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FAMILY BURIAL, FAMILY STRUCTURE, AND THE URBANIZATION OF HERODIAN JERUSALEM

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Epigraphic, archaeological, and historical data indicate that most of the population in Herodian Jerusalem was buried in family caves. In several cases, however, Diaspora Jews and proselytes were buried together, replacing the family by an alternative reference group of other immigrants or proselytes. Furthermore, the Qumran sectarians, and perhaps also some early Christians and pharisaic haverim*, chose to withdraw from their families and to be buried in the sphere of the sect. This distinctive burial practice results from the ideological tension between the sect and the family (of the sectarian member).*

Analysis of the number of niches in 306 burial caves (presumably familial caves) in light of the skeletal remains from some of these caves leads to a tentative reconstruction of the family structure in Herodian Jerusalem. Most prevalent were the nuclear and the small extended families, whereas hamula*s were distinctively rare. It seems that the average family became smaller during the Herodian period. It is suggested that this process was due to the urbanization of Jerusalem, and that the change in family structure accelerated the growth of individualism in Jerusalem society.*

More than 300 burial caves (the vast majority of them with niches), hundreds of ossuary inscriptions, and countless skeletons from Herodian Jerusalem (37 B.C.E.–70 C.E.) and its environs, especially in Jericho, have been discovered. The niches were used to hold the body for about a year, after which the bones of the deceased were transferred to a stone ossuary, which was stored in a cave or in a niche. In certain cases, the names of the deceased are incised on scores of these ossuaries. Although many scholars believe that the burial caves were family-owned (Safrai 1976, 779 f.; Kloner 1980b, 260; Safrai 1983, 140 f.; Hachlili and Killebrew 1983, 126; Goodman 1987, 68 f.; Patrich 1994, 191, 197, 206; Rubin 1997, 145–53), this assumption has never been investigated in depth. Furthermore, no attempt has yet been made to use these caves and the finds in them to learn about families in Jerusalem or about Jerusalem society in general. Now, with the availability of research studies or lexicons of ossuary inscriptions (Misgav 1991; Rahmani 1994), we should attempt to corroborate it by means of the epigraphic evidence of tomb inscriptions and the archaeological finds in the caves themselves. True, it is no simple matter to reach social conclusions from the archaeological evidence, especially since many of the caves were discovered looted or damaged and therefore the finds were only partial. Nevertheless, I would like to extract as much information as possible from the finds, because studying the connection between burial and the family is of great importance to understanding the social history of the period. Death is merely the continuation of life, while the family is the most basic social framework, and studying it is essential to an understanding of any human society. The relationship between burial and the family can teach us something about family life in Jerusalem (and Jericho), a subject about which we have little historical information.

In the first part of this paper, I will attempt to determine whether the Jewish burial caves in Herodian Jerusalem were family caves. I will show which segments of the population were not buried among their families owing to weak family ties or ideological opposition to family life. The conclusions proposed can help us understand the status of the family in various segments of Jewish society. In the second part of the paper, relying on my conclusion that burial among the family was practised in most of the caves, I will suggest a quantitative method of estimating family structure in Jerusalem society based on the archaeological

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record. The results obtained will be discussed in light of sociological research on the family and our knowledge of society in Herodian Jerusalem.

I. WAS FAMILY BURIAL THE PREVALENT PRACTICE IN HERODIAN JERUSALEM?

A. Inscriptions and families

Can we trace family ties in burial caves by examining ossuary inscriptions, many of which mention other family members? Studies of this sort have been done recently regarding Roman families, but with the main emphasis on the deceased's will, from which conclusions were drawn about family ties (Saller and Shaw 1984; Shaw 1984; Meyer 1990). In contrast, the inscriptions in Jerusalem at most mention only the deceased's family ties. In a previous paper I focused at length on ossuary inscriptions and considered the extent to which they indicate that the people buried in a cave were members of the same family (Regev 2002); here I will simply present my conclusions.

There are three caves that were unquestionably used by one family each: the burial cave of the family of Jehoseph Kalon (Hansler 1912; Misgav 1991, 24–29); a cave in Jericho where the family of Jehoezer Goliath was buried (Hachlili 1979; on ties between the population of Jerusalem and that of Jericho, see Schwartz 1988); and the Sons of Hezir Tomb in the Qidron Valley (although the inscription is dated to the late Hasmonean period), where an inscription tells us that six brothers and the sons of one of the brothers were buried (Avigad 1954, 59ff.). In the first two cases, the family can be reconstructed almost in full from the ossuary inscriptions. In all three cases, these were extended families; this will be significant in the second part of the paper.

Reconstruction of the family ties of the people buried in other caves is more complicated, because the information is far from complete. All that can be determined from the ossuary inscriptions, which include only the individual's name, is that some of the people were related in some way to one or more of the other people buried there (e.g., father and son or husband and wife). We cannot reconstruct the family tree, although it may very well be that all the people buried there were from the same family. For example, in a cave on Har Hamashhit (Mount of Offence, above Silwan) (Clermont-Ganneau 1874; Misgav 1991, 48–52), we can figure out that Eliezer the son of Nati was married to Leah (?), Yehuda was married to 'Shalom the wife of Yehuda', and Shlomtzion was the daughter of 'Shimon the priest, son of Yeshua' (the ossuaries of all of them were found in the cave). The ossuaries of Martha daughter of Pitzhi and Ishmael brother of Ishmael were also found, but those of Pitzhi (Martha's father) and of Ishmael (the brother) were not, and so we have no proof that the latter two were indeed buried together with their families. In other words, six of the people were buried in the same cave as relatives of theirs (or at least one relative), but we have no way of knowing whether the other four in the same cave were buried with their relatives.

In another six caves, there is a similar proportion of cases in which at least one of the people buried is clearly related to others buried in the cave (Clermont-Ganneau 1883 [cf. Misgav 1991, 96–97]; Spoer 1907; Mayer 1924 [cf. Savignac 1925]; Sukenik 1928; Bagatti and Milik 1981, 95–99 [cf. Puech 1983]; Kloner 1996). Such a relationship is determined by mention of the name of the person's father, son, or wife; I refer to this as the 'familial component' (cf. Naveh 1989). In all these seven caves, it is estimated that more than 60 percent of the names carved on ossuaries indicate a familial relationship.

In at least five other caves, however, the familial component is minuscule (Kloner 1980c; Kloner 1993; Hachlili 1978; Naveh 1971; Milik 1956–57), around 13% overall. Could it be that these caves do not contain the remains of members of one family? In my

opinion, the epigraphic evidence is not sufficient to draw such a conclusion. Only 147 of the 895 ossuaries surveyed in Rahmani's catalogue (1994) bear names. According to M. Levin's survey of tomb inscriptions from the Second Temple, Mishnaic, and Talmudic periods, only 28% of the 550 inscriptions (including 721 names) contain the familial component (Levin 1997). In other words, most of the ossuaries have no names, and many others that do bear the individual's name lack the familial component. Thus it is impossible to reconstruct the family of the deceased. Can we conclude that people whose ossuaries have just their own names without the familial component were buried outside the family? Definitely not, just as a person whose bones were placed in an ossuary with no inscription at all may have been buried among his or her family. We have, then, a methodological limitation: the absence of the familial component does not mean that the person was buried outside the family.[1] The inscriptions only tell us when family burial can be identified conclusively. As we shall see below, however, even without the familial component the inscriptions sometimes betray the fact that the deceased were not from the same family: when inscriptions mention people from different countries, it is clear that they were not members of the same family, but rather people from the Diaspora who came to Jerusalem and joined together for burial in a 'pseudo-family' cave.

What does this tell us about whether Jerusalemites were buried in family caves? To a certain degree, the information supports the prevailing opinion that family burial was practised in Jerusalem (and I believe that this view stems from these inscriptions), even though only three caves contain conclusive evidence of use by a single family. In any event, the inscriptions cannot tell us to what extent burial took place outside the family.

The evolution and prevalence of the 'epigraphic habit' in the late Second Temple period is quite interesting. I suggest that it was prompted not by closer family ties but by the increased importance of the individual, whether within the family or outside it. The name and (in certain cases) descent of the deceased were engraved on the ossuary in order to perpetuate the memory of the person as an individual, not just another link in the family chain (cf. Regev 2001, 43–44).

B. Archaeological and historical evidence of family burial

Archaeological and historical considerations support the idea that family burial was the prevalent practice during the Second Temple period. Although these considerations (including the epigraphic conclusions mentioned above) are merely circumstantial and none of them is sufficient to draw such a conclusion, in combination they are quite convincing.

1. *Structure and function of the niche caves*: As will become clear in the second part of the paper, most of the Herodian burial caves in Jerusalem and the environs contain between four and eight niches; only a few caves have more than twelve. Similar structure characterizes family burial even among the pagan population of Hellenistic-period Palestine, as in a cave near Maresha (Kloner, Regev, and Rappaport 1992). Such a small number of niches would be extremely surprising in a public burial cave, because the use of large caves with numerous niches is more efficient and economical. Indeed, public tombs, some of which have inscriptions identifying them as public and stating that the deceased were buried there for a fee, contain dozens or even hundreds of niches, and unlike the Herodian graves in Jerusalem, they are not divided into chambers. This is the case, for example, in Rome, in Palmyra (Toynbee 1971, 221–44), and in the Tombs of the Prophets in Jerusalem (Vincent 1901; Patrich 1994, 206–09; Avni and Zissu 1999).

2. *Non-family burial of immigrants and sects' members*: As we shall see below, three burial caves contain the remains of people from various parts of the Diaspora, including converts. These people did not join 'ordinary', pre-existing burial groups, namely, other local families;

instead, they formed associations of immigrants. If burial had not been family-based (or based on some other reference group that the immigrants could not join), there would have been no reason for people with such different backgrounds to come together in this way. Members of the Qumran sect were buried in shaft tombs, each one separately, rather than in niche caves; this was, in part, because the sect members had left their families (and perhaps abandoned family life in general). Niche caves were used for burial not only in Jerusalem but also in the Dead Sea area (Jericho and Ein Gedi). Thus, if burial in a niche had nothing to do with family organization, the Qumran people might have been buried in niches, too. Opposition to family burial can also be detected in traditions attributed to Jesus, and the Pharisees may have been buried outside the family, too (see below).

3. *The familial context of the niche caves and the practice of collecting bones*: In all the caves discussed in this paper, the bones were collected for secondary burial and usually placed in ossuaries. Almost all of these caves are niche caves. From an archaeological standpoint, there is some evidence for correlation between niche caves and family burial. Inscriptions found in the Jaffa cemetery (which consists entirely of niche caves) indicate that many of the people buried there were related to each other (Kaplan 1959, 95–97; Schwartz 1986, 172–82). In Beit Shearim, in contrast, where some people were buried in niche caves and others were buried in sarcophagi, there is evidence that some of the burial caves were public facilities (Avigad 1971, 190–94; Weiss 1992; Safrai 2001). From an anthropological standpoint, collecting the bones of the deceased reflects family continuity; therefore it is easier to hypothesize that it was family members who made sure to collect the bones (Rubin 1997, 244; cf. Rubin 1992, ch. 2). Although this is still not enough to conclude that each cave held the remains of just one family, since a cave used for family burial was relatively small, it is quite reasonable to assume that this was the case.

4. *Historical evidence of family burial before and after the Herodian period*: The people killed in the Maccabean wars were buried in their ancestral tombs (2 Maccabees 12.39). Simeon the Hasmonean buried his brother Jonathan in their ancestral tomb (1 Maccabees 13.27–28). Writings such as the Testaments of the Twelve Patriarchs, the Book of Adam and Eve, and the Lives of the Prophets state that Adam and Eve, Jacob's sons, and the prophets Hosea, Micah, Joel, Nahum, Nathan, and Azariah were buried among their families; the authors were probably projecting back from their own times to antiquity (Bar-Ilan 1994, 216–19). In the post-Herodian period, as we know from rabbinical literature and especially from the tractate Semahot (mourning), family burial was common and family members were the ones who collected the bones of the deceased from the niche and placed them in the ossuary. In light of this, we can conclude that burial was family-based in the Herodian period, too, and the bones were collected by family members.[2]

Although there were no doubt exceptional cases of burial outside the family (Regev 2002, 50), there is not a shred of evidence (except for scepticism and caution required when drawing such a sweeping conclusion) to indicate that it was the prevailing practice. This may be surprising, because some scholars regard family burial as characteristic of an agrarian society (Rubin 1997, 39), whereas Jerusalem was the main city in Palestine (see below). As will immediately become clear, the cases of non-family burial show that family burial was the prevailing practice.

C. Burial caves of Jews from the Diaspora

In three known burial caves, the ossuary inscriptions indicate that the people buried came from various parts of the Mediterranean and joined together for the purpose of burial. A cave in Shu'afat contains names in Palmyrene and mentions buried people from Syria, Chalcis, and Africa and Greek names that were fairly rare among Jews, as well as more

common Jewish names (Abel 1913; Puech 1983, 508 ff.). Ariston of Apamea (a city in Syria) and his daughters Shlomtzion and Shalom were buried in cave D3 of the tomb complex in Haceldama, along with 'Yehuda Hagior' ('Judah the proselyte') and Shabbetai, son of Nehemiah (Shabbetai is a typical name for proselytes). People from Seleucia and Beirut were apparently buried in cave B2 of that complex (Shadmi 1996; cf. Regev 2002, 51–52 n. 31). The tomb complex may have belonged to the family of the Syrian Ariston, who let other people from the Diaspora — including proselytes — be buried among them (Ilan 1996). What Ariston's family has in common with the other people buried there is a Diaspora origin, apparently in Syria and Lebanon. Jews from Egypt, Cyrene, and Ptolemais were buried in a cave in the Qidron Valley; some of them have names typical of proselytes, such as Sabatis (Shabbetai), Sorra (Sarah), and Jacob. The names of 13 people were found in the cave; quite likely, all were from the Diaspora, and most of them may have been proselytes (Avigad 1962; for additional inscriptions of proselytes in Jerusalem, see Regev 2002, 52, n. 33).

The variety of languages appearing in the inscriptions in the caves indicates that the people came together not only due to cultural similarity but because they did not belong to local society. It seems that the people buried there (or their relatives and/or associates) had been organized from the start as a group of individuals and fragmented families for the purpose of burial in a cave. Some of them were Diaspora Jews who were ready to join together with proselytes, despite the inferiority of the latter in Jewish society (Goodman 1994, 12 f., 63, 80 f., 85; on separate burial of converts, see Matt. 27:6–7; Bar-Ilan 1994, 221). Why weren't they buried in caves with the other Jerusalem residents? Apparently because the others were buried among their families, whereas these immigrants and proselytes had no relatives in Jerusalem and no one with whom to be buried, unless they joined together with each other for this purpose.

Migration, and even more so conversion, tears apart families and separates kin. With no family around, the immigrants in Jerusalem joined with each other. We see something similar in the synagogues of Alexandrian Jews in Jerusalem (t. Megila 2(3):17, Lieberman ed., 252 f.), a synagogue of 'freedmen' (Acts 6.9; apparently Roman slaves who had been freed and granted Roman citizenship), and a synagogue and inn for Diaspora Jews mentioned in the Theodosius inscription in the City of David (Weil 1920). For those buried in these three caves (including, of course, additional Jews and proselytes), the family was replaced by a small community of immigrants and converts who provided mutual support and collaborated with respect to burial. This collaboration was not solely financial and technical, since burial is a social rite (Rubin 1997; Botscharow 1991). The primary reference group of these immigrants and converts consisted of other immigrants and converts, who took the natural place of the relatives from whom they were now cut off, whether willingly or unwillingly. Indeed, sociological studies have shown that immigrants to a new land receive assistance and support from other immigrants (Pfistrer-Ammende 1973, 316; Wilson and Schulz 1978, 39, 128; cf. Soyer 1997) and even rely on each other as a substitute for outside social groups and support systems (Talmon-Garber 1962; Sussman and Burchinal 1964).

D. Opposition among various sects to family burial and commitment to the family

Some of the Essenes and one branch of the Qumran sectarians — the *yahad* — did not marry women (Josephus, *War*, 2, 134; Philo, *Hypothetica*, 11.14–18; Baumgarten 1997, 60–61, 104; Qimron 1992). About 1200 graves were found in the *yahad*'s cemetery in the ruins of Qumran. These are shaft graves dug in the earth for burial of individuals, not families. This form of burial appears to be typical of the Qumran sect and is found in similar, smaller cemeteries in 'Ein el-Ghuweir and Hiam el-Sagha (Eshel and Greenhut 1993; bibliography

in Puech 1998). This form of burial expresses rejection of the sect member's family identity. Instead of being buried with relatives, the person was buried alone, near his or her fellow members (Baumgarten 1998, 392 f.).

Shaft graves from the Herodian period are also found in Jerusalem, Jericho, and Ein Gedi (Zissu 1995, 78, 95, 97, 156; Zissu 1996). Some believe that these shafts, too, contain the remains of members of the Qumran sect or Essenes (Zissu 1996; Hachlili 2001, 117, 124). But although they indeed resemble the graves in the ruins of Qumran, there are similar shaft graves in the Galilee dating from even after 70 C.E., when the Qumran sect no longer existed (Weiss 1989, 64–66). More likely, this is what is known in rabbinic literature as a 'dug grave' (Patrich 1994, 191 f.). This method of burial is, first and foremost, a sign of estrangement from one's family, whether by dint of circumstances or due to a deliberate objection to the family structure, as in the Qumran sect. Therefore, the shaft graves in Jerusalem constitute interesting evidence of a possible disintegration of the family among a certain segment of the city's population. Some of them may have abandoned their families for groups such as the Qumran sect.

Hostility towards family burial is found in traditions about Jesus' sayings to his disciples, which reflect a social situation from the mid-first century. Jesus saw tension between belonging to his movement and family loyalties (Mark 10.29–30; Matt. 10.35–37; Luke 14.26; Barton 1994). Jesus called on his disciples to leave their families in order to join him and demanded total obedience, because one could not divide one's loyalty between the family and the sect (McKnight 1999, 179–87). One of his disciples sought to join him only after fulfilling his obligation to his father by collecting his bones. Jesus replied, 'Let the dead bury their dead' (Matt. 8.22, Luke 9.60), thereby disparaging the disciple's fulfilment of his final duty to his father. Jesus objected to and perhaps even belittled the practice of secondary burial (collecting the bones) by family members. He encouraged his disciple to demonstrate total obedience to the sect at the expense of the duty of family burial (McCane 1990; cf. Basser 1993).

Among the Pharisee *havurot*, too, the group may have taken the family's place in the funerary context. The *havura* was a voluntary association whose members (known as *haverim*) were distinguished from the rest of the population by their meticulousness about separating tithes, and especially by their consumption of ordinary, non-sanctified food in a state of ritual purity. They also engaged in various activities together: visiting houses of mourning, going to parties, studying Torah, praying, and so on (Oppenheimer 1977, 118–69; Regev 2000). And what about the families of the *haverim*? Conflicts could arise between the *havura* and the family when a family member joined the *havura* and his meticulousness about the laws of tithes and ritual purity interfered with harmonious relations with his relatives and household, or when, instead of supporting his family as he was expected to do, he went to study Torah or meet with his colleagues. Here a dilemma could result: Should he leave his family due to his religious piety? Would either side compromise? (For rabbinical attestation of such a case, cf. T Avoda Zara 3:10, Zukermandel ed., 464.)

The *Haverim* are known to have sometimes taken the family's place in collecting the bones of the deceased (t. Megila 4(3):15, Zukermandel ed., 226; Semahot 12:5, Hieger ed., 195 f.). But why? In view of the tension between the group or movement and the family, I would like to suggest that this activity was not solely an act of kindness toward those who had no relatives to collect their bones from the niches and put them in ossuaries. Another interpretation (at least in some cases) may be that the *haverim* who died had been estranged from their relatives, who would otherwise have done it. If so, the *haverim* considered themselves duty bound to honour their colleagues' memory because they belonged to the reference group closest to them, closer even than their family. If the *haver* had become distant

from his family geographically and emotionally, then his closest reference group had to fulfil the role of the family.

We have, then, three cases in which the sect or group sought to take the place of the family in its members' lives and to fulfil the roles of relatives. Why and how did this happen? Baumgarten (1996; 1997, 137–51) points out that one of the factors involved in the flourishing of sectarianism, beginning in the Hasmonean period, was urbanization. In the wake of the urbanization of Jerusalem, he maintains, many residents of the city lost their traditional reference group and the resultant vacuum was filled by the sect or group that they joined. Baumgarten does not discuss the function of the family in the city, because he had no data about the subject. However, in light of the conclusions presented here, which are based mainly on the archaeological and epigraphic evidence, we can now infer that the loss of the reference group was related in part to the sect (or group) member's estrangement from his or her family. The social, economic, and demographic processes that took place in Herodian Jerusalem seem to have expedited and intensified the group ideology of estrangement from the family. The impact of urbanization on family structure and functioning will be discussed toward the end of the second part of this paper.

II. FAMILY STRUCTURE IN HERODIAN JERUSALEM, FROM THE EVIDENCE OF BURIAL FINDS

A. Family structure and the archaeological method

Because the family is the most basic of all social units, the question of what kind of family structure a given society has is of great significance. Is the prevalent family type a nuclear family made up of parents and their children alone; an extended family (three or four generations living as a joint economic unit); or a *hamula* (a term which bears certain similarity to the anthropological term *lineage* and, to lesser degree, to the term *multiple family household*, coined by Leslett [1972, 29–32] which also applies to the above category of extended family)? A society made up of nuclear families will function completely differently from a society based on hamulas. The differences between these family types are manifested in two main ways: (a) socioeconomically, i.e., the way the household is run and the extent of economic ties and sharing of economic resources within the family; (b) psychologically and socially, i.e., social and emotional dependence on relatives (e.g., on an authority figure) and the ties between related nuclear families (Yorburg 1975; cf. Rubin 1997, 87–102). There will be a vast difference between the individual's freedom of action and the power vested in heads of families in a society made up mostly of nuclear families and in a society of hamulas. Therefore family structure determines the character of society to a considerable extent (Todd 1985). Changes in family structure, such as expansion or contraction of the family unit, are of great importance in the development of a society. These changes may be the cause or the result of important social or economic processes.

Some scholars have studied family structure in Israel during the Monarchy (Stager 1985; Bendor 1996; Faust 1997) and the Mishnaic and Talmudic periods (Rubin 1972; Safrai 1983). The subject has been discussed extensively by scholars of Greek and Roman society as well. Analysis of the historical sources has led to the conclusion that families in Greece and Rome tended to be nuclear (Bradley 1991, 162–69; Dixon 1992, 3–19; Saller 1994, 87, 95 f.; Pomeroy 1997, 139 f.). But family structure in Herodian Jerusalem has not been addressed, despite the numerous written sources and the rich archaeological record. It seems to me that this is because the historical sources do not help us clarify the issue, and in order to make use of the archaeological evidence we need a large number of finds and have to perform complex and problematic analyses.[3]

Epigraphic and archaeological research into Roman families have generally led to the conclusion that family units were small (Shaw 1984; Saller and Shaw 1984; Meyer 1990; cf. Morris 1992, 61, 160–64). Most of these are personal tomb inscriptions, wills, and inheritances, which are rare in Herodian Jerusalem or were not preserved at all. Moreover, as we saw above, ossuary inscriptions are of little help in understanding the relationship between burial and family. Actually, the historical and epigraphic sources limit the study of the family (Nathan 2000, 160–68). Consequently, we cannot use them by themselves; we have to investigate the form and methods of burial and their social ramifications, an approach developed recently by several archaeologists (Chapman *et al.* 1981; Morris 1992; Parker Pearson 1993). The huge number of Herodian burial caves in and around Jerusalem (some of which were already in use in the late Hasmonean period) makes such an investigation possible.

I would like to suggest a method for studying family structure based on the number of niches in the burial caves. My quantitative data and numerical conclusions are for purposes of illustration only. I do not believe that the calculations presented here can be accurate; it is sufficient that they suggest a certain trend regarding family structure in Jerusalem. More important than the data themselves is a means of overcoming the methodological problems involved in developing a method for studying burial finds and contending with the absence or deficiency of data. In addition to my main goal of ascertaining the family structure and gaining a good understanding of Jerusalem society in the Herodian era, this paper has two secondary objectives: first, to develop a quantitative method, based on quantitative analysis of the data, for use in social-science research into material culture; and second, to understand the social aspects of funerary practices in the period in question.

If the burial caves are to teach us anything about family structure, we must first confirm two preliminary propositions: (a) Burial in most of the caves was family-based; i.e., there is a connection between funerary practices and the family. This assertion was corroborated in the first part of the paper. (b) The size of the cave is an indicator of the size of the family unit that used it.[4] I will estimate cave size based on the number of niches hewn in the cave to hold corpses. I believe that, in our cases, the size of the cave is not a function of its owners' wealth since a large cave was not a luxury; the owners derived no pleasure from its size. A spacious cave was hewn due to necessity. There was no point in investing in superfluous hewing that served no functional purpose, because there was no advantage to entering a spacious, empty, dark cave unless one needed the space for placing the deceased inside. Therefore, the owners would presumably have hewn a cave that met their needs as they understood them.

The epigraphic evidence is of particular assistance in determining the structure of the families of people buried in Jerusalem in three cases. The first part of this paper mentions three niche caves used, according to the epigraphic evidence, for the burial of one extended family each: the Bene Hezir Tomb (where six brothers and two sons of one of the brothers were buried), the Cave of Kalon (where Jehoseph Kalon, his four sons, the wife of one of the sons, and five of his grandchildren were buried), and the Cave of Goliath in Jericho (where Jehoezer Goliath, his wife, and their children and grandchildren, for a total of 28 people, were buried). (For details, see Regev 2002.)

B. Classification of the caves by number of niches

In order to draw some conclusions about the family structure I will classify the Herodian-period burial caves by the number of niches. Figure 1 shows a classification of 306 burial caves in Jerusalem and the environs, including Jericho, based on the number of niches in each cave.[5] It includes several caves beginning from the late Hasmonean period, mainly in

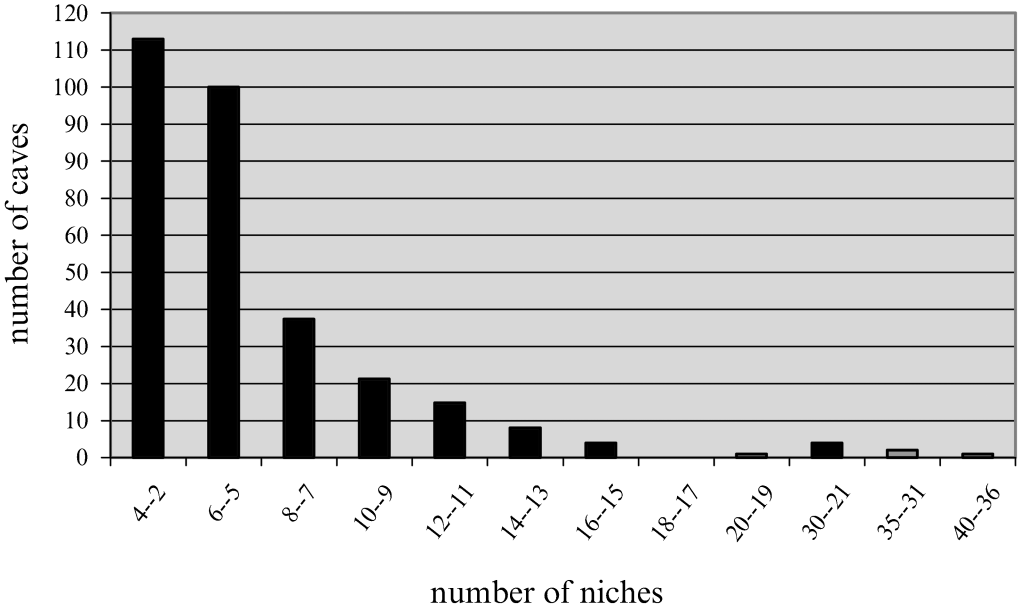

Fig. 1. Distribution of burial caves by number of niches

Jericho, whose population was socially similar to that of nearby Jerusalem (Schwartz 1988) (Fig. 1).[6]

As we can see from Figure 1, most of the burial caves are small. Of the 306 caves, 213 — i.e., 70% — have up to six niches only (despite the exclusion of caves with just one niche). As the number of niches per cave increases, the number of caves decreases; very few caves have fifteen or more niches. In view of my conclusion that the vast majority of burial caves are family caves, we can now determine that most of the families represented in these hundreds of caves were fairly small. Medium-sized families were few in number and very large families were rare.

The large number of small caves supports my assertion that cave size was not a function of economic means. It is unreasonable to assume that so many large families were forced to bury their dead in severely crowded, small caves. They would have hewn more niches and enlarged the caves a bit. The fact that most of the caves contain four to six niches cannot be coincidental, since it is highly unlikely that most families in Jerusalem could not afford to hew a larger number of niches. This distribution of niches per cave in the three hundred caves reflects not an economic pattern but a pattern of thought and social activity, and in my opinion it stems from family size.

C. Calculation of the number of people buried per cave based on the coefficient of the average number of corpses per niche

It turns out that the average Jerusalem family was relatively small. But the relative terms shown in Figure 1 are not sufficient. What is a relatively small family, and what is a large family? How big was a family buried in a four-niche cave? How many people were buried in a fifteen-niche cave? In studying family structure, relative definitions are not enough; we need quantitative definitions that are as precise as possible. The best way to measure the size

of the family unit buried in a cave is based on the number of skeletons found there. True, the discovery of skeletons has its limitations as an instrument of demographic research, primarily because it is evidence of those who died and not those who were born (Parkin 1992, 42–50), although infants were definitely also buried in the family caves in Herodian Jerusalem (see n. 9 below). However, these limitations mainly have to do with determining the age and sex of the deceased and are less relevant to determining the number of deceased persons in a particular family unit. Below I will try to estimate the number of people buried in a family cave, keeping in mind that occasionally people who died were not buried with the rest of the family.

How can we tell how many people were buried in each of the caves represented in Figure 1? Since most of the burial caves had been looted or abandoned, only in isolated cases could the excavators establish the precise number of people buried in a cave. Sometimes the data presented by the archaeologists are incomplete or imprecise due to various technical difficulties during the excavation or during the analysis of the finds. It is no simple task to figure out the number of people to whom the bones scattered around the niches, in the ossuaries, and on the cave floor belong. Furthermore, it is not enough to know the number of skeletons found in unlooted and undamaged caves. After all, burial went on for many years, and a cave in which dozens of people were buried in one generation reflects a different, larger family structure than a cave in which a similar number of people were buried over the course of several generations. Therefore, the length of time a cave was in use is a crucial piece of information. Unfortunately, however, the excavators of caves can rarely tell exactly how long a cave was in use. The caves were hewn in rock and we have no way of knowing when this was done. Furthermore, without coins and a wealth of ceramic evidence it is very hard to date the initial and final use of a cave.[7] If we had a large number of caves for which we could figure out exactly how many people were buried in them and how long they were in use, we could make a precise calculation of the average number of corpses per niche and consequently suggest a more complete reconstruction of the family structure.

Owing to the severe limitations of these data, I can rely only on information from eleven caves for which we have almost complete data on the number of people buried and the length of time the cave was used. Table 1 presents the data from these caves. The average number of people buried in each niche was calculated for each cave, and then the overall average — the *coefficient of corpses per niche* — was calculated. Owing to the dearth of accurate and precise data and in an effort to base this coefficient on as much information as possible, I have included in the table two caves from the late Hasmonean period, one at Jason's Tomb and the other in Jericho; some of the other caves were also first used in the Hasmonean period. The calculation of the number of corpses per niche was made by dividing the number of people buried in the cave by the number of niches. But this calculation requires several pieces of data; it is not enough simply to count the number of niches in a cave. During the period in which the caves were used, ossuaries were also stored in the niches, which consequently were no longer available for corpses. Consequently, I have calculated the number of niches by averaging the total number of niches and the number of available niches (without ossuaries) remaining at the end of the period of use of the cave. (Although some niches may have been hewn later, when the cave was already in use, we generally have no way of knowing whether and when this occurred, and so we cannot take it into account.) When counting the number of people buried in a cave, we cannot merely count those placed in niches for primary burial; we have to add those in ossuaries. As I said above, dating the period of use of the cave is extremely important from a mathematical standpoint. The total number of corpses divided by the number of available niches in a cave was then divided by the number of generations that used the cave (a generation was defined as twenty years). This gives us the coefficient of the average number of corpses buried in a niche per

generation. In other words, if the cave was used for three generations, the coefficient reflects the second generation. Presumably, this coefficient was smaller in the first generation and larger in the third generation. When the excavator was not sure whether the cave was used, for example, for four or five generations, an average of 4.5 was used.

Despite extensive efforts, these calculations cannot be exact. The data themselves are not known with certainty, and the burial process is an aggregate of activities and changes that cannot be reconstructed mathematically by means of averages. Therefore, when I calculate the number of people buried in an average niche in an average generation, I am not claiming that my figures are accurate; rather, I am presenting relative results in order to point out a certain trend in burial methods. The calculations are for purposes of illustration. In addition, they are intended to uncover the methodological problems involved in quantitative research on funerary practices and to help us draw social conclusions based on the burial finds.

In these eleven caves, the average number of corpses per niche (per average generation) ranges from 0.5 to 2.1. The average for all these caves — i.e., the coefficient of corpses per niche — is 1.13. In other words, we can state schematically that 1.13 people were buried in each niche in one generation in each of these caves. In other words, one or two corpses were placed in each niche in one generation. It should be noted that although the sample standard deviation σ_{n-1} is 0.54, it is more significant that the standard error ($\sigma n/\sqrt{n}$ which represents the deviation from the average value of 1.13) is only 0.16.

Despite the problematic and incomplete data and the difficulty of performing calculations of funerary practices, these estimates are of great importance in understanding the practical side of the use of niches and burial caves. The coefficient of corpses per niche indicates that the niches were empty most of the time during the period in which the cave was in use. The deceased was placed in a niche, and about a year later his or her bones were collected and put in a collection pit or (from the Herodian period until the destruction) in an ossuary. The niche then stood empty for many years — almost fifteen years on average. Thus the niches were not utilized most of the time, despite the economic logic of economizing on space and expense.[9] Table 1 also supports my assertion that the size of a burial cave was unrelated to its owners' economic means. If the average number of corpses per niche is so constant, then there is a clear connection between the number of people buried and the number of niches. In other words, the table shows that when a large number of people (in large families) had to be buried, more niches were hewn.

D. Calculation of the number of people per cave and an estimate of the structure of the families buried in the niche caves

It would be unreasonable to claim that, on the basis of the coefficient of corpses per niche, one could calculate exactly how many people were buried in all of the other niche caves. Nevertheless, in the absence of any additional information, whether archaeological or historical, this figure is valuable and we should try to use it. The coefficient of corpses per niche can help us estimate the size of the family unit in other caves based on the number of niches per cave. Thus we can at least obtain an approximation of the structure of the family unit buried in that cave. Multiplying the number of niches by the coefficient of corpses per niche gives us an estimate of the number of people buried in the cave. Note that the result pertains to an average, or middle, generation, because this is how the coefficient itself was computed. For instance, such a calculation tells us that, in a four-niche cave, an average of almost five people were buried in each generation, as shown in Table 2.

Now let us take one step further: After having estimated the number of people buried in each cave, we have to figure out whether this number corresponds to a nuclear family, an

TABLE 1. RATIO OF CORPSES TO NICHES: 1.13 CORPSES PER NICHE ON AVERAGE[8]

Average no. of corpses per niche per generations	Generations (dating)	Total no. of dead persons (including scattered skeletons)	Dead persons buried in ossuaries	Dead persons buried in niches, pits and arcosolia	Niches without ossuaries	Total niches in cave	The site
0.8	3(?)	25			10	10	Jason's cave (Rahmani 1964)
0.5	3	9	–	9	–	6	Mount Scopus — Shulamit Garden (Kloner 1980b, 161–66)
1.4	5–6	72	62	10	7	11	Mount Scopus — Botanical Garden (Kloner 1993)
1.2	6	50?	16	26	5	9	Mivtar Hill (Kloner 1980b, 185–90; 1980c)
1.4	5(?)	14	8	6	1	3	West of the French Hill (Kloner 1980b, 190–92)
2.1	4–5	34	14	20	2	5	Next cave west to the French Hill (Kloner 1980b, 193–95)
0.95	5	33	–	33	–	7	French Hill — eastern slope (Kloner 1980a; Kloner 1980b, 196–203)
0.7	4–5	18	5(?)	13	5	6	Next cave on French Hill-eastern slope (Kloner 1980b, 204–07)
0.65	4(?)	27	17	10	9	12	Mivtar Hill I (Zafiris 1970)
2	3–2	18	14	4	3	4	Mivtar Hill III (Zafiris 1970)
0.75	3	31	22	–	10	14	Jericho, H, Goliat cave, (Hachlili and Killebrew 1999, 37–50)

extended family, or a *hamula*. To this end, we should decide on a quantitative criterion for the size of each of these family types. It is very difficult to come up with hard-and-fast numerical demarcations for each family type; here, too, we are generalizing for purposes of illustration. After all, family structure is defined not only by the number of people but also by the economic and psychological roles of the family members (see above). Furthermore, a high birth rate may result in nuclear families that are almost as big as the extended families

produced by a low birth rate and fewer children and grandchildren (unlike the birth rate, the mortality rate is indeed manifested in burial caves due to the burial of children).

Despite these difficulties, we should adopt quantitative criteria that are not too theoretical and correspond to the functioning of the family unit. My estimate of the size of the various family types is based on the number of generations in a family that function together as an autonomous economic and social unit: a nuclear family consists of two generations (parents and their unmarried children); a small extended family consists of three generations (parents, married sons, and grandchildren; i.e., the sons remain connected to their father as long as he lives); a large extended family consists of approximately four generations; and a *hamula* or multiple family household (some people refer to the hamula as an extended family, but it is worth distinguishing between the two) consists of more than four generations and includes several extended families (for a classification of family types, cf. Safrai 1983, 130 f).

Now we have to try to estimate the number of people in each family type, or, more precisely, the number of people who died per generation in each family type. Such a calculation may be complicated and even highly arbitrary, since it is hard to determine how many family members died in one generation. There are, however, demographic data from burial caves that can help us. An approximation of the number of people buried per generation in each family type can be obtained from a combination of two factors: the skeletons discovered in several burial caves, which enable us to reconstruct the mortality rate in each generation; and demographic estimates of the rate of natural increase in Judea at the time. The evidence provided by the skeletons found in burial caves in Herodian Jerusalem indicates a mortality rate of almost 50%, that is almost half of the population died before reaching maturity.[10] As for demographic increase, the numerous archaeological surveys carried out recently in Israel, and especially in the land of Judea, show a slight demographic increase and positive natural increase during the Roman period (Safrai 2000). Therefore we can assume that at least half of the offspring survived and had children.

In light of these data, we can estimate the minimum number of children per nuclear family at four, with an average of two children dying in each generation and at least two others reaching maturity and probably having children (in order to maintain a positive demographic balance, each set of parents on average had to have at least two children who had children). We should add one of the parents to the minimum number of deceased persons per generation per nuclear family, bringing the number to three. On the basis of these figures, in a small extended family at least four children and at least two adults (parents or grandparents) died per generation, for a total of six deceased persons per generation. In a large extended family at least eight children would have been buried, in addition to at least four adults (parents, grandparents, or great-grandparents), for a total of twelve. In a family of five or more generations (a *hamula*), at least sixteen children and more than four adults would have been buried, i.e., at least 20 persons. All these are minimum figures that would keep the family demography in equilibrium, with no natural increase. For the sake of cautiousness and systematic quantitative calculations, Table 2 is based on these minimal estimations. However, because there was positive natural increase, the average number of births (and deaths) was obviously somewhat greater. Hence, in certain family burials the birth (and death) rate was higher, and consequently some families who were classified below as large-extended were actually small-extended families, etc.

We should bear in mind, however, that Table 2 also depends on the number of niches, which to some extent dictated how the maximum number of corpses for each group of caves was assigned to a particular family type. Table 2 is based on a weighting of three pieces of data described above: the distribution of the 306 niche caves by the number of niches (Fig. 1),

the coefficient of 1.13 corpses per niche (Table 1), and the number of people buried in each of the four family types discussed.

Table 2. Distribution of People Buried in Niche Caves by Family Type

Family type (and the percentage of caves representing each)	Number of niches	Maximum number of people buried (estimated)[11] per average generation	Number of caves
Nuclear (37%)	4–2	5	113
Small-Extended (45%)	6–5	7	100
Small-Extended	8–7	9	37
Large-Extended (15.5%)	10–9	11.5	21
Large-Extended	12–11	13.5	15
Large-Extended	14–13	16	8
Large-Extended	16–15	18	4
Hamula (2.5%)	18–17	20	0
Hamula	20–19	22.5	1
Hamula	30–25	34	4
Hamula	35–31	40	2
Hamula	40–36	45	1

As Table 2 shows, about 113 caves (37%) reflect nuclear families; 137 (45%) caves reflect small extended families, 48 caves (15.5%) reflect large extended families; and only eight caves (2.5%) reflect *hamulas*. Perhaps the most striking finding is the paucity of *hamulas* among the Jews of Jerusalem. It difficult to make a precise quantitative distinction between nuclear and small-extended families, since only three dead persons and one or two niches separates between their average types. Under certain circumstances, a large nuclear family may consist more members (and niches) than a small-extended family with a low birth rate. Therefore, it is extremely significant that 82% of the families were nuclear or small-extended.

The data presented in Table 2 also suffer from a chronological limitation. The table does not represent a precisely demarcated period of time; rather, it is a schematic reflection of Jerusalem society in a period that lasted at least a century. The average number of corpses per niche is calculated on the basis of an 'average generation' in the period of use of the cave (at first the number of people buried in the cave was smaller than this and later it became greater than the average). During this period there were no doubt changes and internal developments that cannot be traced. Most of the caves were first used in the early first century C.E. (some of them were used slightly earlier, although only a few were used as early as the late Hasmonean period), and they were abandoned when Jerusalem was destroyed in the year 70. If so, then the middle of this period, the 30s (shortly after the crucifixion of Jesus), is the time of the 'average generation' for most of the caves. The table above may reflect the social structure around those years.[12]

E. Estimated distribution of the population of Jerusalem by family type

The above calculation of the percentage of families buried as nuclear families, extended families, and *hamulas* is not sufficient. What is more important is to determine the number of corpses buried from each family type, as shown in Figure 2. This will give us an understanding of the proportion of each family type in society as a whole. To make the calculation, we have to convert the families into individuals and present the number of people living in each type of family. To obtain the distribution of the population buried in

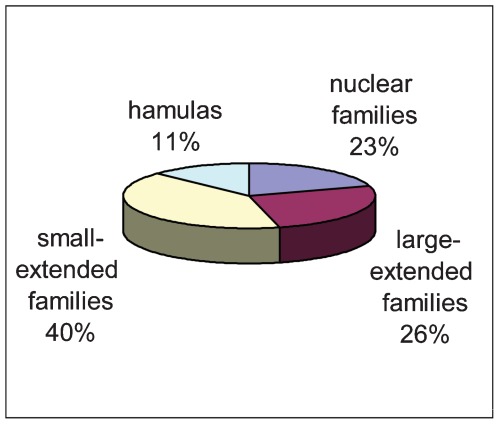

Fig. 2. Distribution of population by family size

these hundreds of caves by family type, we multiply the number of people per cave in each niche category, as shown in Table 2, by the number of caves in that category (for example, each cave in the category of two to four niches is multiplied by the five people that the four niches held on average in the middle generation).[13]

The picture that emerges from the distribution of the population by family type is somewhat different from that shown above in Table 2, where nuclear and small extended families were predominant. Because nuclear and small extended families have fewer people, when we show the distribution of the population they become less predominant. Nevertheless people buried in caves whose size suggests a nuclear family still accounted for a significant proportion of society (23%) and the small-extended family is still the most prevalent family type (40%). Almost two-thirds of the population represented here were buried as nuclear and small-extended families. The number of people buried in *hamula* caves remains small — about one-seventh — and some of them may not be *hamula* caves at all, in which case even fewer people belonged to *hamulas*.[14] However, the true picture that emerges from these data is different from what would appear at first glance.

F. Burial of the dead and social organization of the living: Did families buried as extended families or hamulas actually function as such?

It would be a mistake to assume that the data regarding the methods of burial of some 2500 people indicate that Jerusalemites *lived* in families of one type or another. The burial caves and funerary practices indicate the type of family setting in which they were *buried*. Methods of burying the dead do not entirely coincide with their way of life. The fact that members of an extended family or *hamula* were buried together does not prove that they lived together and formed a homogeneous unit known in socio-anthropological research as a *household* (Goody 1972) or *domestic group* (Seymour-Smith 1986, 80–82).

One way to define the structure of a family from a functional standpoint is by the size of the unit that shares a household. This, however, is not the only reason why an extended family or *hamula* might be buried together. As explained above, the family structure involves an aspect of kinship or emotional dependence among family members. True, one reason for burying relatives together is the functional–economic aspect of sharing resources in order to purchase a burial site, hew the niches, and maintain the cave (for example, collecting the bones). But more important is the symbolic or psychological motivation elicited by the emotional ties among family members, as manifested in placement of their bodies in close

proximity. Therefore, family members who did not share a household may have been close enough emotionally to be buried together as a sign of their genealogical and emotional kinship. This was certainly true in many of the cases in which relatives were buried as large extended families or *hamulas*.

In contrast, the burial caves that represent nuclear or small extended families do indicate the *economic way of life* of those families. The fact that these people were not buried in a larger family setting with additional relatives such as uncles and cousins is a sign that they were not emotionally close enough to do so. If the members of the nuclear family were not emotionally close to their other relatives, then presumably they did not maintain a joint household with those relatives. Burial in a small family setting attests that they regarded themselves as an independent family unit from an economic standpoint, too. Such an analysis assumes that the psychological aspect of kinship is more significant and broader than the functional–economic one. This assertion is supported by sociological evidence, as seen in nuclear and extended families undergoing change. These families are marked by social and emotional ties, but not economic dependence on the extended family (Yorburg 1975; cf. Litwak 1960). Therefore, when there are indications that there was no emotional relationship with the extended family, presumably these people had no economic ties either. In addition to the sociological consideration, we should keep in mind that there is an economic incentive for burial among the large extended family or *hamula*. It is easier and cheaper to hew a large cave with numerous chambers and niches to hold members of the extended family or *hamula* than to make several separate, small caves. For the families buried in the small caves, the division of the family into small units outweighed the economic benefit of burying relatives together.

From a methodological standpoint, the caves that represent nuclear and small extended families have greater validity than those representing large extended families and *hamulas*. When the data on burial methods are converted into hypotheses regarding the families' way of life, we see that the number of families that functioned in everyday life as nuclear or small extended families exceeds the number of caves representing such families, whereas some of the families buried as large extended families and *hamulas* did not function as such in life. Hence we can conclude that the nuclear family and, especially, the small extended family were relatively predominant in Jerusalem society, *hamulas* were almost non-existent, and large extended families were common, although it is hard to know how many families actually functioned as large extended families.

G. *Social characteristics of nuclear families versus* hamulas

According to Yorburg's model, people living in nuclear or small extended families are less dependent economically, socially, and emotionally on their relatives in their large extended families or *hamulas* (Yorburg 1975). The nuclear family becomes a more independent unit and its members enjoy more freedom of action. The place of economic and social ties with relatives is taken by ties with non-relatives — neighbours, friends, co-workers, or people who share their political and religious views — as well as by contact with the government. Hence, a member of a nuclear family (and, in view of the analysis above, a member of a small extended family) is a more independent person than a member of a large extended family or *hamula* is. There is room for individual economic and social initiative and for the development of a worldview that lends greater weight to the individual, i.e., individualism. People who live in such an environment evaluate themselves and are evaluated by society on the basis of their own achievements, and this may impel them to reject traditional patterns of behaviour and thought (for example, by joining one of the sects or associations mentioned above). In Herodian Jerusalem, at least 37% of the families or about a quarter of the population

functioned as nuclear families, and from the discussion above it is clear that their number was much greater, although it cannot be estimated.

The *hamula*, sometimes termed *lineage* in socio-anthropological research, functions as a corporate group (Howard 1996, 175–78), i.e., a joint economic unit. This is a social setting that has almost exclusive say in decision-making regarding its members' livelihood and economic life, their education, the social order, and community life. *Hamulas* split or fall apart as a result of population increase and outside pressure, and this division into smaller units (e.g., extended families) makes life under these conditions easier for the family members.

One might expect *hamulas* to have been significant in Jerusalem society, because family origins were of great importance. The political and religious leadership was made up of large families of distinguished lineage: the Hasmonean dynasty; the Herodian dynasty; the families ('houses') of the high priests (Safrai 1983, 147 f., 155); The common priests were arranged by their ancestry in 'courses' (*mishmarot*) and 'ancestral houses' that were divided into families (Sanders 1992, 170–89), and were concentrated in certain localities (Safrai 1983, 140 f.; Kahane 1978). The practice of collecting bones, too, which is connected to the continuity of the family unit (Rubin 1997, 244), could also bolster the assumption that *hamulas* predominated. Now we see that this was not the case and that, in fact, there were very few *hamulas* in Jerusalem during the Herodian period (this social trend was already sensed by Goodman 1987, 67–69, although with no actual evidence).

H. Nuclear and small extended families and the urbanization of Jerusalem

Jerusalem in the Herodian period was a metropolis by Roman standards. Pliny the Elder refers to it as 'the most famous of the cities of the East' (Pliny, *Natural History*, v, 70; Stern 1980). It clearly met the standard geographical criteria for a city (cf. Schwab 1982, 36–38, 106–08), as well as the archaeological criteria (cf. Bowman 2000) — for example, governing institutions (Tcherikover 1964), economic structure (Jeremias 1969; Safrai 1994, 223, 229), and the arrangement of streets (Wilkinson 1975). Was the large number of nuclear and small extended families an outcome of urban life, which detracts from family cohesiveness, and causes *hamulas* or extended families to break up into nuclear families? It is possible that many city-dwellers become wage-earners or self-employed breadwinners and no longer need economic co-operation within the family (e.g., working the land). The population density and diversity may lead them to form ties with non-relatives at the expense of their ties with their relatives. Such theories regarding the effect of urban life in pre-modern era on family size and function are prevalent (Frazier 1939; Saller and Shaw 1984; Raviv 1993, 50–55; Faust 1997; cf. Leslett 1972; Goody 1972, 104; Southall 1973; Rubin 1972, 113; Wilson and Schulz 1978, 126 ff.). This, however, is not so obvious, since some scholars maintain that ancient urban society did not cause the breakdown of the family (Sjoberg 1955; Greenfield 1961; Talmon-Garber 1962; Sussman and Burchinal 1964; Wilson and Schulz 1978, 22, 26; cf. Yanagisako 1979, 181–83).

The burial finds analysed above indicate that small families were prevalent in Herodian Jerusalem. Below I explore processes that no doubt caused a downsizing of the family structure in Jerusalem and that reinforce my conclusion regarding the downsizing of the family structure in that period. The relative predominance of nuclear and small extended families is consistent with Yorburg's model regarding the effect of urbanization on family life (Yorburg 1975). According to Yorburg's model, the prevalence of a particular family type depends on the level of economic and technological development of the society. Extended families exist in societies in which the distribution of capital is related to family ties. They are common in agrarian societies, where the family is of great importance as a labour force and

land ownership is divided among the family members. In contrast, nuclear families are particularly common in urban society, where they have direct sources of income — i.e., wages — independent of their relatives. In Yorburg's opinion, the division of the family into nuclear units depends on urban job opportunities, the status of the families that move to the city, geographical proximity of relatives, and the value of family ties in the migrants' society of origin.

Two additional social factors weakened family cohesiveness in Herodian Jerusalem city life — immigration and sectarianism (both discussed in sections I.C-D, below). Historical evidence for immigration attests to Jewish pilgrims from most of the Mediterranean basin, some of them pilgrims settled in the city. These pilgrims and migrants from the Diaspora came as families and individuals, but presumably an entire organic family would not make the pilgrimage or settle in the city. Hence, the amount of small families or unrelated individuals increased. There is extensive evidence of the presence in Jerusalem of Jews from the Diaspora — for instance, from Cyrene, Asia Minor, Antioch, and Cyprus (Mark 15.21; Acts 2.5–11; 4.36; 6.1, 5; Hengel 1983). Paul, of course, was originally from Tarsus, in Asia Minor. One may also add Adiabene kings that were buried in 'the Tombs of the Kings' (Kon 1947).

I. Family structure and individualism in Jerusalem society

In the absence of data on family structure in previous generations, especially in the Hasmonean period, I cannot determine conclusively that large extended families and *hamulas* were breaking down into smaller family units during the Herodian period. However, there are several indications that the number of small families did increase in this period at the expense of large families. As Goodman suggests, social and economic processes that often weaken the family were under way at the time. More and more, people were moving from their family farms to the city, where they became wage-earning artisans or independent merchants. Others continued working in agriculture but not on their own land; instead, they became tenant farmers on the land of wealthy individuals or the king (Goodman 1987, 58–64, 68; Pastor 1997, 89–90, 98–105).

The relatively large number of nuclear and small extended families affected the overall nature of Jerusalem society in the Herodian period. It seems to me that individuals in Jerusalem had more freedom of action than they had in the Hasmonean period, because they had fewer obligations to the family and were less subject to the authority of relatives. In previous studies I explained the significance of individualism, which is extensively addressed by sociological and anthropological research (Regev 2000, 190–92; Regev 2001, 44–46). There are three additional indications of a process of increasing individualism in Jewish society in Herodian Judaea. First, the switch to burial in ossuaries is a sign of the greater importance attributed to individuals and a desire to perpetuate the memory of people as individuals (Regev 2001). Second, numerous movements among the Jewish people, including the Pharisaic *haverim*, insisted on 'non-priestly' ritual purity, seeking to be ritually pure for the sake of an individual religious experience when eating non-sanctified food, praying, and reading the Torah. This emphasis on ritual purity related to personal religious experience is manifested in the widespread use of stone vessels (which are not susceptible of impurity) throughout the country and in ritual baths next to synagogues and cemeteries (Regev 2000). Third, this period saw the development and growth of the Pharisaic movement, which emphasized personal religious experience and the personal facet of observing the religious precepts at the expense of the abundant attention paid by the Sadducees to the Temple service and the priesthood (Regev 1999, 203–14, 298–318).

In light of these finds, we can now suggest that economic and social processes in the Herodian period weakened family cohesiveness in Jerusalem and the environs (especially Jericho), increased the number of small families, and reduced the number of large families. These processes and the consequent changes in family structure contributed to the development and acceleration of manifestations of individualism in social and religious life, in the flourishing of movements such as the Pharisees, the Qumran sect, and Christian movements, and in a change in burial practices. For many people in Jerusalem and the environs, the individual's role in society was not what it had been several generations before. The individual's feelings and religious needs became more important and could not be fully satisfied by the Temple service mediated by the priests. Consequently, the Pharisees gained support among the public and various movements and groups flourished, including the Essenes and the Christian communities. In such a society, in which added weight was given to the individual, there was more room for individual initiative and opinions, both in the religious realm (on the views of Josephus and Philo, see Regev and Nakman 2002) and in the realm of economic initiative and political organization. This trend may also have had some impact on opposition to Rome and the growth of movements such as the Zealots and the Sicarii, which were religious as well as political movements.

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NOTES

[1] We can draw conclusions about non-family burial only in a case in which numerous inscriptions with the familial component are found in the burial cave and do not correspond to each other (e.g., if inscriptions read 'X, son of Y' and 'A, wife of B', but the names of Y and B themselves are not found in inscriptions in the cave). If, however, the cave contains numerous additional ossuaries with no inscription, these may hold the remains of the missing relatives. I do not think such a situation exists in the burial caves in the Jerusalem area. Moreover, we should keep in mind that most of the caves were excavated only after having been looted, and there is no way of knowing how many ossuaries were originally there.

[2] See m. Moed Katan 1:5; Semahot 14:2, 5–7 (ed. Hieger, 205 f.); Rubin 1997, chap. 6; Bar-Ilan 1994, 219 ff. and literature there. M Sanhedrin 6:5–6 mentions that those condemned to death were buried but not in their ancestral tombs; only after the flesh had decayed did their relatives re-inter their bones in the family tomb. This also indicates that family burial was common practice.

[3] In theory, we should be able to rely on the size of houses, as Faust (1997) did with respect to Iron Age II, on the assumption that the size of the residential unit indicates the size of the family unit living there. However, we do not have enough finds related to houses in Jerusalem from this period.

[4] In theory, it might be possible to calculate the size of the family unit that used a cave based on the length of time it was used rather than the number of niches: a cave used for more than two generations belonged to an extended family (three or four generations) and a cave used for five or more generations belonged to a *hamula*. However, a cave may have been passed down from generation to generation from one nuclear family to the next. There is economic logic to this: why buy or waste another burial plot and hew additional niches when one can use a cave inherited by someone in the family? Furthermore, collecting the bones makes it possible to use the cave for a long time without filling up all the niches. In table 1 we see that some caves were used for four or five generations, even though few people were buried in them and the families that used them were very small. Therefore, the average number of people buried per generation (see below) is our only indication of the size of the family unit buried in the cave.

[5] I am relying on the number of niches in the caves because placement in niches was the most common method of burial at the time (more than two-thirds of the burial caves from the Second Temple period in the Jerusalem area have niches) and because this method makes the calculation easiest. My calculations do not include bodies placed in arcosolia (which are relatively rare and tended to be used only to hold ossuaries), mainly owing to the difficulty of the calculation; or caves with just one niche, which may not reflect family size. Non-family burial in arcosolia is found in cave 3C at Haceldama, and burial of an extended family in a

one-niche cave is found in the Kalon family cave discussed above. Also excluded from figure 1, are 13 niche caves in Jericho containing wooden coffins that were apparently used for primary burial only (Hachlili and Killebrew 1999, 52, 59).

[6] The graph is based primarily on the data in Kloner 1980b and Zissu 1995, as well as Macalister 1900; Kon 1947; Milik 1956–57; Bagatti and Milik 1958; Rahmani 1964; Avigad 1967; Tzaferis 1970; Reich and Geva 1972; Kloner 1993; Kloner 1996; Greenhut and Avni 1996; Solimany and Re'em 1999; Zissu and Ganor 1999; Hachlili and Killebrew 1999. The use of the caves from Jericho was necessary owing to the importance of the Goliath cave (cf. Table 1). Since the data from Jericho quite resemble the distribution to niches in the Jerusalem caves, the following discussion will not distinguish between Jerusalem and Jericho. The social aspects of Jericho's material culture require separate study.

[7] Kloner (1980c, 192, 206) calculated the number of generations based on changes made in the caves and different stages of burial (e.g., bones that had been placed in niches and later pushed to the edge of the niche in the stage before ossuaries came into use). Such a calculation is merely a hypothesis.

[8] Further notes and details concerning the dating of the caves are necessary: Jason's Tomb, beginning in the Hasmonean period (for an earlier date for the initial use of the cave, see Forster 1978). Shulamit Garden, on Mount Scopus, beginning in the Hasmonean period. Botanical garden on Mount Scopus — Kloner (1993, 105) untenably hypothesizes, on account of the number of empty niches, that the total number of the dead persons was 130. West of French Hill (Kloner 1980b, 190–92), beginning in the mid-first century B.C.E. Next to it — Kloner (1980b, 193–95) mentions an average of 2.89 corpses there per ossuary and uses an overall average of 1.7 (Kloner 1993, 105). This figure enables us to obtain an estimate, based on the number of ossuaries, of the number of people buried in an unlooted cave in which the bones decayed. Eastern slope of French Hill, beginning in the Hasmonean period; Cave of Goliath in Jericho (Hachlili and Killebrew 1999, 37–50), Hasmonean period. In this cave the number of people buried is calculated on the basis of the number of ossuaries and ossuary inscriptions. The calculation of the number of generations is based on Hachlili's reconstruction of the family tree in accordance with the inscriptions. For the total number of deceased in some of these caves see also the bibliography in n.10 above.

[9] Perhaps the Jerusalemites had a constant fear of a high rate of child mortality and sought to make niches available for catastrophes in advance. For example, 40 of the 114 people buried in the Haceldama complex died by the age of five (Zias 1996). See also the next note.

[10] Maturity is defined here as 16 (the age at which they started to have children): at Haceldama, about 50% of more than 100 people buried (Zias 1996); at Givat Hamivtar, 12 out of 35 (Haas 1970); on French Hill, only about 30% of 33 people buried, which the authors note was atypical in antiquity (Smith and Zias 1980); in another cave on French Hill, 19 out of 64 (Arensburg and Rak 1975); in the Tomb of Caiaphas, 43 out of 63 (Zias 1992a); and on Mount Scopus, 42 out of 88 (Zias 1992b). For purposes of comparison, in the Jericho tombs the figure is 65 of 168 people buried whose age we can estimate (Arensburg and Smith 1999), and at Ein Gedi it is 38 of about 94 (Hadas 1994, 63 f.). From all this we can conclude that about 45% of the population of Jerusalem did not reach maturity, and if we include the data from Jericho and Ein Gedi, then the figure is 43% of a total sample of 645 people.

[11] To facilitate the calculation and presentation of the data, the number of corpses is calculated on the basis of the highest value in the column showing the number of niches (a three-niche cave is treated as if it had four niches, thus inflating the number of corpses). Consequently, the numbers in this column of the table and in the graph that follows are not accurate, but, as I said earlier, I am not trying to come up with absolute figures. For our purposes, the method adequately illustrates our conclusions, since we are dealing not with pure demography but with the prevalence of family types.

[12] Several remarks are necessary regarding chronological considerations in calculating the structure of the family buried in a given cave. If the destruction in 70 C.E. had not put an end to Jerusalem society, one might presume, some of the small caves would presumably have grown, the nuclear families would have grown into small extended families, and so on. After all, an extended family begins as a nuclear family that is separated from its extended family. However, this can be the case for only a very small percentage of the caves, for the simple reason that there are too many nuclear and small extended families. In a society in which extended families form the dominant pattern, about one-fourth to one-third of families will be in the evolutionary stage of the nuclear family. But here we have the opposite situation: large extended families and *hamulas* account for only 18% of the families. Moreover, many of the small caves are dated to several generations before the destruction, and the evolutionary process of the families buried in them was not disturbed. Table 1includes caves with a small number of niches that were used for four or five generations.

[13] Approximately 2525 people are represented here altogether: 565 in nuclear families, 1033 in small extended families, 644 in large extended families, and 283 in *hamulas*. It should be kept in mind that these are members of one generation (the 'average generation') and that the number of people buried in each cave would increase over the generations. On the conscious upward deviation of these numbers, see n. 11 above.

[14] Two or three of the caves referred to above as *hamula* caves may simply be aggregates of caves produced in a collaborative effort by nuclear, small extended, and large extended families. These are made up of several chambers with 3–12 niches each; one entered each chamber from a vestibule. The people using any of the burial chambers in the complex did not have to come into contact with the chamber next to it, unlike in other hamula caves, where one went from one burial chamber (and not a vestibule) to another in sequence. These caves are Nicanor's Tomb (30 niches; Avigad 1967, 119–25), the Tombs of the Kings (31 niches; Kon 1947), and perhaps also the Cluster Cave (27 niches; Macalister 1900; Kloner 1980b, cave no. 26–8).

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