

Feasting before the War: Social Structure and Organization of Masada's Rebels*

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Abstract

The ceramic assemblage of the rebels at Masada is compared with other contemporary sites in order to determine whether it is unique or conventional. Consequently, the rebels' material culture is examined to understand their social organization and structure, with an eye to their spatial organization, according to their food consumption and food preparation. The proportion of tableware, storage and cooking vessels, as well as the number and location of ovens and stoves in each building, attest to significant differences in how food was prepared, and the ways it was eaten: from a ceremonial feast with many participants (in the Western Palace and perhaps in Building 11) to a simple meal eaten from communal serving utensils, probably in small social units (in the Casemate Wall and Building 13), and several ways of eating and cooking between these two extremes in the other buildings. This leads to the conclusion that the rebels were divided into several communities with different practices and social structure.

Keywords

Masada, Sicarii, First Revolt against Rome, Pottery, Social Archaeology, Josephus, Meals, Household Archaeology

1. Introduction

According to Flavius Josephus, Masada was captured by the Sicarii anti-Roman rebel movement in 66 CE (*Jewish War* 2.408, 433-434, 447; 7:275, but see the obscure reference to the identity of those who captured it first in War 2.408). Josephus describes the Roman siege and the final days of Masada in great detail, including long citations of speeches made by Elazar son of Yair, leader of the

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rebels (the so-called Zealots) who called on his followers to commit suicide (*Jewish War* 7.252-406; on the Sicarii see [Horsley and Hanson 1985: pp. 200-216](#)). According to Josephus' description, it would seem that the entire population of Masada at the time of its destruction, some 1000 people, all adhered to a homogenous, zealous ideology (*Jewish War* 7.389, 393, 408, 433-434). In 73/74 CE, heeding Elazar's command, they committed mass suicide in advance of the Roman conquest, preferring death to capture. But was the rebels' material culture unique compared to that of other contemporary Judaeans? Did the rebels all maintain a similar social structure and way of life between the years 66-73/74 CE (On doubts about Josephus' veracity regarding the mass suicide, see [Cohen, 1982](#); on the modern myth of Masada, see [Magness, 2019: pp. 187-204](#))?

Apart from Josephus' account, the identity of the inhabitants of Masada is essentially unknown. Archaeological excavations which shed light on the dwellings and daily activities of the rebels were first conducted by Yigael Yadin, and later by Ehud Netzer and Guy Stiebel. Eight volumes of the final report documenting the finds discovered during the first excavation season were published, providing a detailed database for further studies. Several socially-focused enquiries have been carried out, mainly discussing the presence of Essenes (see below) or women at the site ([Reich, 2001; 2003](#)).

In the present study, we suggest that the pottery and other related findings point to structural and organizational aspects of the rebels' society as a whole, as well as variations within it, mainly in the way those are reflected through the rebels' attitude towards food preparation and consumption. Our data is based on the very detailed reports of the architectural remains provided by [Ehud Netzer \(1991\)](#) and the ceramic assemblage by [Bar-Nathan \(2006\)](#).

Social archaeologists exploit material finds, including architecture and ceramics, to reconstruct social organization, food consumption habits, and socio-cultural identity and ideology ([Little, 1997](#); [Yentsch, 1997](#); [Shackel, 1993: pp. 19-27](#)). Beyond being basic living necessities, the finds also constitute a system of symbols and provide information about the social structure of those who prepared and consumed the food ([Douglas, 1975](#); [Lèvi Strauss, 1975](#)). In the case of Masada, a socially based study, focusing on the material outcome of the rebels' settlement, can neutralize historical presumptions regarding the rebels as a social group. Through an archaeological study, relying explicitly on the material remains, inherent biases can be minimized, leading to more balanced conclusions. One way to identify differentiation between communities, namely, different affiliations between people, is when members interact differently around the same aspects of daily life—*viz.* cooking and feasting ([Steidl, 2019: p. 31](#)). Distribution of bread-making installations among households may indicate community structure ([Samuel, 1999](#)), and the scale of food preparation is indicative of community organization ([Twiss, 2012: p. 363](#)). Communal feasting is a means of social differentiation ([Porter, 2000a](#)), since communal behaviors lead to both social integration and social differentiation ([Porter, 2000b](#)).

Here we identify different behavioral patterns in food preparation and consumption in order to identify the discrete social groups that comprised the inhabitants of Masada. We will therefore compare Masada's pottery with other contemporary sites to characterize its features, and then analyze the distribution of pottery types throughout the site in comparison to the distribution of cooking and baking installations. Correlating the ceramic finds with cooking and baking will enable us to demonstrate the various ways in which cooking, baking and feasting were practiced in the different buildings in Masada, attesting to the rebels' social diversity.

Pottery Classification - General Methodology

The main database for this study is the detailed, comprehensive ceramic report published by Bar-Nathan. In the report, every diagnostic sherd salvaged by Yadin was documented and defined, noting its specific locus and stratum of discovery.¹ Bar-Nathan (2006) dated the ceramics of the rebels ("zealots") phase based on typological (with comparisons to the finds in other site) and stratigraphic considerations, and notes that most of it was found *in situ* (2006: 1).

For the purpose of the present article, only ceramic finds which Bar-Nathan conclusively associated with the rebels' phase of occupation were considered. The quantified data was limited to intact vessels and rim fragments. The entire pottery assemblage discussed here consists of vessels attributed to the rebels, from the first century CE. Such an attribution is suggested both by the typology of the vessels and by the stratigraphic context of their discovery. Some Herodian vessels (such as amphoras) were found in the rebels' dwellings, indicating that they made use of them. In our data base we have used a more restrained method of pottery quantification, and most of our analysis is based on relative comparisons of the types of vessels found in the various buildings and not on estimated absolute numbers.²

¹Bar-Nathan, 2006 detailed every diagnostic sherd retrieved from the site, including body sherds, rims, restorable vessels and intact vessels. On the ceramic assemblage in the catalog see *ibid.*, 379-380. In the present study, however, only loci and vessels attributed to the rebels were included. Some vessels were noted in the report to be questionable, and were therefore not included here. This study will focus only on pottery from the primary deposition; the few areas of secondary or accumulative fills were excluded from the database. Though uncommon, there are some problematic areas with evidence of later activity. In cases of suspected contamination or unclear dating those loci or contexts were not included in the database for this study.

²Bar-Nathan, 2006. Due to the breakage pattern of ceramic vessels, there is a fundamental methodological difficulty in quantifying the pottery: a broken fine, open bowl will produce many more rim sherds than a storage jar with a thick, narrow mouth (Orton & Hughes, 2013: pp. 203-218). Bar-Nathan (2006, 5-9) calculated the number of vessels by calculating the ratio of fragments to whole vessels (by size, preservation, percentage, distribution, and breaking pattern), assessing a minimum number of vessels. Our quantification method, however, is more cautious: 1) Only intact vessels and rim fragments were considered (3780 vessels and sherds overall, 3195 in the main buildings and the wall, discussed above), not every diagnostic sherd. 2) Since each vessel type (and sub-type) has a different breakage pattern, each type was compared only to vessels of the same type in different buildings. Jars were compared with jars, cooking pots with cooking pots, etc. Each type of vessel is expected to break in a similar way in different buildings. A cooking pot, for example, if dropped in the floor would result, more or less, in a similar number of sherds no matter which building or room it was dropped in. Therefore, when discussing the ceramic findings of a specific building, the different vessel types were *not* compared with each other since different breakage patterns would clearly distort the representation of the different types. Hence, a thin bowl shattering into 50 diagnostic rim sherds cannot be compared to a large storage jar which usually produces 3 - 4 diagnostic rim sherds. 3) The entire assemblage from one building was compared to the entire assemblage from other buildings by percentages and not by absolute numbers of types of vessels. By so doing, the size of the building does not affect the composition of the assemblage. Clearly, larger buildings would yield larger quantities than smaller ones, therefore comparing the proportional representation of each type balances out the expected disparity. Despite the different method of quantification used by Bar-Nathan and by this study, the relation between vessel types in both approaches remains quite similar.

The main methodology for ceramic analysis at the site relies on functional division of the different vessel types. Three main functional groups were defined: storage vessels, cooking vessels and tableware (for a similar method, see [Berlin, 1999](#)). Cooking vessels include open and closed cooking pots, casseroles and cooking jugs. Tableware consists of personal tableware (bowls, plates and cups) as well as general tableware (large bowls, referred to as kraters, jugs and flasks). The relative ratio of the groups will elucidate patterns of ceramic usage, attesting to patterns of human behavior. Functional class ratios will be examined within the different buildings in the site, recording their residents' attitude towards food storage, preparation and consumption, implying broader concepts of social organization and cultural behavior. The distribution patterns of the vessels within the primary contexts in the various buildings show that certain vessels were concentrated in specific buildings, while others were more widely dispersed.³ Consequently, the ratios of functional classes in each building will be compared with the others. Such a classification is significant not only inter-site, inside Masada, but also intra-site, comparing the ceramic assemblage composition from Masada as a whole to other contemporary sites.

2. The Rebels' Pottery in Comparison to Contemporary Sites

The ceramic assemblage published by Bar-Nathan from the rebels' contexts in Masada is comprised of 4666 sherds. Typologically, it is similar to the findings in other sites in Judea during the 1st century CE, consisting mainly of the forms and types familiar from other large, Judean sites dated to the 1st century CE such as the Upper City of Jerusalem, the Lower City of Jerusalem, the Herodian palaces in Jericho, kh. Qumran, and Ein Gedi ([Geva & Hershkovitz, 2014](#); [Tchekhanovets, 2013](#); [Bar-Nathan & Kamil-Gitler, 2002](#); [Magness, 2002](#): pp. 73-79; [de Vincenz, 2007](#)).

A functional categorization of the Masada ceramic assemblage associated with the rebels' activity at the site indicates that storage vessels constitute 36% of the assemblage, cooking vessels 33%, and 23% consisted of tableware. These include both central tableware such as jugs and large bowls (15%) and personal tableware such as small plates and bowls (8%). Perfume vessels including juglets and bottles constituted 8% of the ceramic assemblage ([Figure 1](#)).

It is interesting to compare the ceramic assemblage of Masada in the rebels' phase to contemporary Jewish sites including proximate sites Ein Gedi, Ein Boqeq and Machaerus, as well as distant Gamla, pointing to the ratios of functional vessels ([Loffreda, 1996](#): pp. 199-203; [Berlin, 2006](#): pp. 103-131; [de Vincenz, 2007](#):

³Post-depositional processes are likely to have affected the destruction layer of Masada. Consequently, climate, geomorphology, and human and animal activity may have contaminated the finds during site formation processes (cf. [Binford, 1981](#); [Schiffer, 1983](#)). Nonetheless, due to the large body of over 3000 rims and intact vessels that forms the database of this study, such processes would statistically have little impact on the entire corpus. Furthermore, certain distribution patterns are both conclusive and repetitive, and it is unlikely that they were created at random. Finally, cooking and baking installations are not mobile and therefore they are less affected by post-depositional processes.

pp. 301-304; Fischer, Gihon, & Tal, 2000: pp. 30, 40).

The ratio of the storage jars, cooking vessels, tableware and perfume vessels discovered at Masada is quite similar to those uncovered in Gamla, Machaerus and Ein Gedi, all of which existed during the 1st century CE (**Table 1**). Storage jars were more common in Gamla than in the other sites. Tableware was more plentiful in Masada and Machaerus than in Gamla. There is no indication that in Masada cooking or storing activities were more intensively carried out than in the other sites, as might have been expected in an isolated site or one preparing for siege or battle. Furthermore, Masada's rebels used an average number of perfume bottles. Thus, the classification of the ceramic findings by function and the comparison to findings from other sites show that the inhabitants of Masada during its final years lived a relatively standard lifestyle, at least as reflected through the ceramic vessels.

The conventional character of Masada's pottery is supported by the presence of fine-ware vessels, imported vessels, and decorated vessels retrieved from contexts

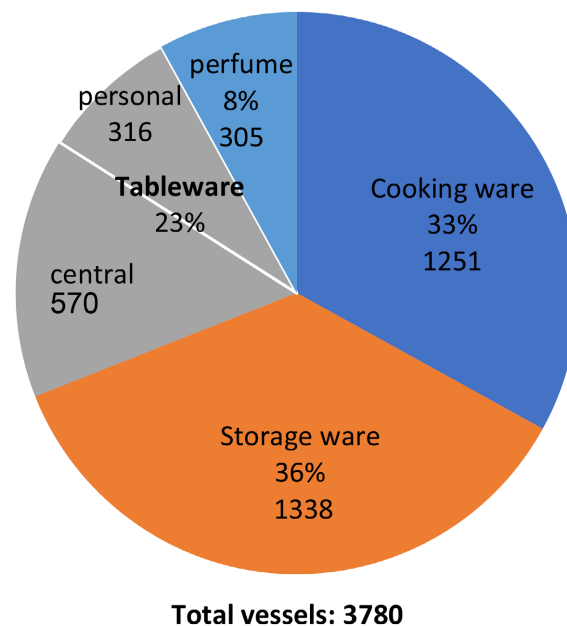


Figure 1. A functional classification of the ceramic findings in Masada.

Table 1. Comparison of the ratio of the types of vessels from the late first century CE^a.

	Cooking	Storage	Tableware	Perfume Juglets
Ein Boqeq	40%	20%	29%	9%
Gamla	32%	45.5%	14%	8.5%
Machaerus	30%	40%	27%	?
Ein Gedi	33%	15.5%	?	10%
Masada	33%	36%	23%	8%

^aNote that **Table 1** does not include lamps. In Ein Boqeq, for example, they constitute 2% of the assemblage.

associated with the rebels in each of the buildings. These include Jerusalem Painted Ware, Nabatean decorated jugs, and mold-made Judean lamps (Bar-Nathan, 2006: pp. 245-278; 279-280; Barag & Hershkovitz, 1994: pp. 59-71). Bar-Nathan also mentioned 400 Eastern Terra Sigillata vessels, but these are still unpublished and the rebels' share of them is yet to be studied (Bar-Nathan, 2006: pp. 384-386). Another group of imported vessels were the many amphoras, originally containing wine and other liquids. These were brought to Masada during the reign of King Herod, and later reused by the rebels, either with their original contents preserved or just as containers (Bar-Nathan, 2006: pp. 307-357; Magness, 2019: p. 169). Imported amphoras were discovered in most of the buildings in which the rebels resided, as were fragments of Red Pompeian cooking ware (Bar-Nathan, 2006: pp. 358-365; cf. Berlin, 1993), and Roman and Nabatean discus decorated lamps, both imported and locally produced (Bailey, 1994).

In other first century CE Jewish sites in the Dead Sea region including Ein Gedi, kh. Qumran and the industrial site at Ein Boqeq, imported vessels are very rare.⁴ In fact, the variety of imported vessels discovered at Masada is also unique because in the 1st century CE there had been a decline in the usage of imported vessels in Jewish settlements such as Jerusalem and Gamla (Berlin, 2006: pp. 130, 157; Geva, 2010: pp. 119-121; Rosenthal-Heginbottom, 2014). During this period, in many Jewish sites there is a lack of imported vessels, probably because they were regarded as impure, while in neighboring pagan sites, the use of imported vessels was very common (Adler, 2010: pp. 221-278).

The relatively rich and varied ceramic findings retrieved from Masada, suggests that the rebels did not suffer from material shortage (*Contra* Bar-Nathan 2006, 372, who stresses the emergency situation of the rebels). Their relative affluence is also attested to by the large number of perfume containers and cooking installations (discussed below), and the rich numismatic finds. Some 61 percent of the 2560 coins found in Masada were minted by the First Jewish Revolt minting authority, and an additional 13.5 percent were minted by the Roman procurators (Reich, 2001: p. 168). Note also their raids on Ein Gedi and other settlements in the Dead Sea region, *War* 4, 402-405, 506-507). As already shown, the ratio of tableware/cooking/storage vessels is also conventional.

Despite its being an isolated settlement located to the south of the Dead Sea in the Judean desert, Masada's ceramic assemblage in the rebels' strata contained a considerable number of imported and fine wares. Its decorated vessels and amphoras resemble those in the affluent Upper City of Jerusalem (Geva & Hershkovitz, 2006: pp. 94-143; Geva, 2010: pp. 118-153; Geva & Hershkovitz, 2014: pp. 145-148), rather than the local assemblages obtained in other Judean Desert settlements such as Ein Gedi and kh. Qumran. The similarity to the Jerusalemite ceramic culture may suggest that some of the rebels residing in Masada were refugees from Jerusalem's Upper City (cf. the Jerusalemite origins of the oil

⁴Fischer, Gichon and Tal 2000: pp. 30, 32-33, 35, 39-40; de Vincenz, 2007: pp. 35-36, 301; Magness, 2002: pp. 75-79; but see the few vessels in Donceel and Donceel-Voûte, 2017, Chapter 4, 43-45; Eisenstadt, 2018: pp. 207-210.

lamps according to petrographic analysis, Yellin, 1994). This also corresponds with Josephus' assertion that the Sicarii fled from Jerusalem to Masada after the assassination of their former leader Menahem in 66 CE (*Jewish War* 2.447).

3. The Rebels' Dwellings: Between the Central Buildings and the Casemate Wall

When the rebels arrived at Masada, they found the existing buildings that were abandoned after the time of King Herod and the ensuing occupation by Roman soldiers. The site included luxurious palaces, administrative buildings, store-rooms containing a supply of food, bathhouses and a Casemate Wall surrounding the summit of the mountain. According to Netzer's architectural report, the rebels settled in only 110 (38%) of the 289 vacant rooms in the center. A few buildings were almost entirely abandoned, including the Northern Palace, probably the most lavish building in Masada (Netzer, 1991: pp. 134-170). The Casemate Wall contained 128 rooms, 94 of them inhabited by rebels (73%). It has been posited that the lower-class rebels resided in the Casemate Wall, whereas the leaders and upper-class residents lived in the central buildings. According to another scenario, once the wall was completely tenanted, those rebels who came later built new dwelling structures adjacent to the wall (Ben-Tor, 2009: p. 41). However, this does not explain why the spacious Northern Palace and the large warehouses remained unoccupied. It is more likely that the preference of the rebels to dwell in certain buildings and avoid others was not solely due to availability or comfort. We propose that social factors influenced the distribution and organization of the rebel settlement, as attested by the composition and distribution of cooking installations and ceramics discussed below.

In some of the excavated structures, the rebels blocked former openings, breached new ones in the walls, and built new rooms adjacent to those previously existing (Netzer, 1991: pp. 388-572). Dozens of inner partitions were added to buildings, subdividing them into smaller dwelling units that afforded more privacy for the residents of each unit, and approximately one hundred such spaces were created (shown on the plans of the structures **Figures 3-10**, taken from Netzer's report. Added partition walls are marked by a thin, gray line).

These small, modified dwelling units are very common along the Casemate Wall. For example, in the south-west of the wall, within four original compartments in loci 1121-1291, some twenty partition walls were added. Ten more walls were built adjacently (**Figure 9**). In loci 1069-1128 in the eastern part of the wall, ten additional walls or partitions were added within four rooms and more were built next to them, flanking the original construction towards the inner part of the mount and forming at least 13 additional rooms. Near loci 1248-1253 in the south west part of the wall, within six original compartments in the wall, 23 partition walls were added, forming small inner rooms (**Figure 10**).

The internal division of the original structure into smaller spaces and the additional constructions abutting the original buildings attest to a demand, at least

in certain areas, for privacy and a social structure consisting of small units. It is difficult to ascertain whether these small units accommodated small families or were perhaps even cells for single residents. Clearly, the rebels who invested such effort in modifying the original structures did not want to share their living space with their fellows.

The social division into small units is also evident in the many cooking and baking facilities: many dozens of stoves (made of mud, rectangular shaped) and baking ovens (*tabuns*, dome-shaped, made of mud or clay) were built by the rebels in almost every building. In an isolated site such as Masada facing the threat of siege with limited fuel resources, why would there be multiple cooking installations? These installations will be thoroughly examined below (Figure 2).

4. Distribution of Pottery Types in the Rebels' Residential Buildings

Besides the chrono-typological description, Bar-Nathan's pottery report contains information regarding the exact locus of each sherd and vessel. This enables us to examine whether there are significant differences in the distribution of the vessels and the quantitative relationship between vessels of different functions across the site, a method implemented in the final report and significantly developed here (Bar-Nathan, 2006: pp. 381-384). Such pottery variances may enable us to identify diverse social characteristics and organizational structures of the residents in the different areas and buildings (Table 2).

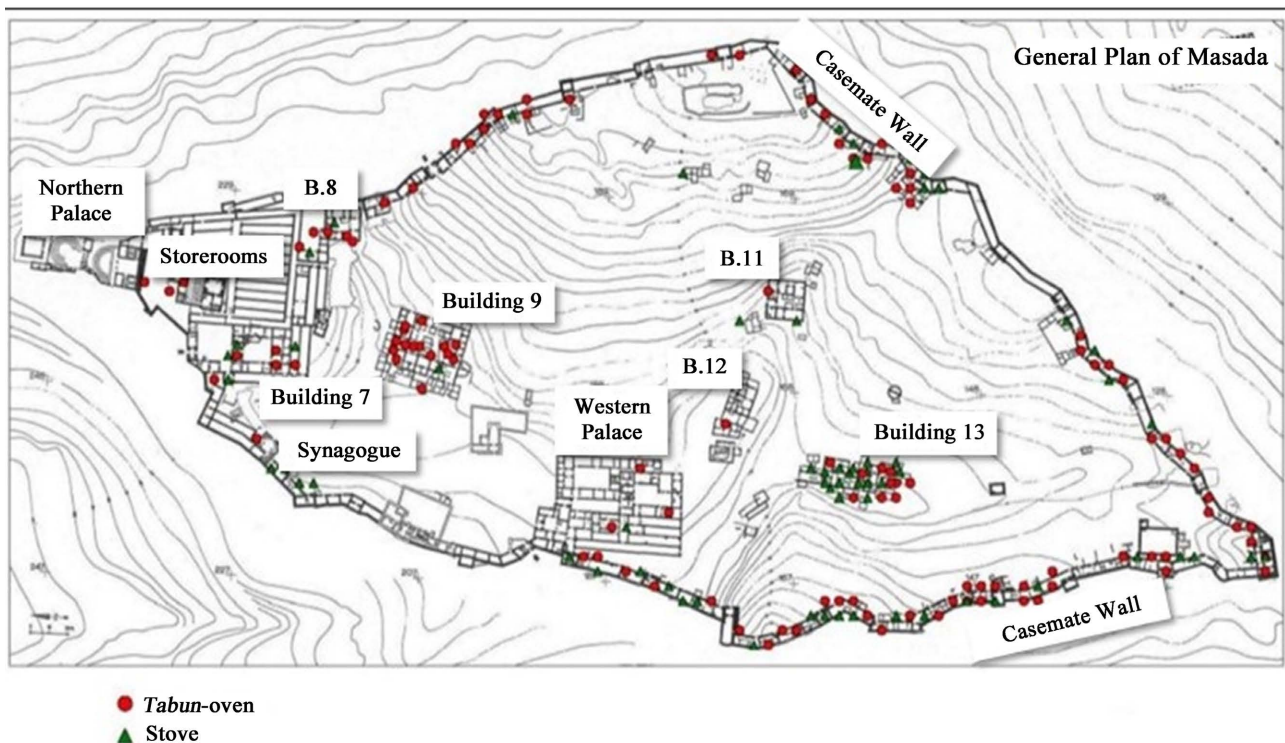


Figure 2. Masada during the revolt: buildings, stoves and ovens (Following Netzer, 1991; Reich, 2003. Only some of the installations are marked due to their density, especially in the casemate wall).

Table 2. Functional distribution of pottery in Masada's buildings.

	Storage jars	Cooking ware	Personal tableware	Communal tableware	Sum tableware	Perfume vessels	Sum of vessels in each building
Building 7	19%	42%	12%	18%	30%	9%	276
Building 9	21%	36%	4%	21%	25%	18%	187
Building 11	13%	37%	8%	30%	38%	12%	77
Building 12	16%	45%	10%	24%	34%	5%	38
Building 13	19%	63%	1%	13%	14%	4%	95
Storerooms	33%	37%	5%	18%	23%	7%	376
Western Palace	22%	30%	18%	21%	39%	9%	767
Northeastern wall	29%	36%	6%	16%	22%	13%	341
Northwestern wall	21%	49%	12%	10%	22%	8%	452
Southeastern wall	31%	37%	4%	18%	22%	10%	397
Southwestern wall	39%	34%	7%	12%	19%	8%	189
Total							3195

The distribution of the vessel types implies a very clear distinction between certain structures, especially between the simply constructed, small architectural units of the Casemate Wall and the central buildings (Table 2). In the Casemate Wall, which surrounded the perimeter of the site and was therefore most vulnerable and exposed to attack, there were higher concentrations of storage jars as opposed to most of the inner, more protected, buildings (the exception being the storerooms and the Western Palace, which also yielded large concentrations of storage vessels). This may suggest that the inhabitants of the wall did not or could not put any faith in the supply stored in the inner buildings, and kept their own stores.

Relatively few cooking vessels were discovered in the Western Palace, while the largest concentration of cooking vessels was found in the nearby Building 13 (in which two of every three vessels were used for cooking!). In Buildings 7 and 12 and in the Northwestern Wall, cooking pots were discovered in large quantities, comprising between 42% to 47% of the findings.

Communal tableware shared by all diners (jugs, flasks, large bowls, and kraters) was more common in the central buildings than in the peripheral wall. Building 13 is the exception. It contains only a few tableware utensils, similar to the Casemate Wall. The presence of tableware for personal use by each individual (bowls, plates, cups and mugs) is exceptionally high in the Western Palace and exceptionally low in Building 13. Building 9 and most of the Casemate Wall (all but the Northwestern segment) yielded only a few personal items of tableware whereas in Buildings 11, 12, and 7 these vessels were found in large quantities.

We have found that in the Western Palace the rebels cooked in a few vessels

but used a large amount of general tableware for dining (39% of the assemblage, some 300 vessels). Yet in nearby Building 13, many vessels were used for food preparation and very few were used for serving (only 1% of personal tableware!). Given that each of the buildings contained vessels of all types as well as ovens and stoves, it is most likely that each building was an independent domestic unit where the vessels served only the local inhabitants. Thus, these ceramic differences reflect different food consumption patterns as regards the preparation and distribution of food in each building.

As for the perfume containers (small vessels used to store various small-scale substances such as perfume, oils, ointments and other unguents), their distribution throughout the site is relatively uniform (ranging between 8% - 13% in all structures, except Building 9). In some segments of the Casemate Wall, larger concentrations of perfume vessels were discovered than in Buildings 12 and 13. It is difficult to ascertain whether they indicate a luxurious lifestyle, but, even if some did not contain perfumes or cosmetics, their widespread use may attest to a relatively high standard of living, not necessarily because of their costly content, but because their use usually exceeded minimal living necessities.

5. Cooking, Baking, Pottery and Architecture in the Rebels' Dwellings

Another distinctive pattern related to food preparation and social organization is the distribution of cooking and baking installations in the residential structures (Reich, 2003). Analysis of the distribution of pottery in relation to the cooking and baking installations in each building reflects the inhabitants' approach to food preparation and consumption, and attests to their social organization and structure. These variables will be presented and discussed in each residential structure or compound from north to south.

All plans in this article are from Netzer, 1991. The rebels' additions are marked in gray with thinner lines. The cooking and baking installations are marked according to the information provided in the architectural report and in Reich 2003. Ovens are marked in purple, stoves in orange. The concentrated storage jars are marked in green, according to the ceramic report.

Building 7 (Figure 3) had an inner courtyard with architectural adjustments executed by the rebels (Netzer, 1991: pp. 26-36). Three ovens and two stoves were installed in two areas in the building. An additional stove and oven were unearthed in the storerooms south of the building. It is likely that the residents of Building 7 cooperated in food preparation which actually took place in one of the three distant cooking centers of the building (Netzer, 1991: pp. 5-36, 623). Similar cooperation is implied by the concentrations of storage vessels in three corners of the building, possibly common storage areas used by all residents of the building to store grain, oil, wine etc. (see Bar-Nathan, 2006: p. 381).

In Building 9 (Figure 4), 14 ovens were installed (but the oven in L366 may have been constructed later, Netzer, 1991: p. 212 n. 4), so that almost every dwelling



Figure 3. Building 7.



Figure 4. Building 9.

unit had its own oven. In contrast, there was only one stove in this building, located inside one of the residential units, rather than in the central courtyard. The residents of the units in this building did their own baking, each relying on their own oven, but the single stove was shared by several units. Many partition walls were added by the rebels, creating more than 20 small rooms (Netzer, 1991: pp. 201-230. Two ritual baths were added here). Architectural modifications and additions to the original structure changed the entrances to the dwelling units so that instead of leading into a communal courtyard they led directly out of the building to the public sphere. This implies that the residents of this building had a low level of cooperation. In terms of the ceramics, the high occurrence of perfume containers (18%) which may reflect personal care for the body, contrasts with the low incidence of personal tableware (4%).

The Western Palace (Figure 5) is the largest building in Masada, comprised of many domestic spaces. Here the rebels made very few architectural modifications. Only two cooking stoves (each capable of holding four pots!) and four ovens were installed, concentrated in two specific areas of the building. One of the ovens was particularly large, measuring 2 m. in diameter (L493). Stiebel suggested that this was an industrial oven in which loaves of bread were prepared for public distribution, as inferred from several ostraca (Stiebel, 2012).

Despite the few cooking installations in the Western Palace, the ceramic assemblage retrieved was the largest and most diverse in the entire site. Some 767 quantified vessels were found here, so it is unlikely that it was used only as an



Figure 5. The western palace.

administrative facility. The large percentage of tableware vessels (39%) included an exceptional concentration of personal tableware (18%, 140 quantified vessels). Cooking vessels were found in smaller amounts (30%). Many of the ceramic vessels were arranged by function in the storeroom of the palace. The large amount of tableware indicates that in this building, personal dining vessels were frequently used, as were communal dining vessels, attesting to communal dining which included personal settings. Ritual dinners and meals in affluent residential structures were commonly served in this manner (Cf. Berlin, 2005: pp. 442-448).

Buildings 11 and 12 (Figure 6 and Figure 7) were relatively small. They shared a similar architectural plan of rooms surrounding an inner courtyard. The rebels added partition walls in each building and approximately ten additional rooms abutting the original structure. Each building had a single oven. Two stoves were installed near Building 12 (Netzer, 1991: pp. 319-329, 335-344). These installations probably served all the residents of both buildings which were located next to one another. In both structures, the largest concentration of vessels was those used for cooking (37% - 45%) and tableware (34% - 38%), with fewer storage jars. It seems that here too there was a certain level of cooperation in cooking

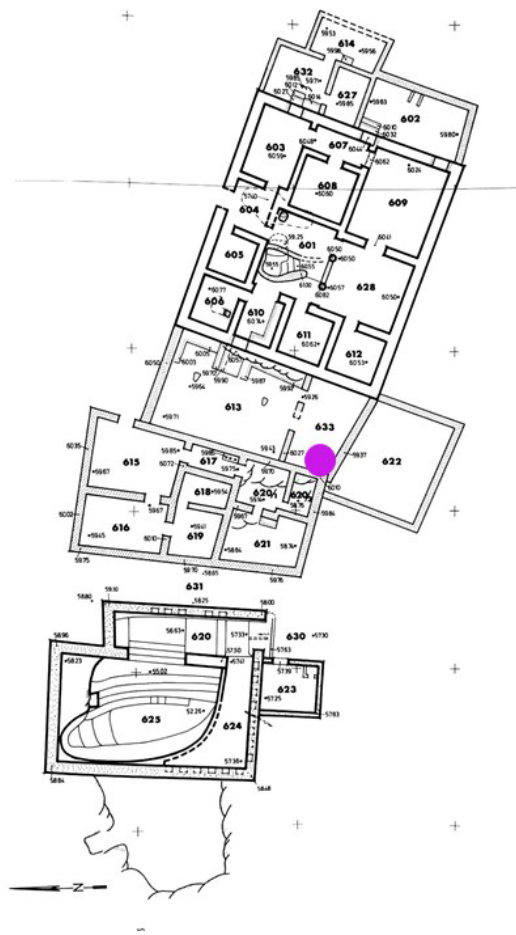


Figure 6. Building 11.

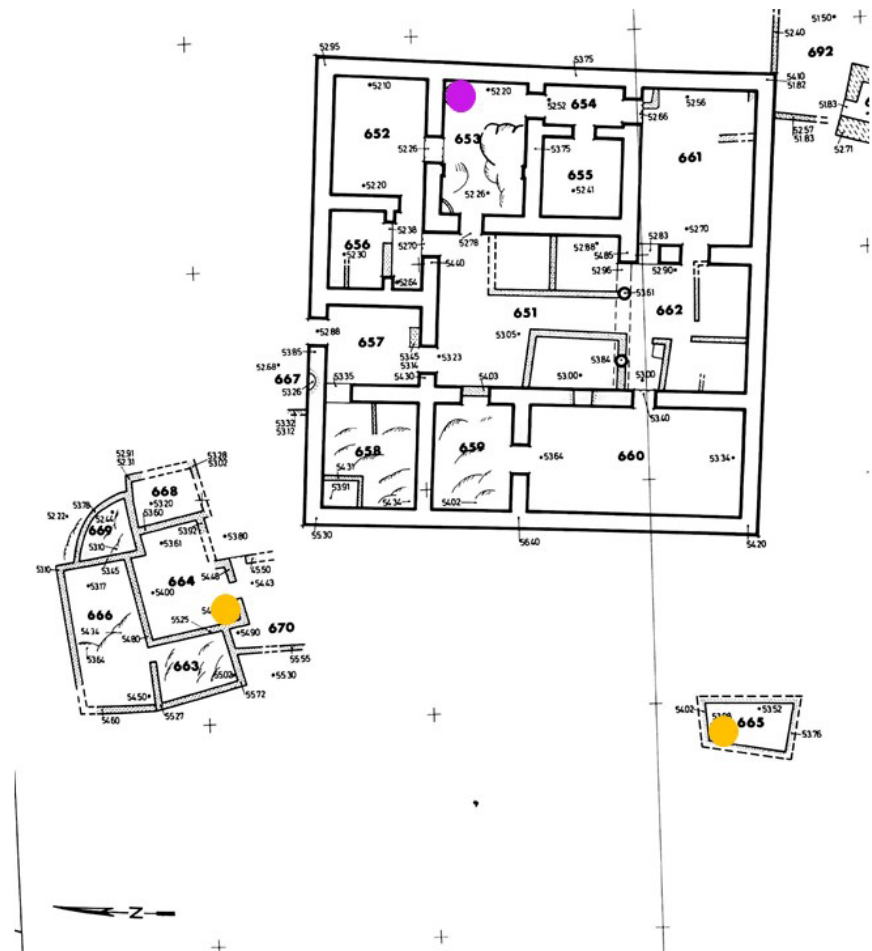


Figure 7. Building 12.

and baking, along with a tendency to eat from individual vessels.

Building 13 (**Figure 8**) was extensively modified by the rebels. Thirty rooms were added by partition walls and adjacent structures, thus dividing the original plan into many small rooms (Netzer, 1991: pp. 344-352). Some 11 ovens and 15 stoves were installed in the building, along with 60 quantified cooking vessels which constitute 63% of the ceramic assemblage. Only 13 quantified tableware vessels, or 14% of the assemblage, were found. The small amount of tableware indicates that food was consumed from communal vessels, probably the pots and casseroles in which the food was cooked. Therefore, cooking and baking were among the main tasks of the residents of Building 13. However, the distribution of installations in most of the units in the building implies they did not cooperate in preparing food in an organized manner. At least some of the residents cooked or baked in small social units. Food preparation was apparently a purely functional endeavor, in complete contrast to the cooperation and attention paid to food consumption by their neighbors in the Western Palace.

The 1300 m. long Casemate Wall built by King Herod surrounded the entire mountain. It consisted of an outer wall located on the edge of the cliff and another, inner parallel wall which formed a 4 m. wide passage encircling the site.



Figure 8. Building 13.

Between the two walls, smaller partition walls were erected to create dozens of cells of varying size. Additional small walls and adjacent structures were built by the rebels for residential purposes (Netzer, 1991: pp. 385-572; Ben-Tor, 2009: p. 40, counted 90 residential units of the rebels in the wall). In the ceramic report, the wall was artificially divided into four segments: the northwestern, southwestern, northeastern and southeastern sections (Netzer, 1991: p. 385; Bar-Nathan, 2006: p. 384).

Most of the residential complexes created in the wall were architecturally independent, not sharing a common public space and with almost no interconnecting units (but note the courtyard surrounded by rooms in L119). Moreover, almost every residential unit had an oven or a stove, and often more than one installation (see Figure 2, Figure 9 and Figure 10). Overall, 55 stoves and 103 ovens were discovered in the wall, compared to the 33 stoves and 43 ovens in all the other buildings in the center of Masada. Some 70% of all the stoves and 62% of all the ovens in Masada were installed in the Casemate Wall (Reich, 2003: pp. 144-145, 150-152). Thus, the residents of the wall hardly ever shared cooking facilities or communal living space with their neighbors. The large concentrations of storage jars (21% - 39%) and cooking pots (34% - 49%) in the wall indicate that the residents stored their commodities and prepared their food independently. They did not seem to rely on the other rebels residing in the inner buildings. The tableware found in small concentrations in the wall (19% - 22%) was

comprised of very few personal dishes (4% - 12%: between 16 and 54 quantified vessels in each architectural sequence constituting the wall segments).

The typological distribution of the pottery vessels throughout the Casemate Wall is quite uniform: vessels from each functional type, storage, cooking and tableware, were present in almost each dwelling unit. For example, in L1103 in the northwestern wall, the assemblage consisted of one cooking pot, 7 storage jars and 3 tableware utensils. In L1208 in the southeastern wall 4 cooking pots, 4 storage jars and 2 tableware utensils were discovered. Apart from one locus (L1235), no concentrations of storage jars were found, but rather they were evenly dispersed along the wall. It seems that each unit was run as an independent household in terms of storage, food preparation and food consumption, without relying on their neighbors in the adjacent units within the wall. Dining was from communal dishes with no emphasis on the individual, and apparently with few participants at meals. Despite the overcrowded residence units implied by the abundance of cooking installations, architectural alterations and small rooms, they did not appear to have fewer supplies or possessions than those who inhabited the central buildings. The inhabitants of the wall owned most of the cooking facilities and used a considerable number of perfume vessels (8% - 13% of the pottery in the wall), as well as luxury vessels such as imports and painted-ware, in similar quantities to those living in the center of the mountain. The absence of tableware was therefore a matter of choice and did not stem from a lack of means.

6. Eating Patterns and Social Organization in Masada

The archaeological data presented above points to two general phenomena:

1) Eating patterns—communal or personal dishes? The ratio of storage jars, cooking vessels and tableware indicates the rebels' approach to dining. The multiplicity of tableware, especially personal vessels, indicates the importance of the meal as a ritual ceremony or feast, as explained below.

2) Social organization—cooperation vs. independence: The distribution of stoves and ovens in every building or compound attests to the level of cooperation among the residents in the preparation of food. The architectural plan of each building, especially the additions of inner partition walls and adjacent rooms, may also attest to the social relations between the residents of each dwelling unit and building: to what extent were the small units independent or reliant on their neighbors or on communal facilities?

The correlation between these two aspects sheds new light on the social structure and consequently also on the relationship between the rebels in Masada. These aspects are discussed below in order to draw conclusions regarding the larger social structure of the rebel society.

6.1. Social Aspects of the Rebels' Dining

In what follows, the eating patterns of the rebels are examined. Based on the archaeological record, we shall try to conclude who was included in a meal, what

was the social structure of the act of dining, and what can all this tell us on the social relationships between the inhabitants. The ratio between tableware and other vessels, especially cooking ware, reflects the rebels' attitude towards food and dining. Some maintain that in the 1st century BCE dining in Judaea usually included eating from personal dishes (Magness, 2011: pp. 83-84), but at least in Gamla during the 1st century CE this changed to a communal meal around a central serving dish or directly from the cooking pot (Berlin, 2006: pp. 144-146. On the archaeological characteristics of meals see Hayden, 2001). The additional tableware constituting an assemblage, and the sharper differences in functional ratio in the different buildings provide opportunities to understand by what means dining changed and what was its significance in a social and ritual context. Partaking of food from a few central dishes (and perhaps even directly from the cooking pots) suggests different social relations and commensality, and in the case of Masada it was probably less formal than dining with personal tableware. Abundant use of tableware, namely, elaborate food service vessels, indicates a more formal relationship between the diner and the food (Dietler, 2001: p. 86). It is likely that widespread use of tableware would be indicated for a meal with many participants.

The frequent occurrence of tableware, especially the individual dishes, suggests that more attention was paid to the individuals comprising the social system. When a person eats from a personal vessel, the status of the meal and perhaps the actual activity of food consumption enhances the experience of the individual, emphasizing the self's status and role within the family or other social group. The portion of food served directly and solely to the individual is not merely a matter of nutrition, but expresses the autonomous status of his individuality—his “self” in society. This individualism coexists with the role of the person within the larger social framework of the communal meal or feast in which the interaction between the individual and the group is enhanced (on individualism see Regev, 2000; Rüpke, 2013).

Usually members of a particular social class partook of such meals at specific times, when they gathered for the communal meal. Meals that require relatively many personal vessels usually have unique social aspects and ramifications. Ceremonial dining, such as the Passover *seder* or the Ramadan *iftar*, creates strong social solidarity among the participants, whereby the individual feels linked to the collective social unit. This may lead to the formation of elite groups and social boundaries between the diners and those excluded from the meal (Bourdieu, 1984: pp. 179-200; Shackel, 1993: pp. 19-41, 49-51; cf. Regev, 2009: pp. 179-189). These meals are labeled “Diacritical Feasts” in Dietler, 2001: pp. 75-93). Such meals may have ideological features that shape collective memory and communal values, constructing an ideology and social structural standards (such as hierarchy) that are embedded in the ceremonial meal (Hastorf, 2003). Indeed, feasting is a ritual activity and a medium for symbolic representation (Dietler, 2001). Feasts demonstrate hierarchy, status and power, and express competition

and conflict. They negotiate loyalty and alliance and promote class distinctions (Hayden & Villeneuve, 2011; Bray, 2003).

There is no clear evidence that such meals took place in Masada, since no distinct dining hall was discovered in any of the buildings (Stiebel, 2013: p. 172 identified a dining room in Building 13, but this does not fit the spatial distribution of pottery, ovens and stoves in that building). It is possible that several rooms were designated for hosting communal meals, especially in the Western Palace. Yet the question of the communal meal also relates to the social organization of the inhabitants. Here the degree of cooperation in food preparation between the residents of a given building is relevant. The concentration of cooking and baking installations in a particular area in a building attests to cooperative organization of food preparation, thus increasing the likelihood of joint food consumption. Therefore, communal cooking and baking (and perhaps also storage), along with the large quantity of tableware, may imply communal meals.

The largest concentration of tableware (39%) was discovered in the Western Palace. This suggests that feasts were held, and stresses the importance of each individual in the social unit. In contrast, the buildings with the smallest concentration of tableware are Building 13 (14%) and the Casemate Wall (21.5%). The rebels who lived in these structures probably ate more casually in small groups directly from the cooking pots or central serving vessels. They did not emphasize the individual and had minimal partnership or cooperation with their neighbors residing in the adjacent dwelling units. The rest of the buildings in Masada are located between these two extremes: the Western Palace on the one hand and Building 13 and the Casemate Wall on the other.

6.2. Independence and Cooperation in Food Preparation and Social Organization

The social relationships between rebels living together in a specific structure can be examined through two material cultural occurrences: 1) The architectural nature of the structure, namely: how many common spaces were shared, or were private dwelling units built to avoid such communal spaces? In Building 13 and in the domestic units in the Casemate Wall the rebels modified the original structure by adding many inner partition walls and small adjacent rooms. In the Western Palace, no such walls or rooms were added. 2) The distribution of cooking and baking installations throughout the building or complex. Residents of a domestic unit that lacked such facilities had to prepare their food using facilities located elsewhere in the building. Consequently, food preparation involved the sharing of resources and a certain degree of cooperative activity. Residents who used ovens or stoves installed in communal or central spaces lived at some level of dependency and partnership. In Roman military forts cooking took place within the small unit of the *contubernia*, while bread was usually baked in the communal *intervallum* (Carroll, 2005). Significant differences in the quantity and distribution of the stoves and ovens in each building or area (see already Reich, 2003) reflect

different levels of cooperation in food preparation. Masada was isolated both geographically and politically, hence the limited availability of fuel. Why would the rebels refrain from cooperating in order to reduce the waste of resources?

6.3. Consumption and Feasting Patterns Reflecting Social Organization

In order to empirically measure the dining patterns and the cooperation in food preparation, and to determine the relationship between them in the various buildings in Masada, it is not sufficient to count the number of ceramic vessels and cooking installations. The vessels and installations must be quantified relative to the number of diners and their distribution on the site. Consequently, it is necessary to examine the *relationship* between both patterns in each building: 1) the social aspect of dining and 2) cooperation in food preparation.

1) In order to define meal patterns and determine the *relative* quantity of tableware, the absolute number of quantified tableware discovered in each building was divided by the number of quantified cooking vessels retrieved from the same structure, thus determining a coefficient of the ratio between the number of vessels in which the food was served and the number of vessels in which the food was prepared. Both Building 13 (0.22) and the Casemate Wall (0.4 - 0.6) contained relatively little tableware but quite a large number of cooking vessels, in marked contrast to the Western Palace (1.3). Each potential diner in the Western Palace had six times more tableware (in proportion to the number of cooking vessels) than those who dined in the nearby Building 13, and four times as many as the residents in the Casemate Wall. The coefficient reflecting the other buildings in the center of Masada falls within the range between these two extremes.

2) To quantify organizational cooperation in the preparation of food, the area of each building or structure was divided by the number of cooking and baking installations discovered therein (the result was divided by 10 to facilitate its representation in **Figure 11**. The buildings' measurements and the number of installations are based on [Netzer, 1991](#)). The larger the coefficient defined by the extent of the building in relation to the food preparation facilities, the greater the degree of partnership that existed between the residents in their preparation of food. A higher number indicates that residents of a larger area used fewer stoves and ovens and therefore there was some form of cooperation in their use. Buildings with more cooking installations, resulting in a lower coefficient, indicate that fewer people used each installation and therefore food preparation was less cooperative and more independent. This calculation quantifies the above detailed mapping and descriptions of the distribution of cooking installations in each building. As already noted, there was an abundance of installations in Building 13 and in the Casemate Wall, where either an oven or a stove (and often both) was discovered in each of the small dwelling units built in the original buildings.

Figure 11 shows these two indices in each building in Masada and the quantitative relationship between the two social phenomena. We have found an

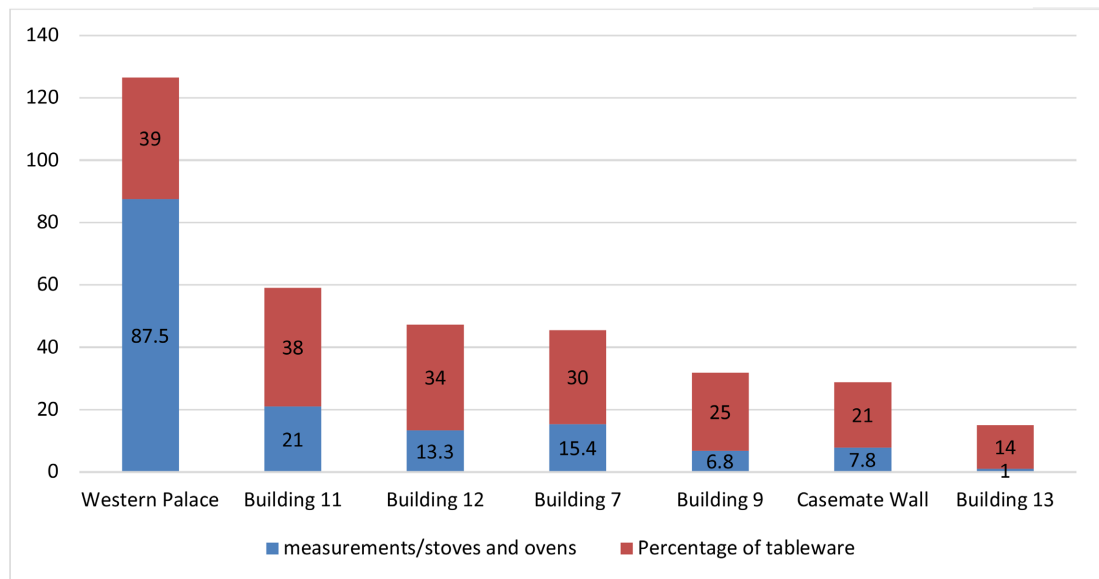


Figure 11. Relationship between the quantity of tableware and the distribution of cooking installations.

inverse relationship between the amount of tableware (in comparison to cooking vessels) in the structures and the rate of cooking and baking installations (relative to each building's size): the more tableware utilized by the residents of the buildings for food consumption compared to the cooking vessels used for its preparation, the fewer cooking and baking installations were used in those buildings. The inhabitants who tended to eat off tableware were also likely to cooperate in the process of preparing food. There is, therefore, a contrasting relationship between the resources required for cooking and baking and those required for eating. The cooperation reflected by the use of a limited number of cooking and baking installations corresponds with the frequency of tableware, which attests to communal dining.

When people preserve multiple ways of enacting the same practices, those different behavior patterns may represent separate affiliations between them, namely, different communities. The members of each distinct community shared maintenance practice, shared ritual practice, and shared social experiences (Steidl, 2019: p. 31). Our analysis of the pottery, ovens and stoves according to their location within the architectural remains reveals that among the rebels in Masada some groups or communities prepared their food together and possibly ate together as well. Other groups cooked and dined in very small social units within the group/community who lived in the same building/structure.⁵ A group with strong communal characteristics was located in the Western Palace and perhaps also in Building 11. Smaller organizational units, perhaps small families, with minimal partnership and cooperation, were located in Building 13 (which is lo-

⁵Reich, 2001; 2003: pp. 157-158 claimed that the abundance of spindle whorls in the Casemate Wall and in Building 9 implies the presence of women (cf. Bar-Nathan, 2006: p. 190 on similar distribution patterns of unguentaria, mainly used for perfumes). Yet, in both the Western Palace and in Building 13 few spindle whorls were found. Therefore, the presence or absence of women (and families!) cannot explain the differences in social organization or eating patterns between these two buildings.

cated in close proximity to the Western Palace) and in the Casemate Wall. In Buildings 7 - 12 we found an intermediate material pattern of social organization and dining, occasionally tending towards some degree of partnership, while other occurrences show that small, independent social units were active in the area. These clear distinctions indicate that very different behavioral patterns existed among neighboring social groups of rebels.

As regards the Western Palace, Bar-Nathan has already noted its “communal” features, pointing to the location of an extremely large number of bowls in the storerooms and the proximity of the ovens and stoves (Bar-Nathan, 2006: pp. 282-283. Ostraca attesting to distribution of bread were found in the Western Palace, see Stiebel, 2012). It has been argued that this was the rebels’ “headquarters” (Bar-Nathan, 2006: p. 382; cf. Netzer 1991: pp. 633-634), or an administrative or industrial unit which served the rebels in the other buildings. Alternatively, since in the Western Palace there were far fewer additions of residential units and partition walls, Netzer concluded that many of the rooms remained unoccupied (Netzer, 1991: pp. 253, 633-634), and that an elite cadre of commanders or a group of Essenes resided here (Netzer, 1991: pp. 633-634; cf. Ben-Tor, 2009: p. 61).

Such conclusions disregard the complexity of social organization in Masada. The architecture, pottery, ovens and stoves in the Western Palace reflect a social organization and way of life distinct from that in the Casemate Wall and Building 13. Moreover, the evidence does not justify the conclusion that only a small part of the palace was occupied by a small elite group. While the inhabitants did not erect new structures, they did make use of considerable areas of the building. They made changes in 25 rooms, and pottery from the rebels’ phase was found in 70 loci. In 60 loci there were 197 First Revolt coins and 43 coins of the Roman procurators (Reich, 2001: p. 158; Meshorer, 1989). Why should we conclude that the people who lived, stored, cooked, ate and kept money in these loci did not dwell there permanently like those in the other buildings? There is no reason to think that the vessels and installations located here served the inhabitants of the other buildings.

7. Conclusions: Social Diversity in Masada

The rebels of Masada had a relatively rich material culture. It included architectural modifications of the Herodian edifices, the addition of many partition walls and rooms which facilitated privacy, dozens of stoves and ovens, and a considerable number of imported and decorated perfume vessels. Yet they were not a homogenous group. They lived in different structures suited to different and often contradictory levels of social organization and cooperation when it came to preparing food, as reflected in the distribution of stoves and ovens. There were significant differences not only in how the food was prepared, but also in the way it was eaten: from a ceremonial feast with many participants (in the Western Palace and perhaps in Building 11) to a simple meal eaten from communal serving utensils, probably in small social units (in the Casemate Wall and Build-

ing 13). Ranged between these buildings were the other structures: Buildings 7, 9 and 12, which had a more ambiguous social structure. Is it not possible, therefore, to conclude that the population of Masada was made up of several social groups with different geographic, religious and ideological origins? Were they in fact not all Sicarii?

It is commonly assumed that a group of Essenes lived in Masada, since several scrolls similar to the Dead Sea Scrolls found in the Qumran caves were also discovered in the Casemate Wall near the synagogue (Cotton & Price, 1990: p. 454; Magness, 2019: pp. 178-179). Netzer identified Essenes in the Western Palace and Building 11, because of the pool near that building. Reich located Essenes in the Western Palace and Building 13 on account of the scarcity of spindle whorls (which may attest to the minority or absence of women, since most Essenes were celibates), coins, and the cooperation implied by the few cooking facilities in that palace. Stiebel suggested that the Essenes were located in Building 13 because of the large ritual bath, the large room with benches that may have served as a communal dining room, and the small number of spindle whorls, hence the supposed lack of women (Netzer, 1991: p. 634, 636; Reich, 2003: p. 157; Stiebel, 2013: pp. 170-174). However, the communal characteristics of the Essenes (who always lived in communes) are entirely absent in the distribution of stoves and ovens in Building 13, as well as in the lack of tableware used during the communal meals that also defined Essenes (*Jewish War* 2.129-133).

Indeed, the analysis presented here reveals a more complex composition of social organization and eating patterns. Cooperation and communal dining reached their peak in the Western Palace, but the same pattern can also be detected in Building 11. We have found that no one distinct group settled in one building or another. Rather, *Masada hosted a wide range of communality and eating patterns*. The archaeological finds do not indicate that some of the rebels were actually Essenes or members of Qumran sects (the Yahad who lived in a commune). The assumptions regarding the presence of Essenes at Masada are based on the discovery of scrolls similar to those discovered in Qumran—the Book of Jubilees and Songs of the Sabbath Sacrifice—in one place at the site. It is therefore conceivable that some of the residents of Masada arrived from kh. Qumran (Cotton & Price, 1990: p. 454; Ben-Tor, 2009: pp. 103-112). Nonetheless, the identification of these scrolls with the Qumran sects requires further examination. See the reservations on the association of the biblical scrolls from Masada with the Qumran sect (Ulrich, 2015: pp. 254-264).

On the other hand, it is possible that some rebels who lived in the Western Palace influenced nearby Building 11 and to a lesser extent also buildings 12 and 7 to adopt cooperative activities and meals in order to define themselves socially and distinguish themselves from other rebels on the mountain.

Here commensal politics played a significant role. Feasting is a strategy to differentiate elites from others or to legitimate inequality, especially in diacritical feasts (Dietler, 2001). One example is the relationship between the feasting elite

and the nearby rural population. See [Hendon, 2003](#)). Indeed, communality and partnership seem to make economic sense in an isolated site such as Masada, inhabited by people who shared the ideology of resistance to Rome and were probably awaiting the Roman army. The division into small social units in the Casemate Wall and Building 13 that cooked, baked and dined independently is far more perplexing. It is interesting to see how methods of food preparation, food consumption, and their spatial layout reveal complex social dynamics and tensions between groups in the very same site. The unique historical situation of the rebels in Masada who were supposed to stand united, preparing to confront the Romans, underscores the significance of food and meals in relation to spatial organization for understanding society.

Why did some residents of Masada choose not to cooperate in the preparation of food and to dine separately? Why did some groups of rebels separate themselves from the others and prepare and eat their food together? Did the Sicarii led by Elazar, son of Yair, who according to Josephus had originally captured the site, reside in the Western Palace or in the nearby Building 13? It should be noted that at the beginning of the revolt, Simon bar Giora asked to join the Sicarii in Masada and for a time he camped at the foot of the fortress (*Jewish War* 2.653, 4, 503-505). [Stiebel \(2013: p. 174\)](#) identified his settlement as near to the Roman camps at the foot of the mountain, not in the buildings under discussion.

Was there tension between the different groups? Note that in the course of the Sicarii raid on Ein Gedi, more brutal men were joining the Masada group every day (*Jewish War* 4.405). However, it is not clear whether they too lived at Masada. It is clearly impossible to provide answers to these questions. We can only assume that the diversity in material patterns hints at ideological disparities or competition between the social groups residing in Masada, similar to those that existed between other rebel groups (such as the priestly party who declared the revolt, John of Giscala and Simon bar Giora, see e.g., [Goodblatt, 1996](#)). For example, it is possible that the residents of the Western Palace developed a ceremonial, communal meal system to culturally and socially distance themselves from the residents of Building 13 and the Casemate Wall, in an attempt to reinforce their status as an elite group. Our proposal is based on the Social Identity Approach to the formation of group identity in opposition to a larger or different group, as a result of social competition or social stratification ([Tajfel & Turner, 1979](#)). Yet the social domination of those who lived in the buildings at the middle of Masada was far from absolute. Most of the rebels dwelled in the Casemate Wall, where they controlled the gates and other facilities such as the synagogue and most of the ritual baths.

All that can be said with certainty is that, unlike Josephus' dramatic description, the inhabitants of Masada were not a single, homogenous group, and it is doubtful whether they had a single leader during their seven years on the mountain. The rebels of Masada came to the site not in order to die, but to find a place to live. The material culture of some of them was no different from that of the

upper-middle class living in the Upper City in Jerusalem. Like many other local societies, they developed diverse social communities within a single settlement. They seemed to be involved with themselves rather than with the outer world. The tragic ending of Masada does not reveal the diverse and complex way of life on the mountain before the stronghold fell to the Romans.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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