Cassius Dio's figures for the demographic consequences of the Bar Kokhba War: Exaggeration or reliable account?

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Abstract: Scholars have long doubted the historical accuracy of Cassius Dio's account of the consequences of the Bar Kokhba War (*Roman History* 69.14). According to this text, considered the most reliable literary source for the Second Jewish Revolt, the war encompassed all of Judea: the Romans destroyed 985 villages and 50 fortresses, and killed 580,000 rebels. This article reassesses Cassius Dio's figures by drawing on new evidence from excavations and surveys in Judea, Transjordan, and the Galilee. Three research methods are combined: an ethno-archaeological comparison with the settlement picture in the Ottoman Period, comparison with similar settlement studies in the Galilee, and an evaluation of settled sites from the Middle Roman Period (70–136 CE). The study demonstrates the potential contribution of the archaeological record to this issue and supports the view of Cassius Dio's demographic data as a reliable account, which he based on contemporaneous documentation.

Keywords: Bar Kokhba War, Second Jewish Revolt, Cassius Dio, Land of Judea, Provincia Judea, Roman Palestine

Fifty of their most important outposts and nine hundred and eighty-five of their most famous villages were razed to the ground. Five hundred and eighty thousand men were slain in the various raids and battles, and the number of those that perished by famine, disease and fire was past finding out. Thus nearly the whole of Judaea was made desolate.

(Cass. Dio, Rom. Hist. 69.14.1–2¹)

Scholars have long been skeptical of the historical accuracy of Cassius Dio's account of the consequences of the Bar Kokhba War (132–36 CE).² Several issues underlie their skepticism: the meaning Dio assigns to the toponym Judaea, the scope of the revolt and of the ensuing destruction of towns and villages, and the estimates of the number of settled sites in the region and its population during the period in question.³ And yet, Cassius Dio is accepted as the most reliable historical source for the Second Revolt and this passage includes the only demographic figures in the literary sources concerning the population of Judaea in the Roman period. Reassessing Dio's accuracy thus has broader implications for the history of the Second Jewish Revolt and the demography of Roman Judaea, as well as our understanding of Dio's other descriptions and Roman record-keeping in wartime.

¹ Transl. Cary and Foster 1925, 447.

² Schäfer 1981, 131; Mor 2016, 150.

The total population of Palestine during the Roman Period is estimated at between one and three million (for a summary of the bibliography on this topic, see Safrai 1994b, 436–37; Safrai 1997; Broshi 2001, 86–93; Faust and Safrai 2015, 291–92). Demographic estimates of a similar order of magnitude have been proposed for the adjacent provinces (e.g., two to six million in Syria and three to nine million in Egypt). For an estimate of the population during the Roman period and a discussion of the methodological difficulties involved, see also Kennedy 2006.

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Precisely what Cassius Dio meant by "Judaea" may be a decisive factor for assessing the veracity of his account. The two main possibilities are the entire area of the Roman Provincia Judaea (province of Judea)⁴ or the more limited geographic region denoted by the term "Land (or Country) of Judea" (Fig. 1).⁵ If Dio was referring to the entire Roman province, his account places the revolt in most of the districts of Palestine, which contradicts what we know from other sources. On the other hand, if he had in mind the Land of Judea, it is hard to make his demographic data compatible with that limited region.

Given that most texts from the Roman Period use "Judaea" to refer to the entire province, we may assume that Cassius Dio, too, wrote about the province and not just the Land of Judea. Here we should note his use of the term to mean the region between Phoenicia and Egypt (*Rom. Hist.* 37.16). Recently, B. Isaac has proposed that Dio used "Judah-Judaea" with an ethnic sense, to mean the region of Jewish settlement within Provincia Judaea – that is, the "three lands." This would explain why he employed "Judaea" instead of "Palaestina" which was the current name of Provincia Judaea in his time. A similar ethnic reference is found in Pliny the Elder, who includes the 10 toparchies, Transjordan, and the Galilee in the region he calls "Judaea," while excluding Samaria, Idumea, and the coastal cities (*HN* 5.70).

In accordance with Isaac's proposal, which we accept, Cassius Dio's count of the settlements destroyed in the war includes villages (κῶμαι) and forts (φρούρια) in the Land of Judea, Peraea (Jewish Transjordan), and other districts where the archaeological record indicates that the residents took an active part in the revolt. His reference to the destruction of the "important villages" (ἀνομαστόταται κῶμαι) might mean that his account omitted some sites destroyed during the war (such as manor houses and estates). In the absence of clear criteria for determining what he considered to be an "important" village or a fort (see below regarding the settlement hierarchy), it is impossible to assess the reliability of his account as a whole.

Judaea was created as a separate province in 6 CE; toward the end of the century it also began to include the regions of Jewish settlement in the Galilee (and Golan Heights) and Peraea (Jewish Transjordan; Avi-Yonah 1977, 108–12). For the idea that Cassius Dio meant the entire area of Provincia Judaea, see, e.g., Yeivin 1946, 60–63; Alon 1989, 595–97; Eck 1999, 81; Smallwood 2001, 442; Gichon 2016, 180–91; Mor 2016, 150–52.

The reference is to Judea as one of the "Three Lands (or Countries)" – Judea, Transjordan (Peraea), and the Galilee (M Shevi'it 9:2; M Ketubboth 13:10; M Bava Bathra 3:2) – which Josephus defines as the region bounded by Samaria, Arabia, and Idumea and divided into 11 administrative districts (AJ 14.49; BJ 3.51–56). For the assumption that here Cassius Dio was referring to the Land of Judea in the narrow geographic sense, see, e.g., Büchler 1904, 144; Stern 1980, 402–3; Kloner 1987, 379–80.

The use of "Judaea" as the name of the province is common mainly in non-Jewish sources; it is logical that a Roman author writing from far away would employ international concepts like the name of the province rather than a geographic definition used by the local population (Alon 1989, 596). Josephus can be cited as an example of the use of Judaea in the broad geographical sense by a Jewish historian of that age (Rosenfeld 2000). As Rosenfeld has shown, the use of "Judaea" was flexible and adapted to the needs of each historian and his intended audience.

⁷ Isaac 2018, 325–26.

⁸ The word ὀνομαστόταται can also be interpreted as "notable," or the adjective can simply mean "with names," as opposed to nameless. On manor houses, see n. 47.

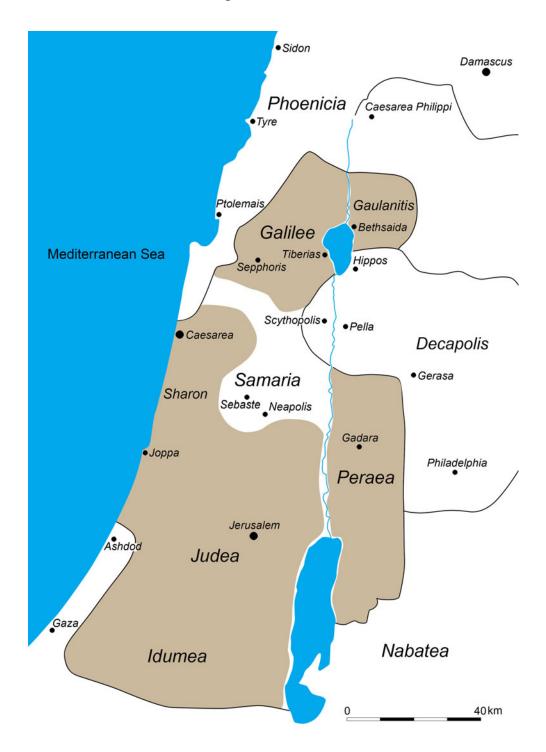


Fig. 1. Map of regions of Jewish settlement in Provincia Judaea from the late Second Temple period through the Bar Kokhba War. (Map by D. Raviv.)

To date, assessments of Cassius Dio's demographic data have relied on the results of the relatively superficial archaeological surveys conducted in and around Judea in the last three decades of the 20th c. In this article we reassess Dio's account, drawing on new

archaeological evidence from excavations and more intensive surveys conducted in recent years in Judea, Peraea, and the Galilee. After reconstructing the scale of the revolt, we reconsider Dio's demographic data by applying the following research methods: an ethnoarchaeological comparison with the settlement picture in the Ottoman period; a comparison with a similar settlement study conducted for the Galilee; and an estimate of settled sites from the Middle Roman period (70–136 CE), focusing on the Land of Judea and especially the northern Judean hills. In light of the many methodological problems associated with estimating the population of ancient Palestine, we will concentrate on trying to determine the number of settlements destroyed in the war. Following a short summary of the previous research on this topic, we define the region whose residents participated in the revolt and then present the results of the current study.

Research history

Reviewing the research history and the methods used by previous scholars shows the need for a broad and up-to-date archaeological database and a productive, multi-pronged methodology. S. Applebaum was the first to try assessing Cassius Dio's demographic data in the light of findings in the field. Drawing on the results of the "Emergency Survey," he estimated the agricultural capacity of Judea, Samaria, and the Jordan Valley. His calculations included a number of variables (and unknowns), including the total number of Roman-period sites that had been uncovered or could be expected to be found in future surveys and in other regions; an estimate of the rural population in the upland regions of Byzantine-era Palestine; and demographic figures for modern Arab villages. This yielded a population of 552,427 persons for Judea and Samaria during the Roman period. Applebaum concluded that Cassius Dio's numbers were plausible and that in any event it should be assumed that the revolt extended beyond Judea to include Samaria and part of the Lower Galilee, and that it also affected Transjordan and Idumea.

M. Mor disputed Applebaum's estimate, on two main grounds. First, Mor pointed out that we cannot be sure that every survey site dated to the Roman period had a Jewish settlement at the time of the Bar Kokhba Revolt, or that it was one that took an active part in the revolt and was destroyed by its end. Second, he noted that Applebaum's estimates were lower than Cassius Dio's figure of wartime fatalities, which, according to Mor, included only soldiers and not civilians. According to Mor, Dio's data do not reflect the historical reality; nor is it possible to draw conclusions from them about the extent of the revolt outside the boundaries of Judea proper. In his opinion, we should doubt the reliability of Dio's account, given its "apologetic tone" and the fact that it was edited at a later date. He asserts that Cassius Dio's "exaggerated" description was prompted by the need to justify the Roman legions' heavy losses while suppressing

⁹ The classification of periods used in this article is as follows: Early Roman until 70 CE; Middle Roman, 70–136 CE; and Late Roman from 136 CE.

¹⁰ Regarding the methodological problems, see Safrai 1997 and Kennedy 2006.

¹¹ Kochavi 1972.

¹² Applebaum 1976, 34–35.

¹³ Mor 2016, 159–62, 328, 470–71, 479.

the revolt.¹⁴ Mor stresses that the absence of data and the lack of certainty regarding the size of the Jewish settlements make it difficult to give credence to Dio's figures.

In contrast, W. Eck, who focused on the Roman side, noted that Cassius Dio's description accords with the realia reflected in inscriptions and other sources about the Roman military forces. ¹⁵ In his view, the origin and number of military units that were called into service to suppress the revolt, the involvement of the governors of the neighboring provinces (Arabia and Syria), and various actions that the Roman authorities implemented at the end of the rebellion clearly indicate that during the revolt the Imperial forces faced an extraordinary emergency throughout Provincia Judaea.

A. Kloner noted Applebaum's incomplete data and unknowns, including sites in what Kloner termed "Samaria," a region where no hiding complexes have been found and which he does not believe was involved in the revolt. He noted that initial surveys documented finds from the late Second Temple period at more than 400 sites in the Judean foothills. In his estimation, there were more than a thousand settlements in Judea (without "Samaria") at the time of the Bar Kokhba Revolt, with a population of between 700,000 and 900,000.

B. Zissu documented more than 320 settled sites in Judea where the archaeological finds clearly indicate a Jewish population from the late Second Temple period through the Bar Kokhba Revolt.¹⁷ Along with Kloner and H. Eshel, he noted that the distribution of the finds associated with the Bar Kokhba Revolt indicates active participation by the residents of the entire Land of Judea.¹⁸ They concluded that Cassius Dio's demographic data reflect the settlement picture in Judea on the eve of the Bar Kokhba Revolt.

From this review, two main points emerge that demonstrate the need for a reexamination of the subject. First, the archaeological data referred to by previous scholars was very partial and did not allow for a clear definition of Jewish settlement areas from the days of the Bar Kokhba Revolt. Second, any such assessment should be based on a precise definition of the area to which Dio referred. To this is added, of course, the central role of the archaeological evidence in reconstructing the Second Revolt, due to the lack of detailed and reliable historical sources.

The extent of the region that took part in the revolt

Bar Kokhba coins, destruction layers and abandonment deposits, hiding complexes, and refuge caves dated to the Bar Kokhba Revolt are indications of active participation in the uprising and help us demarcate the region in which it took place.¹⁹ The coins are

Kloner 1987, 380. He defined Samaria as the area north of Jerusalem, but in fact a significant part of the region between Jerusalem and Nablus belonged to Judea during the period in question. On hiding complexes, see below.

¹⁴ For a similar opinion, see Schäfer 1981, 131.

¹⁵ Eck 1999.

Zissu 2001; Zissu 2018. It should be emphasized that the data presented by Zissu do not pertain to all settlements of the Early Roman period but only to those with clear archaeological evidence of a Jewish population.

¹⁸ Kloner and Zissu 2003; Kloner and Zissu 2009; Eshel and Zissu 2020, 61.

Hiding complexes are artificial, rock-cut systems (in contrast to the natural karstic refuge caves), most of which consist of pre-existing underground facilities interconnected by tunnels, creating a sort of subterranean maze underneath the ancient settlements. Their definition as hiding

especially important because they coincide with the territory controlled by the Bar Kokhba administration. In addition, evidence from the mid-2nd c. CE onwards for the presence of a non-Jewish population in areas that were previously Jewish indicates that the Jews there were victims of the suppression of the Bar Kokhba Revolt.

Iudea

Even though we understand Cassius Dio's use of "Judaea" to mean "Greater Judea" – i.e., all the districts of Jewish settlement in Provincia Judaea (primarily the "Three Lands" of Judea, Transjordan, and the Galilee) – the undeveloped state of research in Transjordan requires that our discussion focus on finds in the Land of Judea and the adjacent regions (the coastal plain, the Sharon, southern and western Samaria, Idumea, and the northern Negev), which, according to the archaeological record, were home to Jews who participated in the Bar Kokhba Revolt and which were consequently devastated by the rebellion's end.

Finds in the categories listed above have been uncovered throughout Judea proper and in adjacent regions, including the coastal plain, Idumea, the Samarian foothills, and the Sharon. It should be emphasized that these regions are all part of the Land of Judea as that term was used from the late Second Temple period until the Bar Kokhba Revolt. During the Middle Roman period, this territory was divided into at least 10 toparchies – Gophna, Thamna, Acrabatta, Jericho, Herodium, Zif, Pella/Bethleptepha (Beit Nattif), Emmaus, Lydda, and Joppa – and several cities, such as Caesarea, Antipatris, and Jamnia. Except for the coastal plain and the cities with a mixed population, during the Early and Middle Roman periods Jews predominated in the vast majority of the rural areas under discussion here. It

Among the finds mentioned above, the hiding complexes merit special attention. Although the phenomenon dates back to the late Second Temple period, the archaeological finds indicate that most of them were hewn out and used during the Bar Kokhba Revolt, in accordance with Cassius Dio's account. The hiding complexes in the Galilee are exceptions to this dating; only 20 can be associated with the Second Revolt.²² The dating of most of the hiding complexes to the Bar Kokhba Revolt, the magnitude of the phenomenon (more than 460 systems have been documented in roughly 250 sites in Judea, in addition to 75 systems at about 50 sites in the Galilee), and their geographic distribution make the hiding complexes the most important evidence for estimating the boundaries of the region whose residents took an active part in the Bar Kokhba Revolt (or at least the region that made preparations for it). It should be emphasized that the distribution of the finds strongly

places is based on their unsuitability for agricultural or daily use. This phenomenon characterizes Jewish settlement areas in the Early and Middle Roman periods and reached its peak during the Second Jewish Revolt.

For up-to-date maps of the distribution of these finds, see Eshel and Zissu 2020, 77, 136. For an up-to-date archaeological picture of Judea and adjacent regions, see Zelinger 2009; Cohen 2016a, 37–54; Raviv 2018a, 101–22. In addition, it is worth noting evidence of the abandonment of sites and of a Roman military presence in the 2nd c. CE in the Carmel and its environs (Dar 2012, 196–208; Peleg-Barkat and Tepper 2014, 66–67; Dar 2016).

²¹ Zissu 2018, 21–24.

Y. Shahar counted at least 11 hiding complexes in the Galilee in which finds from the 2nd c. CE have been discovered (Shahar 2003, 217–24). Recently, Y. Shivtiel updated the number to 19 (Shivtiel 2019, 212).

reflects the involvement in the uprising of the residents of the northern Judean hills and western Samaria;²³ these regions were previously considered outside the territory involved in the revolt.²⁴ It will also be noted that these were regions of Jewish settlement, in contrast to the Samaritan population of central Samaria, which does not appear to have taken part in the revolt, and in any event was not significantly harmed by it.²⁵

The most salient and significant remains for delineating the region that participated in the war and was left depopulated and in ruins by its end are destruction layers and abandonment deposits (including hoards). Another type of evidence is provided by finds that reflect population exchanges and the penetration of non-Jewish residents into previously Jewish districts. Remains of this sort are generally discovered only through archaeological excavations. The excavations conducted in the Land of Judea point to the almost total destruction of Jewish settlement there at the end of the Bar Kokhba War. Furthermore, it should be emphasized that evidence of destruction or abandonment dated to the Second Revolt has been discovered in most of the excavated Roman-period settlements in the wider region of Judea (Fig. 2 and Table 1). What is more, above these layers there is a gap in settlement. Destruction layers and abandonment deposits have been found both in buildings and in underground installations carved out either underneath or near settlements, such as hiding complexes, burial caves, storage facilities, and field towers. The finds from Judea are supplemented by fragmentary evidence from Transjordan and the Galilee.

Peraea (Jewish Transjordan)

The Jewish settlements in the Peraea, documented in historical accounts and archaeological finds from the late Second Temple period, no longer existed in the Late Roman and Byzantine periods. Their disappearance may be connected with the First Jewish Revolt

For a summary of the archaeological data from this area, see Raviv 2018a, 98–125, 225–78; for an up-to-date distribution map of Bar-Kokhba coins in this area, see Raviv, forthcoming.

²⁴ See, e.g., Kloner and Tepper 1987, 366–372; Mor 1991, 98, 137; Magen 2004, 14, 23.

On the issue of the participation of the Samaritans in the revolt, see Mor 2003, 172–83. Important data indicating the non-participation or limited participation of the Samaritans in the revolt is the penetration of the Samaritan population into the "empty lands" created after the devastating destruction of Jewish settlements; on this process, see, e.g., Klein 2011, 321–22; Tal and Taxel 2015; Raviv 2018a, 168–71.

For a general discussion of the results of the revolt, see Mor 2016, 468–85. For the Rabbinic sources, see Schwartz 1984; Schwartz 1986, 42–46. For archaeological evidence of the penetration of a gentile and Samaritan population, see, e.g., Klein 2011, 314–33; Zissu et al. 2015; Raviv 2018a, 123–24, 167–70.

It should be noted that at some of the sites it is not clear whether there was a settlement during the period between the revolts or if they were just used as hiding places for the rebels in the Second Revolt.

In addition, dozens of sites of the following two types may be added to the list of sites in Figure 1: sites documented in detailed surveys that indicate abandonment during the Second Revolt, and excavated sites where a settlement gap in the Late Roman period is found. Below is a partial list: Horvat Beit Shanna (Zissu and Bordowich 2007); Tel Goded (Sagiv and Zissu 2006); Kh. Kelafa (Raviv 2016); Kh. Kulasun (Klein and Zissu 2010); Horvat Metah (Elisha 1998); Kh. Nisya (Livingston 2003, 112); Kh. Petora (Rapuano 2013, 61); Horvat Qasra (Zissu and Kloner 2019); Kh. el-Qutt (Raviv et al. 2016); Ras Abu Ma'aruf (Rapuano 1999); Kh. Ghurabeh, Horvat Qerumit, Horvat Moran 1, Horvat Rafi, Horvat Shem Tov, Shmurat Shayarot, Kh. es-Sira, and Horvat Zichrin (Zissu 2001, 17, 79, 80–81, 156, 176–77, 179–81, 196, 216).

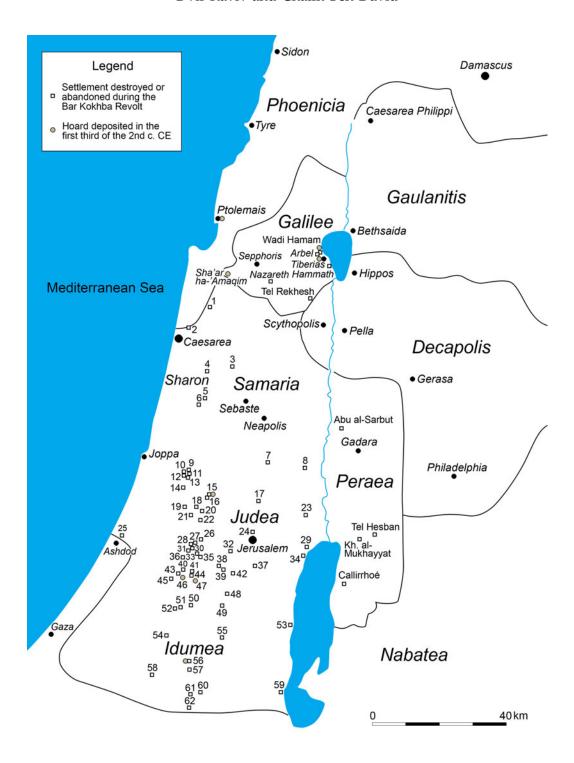


Fig. 2. Map of excavated sites in Provincia Judaea where destruction layers or abandonment deposits from the time of the Bar Kokhba War have been found. (Map by D. Raviv.)

(66–73 CE) or with the Bar Kokhba Revolt. Josephus's description of the Peraea Jews' participation in the First Jewish Revolt suggests that there was little fighting there and that they were less involved than their brethren in the Galilee and Judea, districts where

Table 1.

Names of the sites in Figure 2. References for each of these sites and additional bibliography are provided in Supplementary Table 1.

	*		
No.	Site	No.	Site
1	Nahal Haggit	32	Bittir (Khirbet el-Yehudi)
2	Horvat 'Eleq	33	Bad el-Banat (Miqvaot Hill)
3	Khirbet el-Hamam	34	'En Feshkha
4	Ibthan	35	Khirbet el-Qut
5	Khirbet Jebara	36	Tel 'Azeqa (Tel Zakaria)
6	Zur Natan (Horvat Migdal)	37	Herodium
7	Tel Shiloh	38	Khirbet Jamjum
8	Phasaelis	39	Khirbet Hillal
9	Khirbet Burnat North	40	Midras (Durusiye)
10	Shoham (44)	41	Horvat 'Ethri
11	Khirbet Burnat South	42	Khirbet Bureikut
12	Shoham, Hill 10	43	Khirbet Abu Tabaq
13	Shoham Bypass	44	Umm Burj (Burgin)
14	Ben Shemen Junction	45	'Araq Hala
15	Khirbet Badd 'Isa	46	Khirbet Rafi – Lower site
16	Khirbet Abu ed-Dinein	47	Khirbet 'Atus
17	Khirbet el-Maqatir	48	Khirbet Ed-Duweir
18	Horvat Ashun	49	Tel Hebron
19	Horvat Beit 'Anaba	50	Khirbet El-Muraq
20	Khirbet Umm el-'Umdan	51	ed-Dawayimeh
21	Khirbet Beit Kufa	52	Esh-Sheikh Abu Khashab (Ahuzat Hazun)
22	Khirbet el-'Aqed	53	'En-Gedi
23	Jericho, Roman Vila	54	Khirbet ez-Za'aq
24	Shu'fat	55	Rujm el-Hamiri
25	Nir Galim Site	56	Khirbet es-Salantah
26	Khirbet el-Marmita	57	Nahal Yattir Site
27	Tel Beit Shemesh East	58	Be'er Sheva North (Raqafot Site)
28	Khirbet Umm Jina	59	'En Boqeq
29	Qumran	60	Tel Malhata
30	'Einot Dekalim	61	Tel 'Aroer
31	Horvat Husham	62	Tel 'Ira

Jewish settlement continued after the First Jewish Revolt. Given that only a few of their settlements actively participated in the First Jewish Revolt, scholars have concluded that it is unlikely that it put an end to Jewish settlement in Peraea. Moreover, Talmudic texts refer to Jewish residents there during the Jamnia generation (the period between the revolts), and an inscription from 131 CE found in the Judean desert mentions a bridegroom named Joshua ben Menahem of the village of Soffathe in the Livias district in Peraea. 100 Peraea. 1

Finds that may reflect the Peraea Jews' participation in the Bar Kokhba Revolt or their victimization at that time are a destruction layer from the first third of the 2nd c. CE at Tel Abu al-Sarbut in the Sukkoth Valley, and 2nd-c. CE abandonment deposits at

²⁸ Porter 1999, 185–93; Sagiv 2003, 78.

For a summary of the sources, see Safrai 1984, 212–14.

oction and Yardeni 1997, 224-37.

al-Mukhayyat and Callirrhoe.³¹ To these are added finds associated with a Roman military presence in the Peraea in the mid-2nd c. CE which indicate that the Jews there were victims of the suppression of the Bar Kokhba Revolt. One of these is a papyrus, signed in Caesarea in 151 CE, which includes the name of a Roman veteran from the village of Meason in Peraea.³² The implication of this document is that land in Peraea had been expropriated and granted to Roman settlers. Other evidence of the Roman military presence is a building inscription of the Sixth Legion dated to the 2nd c. CE found at a-Salt, which is to be identified as Gadara, one of the main Jewish settlements in Peraea.³³ The Peraea Jews' participation in the Bar Kokhba Revolt may also be adduced from the remains of an impressive Roman fortification system in the Jordan Valley, uncovered during the Manasseh Hill Country Survey.³⁴ This system, which includes the remains of a military encampment and three fortresses, is dated to the 2nd c. CE and specifically to the period of the Bar Kokhba Revolt.³⁵ Ben David has proposed that the location of these fortifications, facing northern Peraea between the Sukkoth Valley and Regev, indicates that their chief targets were the Jewish settlements in Peraea.³⁶

Galilee

There is evidence that some Galilee residents participated in or at least prepared for the war: 19 hiding complexes dated to the 2nd c. CE; a destruction layer and two hoards discovered in Khirbet Wadi Ḥamam; a destruction layer in the southern synagogue of Ḥammath Tiberias, which has been dated to the end of the first third of the 2nd c. CE; finds indicating abandonment in the first half of the 2nd c. CE uncovered at Tel Rekhesh, Arbel, and Nazareth; hoards from the first third of the 2nd c. CE unearthed at three additional sites in the Galilee; remains from the period between the two revolts found in excavations of the Roman fortifications at Mt. Nitai; finds from the 2nd and 3rd c. CE in three karst caves in eastern Upper Galilee; and coins of Trajan found in the Nahal Amud cliffs.³⁷ Nonetheless, Jewish settlement in the Galilee as a whole was not affected during and after the Bar Kokhba Revolt. In his survey of the eastern Lower Galilee, U. Leibner reported that no settlement that had been studied was wholly

Sukkoth Valley: Steiner et al. 2013. Al-Mukhayyat: Sagiv 2013, 204. Callirrhoe: Gerber 1998, 87. To these may be added a destruction layer at Tel Hesban, dated to 130 CE (Mitchel 1992, 62–63), and a decrease in settlement from the Early Roman to the Late Roman period found in the survey of the 'Iraq al-'Amir region (Ji and Lee 2002). However, the failure to distinguish between the Early and Middle Roman periods in this survey's published results means that we cannot determine whether this decrease was connected to the First or the Second Revolt.

³² Eck 1998.

³³ Kennedy 2004, 118.

³⁴ Zertal 2008, 574–81, 593–95, 613–19, 627–31.

³⁵ Zertal 1991, 17; Hashman 2008.

³⁶ Ben David 2009, 67.

Hiding complexes: see above, n. 22. Khirbet Wadi Ḥamam: Leibner and Bijovsky 2013. Ḥammath Tiberias: Dothan 1983, 15–19. Tel Rekhesh: Aviam et al. 2019. Arbel: Aviam et al. 2019, 138. Nazareth: Alexandre 2020, 80. Three additional hoards: Leibner and Bijovsky 2013, 122. Mt. Nitai: Davidovich et al. 2018. Upper Galilee: Shivtiel and Osband 2018. Nahal Amud cliffs: Shivtiel and Zissu 2007–2008. To these we can add the remains of the Roman camp at Tel Shalem, where a monumental inscription stood atop a freestanding gate dedicated to Hadrian (for proposed datings of this inscription, see Eck and Foerster 1999; Mor 2015).

abandoned then. What is more, it was in the period from 136 to 250 CE that settlement in the area peaked.³⁸ This archaeological evidence fits well with what we know from rabbinic texts about the flourishing of houses of study in the Galilee and the development of the Mishnah, the Tosefta, and the Halakhic Midrashim during the 2nd and 3rd c. CE – after the Bar Kokhba Revolt.

An ethno-archaeological comparison with the Ottoman period

A basic datum that can be used to estimate the scale of ancient settlement sites in Judea is the number of Arab villages in the region during the Ottoman period, for which there is relatively abundant demographic data.³⁹ This comparison will help evaluate the carrying capacity of the territory of Judea by giving an idea of whether this area ever had such a high number of settlements.

There were about 800 Arab villages in the Land of Judea during the Ottoman period, a number not very different from Cassius Dio's figure. Note that surveys conducted in Judea tend to indicate that settlement in the Roman period was denser than in the Ottoman period. If so, the figure of 800 villages for the Ottoman period should be taken as a minimum estimate of the number of settlements in that region in the Roman period.

A comparison with similar research on settlements in the Galilee

C. Ben David has conducted a similar demographic study of Jewish settlement in the Galilee during the late Second Temple period. Because of its importance for the current study, we will briefly review his methodology and results. ⁴² Ben David evaluated Josephus's report that there were 204 Jewish settlements in the Galilee in the Early Roman period (*Vit.* 235). On the assumption that Josephus's count included the Jewish district of the Golan (currently the central Golan Heights), he included the latter in his calculations. Ben David drew on two main bits of information: the number of Arab villages in the Galilee and the Golan in the 19th c.; and the number of Early Roman period settlement sites documented in high-resolution archaeological surveys of the central Golan and the eastern Lower Galilee. With regard to the first of these, the 185 villages identified in the region in the 19th c. indicate its potential; the figure is very close to Josephus's 204 settlements. As for the second item, the surveys located 68 Early Roman period settlement sites in the two regions. The total area of these surveys, 500 km², covers about a third of the total area of the Galilee (roughly 1,500 km²). Extrapolating from the survey and multiplying its settlement count by three also yields 204 settlements in the Galilee. Assuming there was no

³⁸ Leibner 2009, 345–47.

³⁹ For the use of the Arab village as a source for the history of Palestine and a comparison between the Arab village and the village of the Roman-Byzantine era, see Safrai 1994a.

Grossman 1994. This figure derives from the number of villages inhabited at the beginning of the Ottoman period (the 16th c., which was also the peak of Ottoman-period settlement) in the region between the Carmel and the Negev, not including central and northern Samaria.

For example, in southern Samaria, 188 Ottoman-period settlement sites were documented, compared with more than 300 sites from the Roman period (Raviv 2018a, 119). A similar picture has emerged in all the survey maps published for the area in question.

⁴² Ben David 2011.

significant difference between the Galilee and Judea with regard to the density of settlement, we can use the figure for the Galilee to estimate the number of settlements in Judea. The area of the Land of Judea, excluding the arid desert, is about 6,500 km², or four times as large as the Jewish Galilee. From this ratio, we can further extrapolate from the Galilee findings to arrive at an estimate of 800 villages in Judea during the Early Roman period – again, not significantly different from Cassius Dio's figure.

An estimate of the number of Middle Roman period settlements in the Land of Judea on the basis of the archaeological evidence

The results of archaeological surveys and excavations conducted in recent years, especially the excavations at rural sites all over the Land of Judea and its environs, supplemented by the New Southern Samaria Survey, enable us to assess Cassius Dio's demographic picture in greater detail than was previously possible. ⁴⁴ The archaeological surveys provide the most important data for estimating the number of settlements at the time of the Bar Kokhba Revolt.

The area of Jewish settlement in the Land of Judea is estimated at 6,500–7,000 km², compared to 1,500 km² in both Peraea and the Galilee. As mentioned above, the settled area of the Land of Judea was computed from the archaeological record, which indicates a continuous belt of Jewish settlement from the late Second Temple period through the Bar Kokhba Revolt, running from the Carmel in the north to the Negev in the south, but excluding central and northern Samaria, parts of which were inhabited by Samaritans.

Results of the archaeological surveys

Our evaluation of the data from the surveys conducted in the Land of Judea had to take into account several methodological problems. These included the lack of a systematic distinction between settlement sites and other contemporaneous sites with minimal remains (such as scattered sherds, agricultural installations, and tombs); the failure to specify the size and number of sherds collected at each site; the absence of a breakdown of Romanperiod sites into secondary periods (Early, Middle, and Late Roman); the limits on excavating within villages that are inhabited today; and the fact that some regions still have not been surveyed, and surveys for others have not yet been published. In light of the incomplete data, we cannot currently offer a precise estimate of the number and size of settlements from the time of the Bar Kokhba Revolt in Judea. What we can do is take the total number of Roman-period sites as the potential number of settlements for the period in question and use the data from the published high-resolution surveys to extrapolate the potential for Judea as a whole.

The surveys conducted in the Land of Judea count a minimum of 1,049 Roman period settlement sites. ⁴⁵ It should be emphasized that this number includes only settlement sites

In fact, a comparison of the settlement density between Judea and Galilee in the Roman period indicates greater density in most parts of Judea than in the Jewish Galilee, which may further increase the estimated total settlements in Roman Judea presented below.

⁴⁴ For the results of the New Southern Samaria Survey, see Raviv 2018a.

The area in question is divided into 70 survey maps (10×10 km), running from latitude 70 in the south to latitude 180 in the northeast (in central Samaria) and latitude 230 in the northwest, and

and not all the sites surveyed. Note further that this is not the figure for all Roman-period settlements in the entire area, because the results of some surveys remain unpublished. If we rely on the maps produced by the unpublished surveys, the total number of sites jumps to between 1,345 and 1,465.

Although it is problematic to use this figure of Roman-period sites documented in surveys, given their lack of classification into secondary periods, the high-resolution data from published surveys do not reflect an increase in the number of settlements at the transition from the Early Roman to the Late Roman period. It can therefore be assumed that the vast majority of Roman-period sites were settled during the Early Roman period. In any event, when we try to start from the Roman-period sites to calculate a number for Bar Kokhba settlement sites, we must take into account the devastation in the region as a result of the First Jewish Revolt, as well as the growth of settlement activity in various parts of Judea in the Late Roman period.

The excavations and surveys conducted in Judea point to substantial settlement continuity from the Early Roman to the Middle Roman period. The available data do not permit a good estimate of the number of settlements destroyed during the First Revolt that were not resettled during the ensuing decades. Nevertheless, it appears that the destruction during the First Jewish Revolt was centered in Jerusalem and its rural hinterland.⁴⁶

A comparison between the settlement potential indicated by these calculations and Cassius Dio's account must also consider the population of the various localities, because the standard interpretation of his text is that his number for the destroyed settlements includes only important or well-known villages and not every locality. This means that we must subtract manor houses and perhaps also some of the small villages, according to Safrai's proposed classification, from the total number of settlement sites. ⁴⁷ The authors of the surveys estimated that, in those years, between a third and half of all the settled sites in Judea were manor houses and small villages. Working from this proportion, we arrive at between 900 and 1,000 sites that can be considered important villages, or about two-thirds of the total number of settled sites. ⁴⁸

from the Dead Sea and the Jordan River in the east to the Mediterranean coast in the west. The number of sites was computed from the data on the survey maps as published in the final report or on the Archaeological Survey of Israel website (http://survey.antiquities.org.il).

This assessment is based on an examination of the results of excavations and several surveys from the Judean region in which a distinction was made between the Early and Middle Roman periods. In light of the limitations of the surveys, the excavation findings must be given special importance. Almost complete settlement continuity was revealed in the excavations conducted in the Judean foothills (Zissu 2001), in the Shephela of Lod-Lydda (Zelinger 2009, 167) and in the Samarian foothills (Raviv 2018a, 109). A different picture was obtained from the excavations conducted in the southern part of the Bethel highlands and in the Jerusalem hills, where many sites destroyed in the First Jewish Revolt were left abandoned in the period between the revolts. Nevertheless, a certain settlement continuity is noteworthy also in the rural area surrounding Jerusalem (Zissu 2001, 308–10; Kloner 2003, 39).

Safrai (1983) distinguished four sizes of rural settlements in Roman-period Palestine: (1) manor houses and estates (very small settlements consisting of one or two buildings on an area of up to 0.1 ha); (2) small villages covering 0.1–0.6 ha; (3) small towns of 0.7–2.0 ha area; and (4) large towns with an area exceeding 2.0 ha.

⁴⁸ However, we must emphasize a major problem with Safrai's classification, indicated by the many examples from excavations that suggest a totally different picture than that offered by

On the other hand, we need to add the number of important/well-known sites that were destroyed in other parts of Provincia Judaea, mainly in Peraea and the Galilee. In his study of Jewish Transjordan, based on the Jordanian Antiquities Department's database, Nahum Sagiv documented about 160 settlement sites in Peraea where Late Hellenistic and/or Early Roman pottery items were identified. Based on a comparison with the size of Jewish Galilee and the results of the Galilee survey, which indicated that Josephus's figure of 204 settlements was realistic (as Ben David showed), 160 settlements in Peraea is a realistic estimate. Although hiding complexes, refuge caves, and Bar Kokhba coins have not been discovered in Transjordan, the few excavations conducted there indicate a continuity of Jewish settlement after the First Jewish Revolt, followed by abandonment or destruction during the Bar Kokhba Revolt and a settlement gap during the Late Roman period.

The northern Judean hills (southern Samaria) as a test case

Because the surveys published to date do not provide sufficient information for determining the number of Middle Roman period settlement sites throughout Judea, we offer instead the results of a recent study in the northern Judean hills that clearly defined which settlement sites could be assigned to this period. This region, which runs from the Bethel highlands to the valleys around Nablus, was within the boundaries of Judea from the late Second Temple period until the Bar Kokhba Revolt.⁵⁰ Our study draws mainly on a reexamination of the data of the New Southern Samaria Survey and the Ephraim Survey, supplemented by the finds from archaeological excavations, other surveys, and fieldwork.

Finds from the surveys and excavations conducted in the northern Judean hills were assigned to the Middle Roman period on the basis of parallels to assemblages that could be precisely dated to the time of the Bar Kokhba Revolt. Despite the morphological similarity in assemblages of pottery and glass items from the Early and Middle Roman periods, there are several features distinctive of the latter period, and especially the years of the Bar Kokhba Revolt itself, including the types of storage jars, jugs, kraters, casseroles, cooking pots, and oil lamps.⁵¹

The results of the Ephraim Survey enable us to identify 62 settlement sites from the Middle Roman period in the region between the Bethel highlands and the Nablus area. ⁵² To these can be added 17 excavation sites where Middle Roman period artifacts

the survey results, in terms both of the area of the site and of the size of the settlement's population during the various periods.

⁴⁹ Sagiv 2003, 189–206.

This region consists primarily of the toparchies of Acrabatta, Gophna, and Thamna, which were the northernmost districts of the Land of Judea during the period in question (Joseph. *AJ* 14.49; *BJ* 3.55; Plin. *HN* 5.70). On the continuity of the administrative division even in the period between the revolts, see Cotton 2007, 12–18. For the archaeological evidence indicating the participation of the inhabitants of the northern Judean hills in the Second Jewish Revolt, see above, n. 20

See, e.g., Rapuano 2013, 57–102; Adan-Bayewitz et al., 2016, 9–12; Terem 2016; Zissu 2018, 39–47. For a detailed catalogue of pottery types from the Middle Roman period discovered in the northern Judean hills and southern Samaria, see Raviv 2018b.

These figures are based on the typological classifications in the survey report (Finkelstein et al. 1997, 34–36), scrutiny of the pottery illustrations, and a reexamination of dozens of bags of sherds from this survey (with the kind permission of Prof. I. Finkelstein).

have been unearthed and 8 sites where previous surveys and fieldwork uncovered remains from this period. The New Southern Samaria Survey documented sherds from the Middle Roman period at another 44 sites. Thus, we have a total of 131 settlement sites in the northern Judean hills where sherds that can be precisely dated to the Middle Roman period have been found. There are also at least four Jewish settlements that are mentioned both in the sources reflecting the situation during the Jamnia generation and in scrolls from the time of the Bar Kokhba Revolt, but where no finds from the period in question have been uncovered.

To sum up, we have clear archaeological and historical data for 135 Middle Roman period settlement sites in the northern Judean hills. Of these, 123 sites are clearly in the northern districts of Judea. We can plausibly add the 94 Arab villages currently inhabited in this area (on top of the 30 villages already included) that are located at ancient settlement sites. The cores of these villages have excellent natural conditions (nearby springs, agricultural areas, and ancient roads) and would have been among the largest and most important settlements in the region in antiquity. If we assume that half of these village sites remained inhabited at the transition from the Early to the Middle Roman period, as was the case with other sites in the region (a decrease of about 50% in the number of inhabited localities), we can add another 47 settled sites, producing a total of 170. It should be emphasized that this is the minimum number of settlements for this region during the Bar Kokhba Revolt, because it is likely that even more modern village sites were inhabited at this time. If so, we reach an estimate of 170 to 220 settlements in the northern Judean hills. As mentioned, the total area of the Land of Judea during this period was 6,500-7,000 km², while that of the northern Judean hills is 1,150 km², or about a sixth of the Land of Judea. Assuming that settlement density elsewhere in Judea was similar to that in the northern Judean hills,⁵³ there would have been more than a thousand settled sites $(170-220 \times 6 = 1,020-1,320)$ in the Land of Judea alone. To corroborate this estimate we need to reexamine the results of surveys conducted in other parts of Judea.

Another way to estimate the number of settlements in the northern Judean hills at the time of the Bar Kokhba Revolt is to compare the situation during the Ottoman period. In that period, settlement in the same region peaked at about 150 villages in the 16th c.⁵⁴ This figure is based on the 124 villages that appear on the Palestine Exploration Fund (PEF) map of the region, plus 26 villages found on the taxpayer rolls from the end of the 16th c.⁵⁵ The archaeological surveys yield 188 Ottoman-period settled sites in the northern Judean hills, compared to 118 Middle Roman sites in the same region. Of the Ottoman-period settlements, 108 are inhabited today and 80 are abandoned; of the Bar Kokhba settlements, 16 are currently inhabited and 102 are in ruins. That is, there are more ruins from the Middle Roman period (102) than from the Ottoman period (80). If we assume that the abandoned ruins reflect the zenith of settlement in the region, the available data indicate that settlement in this region at the time of the Bar Kokhba Revolt exceeded that in the

A comparison of the settlement density in this period between the northern Judean hills and various parts of the Judean foothills and Hebron hills that have been excavated and studied at a high resolution indicates an approximately similar density. See, e.g., the area of Beit Guvrin (Zissu 2001), the Shephela of Lod-Lydda (Zelinger 2009), the northern Hebron ridge (Cohen 2016b), and the area of Beit Shemesh, where extensive rescue excavations have been conducted in recent years, most of which have not yet been published.

⁵⁴ Grossman 1994, 393.

⁵⁵ Hutteroth 1977, 112–37.

early Ottoman period. Accordingly, the number of villages in the northern Judean hills during the early Ottoman period, 150, can be taken as a minimum for the time of the Bar Kokhba Revolt. This number is somewhat smaller than the figure produced by the previous calculation (170).

Surveys in the northern Judean hills also attest to the destruction of Jewish settlements at the end of the war. According to the survey data, there were 49 settlements in the Late Roman period, compared to 131 in the Middle Roman period. Of the 49 Late Roman sites, 38 were already inhabited during the Middle Roman period; in other words, 93 of the 131 Middle Roman period sites (71%) were abandoned.

Discussion

In light of the increasing pace of archaeological research on rural Palestine in the Hellenistic, Roman, and Byzantine periods, we may assume that the picture sketched in this article will be more firmly established as time goes on. Nonetheless, the findings of this study permit a better assessment of the accuracy of Cassius Dio's account of the results of the Bar Kokhba War than was previously possible. Dio's account has three main sections: "All of Judea" (Ἰουδαία πᾶσα) prepares (ἐκεκίνητο) for the revolt; "almost all" (ὀλίγου δεῖν) of Judea is destroyed; and, finally, Dio provides numerical data about the devastation. The information at our disposal supports the thesis that Cassius Dio used the term "Judaea" to mean all the areas of Jewish settlement in Provincia Judaea (Fig. 1). Although his statement that the entire province prepared for the revolt contradicts what we know from the Galilee, it is possible that ἐκεκίνητο (whose basic sense is "to be disturbed" or "to prepare for rebellion") conveys the idea that Jews in the different parts of the province were not passive, but it does not denote active preparation and participation by all the Jews living there. It is logical that, given the familial, social, and political connections linking the residents of Judea, the Galilee, and Peraea, there was significant movement within Palestine during the revolt. This movement presumably included people, equipment, supplies, families reuniting, and other activities associated with preparing for and waging the war.

Cassius Dio's reference to the destruction of "almost all of Judea" can be explained by what we know about the total annihilation of Jewish settlement in the Land of Judea and its surroundings, as well as the incomplete evidence from Peraea that may indicate that its Jewish residents took part in the revolt and suffered as a result. In light of the findings from the Galilee, which show clearly that most of its residents did not take an active part in the war and escaped unharmed, it is possible that Dio's "almost" means that Jewish settlements in two of the Three Lands of Provincia Judaea were destroyed. We should emphasize that the Land of Judea was much larger than the regions of Jewish settlement in the Galilee and Peraea (more than twice the size of the other two regions combined), and that there were additional areas of settlement adjacent to the Land of Judea, including the Sharon and western Samaria, forming a belt of nearly continuous Jewish settlement from the Land of Judea northward to the Galilee, from the late Second Temple period until the time of the Bar Kokhba Revolt. This belt of Jewish settlement ran as far as Mt. Carmel, which is commonly accepted as marking the boundary between Provincia Judaea and Provincia Syria (Phoenicia). 56

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Ameling et al. 2011, 832–34; Dar and Ben Ephraim 2018, 140; Peleg-Barkat and Tepper 2014. In this context, we should note three contemporaneous passages that refer to the northwest

As for how many settlements existed in the Land of Judea at the time of the Bar Kokhba War, the archaeological evidence, primarily from excavations, indicates that not every Second Temple period settlement should automatically be included in the count for the years between the two revolts and during the Bar Kokhba Revolt. The current study has suggested that three independent methods yield the result that there were more than a thousand settlements in the Land of Judea during the Bar Kokhba Revolt: (1) the number of Ottoman-period villages (about 800) and the lower density of settlement then than during the Roman period; (2) the total number of Roman-period settlement sites in the region in question, according to the archaeological surveys (1,345–1,465), a number that reflects the settlement potential; and (3) the number of settled sites from the Middle Roman period that have been documented in the northern Judean hills (170–220), from which we computed the number of settlements in the rest of the Land of Judea, assuming similar density, and reached a result of more than a thousand; to this must be added settlements in the Peraea and the Galilee that were destroyed during the war. These settlements located in Judea, Peraea, and Galilee may be among Cassius Dio's 985 destroyed villages.

The sites documented in the Land of Judea include dozens of fortified settlements from the time of the Bar Kokhba Revolt, which may be among Cassius Dio's 50 destroyed fortresses. As mentioned previously, in the absence of Dio's definition of a fortress, it is impossible to confirm this number. S. Yeivin remarked the closeness of the Midrashic reference to 52 or 54 battles (*pulmesa'ot*) that Hadrian waged (*Lamentations Rabbah* 2:4) and Dio's 50 fortresses. A number of scholars have attempted to identify these fortresses in the field. It is worth noting that it is difficult to identify and classify fortified sites from the period in question, because most of them were settled in later periods and the old fortifications were reused (some are still inhabited today). This imposes significant limitations on the study of settlement remains because of the sites' state of preservation and because of the problem of accessing them. To this can be added the small number of archaeological excavations of relevant sites, because a scientific dig is sometimes the only way to identify and date Roman-period fortifications. Another obstacle to the identification of destroyed rebel fortresses is that the historical background is often unclear and it is impossible to determine whether fortifications were manned by Jewish or Roman forces.

Archaeologists have found five types of sites that might be included in Cassius Dio's category of outposts (φρούρια): (1) fortified towns or villages located on ancient tells;⁵⁹ (2) fortified towns or villages that had been royal (Hasmonean-Herodian) fortresses or strongholds; (3) towns or villages that were fortified during the First Jewish Revolt or

boundary of Judea in the 1st and 2nd c. CE: "Judaea is, moreover, not cut off from the amenities of the sea, because it slopes down towards the coast on a ridge extending as far as Ptolemais" (Joseph. *BJ* 3.53, transl. Thackeray 1926); "Between Judaea and Syria lies Carmel" (Tac. *Hist.* 3.78.2); "of Carmel in Judaea" (Suet. *Vesp.* 5.6). These references support the assumption that, for Cassius Dio, "Judaea" means the entire province, most of whose Jewish residents were concentrated in the territory from the Carmel in the north to the Negev in the south.

Yeivin 1946, 176. Pulmus (Greek πόλεμος), found in tannaitic sources, means "war" (Jastrow 1926, 1142; Milikowsky 1981, 542–46; M Sotah 9:14, M Parah 8:9, and their parallels in the Tosefta; Sifrei Devarim, 322).

⁵⁸ Kloner and Tepper 1987, 375; Applebaum 1993; Zissu 2001, 260–62, 268–70.

⁵⁹ Zissu 2006.

for defense against bandits;⁶⁰ (4) fortified sites that had previously been manned by Roman soldiers, such as the outposts along the Roman *limes*; and (5) fortified manor houses and estates. Dozens of these sites have been documented in the Land of Judea, in Peraea, and in the Galilee.

Regarding the number of casualties suffered by the residents of Judea in the war, given the great uncertainty about the size of settlements and the population density, we must make do with a general estimate that reflects the potential indicated by the archaeological record. Working from the total settled area in the Middle Roman period that was documented in southern Samaria, we can offer a rough estimate of 500,000–650,000 for the population of the Land of Judea. To this we must add the Jewish residents of Transjordan and the Galilee who were killed during the war. Given the scale of popular resistance and the absence of a clear distinction between military forces and civilians on the Jewish side, it seems reasonable that Dio's figure of 580,000 represents the total number of Jewish victims of the war ("the slain of Beitar"), both soldiers and noncombatants. This explanation is also consistent with the accepted view that such demographic numbers should usually be understood as the total numbers of the population. Hence, Mor's claim about Cassius Dio's exaggeration would be acceptable only if Dio were referring here to military forces alone.

We can supplement the archaeological record with literary sources that report the results of the war on the Jewish side, as discussed at length in the scholarship. ⁶² The most noteworthy of these are rabbinic texts that offer wildly exaggerated figures for the slaughter in Judea, in contrast with the continued Jewish settlement in the Galilee. ⁶³ Despite the legendary character of some of these accounts, their juxtaposition with the settlement picture offered here allows us to propose that these sources refer to Judea in the narrow geographic sense (the Land of Judea) and that the "slain of Beitar" denotes all the Jewish casualties of the war.

In conclusion, this study demonstrates the potential contribution of the archaeological record and supports the view of those scholars who have taken Cassius Dio's demographic data as a reliable account, which he based on contemporary documentation. ⁶⁴ Population numbers presented in literary sources are commonly believed to be unreliable. However, the present article suggests that in some cases, especially when the numbers are not "suspiciously neat," their reliability can be relatively high. ⁶⁵ The source of Dio's figures may be a record made by Roman officials during the war or afterward, either as part of Roman military record-keeping culture or within the framework of a census conducted

⁶⁰ Safrai 1982.

For the bibliography, see Kennedy 2006.

⁶² For a summary of the sources and bibliography, see Mor 2016, 155–64, 191–95, 214–17, 268–72.

The main sources are J Ta'anit 4:5 (68d-69b) and B Gittin 57a-b and 58a.

Millar 1964, 62; Isaac 1984, 112; Kloner 1987, 373–80; Birley 2005, 129–33; Dar 2015, 113; Kloner and Zissu 2016, 74; Zissu 2018, 26. This list can be expanded by the many scholars who tend to accept Cassius Dio's accounts as historically reliable. See, e.g., Applebaum 1976, 34–35; Stern 1980, 402–3; Eck 1999, 81; Eshel and Zissu 2020, 153. A positive assessment of the credibility of Book 69 of *Roman History* was also recently asserted by Madsen (2020, 106–14).

Further support for the reliability of Cassius Dio's demographic data is provided by similar reports of the slaughter and extermination of rebel populations in other parts of the Roman Empire, including Gaul, Britain, and Dacia. For the bibliography, see Klein 2011, 327–32.

by the Roman administration in this time of demographic change.⁶⁶ The present study thus illustrates the important contribution of a productive, multi-pronged methodology of archaeological study for the evaluation of literary descriptions of demographic data originating from Roman military record-keeping in wartime.

Supplementary Material: Supplementary Table 1 provides references for each of the sites mapped in Fig. 2, with additional bibliography. To view the supplementary material for this article, please visit https://doi.org/10.1017/S1047759421000271.

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