# Review 5
## On the solution to the census numbers as proposed by Carsten Ziegert
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Carsten Ziegert tried to solve the puzzle of the large numbers by discarding the notion of the census as a count of individual human beings.[1] His approach takes both the word אלף (1000) and מאה (100) to mean military units of very small size: 50 on average for אלף, and 5 on average for מאה.[2] The numeral חמשים (50) for Gad in Num 1,25 is interpreted as a military unit as well, and it is supposed to have had 2 or 3 soldiers (251.252). Regarding the 30 for Reuben in Num 26,7, Ziegert tries to explain this numeral to have been 50, originally, based on text critical arguments (252.253). Sub-units are not taken to be part of the אלף – units, unlike what Petrie, Mendenhall and others have done. The smaller units are summed up apart, and there can be a carry.

After gathering much evidence (241-243.245-251) to show that these numerals can mean *military* units, Ziegert explains the numbers for the Levites to be *cultic* units, their supposedly differing design being the reason for the relatively small number of אלף – units (22 in Num 3; 8 in Num 4). For the 30 of the 2630 Gershonites in Num 4,40 no textual variant is available. The 80 in the sum 8580 in Num 4,48 is not discussed.

Ziegert's solution proposal is interesting in that it more or less consistently discards the notion of a count of individuals, which has not been done before, as far as I know. I would like to outline some obvious problems of this proposal with an emphasis on numerical issues.

1) [Contrary to context] It is difficult to see how Num 1,2.18.20 could be understood other than meaning a count of individuals.

2) [Census unnecessary] The counting of units only would have been unnecessary, because the officers would have had these numbers off pat. This is especially true regarding the serving Levites in Num 4, where we have the numbers 2750, 2630 and 3200, so there would be 2+2+3 = 7 אלף – units and 8+7+2 = 17 smaller units. Obviously, there is no need to conduct a formal census just to come up with the result that there are 24 units. And the census activities in Num 1-3 would require only a slightly bigger effort.

3) [Deliberately low numbers] Ziegert assumes that אלף - units could have been *way* smaller than 1000 men[3], however, he gives no example showing this was definitely the case. He tentatively calculates with אלף = 50 (251). This hypothetical value is about 20 times smaller then the nominal value of the numeral, even smaller than the numeral מאה. Ziegert gives no explanation why exactly he believes these numerals to have had so extremely low values in a military context. They seem to have their origin in Ziegert's wish to achieve much smaller sums.

4) [Not consistent with number of firstborn in Num 3] Unfortunately, Ziegert does not discuss the

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1  C. Ziegert, «Die großen Zahlen in Num 1 und 26: Forschungsüberblick und neuer Lösungsvorschlag», *Bib* 90 (2009) 237-256. - „Es liegt nahe, [...] dass in den Zensusberichten Num 1 und 26 nicht Einzelpersonen, sondern militärische Einheiten verschiedener Ordnung gezählt werden." (245)

2  Ziegert, «Zahlen», 251.

3  Ziegert, «Zahlen», 243: „weitaus geringer".

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numerical comparison of the firstborn Israelite males with the Levites in Num 3,40-51. However, Ziegert states (253) that in Num 3,47 we do have a counting of individuals. As a matter of fact, the number 273 *must* be taken as a number in the traditional sense since it is used to calculate the 1365 shekels.

It then follows that the firstborn have to be 22273 individuals in all. Otherwise we would have two different concepts within one number (22 whatever units of firstborn and 273 individual firstborn). What should units of firstborn be in this context, except numerical units, i.e. thousands? Military or cultic units of firstborn do not make sense. In addition to this mixed type of 'number' we would have the mere military unit type in Num 1 and 26, and the cultic unit type for the Levites, which together makes 3 different number types without any explanatory hint in the text. This is highly unlikely, to say the least.

However, if we take the 22273 to be a traditional number, then the 22000 Levites must be individual human beings as well, because a mathematical difference is calculated between these two. Then the concept of cultic units falls away in Num 3 and 4 completely, which forces us to go back to real numbers in Num 1 and 26 as well. Otherwise there would be way too many Levites (22000) compared to the Israelite soldiers (30000, according to Ziegert's hypothesis (251)).

5) [Not consistent with number of spoils in Num 31] There is at least one more important comparison of numbers that Ziegert does not discuss, the 12 אלף sent out to take vengeance on the Midianites in relation to the numbers of their spoils.[4] If we apply his hypothetical guess of אלף = 50 soldiers, then 12 * 50 = 600 soldiers were sent out to punish the Midianites. When they return from the battle, they bring with them a huge crowd of 675000 sheep, 72000 cattle, 61000 donkeys, and 32000 women "who had never slept with a man". In addition to this they bring a considerable amount of married women, plus all the boys, who were killed soon after their return (Num 31,17). So 600 soldiers after the battle came back with approx. 900000 animals and human beings.

Do we have to take the numbers of the sheep and the virgins etc. in military or cultic units as well? Obviously not, because these numbers are divided by 2 and by 500 (Num 31,31-47), not to mention the absurdity of such a concept in general. This proves that אלף in this case means 1000.

So, applying Ziegert's units concept to the soldiers but not the spoils, the text tells us that after the battle, every single soldier had to tend several flocks of, in all, 1500 restive animals and hostile men and women, and bring them back to the camp on the plains of Moab. This only exacerbates the already difficult problem of the numbers in Num 31, and it leads us back to the traditional translation, in this chapter as well as in chapters 1-4 and 26.

6) [Not consistent with the materials for the tabernacle] Concerning the 603550 in Ex 38,25.26, Ziegert agrees at first that this is the number of the men counted for military service[5]. Surprisingly he then turns around and tries to give a tentative explanation (254) assuming military אלף – units

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4  He discusses Num 31 as a parallel supporting his view of מאה as a military unit only (246).

5  Ziegert, «Zahlen», 253: „Die Summe [...] ergibt sich aus der im Text genannten Anzahl von 603.550 Gemusterten."

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were possibly converted to beka by using the *nominal* value of אלף. This gives rise to the question: What could the biblical author have done to indicate that he *really* meant individuals? Even if Ziegert himself admits the number to be meant in the traditional sense, there does not seem to be a chance to acknowledge this meaning.

7) [Literal and non-literal interpretation] Ziegert claims the traditional interpretation (assuming high rounded numbers) to be a *non-literal* rendition of לגלגלתם (head by head) (253). He uses this assumption to justify his own non-literal approach. But the traditional interpretation of לגלגלתם is literal indeed. The census lists do not give the entire census numbers, of course, but only the sums, and these are usually rounded. Still, the rounding of big results does not mean that the census story was not about the counting of individuals.

In the final analysis, Ziegert's solution proposal leads to more problems than it solves. I believe we have to stick with the traditional translation of the numbers. I think that on the semantical level of the story these numbers are hyperbolic and should be taken at face value, on this level. Information about the origin of the numbers may be found on a meta-level only.

It may be interesting to note that, years ago, I discarded the gematrical part of my own analysis[6] of the census numbers. Instead I have been looking for an astronomical explanation to base on the statistical analysis I had conducted. A summary of the outcome so far can be found in 'Akzent 8' on my homepage[7].

Abstract:

Carsten Ziegert discarded the notion of the census as a count of individual human beings. Instead, he asserts, military and cultic units are counted only. But his solution proposal is unconvincing and leads to more problems than it solves. It stands in sharp contrast to the context, renders the formal census unnecessary, is inconsistent with the number of the firstborn in Num 3 and the number of the spoils in Num 31. The 603550 beka for the tabernacle in Ex 38,25.26 cannot be explained.

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6   R. Heinzerling, "Bileams Rätsel - Die Zählung der Wehrfähigen in Numeri 1 und 26", *ZAW* 111 (1999) 404-415.
7   www.Ruediger-Heinzerling.de