, the main source of variation originates primarily in the social realm rather than funerary conduct *per se*: representation of the individual grave in present-day cemeteries and community structure in the Chalcolithic ones. Yet, while the position occupied by matters of social relations and structure is central in the Chalcolithic cemeteries, in contemporary ones it is secondary and derivative. Consequently, that the differences are pronounced among the former and subtle among the latter can be expected. For, while the potential latitude available to social expression in contemporary funerary contexts is severely constrained by the prerequisites of mortuary practice, it is relatively free of limitations in the Chalcolithic contexts.

Moreover, it is rather interesting to note that in neither Chalcolithic nor contemporary cemeteries does the treatment of human remains appear to vary among the cemeteries. Although the details are fragmentary and the produced reconstructions sketchy, Chalcolithic handling of the corpse and human remains seems to be consistent across all cemeteries and even beyond, including various forms of manipulation and secondary deposition (see, Ch. 13). Granted that the treatment of the corpse nowadays is regulated by religious institutions, which carefully follow a specific sequence of actions, the same argument can be safely made for contemporary contexts

as well. It thus seems that Chalcolithic and contemporary mortuary contexts share another important characteristic in common. In both cases, the mortuary discourse, pertaining to the treatment of the dead, is inclusive, encompassing all cemeteries and communities, while the social discourse pertaining to matters of representation is local and differs to various extents among social groups.

Yet, concerning the structure of relationship between the two realms, the cultural contexts in question are diametrically opposed. In contemporary cemeteries, it is the pan-social funerary conduct that is re-enacted every time anew that has the upper hand and that sets the limits upon social expression. In Chalcolithic cemeteries, on the other hand, it is the other way around; social representation of structure or discourse is the primary constituent, into which funerary conduct is channelled. How should this be understood? It is a reasonable assumption to make that the ideas and practices that are more widespread and that transcend many local or particularistic phenomena are also those that are more deeply entrenched in consciousness and that are more reluctant to change. Accordingly, if, in a given case, as in contemporary cemeteries, an inclusive mode of behaviour has hold on more particular expressions, then the nature of relationship is one of institutional control. If, on the other hand, as in the case of Chalcolithic cemeteries, it is the other way around, then the nature of relationship is one of appropriation of the general by the particular.

It can thus be stated that, while in contemporary cemeteries funerary conduct dominates the local social discourse, in Chalcolithic cemeteries funerary conduct is appropriated by particularistic local concerns. Consequently, contemporary cemeteries are seen to have a homogenising influence, presenting all communities as roughly equivalent, while Chalcolithic cemeteries do the opposite, emphasising the differences and distinctions among communities. Indeed, by appropriating widely accepted and deep-rooted ideas, manifested in the mortuary practice, the Chalcolithic cemeteries become pertinent and powerful media for the reification of local group identities *vis á vis* others. Accordingly, the pronounced variability among Chalcolithic cemeteries may be part of a general discourse concerned with the definition and articulation of regional identities. The emergence of cemeteries as a widespread phenomenon during the Chalcolithic period may therefore be rooted in a growing concern to identify, distinguish and negotiate collective group identities.

### **Intra-cemetery discourse and regulation**

All cemeteries have a regulating mechanism of one kind or another that prescribes an order according to which the site operates and functions. As discussed above, an important hallmark of contemporary cemeteries is their focus on the individual burials, imposing a strict spatial pattern of organisation, onto which additional concerns are variably grafted, such as separation of the sexes and homogenisation of personal representations. Similar efforts to regulate the behaviour of individual burials can hardly be observed in Chalcolithic contexts. While this may be due to restrictions imposed by the quality of the material record, it is also due to the application of intermediary structures that shift the focus away from the single interment to more abstract and general issues. Hence, depending on the particular concerns of the cemetery in question, its regulations may be concerned with the production of sequential/hierarchical order (karstic cave cemeteries), the representation of a systemic order (multiple-cave cemeteries), the expression of exclusiveness and singularity (single-cave cemeteries) or the generation of syntactic principles (mortuary-structure cemeteries).

Given the centrality of regulating mechanism for the operation and maintenance of the cemeteries, it is reasonable to assume that spontaneous discourses and negotiations will occur in the margins that were left undefined by the prescribed order. Hence, in contemporary cemeteries, they are limited to particular aspects of the individual graves. In Chalcolithic contexts, due to the focus on more general issues, spontaneous discourse is able to pervade much broader realms; the range for expression surrounding the individual interment is likely to be much less restricted and the interrelationships among the inclusive or intermediary structures is often negotiable as well.

Beginning with the latter, it is worthwhile recalling that Chalcolithic cemeteries differed in the strictness of their structures and consequently in how much room was left for negotiation. Thus, single-cave cemeteries denied the possibility of a discourse by maintaining an isolated and singular status; multiple-cave cemeteries insisted only on the absolute position of the units representing ideal ends (represented by the rectangular stone basins and the burial jars), while the others were free to negotiate their relative position between them; and mortuary structure cemeteries left the ultimate pattern produced entirely open-ended. These cemeteries, moreover, differed in the media through which these discourses were generated, whether through the expressed form of the inclusive units (e.g., mortuary-structure cemeteries), through their spatial

ordering (e.g., karstic-cave cemeteries), or through their contents (e.g., multiple-cave cemeteries).

The 'choice' of medium through which the relationships and negotiations in question are articulated determines the position occupied by the single interment in the higher discourse of the intermediary and inclusive units. While the media of form and spatial order maintain a strict distinction between the inclusive structure and the particularities of the interments, thus guaranteeing their mutual autonomy, the articulation of relationships among these units via their contents constitutes a convergence of realms. That is, while in most Chalcolithic cemeteries discourses pertaining to its structure on the one hand and to the burials on the other operate on distinct levels, in some they are interdependent, implying that particular acts of interment may have direct repercussions over the cemetery's structure. By the same token, the intervention of institutional policy and regulations at the contingent level of the specific interments is more pronounced.

The most extreme form of institutional regulation of single burials has been observed among contemporary cemeteries, where there is no intermediary level to provide a buffer between the two. However, just as the enforcement of policy aims to control and regulate individual expression, so do these expressions have the capacity to challenge and subvert it. This is because an internal contradiction is inevitable when a contingent, dynamic and variable phenomenon is integrated into a system that claims to be timeless. Consequently, the relationship between the two levels is never tension-free. Indeed, inconsistencies between them have been readily observed, e.g., the erection of paired tombstones declaring interpersonal relationships when the expressed policy is an asocial one, the increased application of attributes to military graves challenging a uniform and homogeneous policy, the juxtaposition of the sexes where the guiding principle is to keep them apart.

Although other reasons cannot be ruled out, it seems that the failure to observe similar inconsistencies in Chalcolithic contexts is largely attributable to the intervention of intermediary structures. If institutional concerns of contemporary cemeteries are focused on the regulation and patterning of individual burials, then the introduction of intermediary structures, as in Chalcolithic cemeteries, will have the effect of shifting the emphasis towards more inclusive units and the interrelationships among them. As a result, they become preoccupied with more abstract representations and a distance is created between themselves and the concrete

manifestations of the dead, the function of which is marginalised. Accordingly, the institutional policy of Chalcolithic cemeteries is much less susceptible to the undermining influence of inconsistencies arising from particular interments while fewer demands are imposed on individual burials, the manner of their execution and specifics of arrangement. Thus, there is very little room for a direct negotiation between the level of the interments and that of institutional policy.

These things being said, we may now shift our focus to rest specifically on the nature of the lowest level of intra-cemetery discourse, namely that occurring among graves and interments. Given the obvious asymmetry in our understanding of the particularities of these discourses in Chalcolithic and contemporary contexts, there is little point in focusing on their contents. Instead the media and manners of expression seem to offer a pertinent vantage point from which to assess the gap between the two. In present-day contexts intra-cemetery discourses are primarily channelled through the tombstone. The material, the form and the various additional features applied to the tombstone converge to produce a representation of the individual buried beneath it and, in conjunction with others, it produces discourses and negotiations in which every tombstone represents a stand and an opinion. The tombstone also constitutes an enduring symbol of the dead, thereby preserving and maintaining the individual 'voice' and memory. As a result, developments and transformations in the discourses, embodied in the cemetery, always unfold through process of expansion as 'new voices' are continuously introduced.

In Chalcolithic cemeteries there are no tombstones and the individual is often indistinguishable. The primary medium through which the discourses unfold is therefore that of the designated receptacles and accompanying artefacts. Although ossuaries and other receptacles can occasionally be associated with particular individuals, presupposing a strict association of this kind across all Chalcolithic cemeteries and throughout the period is a rather dubious affair. First, such associations are rarely observed directly; second, given the likelihood that these receptacles were used in their complete form only during the earlier part of the period, their contents may have been replaced; and third, in the context of at least one cemetery type (multiple-cave), it has been demonstrated that they were systematically fragmented and circulated as part of dynamic processes of negotiation and definition. Thus, as a rule there is little reason to support a strict and consistent association of receptacle with a particular individual.

Moreover, given that the deposited human remains and artefacts were shunned in subterranean spaces or closed structures, they lacked an explicitness of demonstrative signalling

similar to that of the individual tombstone of contemporary cemeteries. Hence, it is only during the time of interment that an explicit association of artefacts with a particular individual or group of individuals was observed and expressed. After the event, the association dissolves, the newly introduced funerary gifts become integrated into the larger collective, as do the deceased themselves. If put in the terms of the previous section, it may be suggested that the association of designated receptacles and other artefacts with an individual was an aspect of the funerary practice; and just as the funerary practice is appropriated by the cemetery for other purposes, so are the artefacts and utensils that come with it. Thus, once the mortuary rites are over and the deceased is integrated into a representation of an ideal, the mortuary paraphernalia transform into potential means of expression at the disposal of this ideal.

Thus, unlike contemporary cemeteries where the discourse unfolds through the enduring representation of the tombstone, in Chalcolithic cemeteries it progresses through the punctual and short-term event of interment; while the ‘voice’ is always sounded in contemporary contexts, in Chalcolithic ones, it merges with all those that preceded it. From a slightly different angle, while the progression of discourse in contemporary cemeteries is essentially expansive and accumulative, in Chalcolithic cemeteries it is sequential. These qualities of the low-level discourse in Chalcolithic cemeteries suggest that, unlike the contemporary ones, it was not concerned with producing or preserving an enduring memory of the deceased.

## **Discussion**

The ultimate goal of the present chapter is to pry into the quality of the cultural gap between Chalcolithic and contemporary cemeteries. The foregoing sections treated a variety of aspects of these mortuary institutions, which provided the opportunity for several observations to be made.

The main points can be summarised as follows:

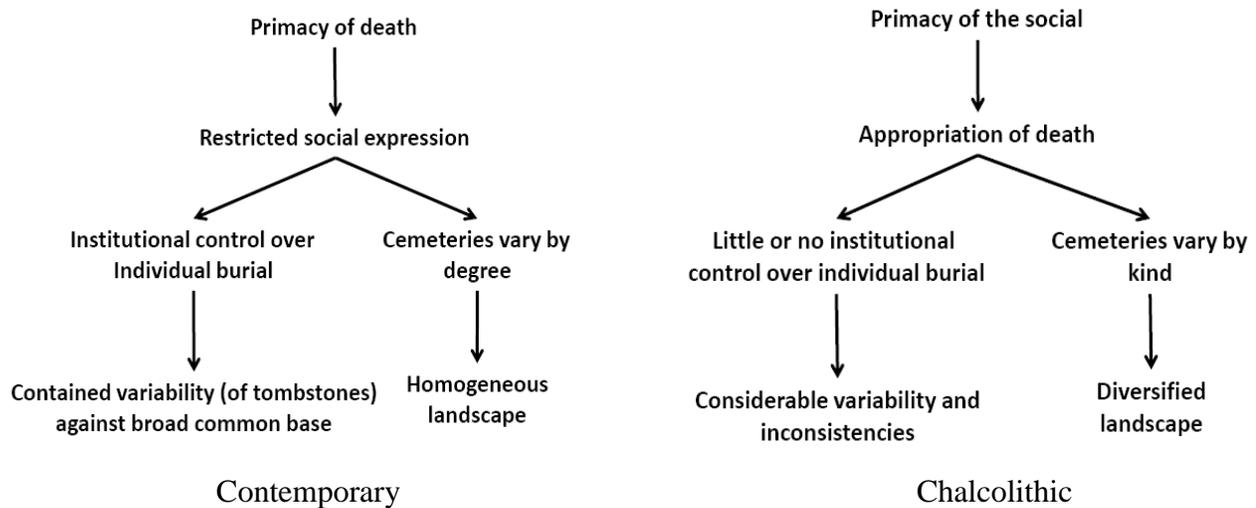
1. While the cemetery in contemporary contexts constitutes a conceptual monopoly, in Chalcolithic contexts it is one possibility for the interment of human remains among several;
2. While Chalcolithic cemeteries differ among themselves in kind, those of contemporary cemeteries differ by degree;
3. Chalcolithic cemeteries produce a diversified landscape, while the contemporary ones provide a homogenising influence;

4. Contemporary cemeteries are primarily concerned with death and the dead, which encapsulate both their justification and their purpose. Chalcolithic cemeteries are preoccupied with the representation of a social ideal, for which the dead are the medium;
5. The relationship between funerary conduct and social or interpersonal concerns in the two contexts is reversed: in contemporary contexts the funerary conduct overrides and limits social expression, while, in Chalcolithic contexts, funerary conduct is appropriated by social concerns;
6. Chalcolithic cemeteries provide a 'buffer' between institutional concerns and the individual interment, while in contemporary contexts institutional policy exerts considerable control over the single grave; and last,
7. While in contemporary cemeteries the tombstone provides the primary medium of discourse granting the individual grave an enduring 'voice' or symbol, in Chalcolithic cemeteries, it unfolds through the artefact, which is ephemerally related to an individual (or group of individuals) only during the time of interment.

Although presented here as distinct and brought up in the preceding sections from disparate aspects of the investigated subject matter, it is difficult to ignore the sense of interconnectedness among the abovementioned points. Indeed, derived as they are from the same opposition (of Chalcolithic and contemporary cemeteries), their intrinsic association can largely be assumed. We are now left with the task of exploring their interconnectedness and determining whether they can be tied together to produce a coherent picture.

A convenient point of departure is the observation that some of the points made are complementary aspects of the same thing. Thus, whether cemeteries vary by degree or by kind (no. 2) and whether they tend to exert homogenising or diversifying influence on the landscape (no. 3) stand, in the final analysis, for more or less the same thing; only phenomena that differ in kind can produce a truly varied landscape, and an altogether homogeneous landscape presupposes that variations are at most a matter of degree. Something similar can also be noted for points 4-6. Here the relationship between funerary and social concerns within the cemetery (no. 5) can be seen to be derivatives of whether it is the former or the latter that are regarded as primary (no. 4), as is the need to control the expressions of specific burials or interments, or lack thereof (no.6).

It is necessary to recall here that in both contemporary and Chalcolithic contexts funerary practice is fairly consistent and stable in space as well as in time, while social matters are of a more local and variable quality. With this in mind, one can see that the great majority of qualities noted above derive in one way or another from the ‘choice’ to give primacy either to death or to society, which determines whether the cemetery is marked by overriding institutional control of death or by the appropriation of death for more local social concerns. The resulting pattern can be summarised as follows:



The above diagrams are clearly mirror images of one another, epitomising the opposition of contemporary and Chalcolithic cemeteries. Reading them from the top down, one is taken from the abstract to the concrete, from an underlying concept to patterns that are observed in the material record. Every step constitutes a transformation, which is either an application or an implication of what comes before. The bifurcation in the second step into two parallel sequences corresponds to the distinction between intra-cemetery (left strand) and inter-cemetery (right strand) relationships. Ultimately, however, both lead up to concerns with uniformity and variance, and, although broken into separate sequences, they reach the same conclusion: the primacy of death leads to homogeneous and consistent patterns both within and without the cemetery, while the primacy of social factors leads to variable and inconsistent patterns. The gap between Chalcolithic and contemporary cemeteries can therefore be reduced further:

**Contemporary** : **Chalcolithic**  
Death : Society  
Homogeneity : Heterogeneity

As before, the opposition homogeneity / heterogeneity is a consequence and a derivative of the more fundamental opposition death / society, which in the final analysis can be considered as the bottom line of the present study: these are the twin oppositions that encapsulate the gap between present-day and Chalcolithic cemeteries. Yet, although focusing on difference, the above set of oppositions represents also a fundamental agreement between the two cultural contexts at hand. This has already been implied on several occasions, but can now be formulated in a more concise and accurate manner: in both Chalcolithic and contemporary contexts, death is homogeneous and society is heterogeneous. Thus, insofar as the institutions in question combine social and funerary aspects, a cemetery that privileges death enforces homogeneity upon other more heterogeneous phenomena and a cemetery that privileges social concerns enforces a heterogeneous pattern onto a homogeneous phenomenon.

This being said, covering the core of the issue, there are still two points, of those summarised above, that demand consideration. They refer to the status of the cemeteries as one form of funerary institution among others and to the representation of the individual burial within it (points 1 and 7, respectively). They occupy the margins of our main concern, the first positioned within a broader scale of analysis than the one demarcated for the present study and the second within a very fine scale of analysis to which the current research often had considerable difficulties to reach. I have little to add to what has already been said about the points themselves, but some further insights might be gained by considering the nature of their relationship to the understanding already achieved for the cemeteries proper.

There is a striking resemblance between the underlying opposition characterising Chalcolithic and contemporary cemeteries and the difference between the funerary milieus in which they operate. As already noted, the institution of the cemetery in modern Israel is practically a conceptual monopoly, whereas in Chalcolithic contexts it is but one among several possibilities with which to conclude the funerary rites. Hence, just as among the cemeteries themselves, the Chalcolithic patterns are heterogeneous whereas the contemporary ones are homogeneous. The implication of this seems to be that the politics of the cemetery extend also beyond it into the mortuary landscape at large. Perhaps the same localised and differentiating forces that produce

the variations among cemeteries against the homogenising funerary practice are also responsible for the variations among all funerary contexts. In a similar vein, it can also be hypothesised that the conceptual monopoly of contemporary cemeteries is grounded in the uniformity of funerary practice that contains other more diversifying forces. The extent to which such a hypothesis holds must remain open for the time being.

For the representation of the individual, on the other hand, such a homology cannot be readily suggested. The question of the memory of the individual or the representation of the grave seems to operate according to different principles, which are not directly related to the constitution of the cemetery as an institution. It is consequently not possible to go beyond basic distinctions that have already been observed. Namely, while the memory of the individual in contemporary cemeteries is preserved, made enduring and is marked in space, in the Chalcolithic contexts it is transient and bounded to an event, after which it merges into a collective. The relationship between these concerns and the cemetery are not straightforward and some degree of autonomy must be assumed. For contemporary cemeteries can retain their structure and principles without preserving the memory of the deceased; and the essentials of Chalcolithic cemeteries would not necessarily be affected by an enduring memory of the buried individual. These matters must be the subjects of an investigation in their own right.

### **Concluding notes**

In the quotation opening the present chapter, the *Tin Drum*'s protagonist expresses a fascination with cemeteries, describing how they offer life clearer outlines and meaning. This allusion to the cemetery is anchored in conceptions that consider the cemetery and death to be equivalent and opposed to life. Thus, by stating that cemeteries are “well kept, unequivocal, logical, masculine, alive,” it is insinuated that life is, in fact, poorly treated, equivocal, illogical, feminine and dead. Although expressed in the context of post-war Germany, the concepts underlying this literary use of the cemetery are in agreement with the form and function of contemporary cemeteries treated in the present study. Chalcolithic cemeteries, on the other hand, would fail to answer this literary purpose, mainly because equivalence does not seem to have existed between the cemetery and the concept of death.

What do the different positions allocated Death imply for the meaning of the concept itself? The point had already been made that contemporary cemeteries are representations of Death,

which is also their object; in the final analysis, they can be looked upon as ongoing projects objectifying Death, transforming it from an abstract concept into a physical reality, from a 'nothing' into a 'something.' Chalcolithic cemeteries, on the other hand, are representation of a social, or perhaps other, ideal, in which Death is a means of expression, not the object. Insofar as the structure of the cemeteries is indicative of the position the notion occupies in the conceptual scheme of a culture, it can be suggested that Chalcolithic culture did not share the contemporary society's preoccupation with Death. It had lesser importance for the latter and did not constitute a matter of such 'vital' concern.

Indeed, the idea that where Death is represented it should be overshadowed by other, more local or mundane matters is rather unthinkable in contemporary contexts, perhaps even on the border of heresy. There is hardly anything more overbearing in present-day society. This, of course, does not imply that Death was treated haphazardly by the people of the Chalcolithic period. It does suggest, however, that it was incorporated into their state of mind in such a way that it did not demand the reverence and awe it receives today. It must have been something more manageable and less domineering. Does this imply that Life was also held in lesser regard by the people of the Chalcolithic period? Or perhaps Life and Death did not constitute clear-cut oppositions; perhaps they lacked present-day absoluteness and were characterised by greater ambiguity and continuity? These and other questions exceed the limits of the present study by far. Although the foregoing lines induce them it is not possible to begin to answer these questions within the present framework. This must await other opportunities.

## Ch. 25: An Aftermath

As a theoretical exercise, the expressed objective of the present dissertation was to determine and hopefully demonstrate the potential of the comparative approach outlined in Ch. 2, the ultimate expression of which was supposed to have been offered by the previous chapter. In order to properly understand the contribution of this analysis it is probably best to work our way back from the final assertions to the observations made before. The central point of the previous chapter was presented in the form of twin diagrams, the skeletal structure of which is reproduced here in Fig. 25.1. They depict four levels of transformations that bifurcate midway into two strands, representing intra- ('C' and 'D') and inter-cemetery ('E' and 'F') relationships. The point of departure of this scheme is an abstract principle ('A'), for which every transformation constitutes an application, eventually resulting in the material patterns observed ('D' and 'F'). The analyses and interpretations that lead-up to this conclusion, however, started from the other end, i.e. from the concrete phenomena. It is therefore not surprising that the discussions of both Chalcolithic and contemporary cemeteries (chapters 13 and 23) were heavily preoccupied with matters related to the lower part of the diagram.

Yet, they were each concerned with another side of it. While the treatment of contemporary cemeteries centred on matters of intra-cemetery discourse, the discussion of Chalcolithic cemeteries was primarily concerned with inter-cemetery variability. That is, the former was primarily concerned with the left branch of the diagram ('C' and 'D') and the latter with the one on the right ('E' and 'F'; Fig. 25.1). This difference in focus followed for the particular qualities of each, which tended to favour the reading of one realm rather than the other. It was the confrontation of the two that demanded that the previously neglected aspect of each be considered. Thus the question of the quality

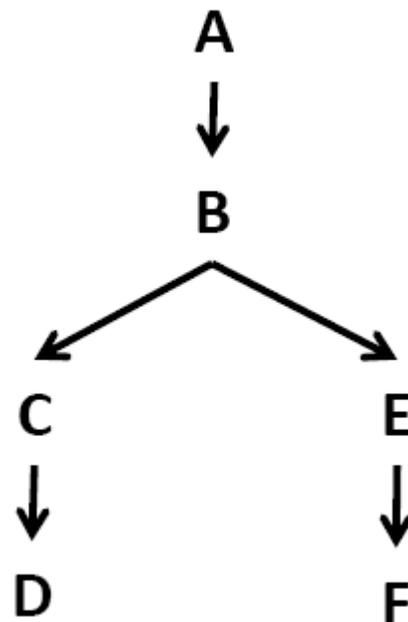


Fig. 25.1: Structure of relations among cemetery characteristics as presented in Ch. 24.

of contemporary inter-cemetery variation had to be reconsidered as well as the nature of internal discourse in Chalcolithic cemeteries. Moreover, setting them up as oppositions encouraged and supported an effort to bring elaborate discussions and characterisations to rest upon concise and focused formulations. Thus, the detailed and elaborate discussions of the variability among Chalcolithic cemeteries came to rest on the formulation that they vary by kind; and the analysis of contemporary intra-cemetery discourse came to rest on the institutional control of the individual burial.

Treating Chalcolithic and contemporary cemeteries as oppositions had therefore the effect of (1) drawing our attention to qualities of each that would have otherwise remained tacit and (2) forcing previous observations into a fine point. Such efforts to efficiently encapsulate a range of phenomena had the further implication of advancing abstraction and generalisation, thus driving the entire analysis towards the disclosure of an underlying principle. Although the discussion of the Chalcolithic cemeteries in Ch. 13 had already pushed to a considerable degree in this direction, noting that funerary practices were appropriated by particularistic social concerns ('B' in Fig. 25.1), it was by opposing them with the contemporary ones that drove the point all the way.

This being said, we may now turn to other appending matters that circle the main line of the present study. At least two of these have been raised in the introduction to the dissertation (Ch. 1), namely the relationship between the researcher and her or his object of research and the merits and limitations of the material record as a key for the understanding of cultural phenomena. To these I would like to add a third concern: the problem of scale of analysis. I shall begin with the latter.

### **The question of scale**

By design, the present study worked its way through varying scales of analysis, beginning with the small circle of the single cemetery and continuously increasing its circumference to subsume more phenomena and greater variability. Every increase in scale entailed consequently a decrease in attention to details and a growing leaning towards generalisation and abstraction; every such increase in scale achieved also, perhaps counter-intuitively, deeper insights into underlying and tacit aspects of the phenomena in question. Yet, what happens to the minute and often laboriously worked on details when we proceed to a higher scale?

Let us take for example the assertion that the multiple-cave cemeteries hosted processes of fragmentation and circulation. At the level of analysis of the single cemetery, close attention was given to the assemblage and its contexts of deposition, which allowed us to reach this conclusion (especially Ch. 6 and 7). Upon an increase of scale, where the focus shifted from the single cemetery to the qualities of the landscape produced by all Chalcolithic cemeteries, what was previously a conclusion was now a moment within a broader pattern; it ceased to be a final word and became a stepping stone towards a more general understanding: what idea does a given type of cemetery represent (Ch. 13)? Within a yet broader scale of analysis, which brought our attention to rest upon the quality of all Chalcolithic cemeteries as a category (as discovered in opposition to contemporary ones), this as well as other particularistic observations were largely imperceptible (Ch. 24). They became completely obscured within generalisations.

Large-scale discussions employ broad strokes that allow them easily to contain a wide range of specific occurrences. Such occurrences (or events, or patterns) have little importance in these high-flying realms other than representing particular cases for general principles. Thus every Chalcolithic cemetery can be shown to demonstrate the primacy of social concerns and every contemporary cemetery can be used as an example of institutional control of single burials. On the other hand, the increase in abstraction entails also reduction in substance and content; what is gained in depth is lost in texture. It seems that the structure of relations between large-scale observations and small-scale ones echoes those described in Ch.2. The larger the scale of analysis, the smaller and more fundamental the qualities it discovers, but the further they are removed from concrete reality.

### **The qualities of the material record**

In the introduction I have expressed a belief that the investigation of material patterning has an edge over other avenues for social and cultural analysis and that this edge is yet to be properly demonstrated or acknowledged. The present study was not designed, however, to answer this end and such a claim cannot be based on it. Nevertheless, the treatment of contemporary cemeteries was meant to offer an *archaeological* understanding of these institutions and, by doing so, to demonstrate that material culture analysis and investigation can be particularly revealing also for present-day contexts, for which other cultural sources are plentiful.

While I cannot claim the present findings to be innovative in an absolute way, I can genuinely say that a considerable part of the observations made for contemporary cemeteries was either new to me or has rendered things more explicit. For example, I was not aware of the complicated dynamics concerning the interrelationship among females and males. Also, the nature of intra-cemetery discourses was unexpected; the notion that funerary matters are central to the cemeteries' constitution was intuitively obvious to me, but that from this follows a considerable part of institutional control was much less so.

It of course cannot be denied that these insights may be equally accessible by other, historical and ethnographic, means as well. While this may indeed be at least partially the case, no other discipline will properly demonstrate how abstract principles, negotiations and discourses function through the culturally constituted material milieu. Even the disciplines of architecture and geography, which are explicitly material-oriented, provide a narrow approach compared to that of archaeology. The medium is definitely a considerable part of the message, and archaeology is the best equipped for the purpose.

Ultimately, therefore, the present research could, I believe, be taken to demonstrate that analysis of material culture can be highly insightful also in contexts that are marked by the abundance of other resources. Although discerning the manner in which archaeology differs from other social disciplines in terms of the understanding it produces is yet to be explicitly defined, there seems to be good reason to continue to retain the belief expressed in the introduction.

### **Subject and object**

Reflexivity and multi-vocality are themes often raised in the interpretation of the archaeological record. The need for fluid and flexible approaches stems, to a considerable degree, from the acknowledgement that social and cultural life and its multiple constituents are for the most part multi-faceted, equivocal, contingent and tacit; and that every understanding is considerably influenced (or biased) by the subjectivity of the onlooker (Hodder 1999; Polanyi 1958). There is, consequently, no single correct or proper meaning that ought to be assigned to a given cultural phenomenon, nor is there an analysis that can claim to be exhaustive; there is a need to allow for multiple opinions to be heard.

The proposition that by prying into cultural gaps access can be gained to important characteristics of each is in agreement with the abovementioned demands. For it achieves its goals by making use of contradictory points of view and it allows multiple and varying readings to be produced for each cultural phenomenon in accordance with the number and nature of the cultural phenomena with which it is opposed. The choice of a contemporary phenomenon against which to explore an ancient one had the intention of explicitly incorporating the present author's cultural background and point of view into the analysis, assuming that by striving to elucidate the gaps between them at least some of the implicit biases at work would be disclosed, thus also gaining access to underlying themes of the hermeneutics involved.

The greatest difficulty in this respect resides in all those 'choices' that have been unconsciously made even before the very first step was taken: all the presuppositions and assumptions that are so deeply entrenched in my being that they are practically imperceptible, such as the language and terminology I employ and concepts I cannot do without. A second obstacle is the choice of framework and fundamental questions asked. These too constitute choices that precede empirical research and as such they have considerable impact on the answers and interpretations given by the end of it. They differ, however, from the first group of choices in that they are (at least partially) consciously made.

A considerable number of factors can thus be seen to tie the two disparate objects of research together into the same frame of mind, hence limiting the range of differences and gaps to be exposed. Yet, the present study succeeded in at least one respect to expose and challenge an underlying presupposition, thus disclosing one of my assumptions as culturally biased. I am referring to the concept of cemetery as an institution focally concerned with the dead, a definition that is undeniably contemporary but which proved to be inappropriate for the Chalcolithic period. Consequently, my point of view was rendered relative and the gap between past and present, subject and object could be opened up.

Thus, it seems that more than shedding light on the hermeneutic process proper, the present study was more successful in putting the finger on a cultural bias involved in the interpretive dialectic. While the Chalcolithic conception of Death is yet to be understood, it is fairly safe to say that it differed from our own in several important ways: it was much less overbearing, it was not the focus of objectification and it appears to have presented much less concern to the Chalcolithic mind. Although the focus of the present research was limited to the Southern

Levant, this bias seems to be common to most Western societies. Risking-over generalisation, a manifestation of this bias can be seen in the choice of topics concerning mortuary phenomena in both anthropology and archaeology, which tend to show greater interest in funerary behaviour than in cemeteries and other socially structured institutions (noted in Ch. 3). This inclination is one leaning towards Death, in the contemporary sense of the term, as the opposition to life, thus rendering cemeteries and other such phenomena less interesting.

# **Appendices and References**

## **Appendix 1: Horvat Hor**

(Govrin 1987; Smith and Sabari 1995)

The cave of Horvat Hor is located on the southeastern slope of a hill at the southernmost extension of the Yatir ridge, penetrating the Beersheba valley from the north.

Three phases of use were discerned, all Chalcolithic. During the first the cave was used for dwelling purposes, ended following the caving in of the ceiling; the same is true also for the second phase although it was soon abandoned and was consequently filled with ash. In the final phase the cave was used for burial. A natural niche in the cave wall was separated by a stone wall built in front of it. It included a narrow opening with a column on each side of it, creating a narrow entrance hall leading into the enclosed space.

The remains of seven individuals were found in an advanced state of disarticulation, at least partially due to further collapse of the ceiling. Smith and Sabari (1995: 129) note that they were heaped together. All in all, six adults are represented: three females (one 25 and another 20 year old), one male, two of unknown sex and a four year old child. Three of the adults are estimated to have been 40-50 years old at death.

None of the skeletons recovered were complete. Only one skull was relatively intact, while the crania of the other individuals were represented solely by small fragments. On the other hand mandibles were more complete and included six partial specimens. The postcranial bones were distinctly under-represented comprised of five right and three left humeri, three right and two left ulnae, two right radii, two left femora, and one right and two left tibiae. To these fragments of the shoulder and hip girdle of three individuals, seven vertebrae, three right tali and metatarsals are accompanied.

The bias in bone representation, summarised in the table below, seems to be too great to be explained merely by damage caused by rock fall due to the collapse of the cave ceiling. In the first place, the discrepancy between cranium and mandible representation is telling. One cranium versus six mandibles seems to point towards an intentional manipulation of the bones, favouring the extraction of the cranium and the abandonment of the mandible. The under representation of postcranial bones in

general and the differentiation among the long bones in particular further emphasise this impression. Only a third of the long bones are represented, and also among these there appears to be a distinct bias toward the removal of the lower limbs.

	right		left		total				
	no.	% of 6	no.	% of 6	no.	% of 6			
humerus	5	83%	3	50%	8	67%	15	42%	upper limbs
ulna	3	50%	2	33%	5	42%			
radius	2	33%	0	0%	2	17%			
femur	0	0%	2	33%	2	17%	5	21%	lower limbs
tibia	1	17%	2	33%	3	25%			
total	11	37%	9	30%	20	33%			

These observations suggest that the burial structure of Horvat Hor was the focus of deposition and extraction of bones which could later be circulated among the living. Considering the wide spread practice of secondary burial in the Chalcolithic culture brings to the fore the likelihood of Horvat Hor representing a case of primary interment of the corpse for the removal of the flesh, which was followed by the extraction of a representative sample to be deposited elsewhere. And the presence of the one intact cranium may represent the last interment of a corpse in this structure, the bones of which were sealed below the collapse of the ceiling.

The closing off of the niche in the northern wall for the purpose of depositing the bodies is of great significance. First, the niche that was walled was one of the last locations in the cave which was still roofed. Second, in the constructed wall only a very narrow, 0.4 m. wide opening was left to enable access to the interior. Apparently this constitutes an attempt to tightly seal the room, the only opening of which could have easily been blocked, and may very well have been.

Moreover, the narrow entrance and low ceiling preclude the possibility of easy and direct movement in and out of the room. The opening is too narrow for one to go through facing forward. If a body was inserted, or bones removed at least two people were needed, one on each side of the opening. That is to say that great emphasis has been given to the crossing of the threshold whether it is the living, the corpse or the osseous remains.

## Appendix 2: Index of Netzah Cemetery

(Asso.=association; TS=tombstone; Can.=candle; Inst.=installation; B.=book; Veg.=vegetal; H.=hands; M.=menorah)

Location			Anth.		Temporal and structural properties					Attributes								Comments
Plot	Row	No.	Sex	Age	Year	Asso.	Asso. Type	TS type	Material	Can.	Inst.	Cha.	B.	Veg.	H.	M.	Star	
A	1	1	f	?	1965	single		5	cement								+	stone plaque
A	1	2	f	?	1965	single		1	cement									stone plaque
A	1	3	f	23	1964	single		1	cement	+	+							stone plaque
A	1	4	f	81	1964	single		1	cement	+	+							stone plaque
A	1	5	f	95	1965	single		1	cement	+								stone plaque
A	1	6	f	?	1966	single		1	limestone	+								
A	1	7	x	x	x	x	x	x	X									empty
A	1	8	m	64	1965	single		varia	limestone	+				+				irregular; cut tree trunk
A	1	9	m	60	1965	single		1	cement		+						+	stone plaque
A	1	10	m	68	1965	single		1	cement + limestone								+	upright stone
A	1	11	m	70	1967	pair		1	limestone	+			+					
A	1	12	f	74	1969	pair	B	1	limestone	+			+					
A	1	13	f	?	1969	pair		1	limestone	+								
A	1	14	m	72	1967	pair	B	1	limestone	+								
A	1	15	x	x	x	x	x	x	x									empty
A	1	16	f	89	1994	single		1	limestone									
A	1	17	m	55	1964	single		1	limestone									
A	1	18	m	23	2000	single		5	limestone					+				
A	1	19	m	22	2000	single		varia	granite									narrow column as standing stone + bronze plaque
A	1	20	m	57	2000	pair		varia	granite		+							irregular basalt stone in large flowerbed
A	1	21	x	x	x	pair	C	x	x									flowerbed
A	2	1	f	67	1967	single		1	limestone									
A	2	2	f	?	1964	single		1	cement + limestone	+								stone plaque
A	2	3	f	55	1963	single		1	granite + limestone	+			+					
A	2	4	f	74	1964	single		1	cement	+	+		+					stone plaque
A	2	5	f	?	1979	pair		1	limestone	+								black band
A	2	6	m	?	1964	pair	A	1	limestone	+								black band
A	2	7	m	97	1964	single		5	cement									stone plaque
A	2	8	m	58	1963	single		1	cement		+							stone plaque
A	2	9	m	60	1964	single		1	cement									stone plaque
A	2	10	f	?	2000	single		1	limestone	+								
A	2	11	f	42	1966	single		1	limestone									cement upright
A	2	12	f	73	1966	pair	C	4	cement	+							+	stone plaque
A	2	13	m	82	1966	pair		4	cement	+							+	stone plaque

Appendix 2: Index of Netzah Cemetery (cont.)

Location			Anth.		Temporal and structural properties					Attributes								Comments
Plot	Row	No.	Sex	Age	Year	Asso.	Asso. Type	TS type	Material	Can.	Inst.	Cha.	B.	Veg.	H.	M.	Star	
A	2	14	m	75	1965	pair		1	limestone	+	+		+				+	
A	2	15	f	77	1992	pair	B	1	limestone	+			+				+	
A	2	16	f	61	1966	pair		6	limestone		+							
A	2	17	m	83	1983	pair	B	6	limestone		+							
A	3	1	f	76	1970	single		1	cement			+						stone plaque
A	3	2	f	44	1963	single		varia	limestone	+	+			+				irregular; cut tree trunk
A	3	3	f	67	1963	single		1	cement + limestone		+							
A	3	4	f	54	1963	single		1	cement + limestone									upright stone
A	3	5	f	55	1963	single		1	limestone	+								
A	3	6	f	62	1964	single		1	cement + limestone	+								upright stone
A	3	7	f	71	1964	single		1	cement									stone plaque
A	3	8	m	?	1968	single		1	cement								+	stone plaque
A	3	9	m	78	1994	single		1	limestone									
A	3	10	f	88	1996	single		1	limestone	+		+					+	
A	3	11	m	58	1963	single		1	granite	+		+					+	
A	3	12	m	65	1963	single		1	cement		+							stone plaque
A	3	13	m	52	1964	single		1	limestone	+		+	+				+	
A	3	14	m	71	1966	pair		1	limestone	+	+	+	+					
A	3	15	f	83	1984	pair	B	1	limestone	+	+	+	+					
A	3	16	f	67	1981	single		1	limestone	+			+					black band
F	7	1	f	69	1963	single		1	limestone									
F	7	2	m	82	1972	single		1	limestone									
F	7	3	m	66	1955	single		1	cement	+							+	stone plaque
F	7	4	m	59	1950	single		5	cement								+	stone plaque
F	7	5	m	66	1944	single		5	cement									stone plaque
F	7	6	m	5	1956	single		1	cement + limestone									upright stone
F	7	7	m	19	1944	single		1	cement									stone plaque
F	7	8	m	?	1944	single		6	cement									
F	7	9	m	37	1955	single		4	cement + limestone	+							+	
F	7	10	m	63	1944	single		6	cement			+						stone plaque
F	7	11	x	x	x	x		x	X									empty plot
F	7	12	m	39	1942	single		5	limestone									
F	7	13	f	?	1974	single		1	cement + limestone									deviding wall to north; upright stone
F	7	14	m	43	1942	single		1	cement + limestone									upright stone

Appendix 2: Index of Netzah Cemetery (cont.)

Location			Anth.		Temporal and structural properties					Attributes								Comments
Plot	Row	No.	Sex	Age	Year	Asso.	Asso. Type	TS type	Material	Can.	Inst.	Cha.	B.	Veg.	H.	M.	Star	
F	7	15	m	55	1940	pair		varia	cement + limestone		+							large obelisk like column
F	7	16	f	57	1942	pair	B	varia	cement + limestone		+							large obelisk like column
F	7	17	m	58	1937	single		5	cement								+	stone plaque
F	7	18	m	?	1936	single		6	cement									stone plaque
F	7	19	m	?	1931	single		1	cement									stone plaque
F	7	20	m	85	1935	single		2	cement + limestone									stone plaque; stone base
F	7	21	m	66	1936	single		varia	limestone			+						fashioned like buliding blocks; base for chalice cut branch
F	7	22	m	32	1959	single		1	limestone	+		+		+	+			stone plaque; stone base
F	7	23	m	?	1937	single		3	cement + limestone									stone plaque
F	7	24	m	62	1941	single		1	cement									stone plaque
F	7	25	m	?	1942	single		1	cement								+	stone plaque
F	7	26	m	8	1954	single		5	limestone									
F	7	27	m	?	1955	single		5	cement									stone plaque
F	8	1	m	83	1980	pair		1	limestone									
F	8	2	f	79	1977	pair	B	1	limestone									
F	8	3	f	77	1958	single		1	cement + limestone									upright stone
F	8	4	m	84	1954	single		1	cement + limestone									upright stone
F	8	5	m	69	1954	single		1	cement + limestone									upright stone
F	8	6	m	43	1953	single		3	cement + limestone	+								upright stone
F	8	7	m	68	1953	single		5	cement				+				+	stone plaque
F	8	8	m	78	1952	single		1	limestone									
F	8	9	m	92	1951	single		5	cement									stone plaque
F	8	10	m	42	1950	single		3	cement									stone plaque
F	8	11	m	49	1949	single		1	cement + limestone									upright stone
F	8	12	m	78	1948	single		1	limestone									depiction of jug
F	8	13	m	?	1942	single		varia	cement			+						tall obelisk-like column
F	8	14	m	76	1940	single		2	cement + limestone								+	upright stone
F	8	15	m	83	1940	single		3	cement + limestone									cement upright
F	8	16	m	71	1940	single		1	cement + limestone									upright stone
F	8	17	m	76	1942	single		1	cement		+							stone plaque
F	8	18	m	85	1946	single		1	cement + limestone									stone upright
F	8	19	m	65	1946	single		1	limestone	+							+	

Appendix 2: Index of Netzah Cemetery (cont.)

Location			Anth.		Temporal and structural properties				Attributes								Comments	
Plot	Row	No.	Sex	Age	Year	Asso.	Type	TS type	Material	Can.	Inst.	Cha.	B.	Veg.	H.	M.		Star
F	8	20	m	82	1946	single		1	cement + limestone									stone upright
F	8	21	f	84	1950	single		1	cement + limestone									stone upright
F	8	22	f	21	1949	single		2	cement					+				cut branch; stone plaque
F	8	23	f	68	1949	single		1	cement									stone plaque
F	8	24	f	88	1965	single		1	limestone									black band
F	9	1	m	73	1959	pair		1	limestone									
F	9	2	f	81	1966	pair	B	1	limestone									
F	9	3	f	77	1958	single		1	cement									stone plaque
F	9	4	f	80	1959	single		1	cement + limestone									stone upright
F	9	5	f	92	1976	single		5	limestone									
F	9	6	m	71	1952	single		5	limestone									
F	9	7	m	77	1950	single		1	cement			+						stone plaque
F	9	8	m	74	1947	single		1	cement + limestone									stone upright
F	9	9	m	82	1947	single		6	cement									stone cover
F	9	10	m	57	1946	single		1	cement + limestone									stone upright
F	9	11	m	62	1945	single		1	cement + limestone									stone upright
F	9	12	m	88	1944	single		1	cement + limestone									stone upright
F	9	13	m	84	1944	single		2	cement + limestone									stone upright
F	9	14	f	89	1958	single		2	cement + limestone									stone upright
F	9	15	f	70	1932	single		5	limestone									replaced the old cement type 3 TS
F	9	16	f	68	1932	single		5	limestone									replaced the old cement type 3 TS
F	9	17	f	61	1941	single		5	limestone									replaced the old cement type 3 TS
F	9	18	f	?	1942	single		varia	other	+								closed structure - rabanit
F	9	19	f	?	1953	single		2	cement + limestone								+	upright stone
F	9	20	f	?	1947	single		3	cement + limestone									upright stone
F	9	21	f	?	1948	single		6	limestone									black band
F	9	22	f	75	1948	single		1	cement									stone plaque
F	9b	19	f	?	2009	single		2	limestone	+								out of row
F	10	1	m	83	1959	single		1	cement									stone plaque

Appendix 2: Index of Netzah Cemetery (cont.)

Location			Anth.		Temporal and structural properties				Attributes								Comments	
Plot	Row	No.	Sex	Age	Year	Asso.	Type	TS type	Material	Can.	Inst.	Cha.	B.	Veg.	H.	M.		Star
F	10	2	m	94	1963	single		1	cement + limestone	+								stone upright
F	10	3	f	81	1958	single		1	cement + limestone	+								stone upright
F	10	4	f	?	1958	single		1	cement + limestone	+								stone upright
F	10	5	f	50	1990	single		5	limestone									
F	10	6	f	?	1957	single		1	cement									stone plaque
F	10	7	f	?	1957	single		1	cement + limestone									stone upright
F	10	8	m	82	1969	single		1	cement + limestone									stone upright
F	10	9	m	?	1960	single		1	cement + limestone									stone upright
F	10	10	f	?	1954	single		1	cement + limestone									stone upright
F	10	11	f	78	1970	single		1	limestone									black band
F	10	12	f	90	1972	single		1	limestone									
F	10	13	m	89	1966	single		1	cement + limestone									stone upright
F	10	14	m	61	1954	single		2	cement + limestone									stone upright
F	10	15	m	79	1967	single		1	limestone									black band
F	10	16	m	95	2006	pair		1	limestone									black band
F	10	17	f	84	1997	pair	B	1	limestone									black band
F	10	18	f	?	1985	pair		1	limestone									
F	10	19	m	?	1975	pair	A	1	limestone									
F	10	20	m	75	1976	pair		1	limestone			+						black band
F	10	21	f	94	1999	pair	B	1	limestone									black band
F	10	22	x	x	x	x	x	x	x									empty plot
F	10	23	m	?	1951	single		2	cement + limestone	+								stone upright; at the foot of large burial structure
F	10	24	f	?	1954	single		2	cement + limestone	+								stone upright
F	10	25	x	x	x	x	x	x	X									empty plot
F	10	26	m	?	1953	single		2	cement + limestone									stone upright
F	10	27	m	?	1976	pair		1	limestone									
F	10	28	f	?	1961	pair	A	1	limestone									
F	10	29	x	x	x	x	x	x	x									empty plot
K	1	1	m	52	2007	single		6	limestone									
K	1	2	f	?	1974	single		1	limestone	+		+						black band
K	1	3	m	?	1984	single		1	limestone	+		+						black band
K	1	4	m	83	1962	single		1	limestone									
K	1	5	m	94	1976	single		1	limestone									

Appendix 2: Index of Netzah Cemetery (cont.)

Location			Anth.		Temporal and structural properties					Attributes								Comments	
Plot	Row	No.	Sex	Age	Year	Asso.	Asso. Type	TS type	Material	Can.	Inst.	Cha.	B.	Veg.	H.	M.	Star		
K	1	6	f	95	1976	single		1	limestone										
K	1	7	f	?	1971	single		1	limestone										
K	1	8	m	62	1999	single		1	limestone	+		+							
K	1	9	x	x	x	x	x	x	x										empty plot
K	1	10	x	x	x	x	x	x	x										empty plot
K	1	11	f	?	1964	pair		5	limestone										
K	1	12	m	?	1964	pair	A	5	limestone										
K	1	13	x	x	x	pair	x	x	x										frame only - empty
K	1	14	x	x	x	pair	x	x	x										frame only - empty
K	1	15	x	x	x	pair	x	x	x										frame only - empty
K	1	16	x	x	x	pair	x	x	x										frame only - empty
K	2	1	m	?	1969	pair		1	limestone										
K	2	2	f	?	1984	pair	B	1	limestone										
K	2	3	f	?	1996	single		1	limestone										
K	2	4	m	?	1995	single		1	limestone										
K	2	5	m	?	1971	single		1	limestone										
K	2	6	f	?	2004	single		1	limestone										
K	2	7	x	x	x	x	x	x	x										empty plot
K	2	8	f	?	1989	pair		1	limestone										
K	2	9	m	?	1981	pair	A	1	limestone										
K	2	10	m	77	1999	pair		1	limestone										black band
K	2	11	x	x	x	pair	B	1	limestone										black band
K	2	12	f	92	1993	pair		5	limestone										
K	2	13	m	82	1988	pair	A	5	limestone										
K	2	14	x	x	x	x	x	x	x										empty plot
K	2	15	m	70	1973	single		5	limestone										
K	2	16	x	x	x	pair		1	Turkish marble	+									black band
K	2	17	f	81	1996	pair	A	1	Turkish marble	+									black band
K	3	1	m	?	1962	single		1	cement + limestone										stone upright
K	3	2	f	?	1971	single		1	cement + limestone										stone upright
K	3	3	f	?	1979	pair		1	limestone										black band
K	3	4	m	82	1986	pair	C	1	limestone										black band
K	3	5	m	78	1989	single		1	limestone										black band
K	3	6	x	x	x	x	x	x	x										empty plot
K	3	7	f	83	2004	pair		1	Turkish marble			+							
K	3	8	m	94	2007	pair	B	1	Turkish marble			+							

Appendix 2: Index of Netzah Cemetery (cont.)

Location			Anth.		Temporal and structural properties					Attributes							Comments	
Plot	Row	No.	Sex	Age	Year	Asso.	Type	TS type	Material	Can.	Inst.	Cha.	B.	Veg.	H.	M.		Star
K	3	9	x	x	x	pair	x	x	X									frame only - empty
K	3	10	x	x	x	pair	x	x	X									frame only - empty
K	3	11	f	85	2002	pair		1	granite + Turkish marble			+						
K	3	12	m	85	2002	pair	A	1	granite + Turkish marble			+						
K	3	13	m	99	2003	pair		1	Turkish marble									black band
K	3	14	f	89	2001	pair	A	1	Turkish marble									black band
K	3	15	f	93	2009	pair		1	Turkish marble									
K	3	16	m	94	2003	pair	A	1	Turkish marble									

## Appendix 3: Index of Trumpeldor Cemetery

(Asso.=association; TS=tombstone; Can.=candle; Inst.=installation; B.=book; Veg.=vegetal; H.=hands; M.=menorah)

Location			Anth.		Structural properties					Attributes							Comments
Plot	Row	No.	Sex	Age	Year	Asso.	TS	Material	Can.	Inst.	Cha.	B.	Veg.	H.	Star		
A	1	1	F	90	1945	pair		1	cement								
A	1	2	M	73	1916	pair	A	1	cement								
A	1	3	M	?	1915	single		5	cement				+				stone cover
A	1	4	M	?	1915	single		5	cement								stone cover
A	1	5	M	?	1916	single		5	cement								stone plaque
A	1	6	M	?	1914	single		5	cement								stone plaque
A	1	7	M	77	1958	single		5	limestone								
A	1	8	M	?	1916	single		5	cement								stone cover; low TS
A	1	9	M	?	1917	single		5	cement								low TS
A	1	10	M	75	1964	single		5	limestone								
A	1	11	M	75	1917	single		5	cement								stone plaque
A	1	12	x	x	x	x		x	x	x	x	x	x		x		empty
A	1	13	M	52	1917	single		5	limestone								
A	1	14	M	61	1915	single		5	limestone								
A	1	15	x	x	x	x		x	x	x	x	x	x		x		empty
A	1	16	M	?	1915	single		5	cement								low TS
A	1	17	F	?	1967	single		5	limestone								
A	1	18	M	?	1915	single		5	cement								stone plaque
A	1	19	x	x	x	x		x	x	x	x	x	x		x		empty
A	1	20	M	73	1915	single		5	cement							+	low TS; stone plaque
A	1	21	M	?	1910	single		5	cement								low TS
A	1	22	M	?	?	single		5	cement + limestone								closely juxtapose to 1/21
A	1	23	M	86	1916	single		5	cement							+	low TS
A	1	24	x	x	x	x		x	x	x	x	x	x		x		empty
A	1	25	M	?	?	single		5	cement								low TS; stone plaque
A	1	26	M	?	1917	single		5	cement								low TS; stone plaque
A	1	27	M	?	1916	single		5	cement								stone plaque
A	1	28	M	73	1916	single		5	cement								stone plaque
A	1	29	M	?	1917	single		5	cement								
A	1	30	M	?	1918	single		5	cement								stone plaque
A	2	1	x	x	x	x		x	X	x	x	x	x		x		empty
A	2	2	M	50	1917	single		5	cement								low TS; stone plaque
A	2	3	M	?	1917	single		5	cement							+	stone plaque
A	2	4	?	?	?	single		5	cement + limestone								anonymous
A	2	5	M	60	1917	single		5	cement								stone plaque
A	2	6	M	70	1959	single		3	cement								stone plaque

Appendix 3: Index of Trumpeldor Cemetery (cont.)

Location			Anth.		Structural properties				Attributes							Comments	
Plot	Row	No.	Sex	Age	Year	Asso.	TS	Material	Can.	Inst.	Cha.	B.	Veg.	H.	Star		
						Type	Type										
A	2	7	M	?	1917	single		5 cement								+	stone plaque
A	2	8	M	7	1928	single		3 cement									small; stone plaque
A	2	9	M	?	1917	single		5 cement									stone plaque
A	2	10	M	65	1928	single		3 cement									stone plaque
A	2	11	M	?	?	single		5 cement									occupies 2 plots; stone plaque; low TS
A	2	12			?												
A	2	13	M	?	1917	collective		5 cement									stone plaque
A	2	14	?	?	?	collective		5 cement									no details; slightly raised
A	2	15	?	?	?	collective	B	5 cement									no details; slightly raised
A	2	16	M	?	1917	collective		5 cement					+				stone plaque
A	2	17	M	?	1917	single		5 cement									stone plaque
A	2	18	M	38	1917	single		5 cement									stone plaque
A	2	19	M	36	1917	single		5 cement								+	stone plaque
A	2	20	F	63	1957	collective	C	varia limestone				+					trapezoidal high TS
A	2	21	M	20	1916	collective		varia cement		+							pyramid shaped
A	2	22	F	66	1938	collective		1 limestone		+							installation in common
A	2	23	M	82	1947	collective		1 limestone		+							
A	2	24	M	55	1949	collective		varia limestone				+					same as 2/20
A	2	25	M	45	1924	single		5 cement								+	stone plaque
A	2	26	M	69	1924	single		5 limestone					+			+	
A	2	27	M	64	1924	single		varia other	+			+	+				memorial structure, gate, vaulted roof
A	2	28	M	76	1919	single		5 cement									stone plaque
A	2	29	M	70	1919	single		5 cement					+				stone plaque
A	2	30	M	52	1919	single		5 cement								+	stone plaque
B	9	1	F	?	1909	single		5 cement									stone plaque
B	9	2	M	?	1970	pair	B	5 limestone									
B	9	3	F	?	1974	pair		5 limestone									
B	9	4	F	?	1909	single		5 cement					+				
B	9	5	?	?	?	single		5 cement + limestone									anonymous; low TS
B	9	6	?	?	?	single		5 cement + limestone									anonymous; low TS
B	9	7	M	86	1984	single		5 cement + limestone	+			+					
B	9	8	M	?	1986	pair	A	1 limestone									
B	9	9	F	?	1993	pair		1 limestone									
B	9	10	F	?	?	single		5 cement								+	low TS; stone plaque

Appendix 3: Index of Trumpeldor Cemetery (cont.)

Location			Anth.		Structural properties				Attributes							Comments
Plot	Row	No.	Sex	Age	Year	Asso.	TS	Material	Can.	Inst.	Cha.	B.	Veg.	H.	Star	
B	9	11	F	69	1927	single	5	limestone					+		+	
B	9	12	F	?	1929	single	5	limestone								
B	9	13	F	?	1909	single	5	cement								low TS
B	9	14	F	65	1927	single	1	cement							+	low TS
B	9	15	F	73	1927	single	1	cement							+	
B	9	16	F	?	?	single	5	cement								stone plaque
B	9	17	?	?	?	single	5	cement								anonymous; stone plaque; low TS
B	9	18	F	85	1927	single	5	cement					+		+	
B	9	19	?	?	?	single	5	cement								anonymous; stone plaque
B	9	20	F	?	1927	single	6	cement								stone plaque
B	9	21	F	?	1910	single	5	cement								stone plaque
B	9	22	F	?	1927	single	2	limestone								low TS
B	9	23	F	?	1927	single	5	cement					+			stone plaque
B	9	24	F	?	?	single	5	cement								stone plaque
B	9	25	F	?	?	single	5	cement								no details
B	9	26	F	80	1927	single	5	cement								stone plaque
B	9	27	?	?	?	single	5	cement								anonymous; stone plaque; low TS
B	9	28	F	?	1927	single	3	cement								stone plaque
B	9	29	?	?	?	single	5	cement								anonymous; stone plaque; low TS
B	9	30	F	?	?	single	5	cement								stone plaque
B	10	1	?	?	?	single	5	cement								anonymous; stone plaque; low TS
B	10	2	M	?	1983	single	5	limestone								
B	10	3	?	?	?	single	5	cement								anonymous; stone plaque; low TS
B	10	4	F	83	1976	single	5	limestone								
B	10	5	F	?	?	single	5	cement							+	low TS; stone plaque
B	10	6	?	?	?	single	5	cement								no details; low TS
B	10	7	?	?	?	single	5	cement								anonymous; stone plaque; low TS
B	10	8	F	?	1984	single	5	limestone								
B	10	9	F	?	1967	single	5	limestone								
B	10	10	F	?	1910	single	5	cement								low TS; stone plaque

Appendix 3: Index of Trumpeldor Cemetery (cont.)

Location			Anth.		Structural properties				Attributes							Comments	
Plot	Row	No.	Sex	Age	Year	Asso.	TS	Material	Can.	Inst.	Cha.	B.	Veg.	H.	Star		
B	10	11	?	?	?	single	5	cement									anonymous; stone plaque; low TS
B	10	12	F	?	1911	single	1	cement									low TS; stone plaque
B	10	13	F	14	1913	single	5	limestone									
B	10	14	F	?	1910	single	5	cement									stone plaque
B	10	15	?	?	?	single	5	cement									anonymous; stone plaque; low TS
B	10	16	?	?	?	single	5	cement									anonymous; stone plaque; low TS
B	10	17	F	?	1911	single	5	cement									low TS; stone plaque
B	10	18	F	72	1927	single	5	cement									stone plaque
B	10	19	?	?	?	single	5	cement									anonymous; stone plaque; low TS
B	10	20	?	?	?	single	5	cement									anonymous; stone plaque; low TS
B	10	21	F	?	1913	single	5	cement					+			+	stone plaque
B	10	22	?	?	?	single	5	cement									anonymous; stone plaque; low TS
B	10	23	?	?	?	single	5	cement									anonymous; stone plaque; low TS
B	10	24	F	20	1928	single	3	cement									portrait? Stone plaque
B	10	25	?	?	?	single	5	cement									anonymous; stone plaque; low TS
B	10	26	?	?	?	Single	5	cement									anonymous; stone plaque; low TS
B	10	27	F	?	1916	single	5	cement									stone plaque
B	10	28	?	?	?	single	5	cement									anonymous; stone plaque; low TS
B	10	29	F	?	1915	single	5	cement									stone plaque
B	10	30	?	?	?	single	5	cement + limestone									anonymous; stone plaque; low TS
D- south	6	1	M	?	1931	single	3	cement									stone plaque
D- south	6	2	?	?	?	single	5	cement									no details; low TS
D- south	6	3	M	?	?	single	5	cement									stone plaque
D- south	6	4	M	25	1931	single	5	brick + limestone					+		+	+	

Appendix 3: Index of Trumpeldor Cemetery (cont.)

Location			Anth.		Structural properties				Attributes							Comments	
Plot	Row	No.	Sex	Age	Year	Asso.	TS	Material	Can.	Inst.	Cha.	B.	Veg.	H.	Star		
D-south	6	5	M	?	1931	single	5	brick + limestone					+		+		
D-south	6	6	M	91	1931	single	5	cement									stone plaque
D-south	6	7	?	?	?	single	5	cement									no details; low TS
D-south	6	8	M	69	1931	single	5	cement							+		stone plaque
D-south	6	9	M	?	1931	single	6	cement									low TS; stone plaque
D-south	6	10	M	?	1931	single	3	cement									stone plaque
D-south	6	11	M	62	1931	single	3	cement					+		+		stone plaque
D-south	6	12	M	74	1931	single	3	cement							+		stone plaque
D-south	6	13	M	?	1931	single	5	cement							+		stone plaque
D-south	6	14	M	60	1932	single	1	cement							+		stone plaque
D-south	6	15	M	66	1932	single	5	cement									top truncated diagonally; stone plaque
D-south	6	16	M	?	1932	single	5	limestone							+		stone plaque
D-south	6	17	M	?	1932	single	3	cement									
D-south	6	18	M	50	1932	single	2	cement + limestone									possibly renovated; vertical part stone
D-south	6	19	M	?	1932	single	5	limestone							+		
D-south	6	20	M	58	1932	single	varia	limestone									obelisk-like; large
D-south	6	21	M	34	1932	single	1	limestone									
D-south	6	22	M	55	1932	single	1	limestone									died in accident
D-south	6	23	M	19	1932	single	3	cement									portrait; stone plaque
D-south	6	24	M	59	1931	single	1	cement + limestone									possibly renovated; vertical part stone
D-south	6	25	M	?	1931	single	5	cement									low TS; stone plaque
D-south	6	26	M	47	1931	single	1	limestone		+							portrait; top slightly irregular
D-south	6	27	M	31	1931	single	3	cement							+		
D-south	6	28	M	17	1931	single	6	limestone		+			+				portrait; an elaborate form of type 6

Appendix 3: Index of Trumpeldor Cemetery (cont.)

Location			Anth.		Structural properties				Attributes							Comments	
Plot	Row	No.	Sex	Age	Year	Asso.	TS	Material	Can.	Inst.	Cha.	B.	Veg.	H.	Star		
D-south	6	29	M	?	1931	single	6	cement									low TS; stone plaque
D-south	6	30	M	32	1931	single	5	cement									stone plaque
D-south	7	1	?	?	?	single	5	cement									no details
D-south	7	2	M	5	1932	single	varia	cement									obelisk-like; top truncated diagonally
D-south	7	3	M	?	1932	single	5	limestone									portrait
D-south	7	4	M	35	?	single	5	cement + limestone					+	+	+		
D-south	7	5	M	?	1932	single	1	limestone									Portrait?
D-south	7	6	?	?	?	single	5	cement									no details; low TS
D-south	7	7	M	14	1932	single	5	cement									low TS
D-south	7	8	M	75	1932	single	5	cement					+		+		
D-south	7	9	M	73	1932	single	3	cement + limestone									renovation? vertical stone; rather large
D-south	7	10	M	36	1932	single	5	cement									stone plaque
D-south	7	11	M	55	1932	single	varia	cement								+	obelisk-like
D-south	7	12	M	92	1932	single	5	cement								+	stone plaque
D-south	7	13	M	70	1932	single	varia	cement + limestone									obelisk-like; cement platform
D-south	7	14	M	71	1931	single	3	cement									stone plaque
D-south	7	15	M	56	1931	single	varia	limestone									stepped top
D-south	7	16	M	52	1932	single	1	limestone									very large
D-south	7	17	M	72	?	single	5	cement									stone plaque
D-south	7	18	M	66	1932	single	5	cement								+	stone plaque
D-south	7	19	M	?	1932	single	3	cement + limestone									renovation? vertical stone
D-south	7	20	M	24	1932	single	3	cement									stone plaque
D-south	7	21	?	?	?	single	5	cement									no details
D-south	7	22	M	64	1932	single	3	cement								+	stone plaque
D-south	7	23	M	33	1931	single	varia	limestone		+							stepped top
D-south	7	24	M	17	1932	single	1	limestone									

Appendix 3: Index of Trumpeldor Cemetery (cont.)

Location			Anth.		Structural properties				Attributes							Comments	
Plot	Row	No.	Sex	Age	Year	Asso.	Asso. Type	TS Type	Material	Can.	Inst.	Cha.	B.	Veg.	H.		Star
D-south	7	25	?	?	?	single		5	cement								no details; a small installation (flower pot) rests on it but definitely does not belong to it
D-south	7	26	M	64	1931	single		1	cement + limestone								portrait; stone is vertical TS
D-south	7	27	M	32	1932	single		5	limestone								
D-south	7	28	M	?	1932	single		5	cement							+	stone plaque
D-south	7	29	M	?	1932	single		3	cement								stone plaque
D-south	7	30	M	27	1932	single		3	cement							+	stone plaque
D-centre	5	1	M	73	1931	pair	C	5	limestone								
D-centre	5	2	F	70	1933	pair		5	limestone								
D-centre	5	3	F	25	1931	single		3	cement								stone plaque
D-centre	5	4	F	19	1931	single		3	cement								portrait; stone plaque
D-centre	5	5	F	25	1931	single		5	cement								stone cover
D-centre	5	6	F	22	1931	single		1	cement + limestone							+	upright of stone
D-centre	5	7	F	58	1931	single		6	cement								stone plaque
D-centre	5	8	F	80	1931	single		5	cement							+	stone plaque
D-centre	5	9	?	?	?	single		5	cement								no details
D-centre	5	10	F	?	1930	single		3	cement								portrait
D-centre	5	11	F	30	1931	single		6	cement + limestone								the cushion is of cement
D-centre	5	12	F	38	1931	single		varia	cement								obelisk-like; portrait; stone plaque
D-centre	5	13	F	90	1931	single		3	cement								stone plaque
D-centre	5	14	F	?	1931	single		5	cement								low TS; stone plaque
D-centre	5	15	F	56	1931	single		3	cement								portrait?
D-centre	5	16	x	x	x	x		x	x	x	x	x	x	x	x	x	empty; tree
D-centre	5	17	F	54	1931	single		5	cement								low TS; stone plaque
D-centre	5	18	F	?	?	single		5	cement								low TS; stone plaque

Appendix 3: Index of Trumpeldor Cemetery (cont.)

Location			Anth.		Structural properties					Attributes							Comments	
Plot	Row	No.	Sex	Age	Year	Asso.	Asso. Type	TS Type	Material	Can.	Inst.	Cha.	B.	Veg.	H.	Star		
D-centre	5	19	F	?	1931	Single		3	cement								+	stone plaque
D-centre	5	20	F	67	1929	single		5	cement									stone plaque
D-centre	5	21	F	?	1929	single		3	cement									stone plaque
D-centre	5	22	F	68	1929	single		1	limestone									stone plaque
D-centre	5	23	F	?	1929	single		3	cement									stone plaque
D-centre	5	24	F	?	1929	single		3	cement									stone plaque
D-centre	5	25	F	?	?	pair	B	5	cement									stone plaque
D-centre	5	26	F	?	?	pair		5	cement									stone plaque
D-centre	5	27	F	35	1929	single		1	limestone									
D-centre	5	28	F	75	1929	single		1	cement + limestone									cement base
D-centre	5	29	F	64	1929	single		5	cement									stone plaque; sea shells decoration
D-centre	5	30	F	6	1929	single		varia	cement + limestone		+							upright stone irregular; base of cement
D-centre	4	1	F	55	1931	single		5	limestone									
D-centre	4	2	F	55	1931	single		5	limestone									
D-centre	4	3	F	?	1931	single		varia	cement									obelisk-like; stone plaque
D-centre	4	4	F	49	1931	single		2	cement					+				portrait; large; stone plaque
D-centre	4	5	F	?	1931	single		1	cement + limestone									only upright stone, cement base
D-centre	4	6	F	?	1931	single		5	limestone								+	disintegrated portrait
D-centre	4	7	F	?	1931	single		1	limestone								+	
D-centre	4	8	F	?	1931	single		5	cement									stone plaque
D-centre	4	9	F	70	1931	single		5	cement									stone plaque
D-centre	4	10	F	41	1931	single		3	cement								+	stone plaque
D-centre	4	11	F	?	1931	single		5	cement + limestone									cement base
D-centre	4	12	F	50	1931	single		5	cement					+			+	
D-centre	4	13	F	?	1931	single		3	Cement									stone plaque

Appendix 3: Index of Trumpeldor Cemetery (cont.)

Location			Anth.		Structural properties					Attributes							Comments
Plot	Row	No.	Sex	Age	Year	Asso.	Asso. Type	TS Type	Material	Can.	Inst.	Cha.	B.	Veg.	H.	Star	
D-centre	4	14	F	?	1931	single		2	Cement								stone plaque
D-centre	4	15	F	69	1931	single		1	cement + limestone								upright stone, cement base

## Appendix 4: Index of Morasha Cemetery

(Asso.=association; TS=tombstone; Can.=candle; Inst.=installation; B.=book; Veg.=vegetal; H.=hands; M.=menorah)

Location				Anth.		Temporal and structural properties					Attributes							Comments
Area	Plot	Row	No.	Sex	Age	Year	Asso.	TS	Material	Can.	Inst.	Cha.	B.	Veg.	H.	Star		
E	F	1	1	M	68	2006	pair		1	limestone	+						black band	
E	F	1	2	F	57	2002	pair	C	1	limestone	+						black band	
E	F	1	3	F	?	2001	pair		6	Turkish marble		+					black band	
E	F	1	4	x	x	x	pair		x	x							Empty plot	
E	F	1	5	x	x	x	x	x	x	x							Empty plot	
E	F	1	6	x	x	x	x	x	x	x							Empty plot	
E	F	1	7	F	?	2001	pair		6	Turkish marble		+	+				black band	
E	F	1	8	x	x	x	pair	C	x	x							Empty plot	
E	F	1	9	m	?	2001	single		5	limestone	+	+					relatively high; curved top	
E	F	1	10	x	x	x	x	x	x	X							Empty plot	
E	F	1	11	x	x	x	x	x	x	X							Empty plot	
E	F	1	12	x	x	x	pair		5	Turkish marble	+						Empty plot	
E	F	1	13	m	?	2001	pair	B	5	Turkish marble	+						black band	
E	F	1	14	m	61	2001	single		1	Turkish marble	+							
E	F	1	15	x	x	x	x	x	x	x							Empty plot	
E	F	1	16	x	x	x	pair		1	limestone							Empty plot	
E	F	1	17	m	71	2002	pair	A	1	limestone								
E	F	1	18	m	84	2002	single		varia	limestone							irregular limestone rock	
E	F	1	19	x	x	x	pair		x	X							Empty plot	
E	F	1	20	f	81	2002	pair	C	6	Turkish marble	+						black band	
E	F	1	21	f	54	2002	Single		1	Granite + Turkish marble	+							
E	F	1	22	f	90	2002	single		1	limestone	+							
E	F	1	23	x	x	x	x	x	x	X							bushes+benc h; empty	
E	F	1	24	x	x	x	x	x	x	X								
E	F	1	25	x	x	x	x	x	x	X								
E	F	2	1	m	79	2003	pair		5	limestone	+		+					
E	F	2	2	f	79	2007	pair	B	5	limestone	+		+					
E	F	2	3	f	84	2007	pair		1	limestone								
E	F	2	4	m	84	2002	pair	A	1	limestone								
E	F	2	5	m	54	2002	pair		2	Granite + limestone	+						granite(?) plaque	
E	F	2	6	x	x	x	pair	C	x	x							Empty plot	
E	F	2	7	x	x	x	pair		x	x							Empty plot	
E	F	2	8	m	57	2002	pair	C	6	limestone								

Appendix 4: Index of Morasha Cemetery (cont.)

Location				Anth.		Temporal and structural properties					Attributes							Comments
Area	Plot	Row	No.	Sex	Age	Year	Asso.	Asso. Type	TS Type	Material	Can.	Inst.	Cha.	B.	Veg.	H.	Star	
E	F	2	9	x	x	x	x	x	x	x								Empty plot
E	F	2	10	x	x	x	x	x	x	x								Empty plot
E	F	2	11	f	70	2002	pair		1	Turkish marble	+	+	+					black band
E	F	2	12	m	77	2007	pair	A	1	Turkish marble	+	+	+					black band
E	F	2	13	x	x	x	x	x	x	x								Empty plot
E	F	2	14	x	x	x	x	x	x	x								Empty plot
E	F	2	15	f	54	2002	pair		varia	granite + limestone								a bed of scoria upon which a white stone tablet is set
E	F	2	16	x	x	x	pair	B	varia	X								a bed of scoria; Empty plot
E	F	2	17	m	55	2002	single		6	limestone		+						black band
E	F	2	18	m	89	2002	pair	A	1	Turkish marble	+		+					black band
E	F	2	19	x	x	x	pair		1	Turkish marble	+		+					Empty plot
E	F	2	20	f	?	2002	single		1	limestone	+						+	
E	F	2	21	f	?	2002	single		5	limestone								
E	F	2	22	m	86	2002	single		1	limestone								
E	F	2	23	x	x	x	x	x	x	x								bush; Empty plot
E	F	2	24	m	87	2003	pair	A	1	Turkish marble								enclosed in bush; black band
E	F	2	25	x	x	x	pair		1	Turkish marble	+							
E	F	3	1	x	x	x	pair	C	x	x								plot marked by pebbles
E	F	3	2	x	x	x	pair		x	x								
E	F	3	3	m	73	2001	pair		varia	limestone		+						TS is composed of a large half disc
E	F	3	4	x	x	x	pair		x	x								Empty plot
E	F	3	5	f	65	2002	pair	A	1	limestone	+							
E	F	3	6	x	x	x	pair		1	limestone	+							Empty plot
E	F	3	7	m	85	2002	single		varia	granite + limestone	+							
E	F	3	8	x	x	x	x	x	x	x								Empty plot
E	F	3	9	f	?	2002	single		varia	granite	+							irregular
E	F	3	10	x	x	x	x	x	x	X								Empty plot
E	F	3	11	x	x	x	pair	B	6	limestone	+	+	+					Empty plot
E	F	3	12	m	68	2002	pair		6	limestone	+	+	+					

Appendix 4: Index of Morasha Cemetery (cont.)

Location				Anth.		Temporal and structural properties					Attributes						Comments	
Area	Plot	Row	No.	Sex	Age	Year	Asso.	Type	TS	Material	Can.	Inst.	Cha.	B.	Veg.	H.		Star
E	F	3	13	m	67	2002	single		1	Turkish marble	+							black band
E	F	3	14	x	x	x	x	x	x	x								Empty plot
E	F	3	15	x	x	x	x	x	x	x								Empty plot
E	F	3	16	m	?	2002	single		6	Turkish marble	+		+					black band
E	F	3	17	m	87	2002	single		6	limestone								
E	F	3	18	f	?	2002	single		6	Turkish marble	+		+					
E	F	3	19	x	x	x	pair	C	x	x								
E	F	3	20	m	65	2002	pair		varia	granite + limestone	+		+					irregular stone; black band
E	F	3	21	m	88	2002	pair	A	1	limestone	+	+						
E	F	3	22	f	82	2004	pair		1	limestone	+	+						
E	F	3	23	f	81	2005	single		6	limestone	+		+	+				couple?
E	F	3	24	m	72	2002	single		6	limestone	+		+	+				
E	F	3	25	x	x	x	x	x	x	X								Empty plot
E	F	3	26	f	58	2002	single		1	granite								granite?
B	C	4	1	f	87	1991	single		1	limestone	+							black band
B	C	4	2	f	?	1977	single		1	limestone	+							black band
B	C	4	3	m	?	2006	single		1	limestone	+							black band
B	C	4	4	m	53	1977	single		6	limestone	+							military
B	C	4	5	m	58	1977	pair	C	6	Turkish marble	+		+					picture; black band
B	C	4	6	f	77	2007	pair		6	Turkish marble	+		+					picture; black band
B	C	4	7	f	79	2004	pair	B	5	Turkish marble	+							
B	C	4	8	m	64	1977	pair		5	Turkish marble	+							
B	C	4	9	m	83	1977	single		1	limestone								pair; black band
B	C	4	10	f	84	1989	single		1	limestone								
B	C	4	11	f	93	1989	single		1	limestone	+							Pair
B	C	4	12	m	86	1977	single		1	limestone	+							
B	C	4	13	m	97	1977	single		1	limestone	+			+				
B	C	4	14	m	56	1977	pair	C	1	limestone	+							black band
B	C	4	15	f	61	1989	pair		1	limestone	+							black band
B	C	4	16	M	?	1984	single		1	limestone			+					a verticle stone on S side, 'hiding' it from 4/15
B	C	4	17	m	67	1977	single		1	limestone	+		+					black band
B	C	4	18	m	71	1977	pair	B	1	limestone								
B	C	4	19	f	76	1979	pair		1	limestone								
B	C	4	20	x	x	x	x	x	x	x								Empty plot

Appendix 4: Index of Morasha Cemetery (cont.)

Location				Anth.		Temporal and structural properties					Attributes							Comments
Area	Plot	Row	No.	Sex	Age	Year	Asso.	TS	Material	Can.	Inst.	Cha.	B.	Veg.	H.	Star		
B	C	4	21	m	74	1977	single		1	cement							+	stone plaque
B	C	4	22	m	?	1985	pair		5	limestone	+							
B	C	4	23	f	81	1977	pair	B	5	limestone	+							
B	C	4	24	f	71	1977	single		1	limestone								pair
B	C	4	25	m	88	1982	single		1	limestone								pair; slightly trapezoid
B	C	4	26	m	82	1977	single		1	limestone								
B	C	4	27	f	81	1977	single		1	limestone								
B	C	4	28	f	?	1977	single		1	granite + limestone								
B	C	4	29	f	87	1993	single		1	granite + limestone								end of row
B	C	5	1	m	?	1976	pair	B	1	limestone	+						+	
B	C	5	2	f	?	1981	pair		1	limestone	+							menorah
B	C	5	3	f	?	1976	single		5	limestone	+							
B	C	5	4	f	?	1976	single		1	limestone	+							menorah
B	C	5	5	f	?	1976	pair	A	1	limestone	+							
B	C	5	6	f	?	1980	pair		1	limestone	+							
B	C	5	7	f	?	2001	single		6	Turkish marble	+							black band
B	C	5	8	m	37	1976	single		6	granite + limestone	+						+	
B	C	5	9	m	52	1976	single		6	Turkish marble	+							black band
B	C	5	10	m	49	1977	pair	A	4	limestone	+		+	+			+	
B	C	5	11	x	x	x	pair		4	limestone	+		+				+	
B	C	5	12	f	63	1977	single		5	limestone	+							same family?
B	C	5	13	m	82	1977	single		5	limestone								
B	C	5	14	m	10	1994	single		1	limestone	+							
B	C	5	15	m	?	1988	single		1	limestone								trapezoid wider on top; pair?
B	C	5	16	f	?	1977	single		1	limestone								pair?
B	C	5	17	f	70	1991	single		6	Turkish marble	+							black band
B	C	5	18	f	77	1993	pair	A	1	granite + limestone	+			+				
B	C	5	19	m	63	1977	pair		1	granite + limestone	+			+				
B	C	5	20	m	?	1977	pair	A	1	limestone	+		+					
B	C	5	21	f	?	1987	pair		1	limestone	+		+					
B	C	5	22	f	?	1977	single		5	limestone	+							
B	C	5	23	f	63	1977	single		1	limestone	+		+					
B	C	5	24	f	?	1977	single		1	limestone	+							black band
B	C	5	25	f	82	1989	single		5	limestone	+							
B	C	5	26	f	?	1981	single		varia	limestone	+	+						top truncated diagonally; pair?
B	C	5	27	m	52	1977	single		varia	limestone	+							

Appendix 4: Index of Morasha Cemetery (cont.)

Location				Anth.		Temporal and structural properties					Attributes							Comments
Area	Plot	Row	No.	Sex	Age	Year	Asso.	Type	TS	Material	Can.	Inst.	Cha.	B.	Veg.	H.	Star	
B	C	5	28	m	?	1977	single		1	limestone	+		+					
B	C	5	29	m	60	1977	single		1	cement								stone plaque; end of row details not complete fence
A	A	8	1	m	?	?	single		1	limestone	+							stone plaque irregular: cut branch
A	A	8	2	m	40	1967	single		5	limestone								sold; empty plot
A	A	8	3	x	x	x	x	x	x	x								stone plaque
A	A	8	4	f	?	1967	single		5	cement			+					irregular: cut branch
A	A	8	5	f	22	1967	single		varia	limestone	+		+	+	+			Empty plot
A	A	8	6	x	x	x	x	x	x	X								
A	A	8	7	m	87	1989	pair	B	1	limestone	+	+	+					
A	A	8	8	f	59	1966	pair		1	limestone	+	+	+					
A	A	8	9	f	46	1966	single		varia	limestone					+			irregular: cut branch
A	A	8	10	f	92	1967	single		1	cement	+							stone plaque
A	A	8	11	f	?	1990	single		5	limestone	+							
A	A	8	12	f	?	1973	single		1	limestone			+					candle on post; black band
A	A	8	13	f	58	1966	single		6	Turkish marble	+							black band
A	A	8	14	f	28	1966	single		6	cement	+							stone plaque
A	A	8	15	f	70	1977	single		6	cement	+							couple; stone plaque
A	A	8	16	m	82	1972	single		6	Cement	+							stone plaque
A	A	8	17	m	95	1966	single		1	cement								
A	A	8	18	m	?	1972	pair	B	6	Turkish marble	+		+					
A	A	8	19	f	?	1990	pair		6	Turkish marble	+		+					
A	A	8	20	f	87	1990	single		6	Turkish marble	+			+				black band
A	A	8	21	f	?	2002	single		6	Turkish marble	+			+				
A	A	8	22	m	44	1994	single		varia	Granite + Turkish marble	+		+		+			irregular; cut branch
A	A	8	23	m	50	1994	single		6	Turkish marble	+		+					
A	A	8	24	m	62	1995	single		6	granite + Turkish marble	+			+				to the left an empty plot
A	A	8b	1	f	6	2006	single		5	limestone	+		+					
A	A	8b	2	f	0.4	1987	single		1	limestone								

Appendix 4: Index of Morasha Cemetery (cont.)

Location				Anth.		Temporal and structural properties					Attributes							Comments
Area	Plot	Row	No.	Sex	Age	Year	Asso.	TS	Material	Can.	Inst.	Cha.	B.	Veg.	H.	Star		
A	A	8b	3	m	0	1986	pair		5	cement							+	stone plaque
A	A	8b	4	f	0.5	1985	pair	B	5	cement							+	stone plaque
A	A	8b	5	f	0.3	1980	single		5	limestone								
A	A	8b	6	?	?	?	single		5	cement								
A	A	8b	7	?	?	?	single		5	cement								
A	A	8b	8	f	?	?	single		5	cement								
A	A	8b	9	f	0.2	1978	single		varia	granite + limestone								irregular
A	A	8b	10	f	0.6	1978	single		varia	limestone								curved TS; black band
A	A	8b	11	f	4	1977	single		1	limestone							+	black band
A	A	8b	12	f	2.5	1977	single		1	limestone							+	black band
A	A	8b	13	m	0.1	2002	single		5	granite								end of row
A	A	9	1	m	4	2004	single		1	limestone								candle on post
A	A	9	2	m	0.4	1990	single		varia	granite + limestone	+							irregular
A	A	9	3	?	?	?	single		varia	limestone								brick
A	A	9	4	?	?	?	single		varia	limestone								rough kurkar stone
A	A	9	5	f	11	1965	single		1	limestone	+							
A	A	9	6	f	8	1966	single		1	granite + limestone								
A	A	9	7	f	6	1962	single		1	Turkish marble								
A	A	9	8	f	0.1	1965	single		6	cement								stone plaque
A	A	9	9	f	2	1965	single		varia	limestone								diagonally truncated top
A	A	9	10	f	0.3	1965	single		5	limestone								
A	A	9	11	f	0.6	1965	single		1	limestone								
A	A	9	12	m	0.1	2002	single		1	limestone								corner
A	A	9	13	m	62	1967	single		1	limestone	+	+	+			+		'chipped' trapezoid wider on top
A	A	9	14	m	71	1967	single		1	cement	+					+		stone plaque
A	A	9	15	m	?	1967	single		1	cement								stone plaque
A	A	9	16	m	?	1972	single		1	limestone								candle on post; black band
A	A	9	17	m	80	1969	single		5	limestone	+							small pedestal; black band
A	A	9	18	m	52	1964	single		1	cement	+						+	white washed; stone plaque
A	A	9	19	m	57	1966	single		6	limestone	+							black band
A	A	9	20	m	?	1967	single		1	limestone							+	
A	A	9	21	m	72	1967	pair	B	1	limestone	+	+						

Appendix 4: Index of Morasha Cemetery (cont.)

Location				Anth.		Temporal and structural properties					Attributes							Comments
Area	Plot	Row	No.	Sex	Age	Year	Asso.	Type	TS Type	Material	Can.	Inst.	Cha.	B.	Veg.	H.	Star	
A	A	9	22	f	10 3	2002	Pair		1	limestone	+	+						
A	A	9	23	f	55	1972	single		1	limestone	+			+				black band
A	A	9	24	f	90	1977	single		1	limestone								black band
A	A	9	25	f	?	1992	single		5	Turkish marble	+							black band
A	A	9	26	f	?	?	single		5	limestone								only name
A	A	9	27	x	x	x	pair	B	5	Turkish marble	+							
A	A	9	28	m	78	1994	pair		5	Turkish marble	+						+	
A	A	10	1	m	0.2	1978	single		1	limestone				+				black band
A	A	10	2	m	?	1965	single		5	brick + limestone								
A	A	10	3	m	6	1974	single		5	limestone								fenced; black band
A	A	10	4	m	4	1973	single		4	limestone	+				+		+	a verticle stone on S side, 'hiding' it from 10/5
A	A	10	5	m	3	1972	single		5	limestone								
A	A	10	6	m	0.5	1972	single		5	limestone					+			
A	A	10	7	m	?	1979	single		varia	limestone								irregular natural limestone
A	A	10	8	m	12	1976	single		1	limestone	+							
A	A	10	9	m	6	1979	single		1	cement + limestone								stone vertical
A	A	10	10	f	86	1996	single		6	Turkish marble	+							
A	A	10	11	f	79	1968	single		1	Limestone		+						
A	A	10	12	x	x	x	x	x	x	X								Empty plot
A	A	10	13	f	70	1967	single		1	cement	+			+				stone plaque
A	A	10	14	f	75	1967	pair	A	1	limestone								
A	A	10	15	m	88	1984	pair		1	limestone	+							
A	A	10	16	m	?	1967	single		1	granite + limestone								candle set on post
A	A	10	17	m	62	1967	single		1	cement	+			+	+			stone plaque

## Appendix 5: Index of Shiqun Vatiqim Cemetery

(Asso.=association; TS=tombstone; Can.=candle; Inst.=installation; B.=book; Veg.=vegetal; H.=hands; M.=menorah)

Location			Anth.		Temporal and Structural properties					Attributes							Comments	
Plot	Row	No.	Sex	Age	Year	Asso.	TS	Type	Material	Can.	Ins.	Cha.	B.	Veg.	H.	M.		Star
G	1	1	x	x	x	x	x	x	x									empty plot
G	1	2	x	x	x	pair		5	Turkish marble	+								empty; black band
G	1	3	m	47	1966	pair	B	5	Turkish marble	+							+	black band
G	1	4	m	?	1966	single		3	limestone	+					+		+	
G	1	5	m	88	1965	single		6	limestone	+								+
G	1	6	m	?	1965	single		2	cement	+		+						stone plaque
G	1	7	m	?	1965	single		3	limestone	+								+
G	1	8	m	88	1965	single		1	limestone	+								+
G	1	9	m	?	1965	single		1	limestone	+								+
G	1	10	m	?	1965	single		5	limestone	+			+					+
G	1	11	m	54	1965	single		1	limestone	+								
G	1	12	m	90	1965	single		1	limestone	+								+
G	1	13	m	?	1965	single		1	limestone	+								
G	2	1	f	?	1999	single		1	Turkish marble	+							+	black band
G	2	2	f	?	2007	single		varia	Turkish marble	+								vertical stone on "post"; black band
G	2	3	f	?	1966	single		6	cement	+								stone plaque
G	2	4	f	68	1966	single		2	cement	+								stone plaque
G	2	5	f	95	1965	single		3	limestone	+								+
G	2	6	f	?	1965	single		2	cement	+		+						stone plaque
G	2	7	f	110	1965	single		3	cement	+						+		stone plaque
G	2	8	f	95	1965	single		1	limestone	+								+
G	2	9	f	?	1975	single		6	cement	+		+						
G	2	10	f	80	1965	single		6	Turkish marble	+								+
G	2	11	f	?	1965	single		2	cement + limestone	+								+
G	2	12	f	85	1965	single		6	cement + limestone	+								+
G	2	13	f	38	1965	single		2	cement + limestone	+								+
G	3	1	m	75	1999	single		6	Turkish marble	+		+	+					
G	3	2	m	62	1987	single		6	Turkish marble + limestone	+		+						black band
G	3	3	m	90	1965	single		5	Turkish marble	+								+
G	3	4	m	74	1966	single		6	limestone	+								
G	3	5	m	56	1965	single		1	limestone	+								+
G	3	6	m	101	1965	single		5	cement	+								stone plaque
G	3	7	m	74	1965	single		1	cement + limestone	+		+						upright part of stone

Appendix 5: Index of Shiqun vatiqim cemetery (cont.)

Location			Anth.		Temporal and Structural properties					Attributes							Comments								
Plot	Row	No.	Sex	Age	Year	Asso.	Type	Type	Material	Can.	Ins.	Cha.	B.	Veg.	H.	M.		Star							
G	3	8	m	?	1966	single		1	limestone	+								+							
G	3	9	m	68	1965	single		3	limestone	+									+						
G	3	10	m	?	1965	single		1	limestone	+															
G	3	11	m	?	1965	single		1	granite + limestone	+										+					
G	3	12	m	80	1965	single		2	cement + limestone												+				
G	3	13	m	?	1965	single		2	cement + limestone													+			
G	4	1	f	100	1998	single		5	Turkish marble	+		+													
G	4	2	f	?	1987	single		1	granite + Turkish marble + limestone	+															
G	4	3	f	?	1966	single		6	cement + limestone														+		
G	4	4	f	?	1966	single		5	limestone	+													+		
G	4	5	f	?	2004	single		5	limestone	+															
G	4	6	f	?	1966	single		6	limestone	+															
G	4	7	f	?	1966	single		5	limestone	+		+												+	
G	4	8	f	87	1966	single		1	granite + limestone	+															
G	4	9	f	56	1966	single		5	limestone	+		+													
G	4	10	f	?	1966	single		6	cement + granite	+														+	
G	4	11	f	80	1968	single		1	granite + limestone	+														+	
G	4	12	f	?	1966	single		6	limestone	+		+													
G	4	13	f	?	1965	single		5	limestone															+	
G	5	1	x	x	x	x	x	x	X																empty plot
G	5	2	m	?	1994	single		5	Turkish marble	+														+	
G	5	3	m	64	1967	single		4	limestone	+		+	+	+										+	
G	5	4	m	?	2000	single		1	limestone	+														+	
G	5	5	f	?	1994	single		1	limestone	+													+	+	
G	5	6	f	?	1996	single		1	cement	+														+	stone plaque
G	5	7	m	?	1969	single		1	cement	+														+	stone plaque
G	5	8	m	?	1966	single		3	limestone	+														+	
G	5	9	f	?	1965	single		3	limestone	+														+	
G	5	10	f	?	1965	pair		1	limestone					+											
G	5	11	m	87	1984	pair		B	1	limestone															
G	5	12	m	?	1968	pair		A	6	cement	+		+											+	stone plaque
G	5	13	f	?	1973	pair		A	6	cement	+		+											+	stone plaque
19	1	1	x	x	x	x	x	x	X																empty
19	1	2	m	79	2007	single		5	granite	+													+		

Appendix 5: Index of Shiqun vatiqim cemetery (cont.)

Location			Anth.		Temporal and Structural properties					Attributes							Comments	
Plot	Row	No.	Sex	Age	Year	Asso.	Type	Type	Material	Can.	Ins.	Cha.	B.	Veg.	H.	M.		Star
19	1	3	m	?	1994	single		1	Turkish marble	+							+	
19	1	4	m	65	1983	single		4	granite + limestone	+		+	+		+			
19	1	5	m	43	1983	single		1	granite + limestone	+		+	+				+	
19	1	6	x	x	x	x	x	x	x									empty plot
19	1	7	m	?	1987	single		1	limestone	+		+				+		
19	1	8	m	63	1983	single		1	limestone	+		+	+					
19	1	9	m	75	1983	single		6	limestone	+		+						
19	1	10	m	?	1983	single		5	limestone	+								
19	1	11	m	87	1983	single		1	limestone	+		+						
19	1	12	m	69	1983	single		1	limestone	+								+
19	1	13	m	72	1984	single		1	granite + limestone	+								+
19	1	14	m	78	1983	single		1	limestone	+		+						+
19	2	1	f	60	1995	single		varia	granite + limestone	+								standing stone set diagonally to axis of grave; truncated diagonally on top empty plot
19	2	2	x	x	x	x	x	x	X									empty plot
19	2	3	m	73	1994	single		varia	Turkish marble	+		+						truncated diagonally on to; black band
19	2	4	m	75	1983	pair		1	Turkish marble	+		+						+
19	2	5	f	82	1995	pair	A	1	Turkish marble	+								+
19	2	6	f	?	1986	single		4	limestone	+		+	+		+			
19	2	7	f	73	1988	single		6	limestone	+		+						
19	2	8	f	41	1988	single		1	limestone									+
19	2	9	m	75	1983	pair		1	limestone									+
19	2	10	f	72	1987	pair	A	1	limestone									+
19	2	11	f	92	2000	pair		1	granite + limestone	+						+		
19	2	12	m	80	1983	pair	A	1	granite + limestone	+								+
19	2	13	m	72	1983	single		1	limestone	+		+						
19	2	14	m	55	1983	single		1	limestone			+						
19	3	1	m	84	1996	single		5	limestone	+								
19	3	2	m	82	1995	single		1	granite + limestone	+		+	+					+
19	3	3	m	82	1995	single		1	limestone	+		+						+
19	3	4	m	?	1983	single		1	limestone			+						+
19	3	5	m	56	1983	single		4	granite + limestone	+								+
19	3	6	m	58	1983	single		1	limestone	+								+

Appendix 5: Index of Shiqun vatiqim cemetery (cont.)

Location			Anth.		Temporal and Structural properties					Attributes							Comments	
Plot	Row	No.	Sex	Age	Year	Asso.	Type	Type	Material	Can.	Ins.	Cha.	B.	Veg.	H.	M.		Star
19	3	7	m	87	1985	pair		1	granite + limestone	+		+						
19	3	8	f	90	1989	pair	A	1	granite + limestone	+		+						
19	3	9	f	67	1983	single		1	limestone	+		+				+		
19	3	10	f	?	1983	single		1	limestone	+						+		
19	3	11	x	x	x	x	x	x	X									empty plot
19	3	12	f	68	1983	single		1	limestone	+						+		
19	3	13	f	79	1985	pair		5	Turkish marble + limestone	+						+		
19	3	14	m	77	1983	pair	B	5	Turkish marble + limestone								+	
19	4	1	x	x	x	single		varia	granite									no details
19	4	2	m	96	2007	pair		1	Turkish marble	+							+	black band
19	4	3	f	73	1994	pair	A	1	Turkish marble	+							+	black band
19	4	4	f	?	1983	single		1	limestone	+								
19	4	5	f	?	1990	single		1	Turkish marble	+								black band
19	4	6	f	87	1984	single		varia	limestone	+		+				+		type 5 + attribute
19	4	7	m	61	1983	single		varia	granite + Turkish marble	+		+	+				+	standing stone set to length of grave
19	4	8	m	79	1983	single		1	granite + limestone	+							+	
19	4	9	m	?	2001	single		1	granite + limestone	+							+	
19	4	10	m	75	1983	single		5	Turkish marble	+							+	
19	4	11	m	82	1984	single		1	limestone	+							+	
19	4	12	m	76	1983	single		1	granite + limestone	+		+	+				+	
19	4	13	m	88	1988	single		5	limestone	+		+	+					picture; plaque
19	4	14	m	48	1984	single		4	limestone	+		+	+				+	
44	1	1	f	83	2004	single		6	Turkish marble	+		+					+	
44	1	2	m	78	1998	single		6	Turkish marble	+		+					+	
44	1	3	m	89	1998	single		1	limestone	+		+						
44	1	4	m	?	?	single		1	granite + Turkish marble	+		+						portrait
44	1	5	m	64	1998	single		1	granite + Turkish marble	+		+						portrait
44	1	6	m	52	1998	single		1	Turkish marble	+		+						black band
44	1	7	m	75	1998	single		1	granite	+							+	

Appendix 5: Index of Shiqun vatiqim cemetery (cont.)

Location			Anth.		Temporal and Structural properties					Attributes							Comments	
Plot	Row	No.	Sex	Age	Year	Asso.	Type	Type	Material	Can.	Ins.	Cha.	B.	Veg.	H.	M.		Star
44	1	8	m	25	1998	single		varia	Turkish marble	+		+		+				bird; black band
44	1	9	m	71	1998	single		1	Turkish marble	+		+						black band
44	1	10	m	68	1998	single		1	granite + Turkish marble	+		+						
44	1	11	m	26	1998	single		varia	granite	+		+						unworked standing stone (granite?)
44	1	12	x	x	x	x	x	x	X									empty plot
44	1	13	f	72	1998	single		1	granite + Turkish marble	+								
44	2	1	m	85	1998	single		2	Turkish marble									
44	2	2	m	84	1998	single		1	limestone	+		+						
44	2	3	m	76	1997	single		1	limestone	+		+						
44	2	4	m	83	1997	single		1	limestone	+		+						
44	2	5	m	70	1997	single		1	granite + Turkish marble	+		+		+				
44	2	6	m	89	1997	single		1	limestone	+		+						
44	2	7	m	71	1997	single		1	limestone	+		+						
44	2	8	m	89	1997	single		1	granite + Turkish marble	+		+						
44	2	9	m	83	1997	single		1	limestone	+		+						
44	2	10	m	58	1997	single		1	granite + Turkish marble	+		+						portrait
44	2	11	m	95	1997	single		varia	Turkish marble	+		+						diagonally truncated on top;
44	2	12	m	73	1997	pair		3	Turkish marble	+		+						black band
44	2	13	f	75	2001	pair	B	3	Turkish marble	+						+		black band
44	6	1	f	79	1997	single		5	limestone									
44	6	2	f	85	1997	single		varia	granite + Turkish marble	+		+						standing stone set diagonally to axis of grave
44	6	3	f	41	1997	single		1	Turkish marble	+		+						
44	6	4	f	?	1997	single		5	limestone									
44	6	5	f	77	1997	single		1	limestone	+		+						
44	6	6	f	91	1997	single		5	Turkish marble	+		+		+				
44	6	7	f	83	1997	single		1	limestone			+						
44	6	8	f	81	1997	single		5	Turkish marble	+								

Appendix 5: Index of Shiqun vatiqim cemetery (cont.)

Location			Anth.		Temporal and Structural properties					Attributes							Comments	
Plot	Row	No.	Sex	Age	Year	Asso.	Type	Type	Material	Can.	Ins.	Cha.	B.	Veg.	H.	M.		Star
44	6	9	f	62	1997	single		varia	Turkish marble	+		+		+				cut branch; portrait; black band
44	6	10	f	86	1997	single		1	Turkish marble	+		+						
44	6	11	f	?	1997	single		1	limestone	+		+						
44	6	12	f	79	1997	single		1	granite + Turkish marble	+		+				+		
44	6	13	x	x	x	x	x	x	X									empty plot
44	7	1	f	?	1997	single		4	granite + Turkish marble	+								black band
44	7	2	f	76	1997	single		5	limestone	+		+						
44	7	3	f	74	1997	single		1	Turkish marble	+		+						black band
44	7	4	f	80	1997	single		1	Turkish marble	+		+		+				black band
44	7	5	m	?	1997	single		5	limestone									
44	7	6	f	73	1997	single		varia	granite	+						+		diagonally truncated on top
44	7	7	f	91	1997	single		1	limestone	+								
44	7	8	f	71	1997	single		1	Turkish marble	+		+						black band
44	7	9	f	73	1997	single		1	granite + Turkish marble	+		+						
44	7	10	f	87	1997	single		1	Turkish marble	+		+						black band
44	7	11	f	95	1997	single		1	granite + limestone									
44	7	12	f	89	1997	single		1	Turkish marble + limestone	+		+						black band
44	7	13	f	67	1997	single		1	granite + Turkish marble	+		+						
2	1	1	f	?	1995	single		6	Turkish marble	+								
2	1	2	f	78	1977	single		1	limestone	+		+		+				
2	1	3	f	65	1973	single		1	limestone	+						+		
2	1	4	f	?	1981	single		6	cement			+						
2	1	5	f	?	1973	single		5	limestone	+		+				+		
2	1	6	f	?	1988	single		1	granite + limestone	+		+					+	large granite plaque
2	1	7	f	95	2007	single		5	granite + limestone									
2	1	8	f	53	1972	single		5	limestone	+			+			+		
2	1	9	f	85	1972	single		5	limestone	+		+					+	
2	1	10	f	66	1978	single		5	Turkish marble	+						+		

Appendix 5: Index of Shiqun vatiqim cemetery (cont.)

Location			Anth.		Temporal and Structural properties				Attributes							Comments		
Plot	Row	No.	Sex	Age	Year	Asso.	Type	Type	Material	Can.	Ins.	Cha.	B.	Veg.	H.		M.	Star
2	1	11	f	70	1972	single		4	limestone	+		+					+	
2	1	12	f	47	1972	single		4	limestone	+		+						+
2	1	13	f	?	1972	single		2	cement	+		+						white washed
2	1	14	f	75	1973	pair		varia	cement	+								+
2	1	15	m	76	1972	pair	B	varia	cement	+								+
2	2	1	m	77	2000	single		1	limestone	+			+					+
2	2	2	m	80	1983	single		1	granite + limestone	+		+						
2	2	3	m	55	1973	single		5	limestone	+	+	+	+					
2	2	4	m	120	1973	single		3	limestone	+		+						+
2	2	5	m	?	1973	single		5	granite	+								+
2	2	6	m	62	1972	single		5	Turkish marble	+		+						+
2	2	7	m	54	1972	single		5	limestone	+			+					
2	2	8	m	94	1989	pair		5	limestone									black band
2	2	9	f	78	1983	pair	B	5	limestone									black band
2	2	10	f	?	1995	single		1	limestone	+								
2	2	11	m	62	1972	single		1	limestone	+			+					+
2	2	12	m	66	1972	single		5	limestone	+								+
2	2	13	m	55	1972	single		varia	limestone	+		+	+					irregular form
2	2	14	m	?	1972	single		varia	granite + limestone	+			+	+				+
2	2	15	m	?	1972	single		2	cement									stone plaque; white washed
2	3	1	f	?	1994	single		1	limestone	+								
2	3	2	f	72	1981	single		5	limestone	+								+
2	3	3	f	79	1973	single		5	limestone	+		+						+
2	3	4	f	59	1973	single		6	limestone		+		+					
2	3	5	f	79	1973	single		1	granite + Turkish marble + limestone	+			+					+
2	3	6	f	69	1972	single		1	limestone			+	+					+
2	3	7	f	73	1972	single		5	limestone									+
2	3	8	f	63	1972	single		varia	granite	+		+						+
2	3	9	f	69	1972	single		5	limestone	+			+					+
2	3	10	f	80	1982	single		6	limestone		+							
2	3	11	f	88	2003	pair		3	limestone	+		+						+
2	3	12	m	58	1973	pair	A	3	limestone	+								+
2	3	13	m	72	1980	single		1	granite + limestone	+								+

Appendix 5: Index of Shiqun vatiqim cemetery (cont.)

Location			Anth.		Temporal and Structural properties					Attributes							Comments		
Plot	Row	No.	Sex	Age	Year	Asso.	Type	Type	Material	Can.	Ins.	Cha.	B.	Veg.	H.	M.		Star	
2	3	14	f	?	1972	single		1	granite + limestone	+							+		
2	3	15	f	?	1976	single		2	cement										stone plaque

## Appendix 6: Index of Ma'abarot Cemetery

(Asso.=association; TS=tombstone; Can.=candle; Inst.=installation; B.=book; Veg.=vegetal; H.=hands; M.=menorah)

Location			Anth.		Temporal and Structural properties				Attributes							Comments	
Plot	Row	No.	Sex	Age	Year	Asso.	TS	Material	Can.	Inst.	Cha.	B.	Veg.	H.	M.		Star
SE	1	1	m	89	1993	single		1 limestone									
SE	1	2	f	57	1966	single		1 varia limestone									column with plaque
SE	1	3	f	87	1973	single		1 limestone									plaque
SE	1	4	m	78	1965	single		1 limestone									
SE	1	5	m	86	1961	single		1 limestone									
SE	1	6	f	79	1959	single		1 Cement + limestone		+							stone upright
SE	1	7	f	83	1965	single		1 limestone									
SE	1	8	m	80	1951	single		1 Cement + limestone		+							stone upright
SE	1	9	f	84	1974	single		1 limestone									
SE	1	10	m	62	1949	single		1 Cement + limestone		+							stone upright
SE	1	11	m	65	1951	single		1 Cement + limestone		+							stone upright
SE	1	12	f	73	1954	single		1 Cement + limestone		+							stone upright
SE	1	13	f	80	1959	pair		1 Cement + limestone		+							stone upright; stone plaque
SE	1	14	m	81	1955	pair	A	1 Cement + limestone		+							stone upright; stone plaque
SE	1	15	f	66	1951	single		1 Cement + limestone		+							stone upright
SE	1	16	m	85	1966	pair		1 limestone									
SE	1	17	f	64	1950	pair	C	1 limestone									
SE	1	18	m	79	1944	single		3 limestone	+		+						
SE	1	19	m	76	1959	single		1 Cement + limestone			+						stone upright
SE	1	20	m	77	1953	single		1 Cement + limestone			+						stone upright
SE	1	21	m	81	1953	single		1 cement + limestone			+						stone upright
SE	1	22	f	82	1955	single		1 cement + limestone			+						stone upright
SE	1	23	f	75	1953	single		1 cement + limestone			+						stone upright
SE	1	24	m	88	1965	single		1 cement + limestone			+						stone upright
SE	1	25	m	57	1954	single		1 cement + limestone									stone upright
SE	1b	1	f	97	1980	single		3 limestone	+		+						half a row under #1
SE	1b	2	m	27	1953	single		1 cement + limestone			+						
SE	1b	3	m	65	1949	single		1 cement									stone plaque
SE	1b	4	m	60	1949	single		1 cement									stone plaque
SE	1b	5	f	55	1992	single		1 limestone									only standing stone
SE	2	1	f	86	1970	single		1 cement + limestone									
SE	2	2	m	78	1967	single		1 cement + limestone									

Appendix 6: Index of Ma'abarot cemetery (cont.)

Location			Anth.		Temporal and Structural properties				Attributes							Comments	
Plot	Row	No.	Sex	Age	Year	Asso.	TS	Material	Can.	Inst.	Cha.	B.	Veg.	H.	M.		Star
SE	2	3	m	71	1966	single	1	cement + limestone	+								stone upright
SE	2	4	m	87	1966	single	1	cement + limestone	+								stone upright
SE	2	5	f	87	1964	single	1	cement + limestone	+								stone upright
SE	2	6	f	78	1969	single	1	cement + limestone									
SE	2	7	m	78	1958	single	1	cement + limestone									
SE	2	8	m	93	?	single	1	cement + limestone								+	picture
SE	2	9	f	81	1955	single	1	cement + limestone	+						+		picture
SE	2	10	f	?	1955	single	1	cement									stone plaque
SE	2	11	m	71	1956	single	1	cement + limestone									stone upright
SE	2	12	f	74	1955	single	1	cement + limestone									stone upright
SE	2	13	f	67	1953	single	1	cement + limestone	+								stone upright
SE	2	14	f	69	1950	single	1	cement + limestone	+								stone upright
SE	2	15	m	79	1953	single	1	cement + limestone	+								stone upright
SE	2	16	f	?	1948	single	6	cement	+								
SE	2	17	m	48	1947	single	6	limestone									
SE	2	18	m	22	1946	single	1	limestone									
SE	2	19	f	24	1944	single	1	cement + limestone									
NW	2	1	f	90	1999	single	1	limestone									
NW	2	2	m	81	1987	single	1	limestone									
NW	2	3	m	76	1983	single	1	limestone									
NW	2	4	f	88	1995	single	1	limestone									
NW	2	5	m	76	1982	single	1	limestone									
NW	2	6	f	85	1991	single	1	limestone									
NW	2	7	f	87	1997	single	1	limestone									
NW	2	8	m	75	1981	single	1	cement									stone plaque
NW	2	9	m	81	2002	single	1	limestone			+						
NW	2	10	m	68	1980	single	1	cement	+		+						stone plaque
NW	2	11	f	85	1998	single	1	limestone			+						
NW	2	12	f	96	2007	single	1	limestone			+						
NW	2	13	m	72	1979	single	1	cement	+								stone plaque
NW	2	14	f	87	1995	single	1	limestone									
NW	2	15	m	56	1977	single	1	limestone									
NW	2	16	f	77	1999	single	1	limestone									
NW	2	17	f	87	2008	single	1	limestone									

Appendix 6: Index of Ma'abarot cemetery (cont.)

Location			Anth.		Temporal and Structural properties				Attributes							Comments		
Plot	Row	No.	Sex	Age	Year	Asso.	TS	Type	Material	Can.	Inst.	Cha.	B.	Veg.	H.		M.	Star
NW 2	18		x	x	x	x	x	x	x									empty space
NW 2	19		m	54	1977	single		1	limestone									
NW 2	20		f	90	2004	single		1	limestone	+								
NW 2	21		m	69	1976	single		1	cement	+								stone plaque
NW 2	22		f	81	2005	single		1	limestone									
NW 2	23		m	72	1995	single		1	limestone									
NW 2	24		f	72	1976	single		1	cement			+						stone plaque
NW 2	25		m	76	1977	single		1	cement + limestone									
NW 2	26		m	51	1975	single		1	cement	+								stone plaque
NW 2	27		x	x	x	x	x	x	x									tree
NW 2	28		m	56	1975	single		1	limestone			+						
NW 2	29		f	82	2007	single		1	limestone			+						
NW 2	30		f	29	1987	single		1	limestone			+						
NW 2b	1		m	92	2006	single		1	limestone									
NW 2b	2		x	x	x	x	x	x	x									empty space
NW 2b	3		m	76	2003	single		6	limestone			+						
NW 2b	4		m	71	2004	single		1	limestone									picture
NW 2b	5		x	x	x	x	x	x	x									empty space
NW 2b	6		m	89	2005	single		1	limestone									
NW 3	1		f	86	1986	single		1	limestone									
NW 3	2		f	87	2004	pair	A	1	limestone									
NW 3	3		m	70	1985	pair		1	limestone									
NW 3	4		f	70	1980	single		1	cement									stone plaque
NW 3	5		f	65	1977	single		1	cement									stone plaque
NW 3	6		m	79	2006	single		1	limestone									
NW 3	7		f	96	1994	single		1	limestone									
NW 3	8		m	77	1977	single		1	limestone									
NW 3	9		m	?	1976	pair	B	6	Turkish marble	+	+							
NW 3	10		f	?	1999	pair		6	Turkish marble	+	+							
NW 3	11		m	53	1975	single		1	cement + limestone			+						upright stone
NW 3	12		f	77	1981	single		1	cement			+						stone plaque
NW 3	13		m	80	1974	single		1	cement			+	+					stone plaque
NW 3	14		m	68	2003	single		1	limestone				+					
NW 3	15		f	86	1974	single		1	cement			+						stone plaque
NW 3	16		f	88	2007	single		1	limestone	+		+						
NW 3	17		f	94	1982	single		1	cement									stone plaque
NW 3	18		m	86	1974	single		1	cement				+					stone plaque
NW 3	19		f	88	1974	single		1	cement									stone plaque

Appendix 6: Index of Ma'abarot cemetery (cont.)

Location			Anth.		Temporal and Structural properties				Attributes							Comments		
Plot	Row	No.	Sex	Age	Year	Asso.	Type	TS Type	Material	Can.	Inst.	Cha.	B.	Veg.	H.		M.	Star
NW	3	20	f	86	1971	single		1	cement									stone plaque
NW	3	21	f	89	1971	single		1	cement + limestone									upright cement
NW	3	22	f	83	1970	single		1	cement									
NW	3	23	m	68	1969	single		1	cement									
NW	3	24	f	90	1967	single		1	cement									
NW	3	25	f	80	2002	single		1	limestone									
NW	3	26	m	80	2003	single		1	limestone									
NW	3	27	f	86	1969	single		1	cement				+					
NW	3	28	f	93	2000	single		1	limestone									
NE	1	1	m	67	1998	single		1	limestone				+					
NE	1	2	x	x	x	x	x	x	x									empty space
NE	1	3	m	92	1998	single		1	limestone				+					
NE	1	4	f	96	2004	single		1	limestone									
NE	1	5	m	53	1999	single		varia	limestone									partially worked limestone; plaque at foot of grave
NE	1	6	x	x	x	x	x	x	x									empty space
NE	1	7	f	86	2000	single		varia	limestone									type 5+partially worked limestone
NE	1	8	m	88	2002	single		varia	limestone									type 5+partially worked limestone
NE	1	9	m	38	2001	single		1	limestone				+					
NE	1	10	x	x	x	x	x	x	x									empty space
NE	1	11	x	x	x	x	x	x	x									empty space
NE	1	12	f	58	2003	single		1	limestone				+					
NE	2	1	m	71	1997	single		1	limestone				+					
NE	2	2	m	44	2000	single		varia	limestone				+					partially worked limestone
NE	2	3	x	x	x	x	x	x	x									empty space
NE	2	4	m	80	1997	single		1	limestone				+					
NE	2	5	x	x	x	x	x	x	x									empty space
NE	2	6	m	56	2006	single		1	limestone				+					
NE	2	7	m	30	1997	single		1	limestone				+					
NE	2	8	x	x	x	x	x	x	x									empty space
NE	2	9	m	85	1998	single		1	limestone				+					
NE	2	10	x	x	x	x	x	x	x									empty space
NE	2	11	f	70	1998	single		1	limestone									
NE	2	12	m	85	1998	single		1	limestone				+					
NE	2	13	f	91	2004	single		1	limestone				+					
NE	2	14	m	74	1998	single		1	limestone									
NE	2	15	x	x	x	x	x	x	x									
NE	2	16	f	53	2002	single		varia	limestone									partially worked limestone
NE	2	17	x	x	x	x	x	x	x									empty space

Appendix 6: Index of Ma'abarot cemetery (cont.)

Location			Anth.		Temporal and Structural properties				Attributes							Comments		
Plot	Row	No.	Sex	Age	Year	Asso.	Type	TS Type	Material	Can.	Inst.	Cha.	B.	Veg.	H.		M.	Star
NE	2	18	f	46	2008	single		5	ceramic + limestone			+		+				very colourful pattern
NE	3	1	m	66	1996	single		1	limestone									
NE	3	2	f	72	1995	single		1	limestone									
NE	3	3	x	x	x	x	x	x	x									empty space
NE	3	4	m	50	2002	single		1	limestone									
NE	3	5	m	88	1995	single		1	limestone			+						
NE	3	6	f	83	1995	single		1	limestone			+						
NE	3	7	m	87	1997	single		1	limestone									
NE	3	8	f	85	1996	single		1	limestone									
NE	3	9	f	91	1996	single		1	limestone									
NE	3	10	f	90	1999	single		1	limestone									
NE	3	11	x	x	x	x	x	x	x									empty space
NE	3	12	m	84	1996	single		1	limestone									
NE	3	13	x	x	x	x	x	x	x									empty space
NE	3	14	m	71	1996	single		1	limestone			+						
NE	3	15	x	x	x	x	x	x	x									empty space
NE	3	16	f	86	1997	single		1	limestone			+						
NE	3	17	m	7	1996	single		1	limestone			+						
NE	3	18	f	52	1996	single		3	limestone									
NE	3	19	x	x	x	x	x	x	x									
NE	3	20	m	72	1997	single		1	limestone			+						

## Appendix 7: Index of Yaquum Cemetery

(Asso.=association; TS=tombstone; Can.=candle; Inst.=installation; B.=book; Veg.=vegetal; H.=hands; M.=menorah)

Location			Anth.		Temporal and structural properties					Attributes							Comments	
plot	Row	No.	Sex	Age	Year	Asso.	TS	Material	Can.	Inst.	Cha.	B.	Veg.	H.	M.	Star		
NW	1	1	m	30	1949	single		5	limestone									
NW	1	2	f	76	1981	single		5	limestone									
NW	1	3	f	74	1981	single		5	limestone									
NW	1	4	f	57	1982	single		5	limestone									
NW	1	5	f	88	1982	single		5	limestone									
NW	1	6	f	84	1982	single		5	limestone									
NW	1	7	m	89	1982	single		5	limestone								+	
NW	1	8	f	73	1983	single		5	limestone									
NW	1	9	m	81	1991	single		5	limestone									
NW	1	10	m	62	1986	single		5	limestone									
NW	1	11	m	84	1987	single		6	limestone									
NW	1	12	m	54	1974	single		5	limestone									
NW	1	13	x	x	x	x		x	x									empty
NW	1	14	m	48	1972	single		6	limestone									
NW	1	15	f	44	1963	single		6	granite								+	
SW	1	16	f	78	2000	single		5	limestone									
SW	1	17	m	62	1981	single		5	limestone									
SW	1	18	f	47	1966	single		5	limestone								+	
SW	1	19	f	50	1972	single		5	limestone								+	
SW	1	20	x	x	x	x		x	x									empty
SW	1	21	x	x	x	x		x	x									empty
SW	1	22	m	22	1969	collective	C	6	limestone								+	military plot
SW	1	23	x	x	x	collective	C	x	x									bush in recess in paved surface; military plot
SW	1	24	m	22	1971	collective	C	6	limestone								+	military plot
SW	1	25	f	0.6	1975	single		6	limestone									
SW	1	26	f	57	1975	single		5	limestone									
SW	1	27	m	29	1977	single		6	limestone								+	
SW	1	28	m	59	1981	single		5	limestone								+	
SW	1	29	x	x	x	x		x	x									
NW	2	1	f	?	?	single		5	limestone									
NW	2	2	m	69	1962	single		1	cement								+	stone plaque
NW	2	3	f	58	1969	single		1	cement + limestone								+	upright stone
NW	2	4	f	67	1953	single		1	cement								+	stone plaque
NW	2	5	m	75	1982	single		1	cement + limestone								+	upright stone
NW	2	6	m	75	1954	couple	A	1	cement								+	stone plaque
NW	2	7	f	76	1966	couple	A	1	cement								+	stone plaque
NW	2	8	m	55	1955	couple	B	5	limestone									
NW	2	9	f	85	1986	couple	B	5	limestone									

Appendix 7: Index of Yaquum cemetery (cont.)

Location			Anth.		Temporal and structural properties					Attributes							Comments	
plot	Row	No.	Sex	Age	Year	Asso.	TS	Material	Can.	Inst.	Cha.	B.	Veg.	H.	M.	Star		
NW	2	10	m	73	1957	single		1	cement		+							stone plaque
NW	2	11	f	75	1968	single		1	cement		+							stone plaque
NW	2	12	m	60	1975	single		5	limestone			+						
NW	2	13	m	63	1957	single		1	cement		+							stone plaque
NW	2	14	f	80	1968	single		1	cement		+							stone plaque
NW	2	15	m	74	1957	single		1	cement		+							stone plaque
SW	2	16	m	69	1959	single		1	cement		+							stone plaque
SW	2	17	m	?	1964	single		1	limestone		+							
SW	2	18	f	79	1966	single		1	cement		+	+						stone plaque
SW	2	19	m	80	1967	single		1	cement		+	+						stone plaque
SW	2	20	f	82	1969	single		1	cement		+	+						stone plaque
SW	2	21	m	44	1966	single		5	limestone									
SW	2	22	x	x	x	x		x	x									path
SW	2	23	f	15	1982	single		1	cement		+							
SW	2	24	m	21	1970	collective	C	6	limestone	+		+						military plot
SW	2	25	m	19	1973	collective	C	6	limestone	+								military plot
SW	2	26	m	24	1974	collective	C	6	limestone			+						military plot; stone plaque at foot of grave
SW	2	27	x	x	x	collective	C	x	x									military plot; empty space in paved surface roughly hewn head stone
SW	2	28	m	56	1977	single		6	limestone		+							
NE	4	1	m	78	1995	single		5	limestone			+						
NE	4	2	m	75	1994	single		5	limestone									
NE	4	3	x	x	x	x		x	x									empty
NE	4	4	m	68	1994	single		2	limestone			+						
NE	4	5	x	x	x	x		x	x									empty
NE	4	6	m	73	1993	single		3	limestone			+						
NE	4	7	x	x	x	x		x	x									empty
NE	4	8	m	73	1993	single		3	limestone			+						
NE	4	9	x	x	x	x		x	x									empty
NE	4	10	m	74	1993	single		3	limestone			+						
NE	4	11	x	x	x	x		x	x									empty
NE	4	12	m	68	1992	single		3	limestone			+						
NE	4	13	x	x	x	x		x	x									empty
NE	4	14	f	68	1987	single		5	limestone			+						
NE	4	15	m	82	1999	couple	B	5	limestone									
SE	4	16	f	58	1986	couple	B	5	limestone									
SE	4	17	m	63	1983	single		5	limestone									
SE	4	18	f	57	1984	single		5	limestone			+						

Appendix 7: Index of Yaquum cemetery (cont.)

Location			Anth.		Temporal and structural properties					Attributes							Comments	
plot	Row	No.	Sex	Age	Year	Asso.	Asso. Type	TS Type	Material	Can.	Inst.	Cha.	B.	Veg.	H.	M.		Star
SE	4	19	f	52	1986	couple	B	5	limestone									+
SE	4	20	m	86	2005	couple	B	5	limestone									+
SE	4	21	m	67	1987	single		1	limestone									
SE	4	22	m	73	1988	couple	B	2	limestone									+
SE	4	23	f	75	1995	couple	B	2	limestone	+								+
SE	4	24	m	77	1989	single		1	limestone									+
SE	4	25	x	x	x	x	x	x	x									bush
SE	4	26	m	72	1991	single		3	limestone									+
SE	4	27	f	72	1992	single		3	limestone									
SE	4	28	f	75	1994	single		2	limestone									
SE	4	29	x	x	x	x	x	x	x									empty
NW	3	1	f	87	1989	couple	B	6	limestone									
NW	3	2	m	68	1965	couple	B	6	limestone									
NW	3	3	f	?	1984	single		5	limestone									
NW	3	4	?	?	?	single		5	cement									cement cover only
NW	3	5	f	15	1949	single		1	cement		+	+						stone plaque
NW	3	6	f	49	1958	single		1	cement		+	+						stone plaque
NW	3	7	f	?	1958	single		1	cement		+	+						stone plaque
NW	3	8	m	?	1959	single		1	cement		+	+						stone plaque
NW	3	9	f	67	1961	single		1	cement		+	+						stone plaque
NW	3	10	f	90	1962	single		1	cement		+	+						stone plaque
NW	3	11	x	x	x	x	x	x	x									empty
NW	3	12	f	87	1962	single		1	cement		+							stone plaque
NW	3	13	f	?	1962	single		1	cement									stone plaque
NW	3	14	f	84	1975	single		5	limestone									+
NW	3	15	f	82	1962	single		1	cement		+							stone plaque
SW	3	16	m	78	1964	single		5	cement									stone plaque
SW	3	17	m	68	1965	single		1	cement		+							
SW	3	18	f	95	1987	couple	C	5	limestone									
SW	3	19	m	77	1966	couple	C	5	limestone									
SW	3	20	m	86	2001	couple	B	varia	granite + Turkish marble		+	+						irregularly black shaped headstone
SW	3	21	f	50	1970	couple	B	varia	granite + Turkish marble		+	+						irregularly black shaped headstone
SW	3	22	x	x	x	x	x	x	x									path
SW	3	23	m	91	1976	single		5	limestone									
SW	3	24	m	85	1976	single		5	limestone	+								
SW	3	25	x	x	x	x	x	x	x									empty
SW	3	26	m	80	1985	single		5	limestone									

Appendix 7: Index of Yaquim cemetery (cont.)

Location			Anth.		Temporal and structural properties					Attributes							Comments	
plot	Row	No.	Sex	Age	Year	Asso.	Asso. Type	TS Type	Material	Can.	Inst.	Cha.	B.	Veg.	H.	M.		Star
SW	3	27	f	75	1977	single		5	limestone									
SW	3	28	f	85	1978	single		5	limestone									
SW	3	29	x	x	x	x	x	x	x									empty
SW	3	30	f	66	1989	single		5	limestone	+		+						
SW	3	31	f	62	1980	single		5	limestone									
SW	3	32	f	34	1992	single		3	limestone	+		+						
SW	3	33	x	x	x	x	x	x	x									empty
NE	5	1	f	75	1995	single		2	limestone				+					rough outline of headstone
NE	5	2	m	74	1995	single		2	limestone									+
NE	5	3	x	x	x	x	x	x	x									
NE	5	4	f	87	1995	single		2	limestone									+
NE	5	5	m	79	1996	single		2	limestone									rough outline of headstone
NE	5	6	f	91	2008	single		2	limestone									rough outline of headstone
NE	5	7	x	x	x	x	x	x	x									
NE	5	8	m	76	1996	single		2	limestone									+
NE	5	9	x	x	x	x	x	x	x									
NE	5	10	m	75	1997	single		6	limestone									+
NE	5	11	f	71	2009	single		1	Turkish marble	+		+						
NE	5	12	m	74	1997	single		1	Turkish marble	+		+						
NE	5	13	f	80	2005	single		2	granite	+		+						
NE	5	14	m	79	1999	single		2	limestone									+
NE	5	15	x	x	x	x	x	x	x									
SE	5	16	f	77	2000	single		2	limestone									+
SE	5	17	x	x	x	x	x	x	x									
SE	5	18	m	43	2000	single		varia	Turkish marble	+		+						+
SE	5	19	x	x	x	x	x	x	X									
SE	5	20	m	78	2000	single		3	limestone									
SE	5	21	f	85	2007	couple	C	6	limestone									+
SE	5	22	m	78	2001	couple	C	6	limestone									+
SE	5	23	x	x	x	x	x	x	x									
SE	5	24	f	47	2001	single		varia	limestone									+
SE	5	25	x	x	x	x	x	x	x									
SE	5	26	m	83	2002	single		2	limestone									
SE	5	27	x	x	x	x	x	x	x									
SE	5	28	m	83	2002	single		6	limestone									
SE	5	29	m	89	2005	single		1	limestone	+		+						

Appendix 7: Index of Yaquum cemetery (cont.)

Location			Anth.		Temporal and structural properties					Attributes							Comments	
plot	Row	No.	Sex	Age	Year	Asso.	Asso. Type	TS Type	Material	Can.	Inst.	Cha.	B.	Veg.	H.	M.		Star
SE	5	30	x	x	x	x	x	x	x									empty
NE	6	1	f	87	1988	single		6	limestone									
NE	6	2	m	72	1989	single		6	limestone			+						
NE	6	3	f	77	1997	single		5	limestone									
NE	6	4	m	80	1989	single		5	limestone									
NE	6	5	m	87	1997	single		6	limestone									
NE	6	6	f	71	1989	single		6	limestone									
NE	6	7	m	83	1988	single		5	granite									
NE	6	8	m	88	1990	single		5	granite									
NE	6	9	f	87	1992	single		5	granite									
NE	6	10	f	76	1990	single		5	limestone									
NE	6	11	f	92	1993	single		5	granite									
NE	6	12	m	0.1	1990	single		1	limestone									
NE	6	13	m	81	1990	single		5	limestone									
NE	6	14	f	?	2009	single		x	x									tombstone not errected yet
NE	6	15	f	79	1991	single		5	limestone									
SE	6	16	m	69	1991	single		5	limestone			+					+	
SE	6	17	x	x	x	x	x	x	x									empty
SE	6	18	m	?	1991	single		5	limestone									
SE	6	19	f	?	2000	single		5	limestone									
SE	6	20	m	70	1995	single		1	Turkish marble									
SE	6	21	x	x	x	x	x	x	X									empty
SE	6	22	m	47	1996	single		2	limestone				+					
SE	6	23	m	61	1995	single		varia	limestone			+						irregular headstone empty
SE	6	24	x	x	x	x	x	x	x									
SE	6	25	f	82	1997	single		2	limestone									
SE	6	26	m	82	1997	single		2	limestone	+			+					
SE	6	27	m	91	1997	single		5	limestone									
SE	6	28	m	82	1997	single		2	limestone					+				
SE	6	29	f	82	1998	single		6	limestone									
SE	6	30	m	65	1998	single		varia	limestone									irregular headstone

## Appendix 8: Index of Ben Tzion Cemetery

(Asso.=association; TS=tombstone; Can.=candle; Inst.=installation; B.=book; Veg.=vegetal; H.=hands)

Location			Anth.		Temporal and structural properties					Attributes							Comments
Plot	Row	No.	Sex	Age	Year	Asso.	Asso. Type	TS Type	Material	Can.	Inst.	Cha.	B.	Veg.	H.	Star	
1	1	1	m	30	1948	collective	B	6	limestone	+	+						
1	1	2	m	25	1948	collective	B	6	limestone	+	+						
1	1	3	m	21	1948	collective	B	6	limestone	+	+						
1	1	4	m	29	1951	single		6	limestone	+	+						
1	1	5	m	30	1951	single		6	limestone	+	+						
1	1	6	m	26	1952	single		6	limestone	+	+						
1	1	7	m	19	1953	single		6	limestone	+	+						
1	1	8	m	19	1953	single		6	limestone	+	+						
1	1	9	m	25	1953	single		6	limestone	+	+						
1	1	10	m	19	1953	single		6	limestone	+	+						
1	1	11	x	x	x	x	x	x	x								path
1	1	12	m	18	1953	single		6	limestone	+	+						
1	1	13	m	19	1952	single		6	limestone	+	+						
1	1	14	m	18	1952	single		6	limestone	+	+						
1	1	15	m	28	1952	single		6	limestone	+	+						
1	1	16	m	24	1952	single		6	limestone	+	+		+				
1	1	17	m	24	1952	single		6	limestone	+	+						
1	1	18	m	19	1953	single		6	limestone	+	+						
1	1	19	m	24	1953	single		6	limestone	+	+						
1	1	20	m	18	1953	single		6	limestone	+	+						
1	1	21	m	22	1953	single		6	limestone	+	+						
1	1	22	m	20	1953	single		6	limestone	+	+						
1	1	23	x	x	x	x	x	x	x								path
1	1	24	m	20	1953	single		6	limestone	+	+						
1	1	25	m	38	1954	single		6	limestone	+	+						
1	1	26	m	18	1954	single		6	limestone	+	+						
1	1	27	m	17	1954	single		6	limestone	+	+		+				end of row
1	2	1	x	x	x	collective	B	5	limestone								empty plot
1	2	2	x	x	x	collective	B	5	limestone								empty plot
1	2	3	x	x	x	collective	B	5	limestone								empty plot
1	2	4	x	x	x	collective	B	5	limestone								empty plot
1	2	5	x	x	x	collective	B	5	limestone								empty plot
1	2	6	m	36	1948	collective	B	6	limestone	+	+		+				
1	2	7	f	19	1969	collective	B	6	limestone	+	+		+				
1	2	8	x	x	x	collective	B	5	limestone								empty plot
1	2	9	f	?	1948	collective	B	6	limestone	+	+						
1	2	10	x	x	x	collective	B	5	limestone								empty plot
1	2	11	f	?	1948	collective	B	6	limestone	+	+						
1	2	12	f	26	1948	collective	B	6	limestone	+	+						
1	2	13	x	x	x	collective	B	5	limestone	+	+						
1	2	14	m	17	1955	collective	B	6	limestone	+	+						

Appendix 8: Index of Ben Tzion cemetery (cont.)

Location			Anth.		Temporal and structural properties					Attributes						Comments	
Plot	Row	No.	Sex	Age	Year	Asso.	Asso. Type	TS Type	Material	Can.	Inst.	Cha.	B.	Veg.	H.		Star
1	2	15	m	22	1948	collective	B	6	limestone	+	+						
1	2	16	x	x	x	x	x	x	x								path
1	2	17	x	x	x	collective	B	5	limestone	+	+						
1	2	18	x	x	x	collective	B	5	limestone	+	+						
1	2	19	x	x	x	collective	B	5	limestone	+	+						
1	2	20	m	18	1948	collective	B	6	limestone	+	+						
1	2	21	m	20	1948	collective	B	6	limestone	+	+						
1	2	22	m	23	1948	collective	B	6	limestone	+	+						
1	2	23	m	22	1948	collective	B	6	limestone	+	+						
1	2	24	x	x	x	collective	B	5	limestone	+	+						empty plot
1	2	25	m	25	1949	collective	B	6	limestone	+	+						
1	2	26	x	x	x	collective	B	5	limestone	+	+						empty plot
1	2	27	m	32	1948	collective	B	6	limestone	+	+						
2	1	1	m	51	1962	single		6	limestone	+	+						
2	1	2	m	19	1962	single		6	limestone	+	+						
2	1	3	m	19	1962	single		6	limestone	+	+						
2	1	4	m	21	1962	single		6	limestone	+	+						
2	1	5	m	19	1962	single		6	limestone	+	+						
2	1	6	m	18	1966	single		6	limestone	+	+						
2	1	7	m	43	1967	single		6	limestone	+	+			+			
2	1	8	m	40	1967	single		6	limestone	+	+						
2	1	9	m	52	1967	single		6	limestone	+	+						
2	2	1	m	18	1959	single		6	limestone	+	+						
2	2	2	m	19	1960	single		6	limestone	+	+						
2	2	3	m	31	1960	single		6	limestone	+	+						
2	2	4	m	19	1960	single		6	limestone	+	+						
2	2	5	m	35	1960	single		6	limestone	+	+						
2	2	6	m	19	1965	single		6	limestone	+	+						
2	2	7	m	18	1967	single		6	limestone	+	+						
2	2	8	m	20	1967	single		6	limestone	+	+			+			
2	2	9	m	22	1967	single		6	limestone	+	+			+			
2	3	1	m	19	1958	single		6	limestone	+	+			+			
2	3	2	m	18	1958	single		6	limestone	+	+			+			
2	3	3	m	21	1959	single		6	limestone	+	+			+			
2	3	4	m	24	1959	single		6	limestone	+	+						
2	3	5	x	x	x	x	x	x	x								bench
2	3	6	m	25	1964	single		6	limestone	+	+			+			
2	3	7	m	19	1966	single		6	limestone	+	+			+			
2	3	8	m	22	1967	single		6	limestone	+	+			+			
2	3	9	m	23	1967	single		6	limestone	+	+			+			
2	4	1	m	27	1957	single		6	limestone	+	+			+			

Appendix8: Index of Ben Tzion cemetery (cont.)

Location			Anth.		Temporal and structural properties				Attributes						Comments		
Plot	Row	No.	Sex	Age	Year	Asso.	Asso. Type	TS Type	Material	Can.	Inst.	Cha.	B.	Veg.		H.	Star
2	4	2	m	18	1957	single		6	limestone	+	+	+					
2	4	3	m	30	1957	single		6	limestone	+	+						
2	4	4	m	20	1958	single		6	limestone	+	+						
2	4	5	m	18	1958	single		6	limestone	+	+						
2	4	6	m	20	1964	single		6	limestone	+	+						
2	4	7	m	19	1966	single		6	limestone	+	+	+					
2	5	1	m	17	1956	single		6	limestone	+	+						
2	5	2	m	24	1956	single		6	limestone	+	+	+					
2	5	3	m	20	1957	single		6	limestone	+	+						
2	5	4	m	27	1957	single		6	limestone	+	+						
2	5	5	m	21	1958	single		6	limestone	+	+						
2	5	6	m	19	1963	single		6	limestone	+	+	+					
2	5	7	m	18	1965	single		6	limestone	+	+	+					
3	1	1	m	19	1973	single		6	limestone	+	+	+					
3	1	2	m	32	1973	single		6	limestone	+	+						
3	1	3	m	21	1973	single		6	limestone	+	+						
3	1	4	m	35	1973	single		6	limestone	+	+	+					
3	1	5	m	19	1973	single		6	limestone	+	+	+					
3	1	6	m	19	1973	single		6	limestone	+	+	+					
3	2	1	m	23	1973	single		6	limestone	+	+	+					
3	2	2	m	21	1973	single		6	limestone	+	+						
3	2	3	m	26	1973	single		6	limestone	+	+						
3	2	4	m	21	1973	single		6	limestone	+	+						
3	2	5	m	21	1973	single		6	limestone	+	+	+					
3	2	6	m	21	1973	single		6	limestone	+	+	+					
3	3	1	m	34	1973	single		6	limestone	+	+						
3	3	2	m	30	1973	single		6	limestone	+	+						
3	3	3	m	30	1973	single		6	limestone	+	+						
3	3	4	m	20	1973	single		6	limestone	+	+	+					
3	3	5	m	20	1973	single		6	limestone	+	+						
3	3	6	m	26	1973	single		6	limestone	+	+	+					
3	4	1	m	20	1973	single		6	limestone	+	+	+					
3	4	2	m	25	1973	single		6	limestone	+	+						
3	4	3	m	24	1973	single		6	limestone	+	+	+					
3	4	4	m	26	1973	single		6	limestone	+	+						
3	4	5	m	19	1973	single		6	limestone	+	+	+					
3	4	6	m	25	1973	single		6	limestone	+	+						
3	5	1	x	x	x	Pair		5	limestone		+						empty
3	5	2	x	x	x	pair	B	5	limestone		+						empty
3	5	3	f	20	1975	single		6	limestone	+	+	+					
3	5	4	m	18	1975	single		6	limestone	+	+	+					

Appendix8: Index of Ben Tzion cemetery (cont.)

Location			Anth.		Temporal and structural properties				Attributes							Comments	
Plot	Row	No.	Sex	Age	Year	Asso.	Asso. Type	TS Type	Material	Can.	Inst.	Cha.	B.	Veg.	H.		Star
3	5	5	m	33	1973	single		6	limestone	+	+	+					
3	5	6	m	31	1976	single		6	limestone	+	+						
3	6	1	m	21	1973	single		6	limestone	+	+	+					
3	6	2	m	24	1973	single		6	limestone	+	+	+					
3	6	3	m	31	1973	single		6	limestone	+	+	+					
3	6	4	m	27	1973	single		6	limestone	+	+	+					
3	6	5	m	27	1973	single		6	limestone	+	+	+					
3	6	6	m	23	1973	single		6	limestone	+	+						
4	1	1	m	45	1980	single		6	limestone	+	+	+	+				
4	1	2	m	28	1979	single		6	limestone	+	+	+					
4	1	3	m	21	1979	single		6	limestone	+	+	+					
4	1	4	m	20	1979	single		6	limestone	+	+	+	+				
4	1	5	m	19	1979	single		6	limestone	+	+	+					
4	1	6	m	19	1979	single		6	limestone	+	+	+					
4	2	1	m	21	1982	single		6	limestone	+	+	+					
4	2	2	m	47	1982	single		6	limestone	+	+						
4	2	3	m	36	1982	single		6	limestone	+	+	+	+				
4	2	4	f	19	1981	single		6	limestone	+	+						
4	2	5	f	19	1980	single		6	limestone	+	+	+					
4	2	6	m	44	1979	single		6	limestone	+	+	+	+				
4	3	1	m	23	1980	single		6	limestone	+	+	+					
4	3	2	m	22	1981	single		6	limestone	+	+	+	+				
4	3	3	m	21	1982	single		6	limestone	+	+	+	+				
4	3	4	m	33	1982	single		6	limestone	+	+	+	+				Parachute symbol
4	3	5	m	32	1982	single		6	limestone	+	+	+					
4	3	6	m	60	1982	single		6	limestone	+	+	+					
4	4	1	f	19	1984	single		6	limestone		+						
4	4	2	f	19	1984	single		6	limestone	+	+	+					
4	4	3	m	19	1984	single		6	limestone		+						
4	4	4	m	20	1985	single		6	limestone		+						
4	4	5	m	18	1985	single		6	limestone		+	+	+				
4	4	6	f	19	1985	single		6	limestone	+	+						
4	5	1	m	26	1984	single		6	limestone	+	+	+	+				
4	5	2	m	39	1984	single		6	limestone	+	+	+	+				
4	5	3	m	20	1984	single		6	limestone	+	+	+					
4	5	4	m	49	1983	single		6	limestone	+	+	+					
4	5	5	m	34	1983	single		6	limestone	+	+	+					
4	5	6	m	22	1983	single		6	limestone	+	+						
4	6	1	m	27	1983	single		6	limestone	+	+	+					picture on limestone above grave
4	6	2	m	37	1982	single		6	limestone	+	+	+	+				

Appendix8: Index of Ben Tzion cemetery (cont.)

Location			Anth.		Temporal and structural properties					Attributes							Comments
Plot	Row	No.	Sex	Age	Year	Asso.	Asso. Type	TS Type	Material	Can.	Inst.	Cha.	B.	Veg.	H.	Star	
4	6	3	m	19	1982	single		6	limestone	+	+						
4	6	4	m	19	1982	single		6	limestone	+	+						
4	6	5	m	20	1982	single		6	limestone	+	+	+					
4	6	6	m	20	1982	single		6	limestone	+	+	+					
5	2	1	m	20	2000	single		6	limestone	+	+						plaque at foot of grave
5	2	2	m	21	1999	single		6	limestone	+	+	+					plaque at foot of grave
5	2	3	m	21	1999	single		6	limestone	+	+						plaque at foot of grave
5	2	4	m	20	1998	single		6	limestone	+	+	+					
5	2	5	x	x	x	x	x	x	x								path
5	2	6	m	20	1996	single		6	limestone	+	+						
5	2	7	m	20	1996	single		6	limestone	+	+	+					picture on limestone above grave
5	2	8	m	19	1996	single		6	limestone	+	+	+					
5	2	9	m	30	1997	single		6	limestone	+	+	+					
5	2	10	m	28	1996	single		6	limestone	+	+						
5	3	1	m	20	2001	single		6	limestone	+	+	+					picture on limestone above grave; limestone plaque at foot of grave
5	3	2	x	x	x	x	x	x	x								bench
5	3	3	m	19	2000	single		6	limestone	+	+	+					plaque at foot of grave
5	3	4	x	x	x	x	x	x	x								tree
5	3	5	x	x	x	x	x	x	x								path
5	3	6	m	20	1997	single		6	limestone	+	+	+					
5	3	7	m	44	1997	single		6	limestone	+	+	+					
5	3	8	m	24	1997	single		6	limestone	+	+						
5	3	9	m	22	1997	single		6	limestone	+	+						plaque at foot of grave
5	3	10	m	23	1997	single		6	limestone	+	+						plaque at foot of grave
5	4	1	x	x	x	x	x	x	x								empty, paved
5	4	2	m	18	2001	single		6	limestone	+	+						picture on limestone above grave; limestone plaque at foot of grave
5	4	3	m	21	2001	single		6	limestone	+	+						plaque at foot of grave
5	4	4	m	21	2001	single		6	limestone	+	+						plaque at foot of grave
5	4	5	x	x	x	x	x	x	x								path

Appendix8: Index of Ben Tzion cemetery (cont.)

Location			Anth.		Temporal and structural properties					Attributes							Comments
Plot	Row	No.	Sex	Age	Year	Asso.	Asso. Type	TS Type	Material	Can.	Inst.	Cha.	B.	Veg.	H.	Star	
5	4	6	m	19	1997	single		6	limestone	+	+	+					picture on limestone above grave
5	4	7	m	20	1997	single		6	limestone	+	+	+					
5	4	8	m	22	1997	single		6	limestone	+	+						plaque at foot of grave
5	4	9	m	23	1997	single		6	limestone	+	+	+					plaque at foot of grave
5	4	10	m	22	1997	single		6	limestone	+	+						plaque at foot of grave

## Appendix 9: Index of Qiryat Sha'ul Cemetery

(Asso.=association; TS=tombstone; Can.=candle; Inst.=installation; B.=book; Veg.=vegetal; H.=hands)

Location				Anth.		Temporal and structural properties				Attributes							Comments
Area	Plot	Row	No.	Sex	Age	Year	Asso.	TS	Material	Can.	Inst.	Cha.	B.	Veg.	H.	Star	
2	18/D	1	1	m	18	1996	single	6	limestone	+	+						plaque above grave
2	18/D	1	2	m	20	1996	single	6	limestone	+	+						
2	18/D	1	3	f	50	1996	single	6	limestone	+	+						
2	18/D	1	4	m	20	1997	single	6	limestone	+	+						
2	18/D	2	1	m	22	1997	single	6	limestone	+	+						
2	18/D	2	2	m	20	1997	single	6	limestone	+	+						
2	18/D	2	3	f	20	1997	single	6	limestone	+	+						
2	18/D	2	4	m	27	1997	single	6	limestone	+	+						
2	18/D	3	1	m	22	1997	single	6	limestone	+	+						picture
2	18/D	3	2	m	21	1997	single	6	limestone	+	+						
2	18/D	3	3	m	20	1997	single	6	limestone	+	+						stone plaque at foot of grave
2	18/B	1	1	m	19	1995	single	6	limestone	+	+						
2	18/B	1	2	f	19	1995	single	6	limestone	+	+						
2	18/B	1	3	m	22	1995	single	6	limestone	+	+						plaque above grave
2	18/B	1	4	m	18	1995	single	6	limestone	+	+						
2	18/B	1	5	m	19	1995	single	6	limestone	+	+						picture above grave
2	18/B	2	1	m	19	1995	single	6	limestone	+	+						
2	18/B	2	2	f	20	1995	single	6	limestone	+	+						stone plaque at foot of grave
2	18/B	2	3	m	21	1995	single	6	limestone	+	+						
2	18/B	2	4	m	20	1995	single	6	limestone	+	+						
2	18/B	2	5	m	27	1995	single	6	limestone	+	+						
2	18/B	3	1	m	19	1995	single	6	limestone	+	+						chanukia
2	18/B	3	2	m	20	1995	single	6	limestone	+	+						figurine
2	18/B	3	3	m	18	1995	single	6	limestone	+	+						stone plaque at foot of grave
2	18/B	3	4	m	65	1995	single	6	limestone	+	+						
2	18/F	1	1	m	22	2006	single	6	limestone	+	+						stone plaque at foot of grave
2	18/F	1	2	m	41	2004	single	6	limestone	+	+						stone plaque at foot of grave
2	18/F	1	3	m	20	2003	single	6	limestone	+	+	+					picture above grave; stone plaque at foot of grave
2	18/F	1	4	m	22	2001	single	6	limestone	+	+						stone plaque at foot of grave
2	18/F	1	5	m	21	2001	single	6	limestone	+	+						stone plaque at foot of grave
2	18/F	1	6	m	23	2000	single	6	limestone	+	+						stone plaque at foot of grave

Appendix 9: Index of Qiryat Sha'ul cemetery (cont.)

Location				Anth.		Temporal and structural properties					Attributes							Comments
Area	Plot	Row	No.	Sex	Age	Year	Asso.	Type	TS	Material	Can.	Inst.	Cha.	B.	Veg.	H.	Star	
2	18/F	2	1	m	22	2000	single		6	limestone	+	+						picture above grave; stone plaque at foot of grave
2	18/F	2	2	f	22	2000	single		6	limestone	+	+						picture above grave
2	18/F	2	3	m	20	2000	single		6	limestone	+	+						picture above grave; stone plaque at foot of grave
2	18/F	2	4	x	x	x	x	x	x	x								empty paved space
2	18/F	2	5	m	70	1991	single		6	limestone	+	+						
2	18/F	2	6	m	22	1989	single		6	limestone	+	+						
1	1	1	1	x	x	x	x	x	x	x								tree
1	1	1	2	x	x	x	x	x	x	x								tree
1	1	1	3	m	33	1973	single		6	limestone	+	+						
1	1	1	4	m	22	1973	single		6	limestone	+	+	+					
1	1	1	5	m	23	1973	single		6	limestone	+	+	+	+				
1	1	1	6	m	27	1973	single		6	limestone	+	+	+					
1	1	1	7	m	20	1973	single		6	limestone	+	+	+					
1	1	1	8	m	30	1973	single		6	limestone	+	+						
1	1	1	9	m	25	1973	single		6	limestone	+	+						
1	1	1	10	m	37	1973	single		6	limestone	+	+						
1	1	1	11	m	22	1973	single		6	limestone	+	+	+					
1	1	1	12	m	24	1973	single		6	limestone	+	+	+					
1	1	1	13	m	36	1973	single		6	limestone	+	+						
1	1	1	14	m	34	1973	single		6	limestone	+	+	+					
1	1	1	15	m	22	1973	single		6	limestone	+	+	+					
1	1	1	16	m	25	1973	single		6	limestone	+	+	+					
1	1	2	1	m	19	1973	single		6	limestone	+	+	+					
1	1	2	2	m	20	1973	single		6	limestone	+	+	+					
1	1	2	3	m	20	1973	single		6	limestone	+	+	+					
1	1	2	4	m	20	1973	single		6	limestone	+	+						
1	1	2	5	m	19	1973	single		6	limestone	+	+						
1	1	2	6	m	20	1973	single		6	limestone	+	+						
1	1	2	7	m	19	1973	single		6	limestone	+	+						
1	1	2	8	m	42	1973	single		6	limestone	+	+						
1	1	2	9	m	21	1973	single		6	limestone	+	+						
1	1	2	10	m	21	1973	single		6	limestone	+	+						
1	1	2	11	m	37	1973	single		6	limestone	+	+	+					large jar
1	1	2	12	m	22	1973	single		6	limestone	+	+	+					
1	1	2	13	m	27	1973	single		6	limestone	+	+	+					

Appendix 9: Index of Qiryat Sha'ul cemetery (cont.)

Location				Anth.		Temporal and structural properties				Attributes							Comments	
Area	Plot	Row	No.	Sex	Age	Year	Asso.	TS	Material	Can.	Inst.	Cha.	B.	Veg.	H.	Star		
1	1	2	14	m	26	1973	single	6	limestone	+	+	+						
1	1	2	15	m	23	1973	single	6	limestone	+	+	+						small jar
1	1	2	16	m	20	1973	single	6	limestone	+	+	+						small jar
1	14	1	1	m	25	1963	single	6	limestone	+	+							
1	14	1	2	m	30	1963	single	6	limestone	+	+							
1	14	1	3	m	26	1963	single	6	limestone	+	+							
1	14	1	4	m	19	1963	single	6	limestone	+	+							
1	14	1	5	m	35	1963	single	6	limestone	+	+	+						
1	14	1	6	m	18	1963	single	6	limestone	+	+	+						
1	14	1	7	m	19	1963	single	6	limestone	+	+							
1	14	1	8	m	18	1963	single	6	limestone	+	+							
1	14	1	9	m	19	1963	single	6	limestone	+	+							
1	14	1	10	m	19	1963	single	6	limestone	+	+	+						
1	14	1	11	m	22	1963	single	6	limestone	+	+	+						
1	14	1	12	m	18	1963	single	6	limestone	+	+	+						
1	14	1	13	m	19	1962	single	6	limestone	+	+							
1	14	1	14	m	18	1962	single	6	limestone	+	+							
1	14	2	1	m	34	1964	single	6	limestone	+	+							
1	14	2	2	m	24	1964	single	6	limestone	+	+	+						
1	14	2	3	m	36	1964	single	6	limestone	+	+							
1	14	2	4	m	19	1964	single	6	limestone	+	+							
1	14	2	5	m	19	1964	single	6	limestone	+	+	+						
1	14	2	6	m	19	1964	single	6	limestone	+	+							
1	14	2	7	m	40	1964	single	6	limestone	+	+							
1	14	2	8	m	18	1964	single	6	limestone	+	+	+						
1	14	2	9	m	22	1964	single	6	limestone	+	+							
1	14	2	10	m	20	1964	single	6	limestone	+	+	+						
1	14	2	11	m	40	1964	single	6	limestone	+	+	+						
1	14	2	12	m	18	1964	single	6	limestone	+	+	+						
1	14	2	13	m	18	1964	single	6	limestone	+	+							
1	14	2	14	m	21	1964	single	6	limestone	+	+							
1	14	3	1	m	22	1964	single	6	limestone	+	+							
1	14	3	2	m	21	1965	single	6	limestone	+	+							
1	14	3	3	m	19	1965	single	6	limestone	+	+							
1	14	3	4	m	19	1965	single	6	limestone	+	+							
1	14	3	5	m	19	1965	single	6	limestone	+	+	+						
1	14	3	6	m	19	1965	single	6	limestone	+	+							
1	14	3	7	m	18	1948	single	6	limestone	+	+							
1	14	3	8	m	19	1965	single	6	limestone	+	+							
1	14	3	9	m	20	1965	single	6	limestone	+	+							

Appendix 9: Index of Qiryat Sha'ul cemetery (cont.)

Location				Anth.		Temporal and structural properties				Attributes							Comments
Area	Plot	Row	No.	Sex	Age	Year	Asso.	TS Type	Material	Can.	Inst.	Cha.	B.	Veg.	H.	Star	
1	14	3	10	m	19	1965	single	6	limestone	+	+						
1	14	3	11	m	20	1964	single	6	limestone	+	+						
1	14	3	12	m	44	1965	single	6	limestone	+	+						
1	14	3	13	m	36	1965	single	6	limestone	+	+						
1	14	3	14	m	20	1965	single	6	limestone	+	+						
1	15	2	1	m	18	1955	single	6	limestone	+	+						
1	15	2	2	m	18	1955	single	6	limestone	+	+						
1	15	2	3	m	18	1955	single	6	limestone	+	+		+				
1	15	2	4	m	18	1955	single	6	limestone	+	+						
1	15	2	5	m	19	1955	single	6	limestone	+	+						
1	15	2	6	m	19	1955	single	6	limestone	+	+						
1	15	2	7	m	22	1955	single	6	limestone	+	+						
1	15	2	8	m	23	1955	single	6	limestone	+	+						
1	15	2	9	m	19	1955	single	6	limestone	+	+						
1	15	2	10	m	23	1955	single	6	limestone	+	+						
1	15	2	11	m	28	1955	single	6	limestone	+	+						
1	15	2	12	m	30	1955	single	6	limestone	+	+						
1	15	3	1	m	20	1956	single	6	limestone	+	+						
1	15	3	2	m	19	1956	single	6	limestone	+	+						
1	15	3	3	m	20	1956	pair	B	6	limestone	+	+					
1	15	3	4	m	20	1956	pair		6	limestone	+	+					
1	15	3	5	m	19	1956	single	6	limestone	+	+						
1	15	3	6	m	19	1956	single	6	limestone	+	+						
1	15	3	7	m	46	1956	single	6	limestone	+	+						
1	15	3	8	m	19	1956	single	6	limestone	+	+		+				
1	15	3	9	m	18	1956	single	6	limestone	+	+		+				
1	15	3	10	m	18	1956	single	6	limestone	+	+						
1	15	3	11	m	20	1956	single	6	limestone	+	+						
1	15	3	12	m	31	1956	single	6	limestone	+	+						
1	15	4	1	m	20	1956	single	6	limestone	+	+						
1	15	4	2	m	41	1956	single	6	limestone	+	+						
1	15	4	3	m	33	1956	single	6	limestone	+	+						
1	15	4	4	m	18	1956	single	6	limestone	+	+		+				
1	15	4	5	m	19	1956	single	6	limestone	+	+		+				
1	15	4	6	m	17	1956	single	6	limestone	+	+						
1	15	4	7	m	18	1956	single	6	limestone	+	+						
1	15	4	8	m	21	1956	single	6	limestone	+	+						
1	15	4	9	m	19	1956	single	6	limestone	+	+		+				
1	15	4	10	m	49	1956	single	6	limestone	+	+						
1	15	4	11	m	51	1956	single	6	limestone	+	+						

Appendix 9: Index of Qiryat Sha'ul cemetery (cont.)

Location				Anth.		Temporal and structural properties					Attributes						Comments
Area	Plot	Row	No.	Sex	Age	Year	Asso.	TS	Material	Can.	Inst.	Cha.	B.	Veg.	H.	Star	
1	16	3	1	m	19	1985	single	6	limestone	+	+						
1	16	3	2	m	19	1985	single	6	limestone	+	+	+					
1	16	3	3	m	25	1985	single	6	limestone	+	+						
1	16	3	4	f	19	1985	single	6	limestone	+	+	+					
1	16	3	5	m	19	1985	single	6	limestone	+	+						
1	16	3	6	x	x	x	x	x	X								tree
1	16	3	7	f	19	1985	single	6	limestone	+	+						
1	16	3	8	m	28	1985	single	6	limestone	+	+						
1	16	3	9	m	20	1985	single	6	limestone	+	+						
1	16	3	10	m	22	1984	single	6	limestone	+	+						post
1	16	3	11	m	29	1984	single	6	limestone	+	+						
1	16	3	12	m	29	1984	single	6	limestone	+	+						
1	16	3	13	m	35	1984	single	6	limestone	+	+	+					
1	16	3	14	m	21	1984	single	6	limestone	+	+	+					post
1	16	3	15	m	31	1984	single	6	limestone	+	+						post
1	16	4	1	m	20	1985	single	6	limestone	+	+						
1	16	4	2	m	20	1985	single	6	limestone	+	+						
1	16	4	3	m	19	1985	single	6	limestone	+	+						
1	16	4	4	m	20	1985	single	6	limestone	+	+						plaque above grave
1	16	4	5	m	20	1985	single	6	limestone	+	+						
1	16	4	6	m	37	1985	single	6	limestone	+	+						stone plaque at foot of grave
1	16	4	7	m	29	1985	single	6	limestone	+	+						
1	16	4	8	m	58	1985	single	6	limestone	+	+						
1	16	4	9	m	21	1985	single	6	limestone	+	+	+					post
1	16	4	10	m	20	1985	single	6	limestone	+	+						post
1	16	4	11	m	18	1985	single	6	limestone	+	+						
1	16	4	12	m	42	1985	single	6	limestone	+	+	+					
1	16	4	13	m	39	1985	single	6	limestone	+	+	+					
1	16	4	14	m	27	1985	single	6	limestone	+	+						stone plaque at foot of grave
1	16	4	15	m	18	1985	single	6	limestone	+	+						
1	16	5	1	m	19	1985	single	6	limestone	+	+	+					post; plaque above grave
1	16	5	2	m	31	1986	single	6	limestone	+	+						
1	16	5	3	m	19	1986	single	6	limestone	+	+						plaque above grave
1	16	5	4	m	58	1986	single	6	limestone	+	+	+					
1	16	5	5	m	39	1986	single	6	limestone	+	+	+					
1	16	5	6	m	20	1986	single	6	limestone	+	+						
1	16	5	7	m	29	1986	single	6	limestone	+	+						post

Appendix 9: Index of Qiryat Sha'ul cemetery (cont.)

Location				Anth.		Temporal and structural properties					Attributes							Comments
Area	Plot	Row	No.	Sex	Age	Year	Asso.	Type	Type	Material	Can.	Inst.	Cha.	B.	Veg.	H.	Star	
1	16	5	8	m	19	1986	single		6	limestone	+	+	+					plaque above grave
1	16	5	9	m	33	1986	single		6	limestone	+	+	+					
1	16	5	10	m	21	1986	single		6	limestone	+	+						
1	16	5	11	x	x	x	x	x	x	x								bench
1	16	5	12	m	44	1987	single		6	limestone	+	+						
1	16	5	13	m	40	1986	single		6	limestone	+	+	+					
1	16	5	14	m	49	1985	single		6	limestone	+	+	+					
1	16	5	15	m	24	1985	single		6	limestone	+	+	+					

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## חקר פערים בין תרבותיים: ניתוח בתי קברות כלקוליתיים

### (6500-5700 לפני ימינו) ובתי קברות בני זמננו בדרום הלוואנט

#### תקציר

המחקר הנוכחי הנו משולש ביסודו. הוא כולל את (א) חקר בתי הקברות הכלקוליתיים בדרום הלוואנט; (ב) חקר בתי קברות בני-זמננו בישראל; ו-(ג) ניתוח הפער האיכותי שביניהם. עיקר תשומת הלב מופנית אל עבר ניתוח בתי הקברות הכלקוליתיים ובני-זמננו, שהבנתם מהווה את היעד העיקרי של העבודה הנוכחית. הבנה זו כוללת את חשיפת ההיגיון והמבנה המונחים ביסוד בתי הקברות האמורים, זיהוי העקרונות המארגנים שבבסיסם, ואבחון המושגים, הקטגוריות והשיחים הפעילים בתוכם. מלבד הניתוח והדיון המפורטים של כל אחד ממושאי המחקר בנפרד, הערכת הפער האיכותי שביניהם צפוי לספק תובנות נוספות, בעלות חשיבות לשניהם, שבשאיפה יובילו אל הפיצול היסודי ממנו יוצאות איכויותיהן השונות. מכאן ההצדקה לתכנית המחקר והמטרה שנייה: הערכת הפוטנציאל הפרשני של ניתוח פערים בין-תרבותיים.

הרקע הכללי למחקר הנוכחי, יעדיו וההקשר הרחב יותר בתוכו הוא פועל, מוצגים בפרק ההקדמה הראשון (פרק 1). בפרק שלאחריו נדון היסוד התיאורטי בהרחבה (פרק 2). בעיקרו של דבר, ניטען שעל-ידי עימות תופעות תרבותיות זו עם זו ועל-ידי חתירה לניסוח מדויק של הפער ביניהם, תתקבלנה תובנות רבות ערך אודות משמעויות ותפיסות של שתיהן. כמו כן ניטען, שקביל, הן מתודית והן תיאורטית, לעמת כל שת תופעות תרבותיות, ובלבד שהחוקר מגדיר כראוי את סוגי המשמעויות אחריהם היא או הוא תרים.

בהתאמה עם המסגרת התיאורטית הנ"ל, הטיפול בכל אחד ממושאי המחקר (דהיינו, בתי הקברות הכלקוליתיים והמודרניים) נעשה בנפרד כך שלכל אחד מהם מוקדש חלק עצמאי לחלוטין בעבודה (חלקים I ו-II). אף-על-פי שלשניהם אותה המטרה – לבחון את בתי הקברות האמורים, כתופעות דינאמיות, משתנות ודיסקורסיביות – השיטות והאמצעים הנבחרים לניתוח שונים מאוד אלה מאלה, עקב אי-התאמות באיכות וטבע הנתונים. בחלקה האחרון של העבודה (חלק III) הממצאים וההבחנות, שנאספו בנפרד עבור בתי הקברות הכלקוליתיים ובני-זמננו, נאספים יחד על מנת לאפשר בחינה ממוקדת של איכות הפער ביניהם.

לאחר מכן, נפרש דיון קצר בסוגיות נוספות היוצאות מתוך הדברים הנ"ל. דיון זה אינו מהווה חלק אינטגרלי של העבודה כשם שהוא מהווה התבוננות חוזרת על שנעשה, עם התייחסות לסוגיות כגון איכויות הרקורד החומרי והמהלכים הפרשניים שנוגעים לפער בין עבר והווה.

### **חלק I: בתי הקברות הכלקוליתיים**

נכון להיום, עשרות בתי קברות כלקוליתיים נחפרו ורובם המכריע פורסם. מקובל במחקר להבחין בין שלושה טיפוסים עיקריים: מערות, מבנים עיליים ומקרה יחיד ויוצא דופן של כביש כיסופים, הכולל מספר אלמנטים, לרבות מבנה שקוע, קבורה קיבוצית וקבורות יחידים. אולם, לעת עתה, הבחנות אלה טיפולוגיות בלבד ואף-על-פי שאין ספק שהבדלים אלה מייצגים בחירות שונות של סמלים, הרבה פחות ברורה המידה בה הבדלים אלה משקפים גם את קיומן של משמעויות שונות בבסיסם.

הטיפול והניתוח של בתי קברות כלקוליתיים במחקר הנוכחי הנו בראש ובראשונה מאמץ לאחד את מכלול הנתונים, שהצטברו במהלך שמונה העשורים האחרונים. הניתוחים המוצגים נסמכים במלואם על מקורות משניים, שרובם המכריע פורסם. בסך הכול נכללים בדיון 26 אתרים (טבלה 3.1), הפרושים על פני מרחב גיאוגרפי ניכר מהגליל העליון בצפון ועד צפון הנגב בדרום (איור 3.1).

בהתחשב בהבדלים המשמעותיים בין האתרים, החופרים והפרסומים השונים, יישומה של שיטת מחקר קפדנית ועקבית אינה אפשרית, כיוון שלא ניתן לקיים סדרה של קריטריונים קבועים, אותם אפשר להכיל על כל המקרים. מצב זה דורש, לפיכך, גמישות מתודית ניכרת. המענה של המחקר הנוכחי לקשיים נסיבתיים אלה הוא ההחלטה למקד את תשומת הלב בארבע מרכיבים או פנים של בתי הקברות הכלקוליתיים: שרידי האדם, המכילים הייעודיים, תהליכי הרבדה ובתר-הרבדה, והמבנה המרחבי של בית הקברות. ניתוח ארבעת מרכיבים אלה צפוי לאפשר גישה אל לב לבו של פעילותם ומשמעותם של בתי הקברות הנ"ל: עצמות אדם ומיכלי קבורה ייעודיים מייצגים את מוקד תשומת לבם של נוהגי הקבורה הכלקוליתיים בבתי הקברות; ניתוח תהליכי הרבדה ובתר-הרבדה אינו רק אמצעי להערכת איכות ומהימנות הרקורד הארכיאולוגי אלא גם אמצעי רב-עצמה לשחזור תהליכים ויצירת נרטיבים של מקום, לרבות פעילות אנושית;

לבסוף ההתייחסות לארגון המרחבי של בית הקברות מכניסים את האספקטים האחרים של הדיון להקשר רחב יותר, כיוון שהארגון והמניפולציה של המרחב הפיזי הנו גם אמצעי ליצירת הבחנות בין יחידות והגדרת טיב יחסיהן.

כל אחד מבתי-הקברות זוכה לדיון נפרד. תחילה נידונים בתי הקברות התת-קרקעיים (פרקים 4-9), אחר-כך בתי הקברות העיליים (פרקים 10 ו-11) ולבסוף אתר כביש כיסופים (פרק 12). ישנם הבדלים ניכרים בעומק וטיב הדיון בבתי הקברות השונים לאור פערים משמעותיים באיכות הדוחות ונמצא. משום כך, אתרים מסוימים נדונים באריכות בעוד אחרים מתוארים בקצרה בלבד. גם עומק ומהות הפרשנויות משתנה בהתאם. אתרים מסוימים מאפשרים חשיבה מעמיקה על מבנה, משמעות והתפתחות בית הקברות, בעוד שפרשנות מעמיקה של אתרים אחרים התאפשרה רק בצירוף נוספים. כדוגמה לראשונים ניתן לציין את הדיון בבית הקברות של שקמים (פרק 13), שהרחיק לכת וכלל עיסוק בסוגיות כגון טיב הזיקה ליישוב הסמוך, שוני בין ייצוגים קולקטיביים שונים ואופן ההטמנה. גם מערת הקבורה באזור ראווה לאזכור בהקשר זה, שכן טיב ואיכות הנתונים אפשרו בחינה מעמיקה של תהליכי היווצרות האתר וזיהוי תהליכים מורכבים כגון שבירה מכוונת של כלים והוצאת שברים מהמערה (פרק 6).

בסיכומו של דבר, נשמרה החלוקה הטיפולוגית הבסיסית של בתי קברות למערות, מבנים וכביש כיסופים. אולם, עבור זו הראשונה, שכוללת את הרוב המכריע של האתרים, התאפשר חלוקה לשלוש קבוצות נוספות, כך שבסך הכל הוגדרו חמישה טיפוסים של בתי קברות כלקוליתיים. מעניין לציין שכל אחד מהטיפוסים האמורים ייצג קו עצמאי יחסית, שבא לידי ביטוי באופי פעילותם, סדרי העדיפויות שלהם והמשמעויות שהעסיקו אותם. כמו כן, ניכרת גם הבחנה מרחבית בתפישתם של הטיפוסים השונים, המרמזת על זיקתם לקבוצות חברתיות שונות. להלן סיכום קצר של חמשת טיפוסים בתי הקברות הכלקוליתיים.

**בתי קברות במערכות קרסטיות מורכבות** נמצאות באזורים פנימיים יחסית בהרי השומרון והגליל העליון.

בתי קברות אלה מנצלים חללים קרסטיים גדולים, מורכבים ופעילים. הן מתאפיינות במספר חללים, מאורגנים בסדר עוקב ושעשויים היו לשמש לביטוי יחסים היררכיים. מכלולי הקבורה בבתי קברות אלה כוללים גם חפצי יוקרה מסוגים שלרוב נעדרים מבתי קברות אחרים, כגון נחושת ואף זהב.

בתי קברות במערות יחידות נפוצים בעיקר בין נחל אלכסנדר ונחל הקישון, לאורך מישור החוף ומרגלות השומרון. בתי קברות אלה כוללים חללים בודדים ורדודים יחסית. ניתן להבחין בשני סוגים של מכלולי קבורה במערות הנ"ל: הסוג האחד הוא מכלול עשיר במיכלים קראמיים שבתוכם הונחו עצמות המתים; הסוג השני כולל מעט מאוד מכלים מעין אלה והעצמות מונחות במצבורים על גבי רצפת המערה. את מרבית המכלולים ניתן לייחס לאחד משני הסוגים הנ"ל. אך לפי הממצאים במעברות (פרק 5), נראה שמדובר בתופעה כרונולוגית, לפיה השימוש במיכלי קבורה הלך ופחת עם הזמן. כמו כן, היות בתי קברות אלה מערות קטנות יחסית ומבודדות הן מחוללות רושם אחד מבפנים ומבחוץ. ככאלה הן עשויות לייצג ניסיון להנציח קשר ישיר בין המתים והחיים ובין העבר וההווה וככאלה מגלמות משהו דומה לשושלת.

בתי קברות מרובי מערות נפוצים בעיקר באזור שבין נחל הירקון ונחל השורק, לאורך מישור החוף והשפלה. בתי קברות אלה כוללים ריכוז של מספר משתנה של מערות רדודות יחסית. נראה שארגון בתי הקברות האמורים נסמך על ייצוג שני קצוות והרצף ביניהם, אשר בא לביטוי באמצעות מכלולי הקבורה. המבנה האופייני של בתי קברות אלה הוא של מערה אחת ובה מכלול של קנקנים, מערה אחרת ובה אגני קבורה מלבניים מאבן, ומספר לא-קבוע של מערות נוספות בעלות הרכב מכלול משתנה של גלוסקמאות וקנקנים. הקנקנים והאגנים מייצגים ניגודים מבחינת חומר הגלם (חרס לעומת אבן) והצורה (מעוגלת לעומת רבועה). הגלוסקמאות שמצויות ביתר המערות מהוות טווח-ביניים (עשויות חרס אך צורתן רבועה). יתרה מזאת, המערות שמייצגות את טווח הביניים ועומדות בסימן הגלוסקמאות נמצאות בדרך-כלל כשתחולתן שבורה וחסרה. נראה שמדובר בתהליכים אינטנסיביים של שבירה מכוונת וסירקולציה של שברים בין מערות ובין בתי קברות. ייתכן שתהליך זה הלך יד ביד עם פיחות בהופעתן של גלוסקמאות חדשות. בכללו של דבר, בתי הקברות הנ"ל מגלמות תופעה מערכתית בעלת מסגרת מוגדרת. ייתכן שמדובר בייצוג של האופן שבו נתפס המערך החברתי כמכונן על-ידי שני אלמנטים ניגודיים וביניהם טווח ביניים רחב.

בתי קברות בניינים מוכרים בעיקר מצפון הנגב ודרום מישור החוף. בתי הקברות הנ"ל כוללים ריכוזים של עשרות מבנים, הנבדלים זה מזה בגודלם ולעיתים גם בצורתם. ניכר שמבנים אלה נבנו ונזנחו בקצב מהיר יחסית. ניכר, כמו כן, מאמץ לבטא קשרים של קרבה בין מבנים מסויימים. במקרה של שקמים (פרק 11) טיב היחסים בין היחידות השונות אופיין באמצעות הבחנות בגודל המבנים והמרחקים ביניהם. בפלמחים (צפון), נעשה שימוש גם בצורת המבנים. למעט השימוש החוזר ונשנה במספר מוגבל של אלמנטים, לא נראה שבתי קברות אלה היו בעלי מסגרת כוללת שהכתיבה מראש פרמטרים לסדר הפנימי. הרושם העיקרי הוא שבתי קברות אלה פועלו לאור הגיון תחבירי פתוח, שבעוד שאמצעי הביטוי (מבני הקבורה) הוגדרו מראש לא הוכתב דבר בנוגע לסדר המתהווה. הרושם הדינאמי של בתי הקברות הנ"ל סב סביב ההופעה התכופה של מבנים חדשים, המייצגים גם יחידות חברתיות. כלומר, יחידות חברתיות חדשות הוגדרו לעיתים קרובות ואלה אפיינו את זיקתם ליחידות אחרות על-פי גודל וקרבה.

כביש כיסופים. אם כי טיפוס זה של בית קברות מיוצג על-ידי אתר יחיד, הוא מובדל די הצורך מהאחרים כדי לתמוך בהגדרתו כטיפוס עצמאי. הוא כולל קבורה קיבוצית גדולה ומבנה קבורה מלבני ושקוע, המוקף בקברים בודדים. בהתחשב בחשיפה המוגבלת של האתר ובייצוג המוגבל של כל אחד מהאלמנטים לא ניתן לבסס פרשנות מספקת של פעילות וארגון האתר. מעניין לציין עם זאת שבמבנה הקבורה שנמצא מלא בכלים שלמים, לרבות גלוסקמאות וקנקני קבורה, נמצאו שני נקברים צעירים בלבד. כמו כן, כל מכילי הקבורה הייעודיים נמצאו ריקים.

מעניין מאוד לציין, שכנגד ההבדלים המהותיים בין בתי קברות שונים שאכלסו את מרחב דרום הלוואנט בתקופה הכלקוליתית, אופן הטיפול בגופה ככל הנראה היה זהה או, לכל הפחות, דומה בכולם. מדובר בקבורה משנית של מבחר עצמות שנאספו לאחר שהרקמות הוסרו, בדרך-כלל עם העדפה לעצמות הגולגולת והגפיים. ייתכן ואת טיב הזיקה בין השניים ניתן לתאר כך: בתי הקברות עושים שימוש בנהגי הקבורה המשותפים לכולם, על מנת לבטא רעיונות ואידיאלים מקומיים.

## חלק II: בתי הקברות בני-זמננו

ניתוח בתי קברות ישראליים בני זמננו מכוון לניסוח הבנה ארכיאולוגית של המוסדות האמורים על-ידי זיהוי מאפייני מפתח של ארגון והתפתחות מתוך הדפוסים החומריים שהם מייצרים. על מנת להפיק בסיס נתונים נוח לניהול, נעשה שימוש בשיטות של דיגום וניתוח כמותי. שמונה בתי קברות נבחרו למחקר כך שייצגו ארבעה טיפוסים בסיסיים: בתי קברות אזרחיים סגורים (פרקים 15 ו-16), בתי קברות אזרחיים פתוחים (פרקים 17 ו-18), בתי קברות של קיבוצים (פרקים 19 ו-20) ובתי קבורת צבאיים (פרקים 21 ו-22). דגימה, הכוללת בין 165 ולמעלה מ-200 פרטים, הופקה עבור כל אחד מבתי הקברות, בשאיפה לספק ייצוג לרצף הזמן וליחסים מרחביים מקומיים. המשתנים שתועדו עבור כל פרט כללו את מיקומו בזמן ובמרחב, גיל ומין, חומר וצורת המצבה, וסמלים ותוספות שונים שנוספו למצבה או מסביבה. בעוד שתכונות אלה אינן מכסות את מלוא טווח המופעים האפשריים של בתי הקברות המודרניים, הם צפויים לבטא מכלול של שיקולים ותהליכים המתנהלים ברמות שונות. כך למשל, הנתונים האנתרופולוגיים מייצגים את הנקבר – מושאה של פעילות של קבורה. תכונות המצבות לניתוח נבחרו עם דגש לייצוג וחוויה חושית וכך שייצגו מבנה היררכי: החומר מהווה רקע לצורה בעוד הצורה משמשת רקע לאלמנטים הנוספים.

ניתוח בסיס הנתונים שהופק כולל את התפלגות הצורות, החומרים והסמלים לאורך ציר הזמן, וייצוג היחסים המרחביים בין קברים ובין המינים. המאמץ הפרשני מכוון אל עבר הצגת מהלכיהם התפתחותיים של שיחים, כפי שהם באים לידי ביטוי ביחסים כמותיים משתנים בין תופעות חומריות לאורך ציר הזמן וחשיפת עקרונות מארגנים יסודיים. גישה זו רלוואנטית בעיקר עבור התכונות השונות של המצבה (חומר, צורה, מוטיבים). בכללו של דבר כל תופעה חומרית צפויה לייצר לאורך ציר הזמן עקומת פופולאריות בעלת שיא יחיד. בהתאם לך, ניתן לייצג תהליכים של שינוי ברקורד הארכיאולוגי באמצעים גרפיים כרצף של עקומות חופפות למחצה ובעלות שיא בודד. כל עקומה מייצגת את השינויים בנוכחותה היחסית של תופעה נתונה, כך שהתרוממותה של עקומה אחת מצויה במתאם עם צניחתה של אחרת. כיוון, שבסיכומו של דבר, מדובר בתופעות המיועדות לקחת האחת את מקומה של האחרת, פרקי הזמן של החפיפה מתגלים כפרקי זמן של מתח ותחרות. לפיכך, ייצוג גרפי של שינויים בפופולאריות של סדרת תופעות על ציר הזמן הנו גם ייצוג מהלכו של שיח חברתי, המאפשר את המעקב אחר התפתחותו, תנודות במוקד העניין שלו ובאינטנסיביות שלו.

פן אחר של ניתוח הנתונים הנו מרחבי ונוגע בעיקר לטיב הזיקה בין קברים ופיזור המינים. כאן, יחידת המידה אינה של זמן אלא של מרחב. הניתוח כולל בעיקר את קביעת נוכחותה של תופעה נתונה בתוך מכלול: הכמות היחסית של סוג זיקה מסוים של קברים בתוך קבוצה ואופן פיזור המינים ביחידה מרחבית נתונה. אולם, בהעדר ממד של זמן, הדפוסים הנ"ל יוותרו מנותקים מאלה שנדונו לעיל. למרבה המזל, ניכר שבמרבית המקרים ישנו מתאם בין המיקום המרחבי ופרק הזמן שבו התבצעה הקבורה. כיוון שכך, ניתן להתייחס אל הקבוצות מרחביות גם כמייצגת פרק זמן נתון, אותן ניתן לערוך בסדר כרונולוגי. באופן זה גם את התופעות המרחביות ניתן לקשור למהלכים לאורך ציר הזמן.

מהניתוחים הנ"ל עולה שאף-על-פי ששלושת המרכיבים של המצבה שנבחנו (חומר, צורה ומוטבים), הנם שותפים לאותו רכיב יסודי של בית הקברות, הרי שבכל הנוגע להתפתחויות לאורך ציר הזמן, הם בלתי-תלויים ועצמאיים כמעט לחלוטין. יתרה מזאת, נראה שכל אחד מהם פעיל ברובד אחר של שיח חברתי:

- א. חומרי הגלם מעורבים בתהליכים חברתיים רחבים המכילים את כל או רוב בתי הקברות.
- ב. צורת המצבה מעורבת בסוגיות שמעסיקות את הקהילה המקומית (דהיינו, בית הקברות גופא), בעיקר בכל הנוגע לייצוג וזיכרון, אך מבטאת גם מגמות הנוגעות בנושאים של לכידות וסולידריות חברתית.
- ג. בעוד שהאטריבוטים השונים המתווספים למצבה מעורבים בעיקר ביחסים בינאישיים עם הצופה. מעניינים במיוחד השיחים המתקיימים ברמה הקהילה.

בחינת הדגמים המרחביים, לעומת זאת, נוטים לחשוף יחסים דיאלקטיים מורכבים בין בית הקברות כמוסד האוכף עקרונות מארגנים ואידיאלוגיים ובין פרטים המבטאים את ענייניהם האישיים. המדיניות הממסדית של בית הקברות זוהתה בשני משורים עיקריים:

- א. ההקפדה על קברים יחידים, שבכל אחד נקבר יחיד, מסודרים בקפידה בשורות וחלקות נוטה לקדם תפיסה של הקהילה כאוסף פרטים בלתי-תלויים. יתרה מזאת, ארגון הקברים בשורות מונע במידה רבה את היווצרותם של יחסים מרחביים ספונטניים.

- ב. בארבעה מתוך שמונת בתי הקברות שנבחנו דפוסי הפיזור המרחבי של המינים איננו אקראי ונוטה להפריד פרטים שאינם מאותו המין, עדות לוויסות מכוון, שיש ליחסו לרמה הממסדית. עימות של מקרים פרטיים עם עקרונות אלה לרוב סבה סביב נוכחותן של מצבות כפולות או מקרים אחרים של ייצוג זיקה בין פרטים. הדבר בא לידי ביטוי כדלקמן:
- א. בהקשר כללי של קברים בודדים ובלתי תלויים, צמדי-קברים מייצגים תעדוף של קשרים חברתיים, כאשר הזיקה לקבר נתון מודגש על-פני אחרים. באופן זה, העמדה המוסדית לפיה הנקבר/ת מהווה פרט שעומד בפני עצמו מאותגרת, כאשר עמדה לפיה הפרט הנו מכוון חברתית זוכה לביטוי.
- ב. כיוון שהארגון המרחבי של הנקברים בשורות ממזער את האפשרות לביטוי קשרים חברתיים, הרי שייצוג קשרים כאלה בבית הקברות מחייב עימות מסוים עם המדיניות המוסדית.
- ג. בבתי הקברות בהם ניכרת מדיניות של הרחקת פרטים שלא מאותו המין ניכרת גם זיקה הדוקה בין הקברים המבטאים קשר חברתי ומיקומם של קברים בני שני המינים זה לצד זה. הדבר מהווה עדות נוספת לשיח ושיח בין הצרכים והרצונות האישיים ובין מדיניות בית הקברות.
- כמו כן, ניכר שההבחנה המשמעותית ביותר בין בתי הקברות עצמם, כיחידות כוללות, נוגעת להבדלים במידת השליטה הממסדית, המופעלת כלפי פנים על הקבורות היחידאיות. בעוד שבחלק מבתי הקברות השליטה הממסדית חדלה ברמת הארגון המרחבי של האתר ונמנעת מלהתערב בביטויים אישיים, באחרים ניכרת מדיניות ברורה של דרישה לאחידות המצמצמת באופן ניכר את המרחב לשיח חברתי. במידה פחותה מעט, בתי קברות נבדלים גם בתכנים, כפי שאמור לגבי נוכחותה או העדרה של מדיניות מגדרית של הפרדת המינים. לאור הבדלים אלה המחקר הנוכחי תומך בהבחנה בין שלושה טיפוסים של בתי קברות הנבדלים בפרטי המדיניות המוסדית שלהם:
- א. בתי קברות המתאפיינים בהתערבות מוסדית משמעותית וויסות הביטויים האישיים (צבאי);
- ב. בתי קברות שמסתפקים בוויסות הארגון המרחבי והמקפידים על מדיניות מגדרית (אזרחיים, דתיים);
- ג. בתי קברות שמסתפקים בוויסות הארגון המרחבי ללא כל מדיניות מגדרית (אזרחיים, קיבוצים).

### חלק III: בין עבר והווה

להתייחסות אל תופעות תרבותיות נבדלות כאל ניגודים ההשלכה המבורכת של הכוונת תשומת הלב אל פנים שאינם בולטים לעין ודחיפת פרשנות אל עבר ההבהרה של מאפיינים דקים ויסודיים, שאחרת היו נותרים מובלעים. גישה מעין זו לובשת צורה של תנועה הלוך וחזור בין שתי התופעות, כאשר כל אחת משמשת להדגשת מאפיינים מסוימים בקרב רעותה ובתוך כך מתקדמת אל עבר ניסוח הפער היסודי ביניהן.

במקרה דנן, הדיון נע דרך מספר נושאים: ההקשר הכללי בתוכו בתי הקברות פועלים, יחידות היסוד החיוניות שמרכיבות אותם, שונות בין בתי-קברות, מדיניות ושיחים פנימיים. בתוך כך מגוון הבחנות זוכות להדגשה.

ראשית, יש לציין שכיוון שהן מושא המחקר המודרני והן זה הקדום עונים על ההגדרה של בית קברות, הרי שברמה הכללית ביותר הם שווי-ערך, שניהם מקפידים על הפרדה מרחבית ברורה מאזורי מגורים ושניהם מייצגים ייצוג בר-קיימא של המתים כקהילה. אולם בעוד שבתי הקברות בני זמננו מהווים במידה רבה מונופול במובן זה שאינם נדרשים להתחרות בחלופות, הרי שבתקופה הכלקוליתית בית הקברות היה רק רכיב אחד מני רבים.

מבחינה מבנית, בתי הקברות בני זמננו מציגים עצמם כמעט ממבט ראשון כאתרים של קבורות יחיד חוזרות ונשנות המחוללות את אותו הדפוס שוב ושוב. בהקשר הכלקוליתי, לעומת זאת, הקבורה הבודדת הנה תופעה חמקמקה ביותר. ככלל, הקבורה גם אינה מהווה את הרכיב המיידני שמכונן את בית הקברות. בין הקבורה עצמה ובין בית הקברות כמעריך כולל ישנם לעיתים קרובות מבני ביניים (מערות, מבנים) המאגדים מספר פרטים לכדי קבוצה, והיחידה המרחבית-חברתית הזו היא שמכוננת את בית הקברות הכלקוליתי באופן ישיר. מכאן שבעוד שתשומת ליבם של בתי הקברות המודרניים מופנית לקברים ולנקברים עצמם, הרי שתשומת ליבם של אלה הכלקוליתיים מופנית ליחידות חברתיות.

יש צורך במבט חטוף בלבד על מנת להבחין שהנוף המופק על-ידי בתי הקברות הכלקוליתיים מגוון הרבה יותר מזה של ימינו. יתרה מזאת, באופן יחסי בתי הקברות המודרניים הומוגניים ביותר: כל בית קברות

מהווה ואריאציה של האחרים, לכולם אותו מבנה (קבורות בודדות, סדורות בשורות וחלקות ומעליהן מצבה) בעוד שאת השונות ביניהם ניתן לתאר במונחים יחסיים של תנודה בין אחידות פנימית רבה לשונות פנימית ניכרת. מעניין לציין, עם זאת, שמקור השונות בשני ההקשרים הנו במרחב החברתי ולא בזה שקשור לנהגי הקבורה עצמם. אולם מעמד המרחבים בשני ההקשרים התרבותיים שונה מאוד. בעוד שהמבנים החברתיים הנם בעלי חשיבות מרכזית בארגון בית הקברות הכלקוליתיים, הרי בימינו למרחב החברתי חשיבות משנית בלבד. נראה שבעוד שבבתי הקברות של ימינו נוהגי הקבורה שולטים במרחב הייצוגי ומגבילים את הביטוי החברתי, הרי שבאלה הכלקוליתיים נוהגי הקבורה משרתים סדר-יום חברתי. מכאן שההבחנה שהבדלים גדולים יותר בקרב האחרונים הנה צפויה ונגזרת ממעמד הממד החברתי במערכת.

על רקע ההבחנה שבשני המקרים הנדונים נהגי הקבורה עקביים בכל בתי הקברות בעוד שהשדה החברתי נוטה לבטא תופעות מקומיות, הרי שניתן לראות שחלק גדול מתכונות המבדילות את בתי הקברות המודרניים והכלקוליתיים מקורן בהפוך סדר העדיפויות. בבתי הקברות בני זמננו לנהגי קבורה עליונות על פני שיקולים חברתיים מקומיים, והדבר מצמצם את מרחב הביטוי האפשרי לסוגיות חברתיות. הדבר בא לידי ביטוי, מחד, בשליטה מוסדית בקבר הבודד ובשונות מועטה בין הקברים. מאידך, הדבר בא לידי ביטוי בשונות המועטה יחסית בין בתי הקברות, אשר יוצרים יחדיו נוף הומוגני למדי.

על אותו המשקל ניתן לתאר את בתי הקברות הכלקוליתיים. באלה ניכרת עדיפות של הממד המקומי החברתי על פני זה של נהגי הקבורה, והדבר מוביל לניכוס המוות למטרות מקומיות. הדבר בא לידי ביטוי, מחד, בהתערבות מוסדית מועטה בביטויי הקבר הבודד ובשונות ניכרת בין הקברות. מאידך, בדבר בא לידי ביטוי גם בהבדלים מהותיים בין בתי הקברות, אשר מכוללים נוף מגוון מאוד.

בסיכומו של דבר ניתן לסכם את האמור לעיל באמירה קצרה: עליונות המוות מביאה להיווצרותם של דגמים הומוגניים בעוד עליונות ממדים חברתיים מביאה להיווצרות דגמים מורכבים ולא-עיקביים. את הפער, לפיכך, בין בתי הקברות הכלקוליתיים והמודרניים ניתן לייצג כך:

כלקולית : בין-זמננו  
חברה : מוות  
הטרזגניות : הזמוגניות

אוניברסיטת תל אביב  
הפקולטה למדעי- הרוח ע"ש לסטר וסאלי אנטין  
בית הספר למדעי היהדות ע"ש חיים רוזנברג  
החוג לארכיאולוגיה ותרבויות המזרח הקדום

**חקר פערים בין תרבותיים :**  
**ניתוח בתי קברות כלקוליתיים (5700-6500 לפני ימינו) ובתי**  
**קברות בני זמננו בדרום הלוואנט**

חיבור לשם קבלת תואר דוקטור לפילוסופיה  
מאת : אסף נתיב

מנחה : פרופ' אבי גופר

הוגש לסנאט של אוניברסיטת תל אביב  
יוני 2010