

PARASHAT BEMIDBAR

The Censuses in the Desert

By Rav Elchanan Samet

a. INTRODUCTION

Sefer Bamidbar is called by Chazal "the Book of Censuses" because it opens with a census of Bnei Yisrael, a census carried out in the desert of Sinai "on the first day of the second month in the second year of their coming out of the land of Egypt", and close to its conclusion there is another census of the nation, described in parashat Pinchas, carried out in the plains of Moav in the fortieth year, just prior to the entry into the land of Israel and its division among the tribes. The census described in parashat Pinchas stretches throughout the lengthy chapter 26 (65 verses), occupying a little more than a third of the parasha, which also contains a few other subjects. But in our parasha the census – or, to be more precise, the various censuses – occupy the entire parasha and even continue into the first part of parashat Naso: a census of the tribes (chapter 1) and a census of the flags (chapter 2); a census of the Leviim from the age of one month upwards and a census of the firstborn of all of Israel (chapter 3), and finally a census of the Leviim between the ages of thirty and fifty (chapter 4).

Let us present the central problems that arise in a superficial study of the descriptions of the censuses in our parasha, some of which are very troublesome questions which require extensive effort in order to satisfy our minds. Clearly, we shall not be able to address all of them, but there is nevertheless some value in listing them.

Let us first present the various censuses in tabular form as a basis for our discussion below.

b. SUMMARY OF THE DATA OF THE CENSUSES

1. The census of the tribes and the census of the flags (Bamidbar 1-2), in comparison with the census taken in the plains of Moav:

Bamidbar 1

Reuven 46,500

Shimon 59,300

Gad 45,650

Yehudah 74,600

Yissakhar 54,400

Zevulun 57,400

Efraim 40,500

Menashe 32,200

Binyamin 35,400

Dan 62,700

Asher 41,500

Naftali 53,400

Total 603,550

Bamidbar 2

Reuven

Shimon 151,450

Gad

Yehudah

Yissakhar 186,400

Zevulun

Efraim

Menashe 108,100

Binyamin

Dan

Asher 157,600

Naftali

Total 603,550

Bamidbar 26 (Plains of Moav)

Reuven 43,730

Shimon 22,200

Gad 40,500

Yehudah 76,500

Yissakhar 64,300

Zevulun 60,500

Efraim 32,500

Menashe 64,300

Binyamin 45,600

Dan 64,400

Asher 53,400

Naftali 45,400

Total 601,730

2. Census of Leviim from one month and upwards (Bamidbar 3):

Gershon: 7,500

Kehat: 8,600

Merari: 6,200

Total: 22,000 (verse 39)

Total by addition: 22,300

3. Census of the firstborn of the nation and selection of the Leviim in their place (Bamidbar 3):

verse 43: "And all the male firstborn numbered from one month old and upwards by their count were twenty-two thousand, two hundred and seventy-three (22,273)".

Selection of Leviim in place of the firstborn:

22,273 firstborn – 22,000 Leviim = 273 extra firstborn who still need to be redeemed.

4. Census of the Leviim between the ages of 30 and 50 (Bamidbar 4), in comparison with their total number in our parasha and in parashat Pinchas:

Bamidbar 4 (30-50)

Gershon 2,630

Kehat 2,750

Merari 3,200

Total Leviim 8,580

Bamidbar 3 (one month & up)

Gershon 7,500

Kehat 8,600

Merari 6,200

Total Leviim 22,000 (verse 39)

Bamidbar 26:62 (one month & up)

Gershon

Kehat

Merari

Total Leviim 23,000

c. CENTRAL PROBLEMS ARISING FROM DESCRIPTIONS OF CENSUSES

1. The Torah describes three different censuses: the first is in Sefer Shemot, at the time of the construction of the mishkan, when Moshe is commanded to take a census of the nation as part of the command to build the mishkan (Shemot 30:11-16). The census is taken before the work of the mishkan commences, by means of the compulsory half-shekel contributed towards the service of the Ohel Mo'ed. The summary of this census is to be found at the beginning of parashat Pekudei, Shemot 38:25-28.

The second census is the one described in our parasha, and the third is in parashat Pinchas. Some thirty-eight years divide the second census and the third, and the need for the third census is quite clear, as explained in the text.

But only a few months divide the first census from the second. According to Chazal's computations, the contributions for the work of the mishkan began on the day following Yom Kippur, which was therefore the time of the census by means of the half-shekalim. This represents a time-difference of about half a year. We may therefore ask, what need was there for a second census now? What would be the point, since it was carried out such a short time after the first one?

2. The summary of the first census is explained at the beginning of parashat Pekudei, first by means of the total number of half-shekalim and thereafter by means of the numbers of those counted:

(Shemot 38:25-26) "And the silver of those who were counted of the congregation was a hundred talents, and 1,775 shekel of the shekel of the

mishkan. A "beka" for every man, i.e., half a shekel of the shekel of the mishkan, for everyone who was counted from twenty years and upwards, for 603,550 men."

The summary of the second census, as brought in our parasha:

(Bamidbar 1:45-46) "And all counted of Bnei Yisrael by their father's house, from twenty years and upwards, all who went out as the army of Israel, all those who were counted were 603,550."

How can this be? Half a year is not a long time, but surely it is long enough for some slight demographic change.

3. All the numbers from the census of the tribes in our parasha, except for one, are listed in thousands and hundreds, with no tens or units. The exception to this rule is the tribe of Gad, whose number ends in 50. How did this happen? The most obvious answer would seem to be that the numbers were all rounded off to the nearest hundred: anything less than fifty was counted as the lower hundred, while any number greater than fifty was counted as the next hundred. The tribe of Gad, ending with 50, was left alone for lack of any clear direction in which to round it off. But this answer does not stand up to the test of two other censuses: in the census of the tribes in parashat Pinchas, where once again all the numbers are in whole thousands and hundreds except for one, the exception is the tribe of Reuven whose number ends in 30. And in the count of the Leviim from thirty years and upwards (Bamidbar 4) the number of Kehat ends in 50 (presenting no difficulty), but Gershon ends in 30 (verse 40). What, then, is the system for recording the numbers in the various censuses?

4. The Torah is not content with the recording of the various numbers of the censuses, but summarizes them time after time even though we could reach the total ourselves. Nine such summaries are given in the parashot of Bamidbar and Naso, and two of them are identical: the numbers of the tribes at the end of chapter 1 (verse 46) and the numbers of the flags at the end of chapter 2 (verse 32).

5. All the totals are accurate (and therefore seem superfluous), except for one. In the census of Leviim from one month upwards (Bamidbar 3) the given total is 22,000. If we add up the numbers themselves we arrive at a total of 22,300. The inclusion of these 300 Leviim would have removed the need to redeem the 273 extra firstborn (above the number of Leviim selected in their place to be sanctified for Hashem), later on in the same chapter.

6. The number of firstborn among Bnei Yisrael – 22,273 – is literally impossible in relation to a population of 600,000 men aged twenty or more. In order for such a tiny number of firstborn to be accurate, we would have to assume that the average number of children per family was around 60! This is one of the most troubling questions in our parasha.

7. The two censuses of the Leviim are not carried out according to the same criteria as those used for the other tribes. What, then, is the number of Leviim aged twenty and above? The number must be somewhere between 8,580 (the number aged between 30 and 50) and ,000 (the total number from one month and upwards), and demographically it would seem closer to the former than to the latter. Let us assume, then, as a gross estimate, that the number was somewhere around 15,000. The ratio between the number of Leviim and the members of any other tribe is unreasonable: the average number of any other tribe in the census is a little more than 50,000 (and many of the tribes are very close to this average), and the smallest tribe – Menashe - numbers 32,000. How, then, do we explain such a small number of Leviim?

8. A comparison of the census of the tribes in our parasha and the census in parashat Pinchas gives rise to questions concerning the sharp demographic changes in some tribes but not in others. The most outstanding example is the tribe of Shimon, which declines from 59,300 to a mere 22,200. Efraim and Menashe exchange their ratio of size, with Menashe climbing from 32,200 to 52,700. What are the reasons for such dramatic changes?

We cannot, in the scope of this study, address all of these questions. We shall concentrate here on questions 1 and 2 only. Prof. Ely Mertzbach of the Department of Mathematics in Bar-Ilan University addresses questions 3 and 4 in the university's parashat shavua flier (also on the Internet) on parashat Bamidbar two years ago (his article is called "The Censuses of Bnei Yisrael in the Desert"). Questions 5-7, which pertain to the censuses of the Leviim and which therefore continue into parashat Naso, will hopefully be discussed in our study next week.

d. "IS IT POSSIBLE THAT IN BOTH CENSUSES BNEI YISRAEL NUMBERED THE SAME 603,550?" RASHI AND HIS CRITICS

Let us first turn our attention to the answers that have been given to this question. The first of the medieval commentators to deal with the question is Rashi (Shemot 30:15-16). It seems that his words are based on a midrash (Bamidbar Rabba 1:10). He first addresses the issue of two separate censuses in a relatively short space of time:

"We cannot say that this census (i.e., in Sefer Shemot) is the one described in Sefer Bamidbar, for we are told there (Bamidbar 1:1), 'on the first day of

the second month,' while the mishkan was established on the first day of the first month... And from this counting (i.e., in Shemot) the sockets were made, from those shekalim alone... In other words, there were two countings: one at the beginning of their contributions, after Yom Kippur in the first year, and another in the second year in Iyar, when the mishkan was established."

The question is now highlighted:

"And if you say, Is it possible that in both censuses Israel numbered the same 603,550? ... [The two censuses] took place in two different years! It is impossible that there were not nineteen year-olds who were not counted in the first census, who would have been twenty by the time of the second.

The answer is that in terms of the ages of the people, both censuses were conducted in the same year. But in terms of the time elapsed since the exodus from Egypt, the censuses took place in two different years. Because the exodus from Egypt is counted from Nissan, as we learn in massekhet Rosh Ha-shana, and the mishkan was built in the first year and established in the second, for a new year started on the first of Nissan. But people's ages are counted according to the years of the world, starting in Tishrei. Thus both censuses took place in the same year: the first was in Tishrei after Yom Kippur, when the Holy One was appeased and forgave them and commanded them to build the mishkan, and the second took place on the first of Iyar."

The Ramban (Shemot 30:12) attacks Rashi's opinion with two powerful arguments:

1. "I am astonished: How could there be such a large congregation without there being some deaths in half a year, some hundreds and even thousands? According to Rashi during this period of about seven months no one died, but it is written (Bamidbar 9:6), 'And there were some people who became impure through contact with the dead.' (This verse, dated 'in the second year of the exodus from Egypt in the first month,' would seem to testify to the fact that people had in fact died in the camp.)

2. Moreover, I have another question: A person's years are not counted according to the years of the world, from Tishrei, but rather each according to the date of his birth. Therefore it is said of them, 'from twenty years and upwards' – that they should have completed twenty whole years. And likewise in any place where the Torah counts a person's years, they are counted from their individual dates, as we learn in Massekhet Arakhin (18b)... This being the case, all those born between Tishrei and Iyar had meanwhile completed a year, and many new people should have been recorded in the new census."

e. "SO IT HAPPENED" – THE RAMBAN AND HIS CRITICS

The Ramban's two arguments against Rashi's interpretation point in two opposite demographic directions. The first argument is that hundreds or thousands of people must have died during the half-year period, while the second argument is that many people would have turned twenty during that period and thus would have been added to the second census. This causes the Ramban to answer the question thus:

"It is more probable that this is what happened: at the first census Israel numbered 603,550. Many of them died during those few months, as is the way of the world, and many completed their twentieth year between Tishrei and Iyar, and it happened to work out that their number replaced exactly the number who had died."

We may offer two arguments against this interpretation, one demographic and the other statistical:

a) Ordinarily the number of people born during a given period is greater than the number of people who die. Moreover, between the first census in Sefer Shemot and the second in Sefer Bamidbar no demographic punishment took place: the sin of the golden calf and its results all preceded the first census taken at the time of the contributions to the mishkan.

b) As the Levush points out in his commentary on Rashi (Shemot 30:16), the chances that incidentally it "happened to work out" that the number of those who died was precisely the same as the number of those who completed their twentieth year are extremely small.

f. THE RAMBAN'S SECOND ANSWER AND ITS CRITICS

It seems that the Ramban sensed the weakness of his answer, and he immediately suggests another explanation:

"But I believe that the similarity of these censuses does not present any question at all. For the first census included the tribe of Levi, for they had not yet been chosen and were not yet separated from the nation, while in the second census we are told (Bamidbar 1:49), 'But the tribe of Levi you shall not count, nor shall you number their heads among the children of Israel.' And those whose birthdates were between the two censuses and who turned twenty during that time numbered close to twenty thousand." (Because the number of Leviim aged from one month upwards numbered 22,000.)

We can offer two arguments against this explanation. Firstly, the Ramban's assumption that the Leviim were included in the census of the mishkan is unsubstantiated. The Ibn Ezra (Short Commentary, Shemot 38) explicitly disagrees, and he is not the only commentator who holds this opinion.

Secondly, we come back to the statistical question that was posed by the Levush: How could it be that the number of those who reached the age of twenty happened to work out to exactly the same number as those who died, with the addition of the number of Leviim who were not counted in the second census? The chances that after all the required addition and subtraction the numbers are exactly the same would indeed seem to be "all but impossible, unless it occurred miraculously".

g. M.D. CASSUTO'S EXPLANATION

In his Commentary to Shemot (38:25), Prof. M.D. Cassuto offers an intriguing explanation:

"As for the problem of the dates [of the first two censuses], we can solve this with what we have learned from the Mari documents (Mesopotamia, 18th century BCE) concerning the census there. These documents prove that a census was not a simple matter accomplished in one day, but rather took a great deal of time (see II Shemuel 24:8) ... We can assume that the intention of the Bible is as follows. During the first year after their exodus, when the artisans were engaged in constructing the mishkan, the first steps of the census were taken. Bnei Yisrael appeared one by one before the designated authorities, who then wrote down their names on shards and took a half-shekel from each. This money went towards the construction of the sockets in the mishkan. After these first steps towards compiling a population registry were taken, and after the month of Nisan (dedicated to celebrating the establishment of the mishkan and the holiday of Pesach) had passed, those in charge of the census (see Bamidbar 1:4ff) began to sort through the list of names and to calculate totals (on the first day of the second month of the second year). As the verse says (Bamidbar 1:2, etc.), this counting was done according to "the number of their names," i.e. by counting the names written on the shards. Even though several months passed between the beginning of the census and its conclusion, and in the interim some of the people counted had died and others not counted had reached the age of counting, in any case the number of names counted was exactly equal to the number of half-shekels that had been collected earlier - since the counting in the second year was done by means of the names that had been collected at the same time as the half-shekels."

Cassuto's explanation is quite reasonable: we encounter the same numbers in Shemot and in the beginning of Bamidbar because we are talking about the same lengthy census process. A census designed to count "the sum of all the congregation of Bnei Yisrael, after their families, by the houses of their fathers, by the number of their names, every male by their polls" (Bamidbar 1:2) would certainly take a long time (as do censuses even today, in the computer age). I would make one small emendation to Cassuto's interpretation, based on the fact that the entire congregation gathered together on the first day of the second

month of the second year (Bamidbar 1:18). This gathering probably represented the CONCLUSION of the census of names, not its beginning (as Cassuto claims).

There are two main advantages to Cassuto's explanation. First, we can account for the identical numbers in Shemot and Bamidbar, without having to assume an unlikely coincidence. Second, we have disposed of the question of why there was a need for two censuses so close in time, when there was no event in the intervening time that warranted it.

(Translated by Kaeren Fish)