

A brief Messianic enquiry: How large should a farm be?

This may seem an odd subject for a Messianic enquiry, but in fact it has considerable relevance. By raising it, we turn attention to some portions of the Scriptures which otherwise might be skimmed over and not properly appreciated. (Please note also that this enquiry is not *too* “brief”!)

Let's look at the second last chapter of Bemidbar (“Numbers”). All emphases in what follows are mine:

Num 35:1 And יהוה spoke to Mosheh in the desert plains of Mo'ab by the Yardēn of Yeriho, saying,
Num 35:2 “Command the children of Yisra’ēl that they shall give the Lēwites cities to dwell in from the inheritance of their possession. Also give the Lēwites open land around the cities.
Num 35:3 “And they shall have the cities to dwell in, and their open land for their cattle, and for their herds, and for all their livestock.
Num 35:4 “And the open land of the cities which you give the Lēwites are from the wall of the city outward a thousand cubits all around.
Num 35:5 “And you shall measure outside the city on the east side two thousand cubits, and on the south side two thousand cubits, and on the west side two thousand cubits, and on the north side two thousand cubits. And the city is in the middle. This is to them the open land for the cities.
Num 35:6 “And the cities which you give to the Lēwites are the six cities of refuge, which you give to him who killed someone to flee to, and to these you add forty-two cities.
Num 35:7 “All the cities which you give to the Lēwites are forty-eight, these with their open land.
Num 35:8 “And the cities which you give are from the possession of the children of Yisra’ēl. From the larger tribe you give many, from the smaller you give few, each one gives some of its cities to the Lēwites, in proportion to the inheritance that each inherits.”

What's happening here? Well, it's almost time for the Israelites to cross the Jordan and to start occupying the Promised Land. First a few guidelines have to be laid down as to *how* the occupation is to be undertaken; then Moshe has to deliver the whole teaching of Devarim (“Deuteronomy”) which is essentially a recapitulation of the Law given on Sinai, along with reminders of their history. But before the Jordan is crossed, Moshe tells them in these last few chapters of Bemidbar how the land is to be allocated amongst the tribes and how the laws of inheritance are to work. In the previous chapter, he describes the borders of the land, points out that 2½ tribes are given land on the east of the Jordan, authorizes Eleazar and Yahusha (“Joshua” in most English Bibles) to do the distribution of the land, and lists the tribal leaders to whom the tribal land will be assigned, for further allocation to the various families. Then, in this chapter, he deals with how the Levites will be given land, and an interesting study it makes indeed.

First, land is not allotted to the Levites as it is to the other tribes, who receive large areas containing a mixture of agricultural land and cities. Instead, the Levites are given “cities”, 48 of them, scattered throughout the other tribes' lands. In fact, the other tribes have to yield up some of their own cities to the Levites, on a roughly pro-rata basis, with the more numerous tribes giving more cities up than the smaller ones do. Every one of the 6 “cities of refuge” is to be one of these Levite cities. Since there are 3 to the west of the Jordan, and 3 to the east, it is almost as though YHWH is expecting more trouble and disharmony in the communities on the eastern side, who are not quite where they are supposed to be at this stage of history. Clearly the objective is to have Levites available and accessible right throughout all the tribes.

Having said that, let's turn our attention to *how* these cities are defined. To start off with, there is a central, residential core area (its size will be considered a little later). It is in the middle of a square area called **open land** by The Scriptures (above) and, rather oddly to a 21st century ear, *suburbs* by the KJV. Since the “open land” is for cattle, herds and livestock, “suburbs” does seem rather misleading.

Between vs4 and vs5 of the above quotation appears to be a discrepancy: How can Moshe say 1000 cubits in the one instance and 2000 cubits in the next? And how long exactly is a cubit anyway? Well, the last question first, more easily: a cubit is just about half a metre, (the “Temple cubit” was about 20% longer) and we'll use that relationship going forward, It'll be correct to within a couple of percent. The discrepancy between the two verses? I take it to mean that the wall of the city would be placed 500 metres out from the edge of the residential core. (An alternative interpretation, that the distances are measured in relation to the *center* of the residential core, conflicts with the clear specification laid down.)

So now we have a mental picture of open land in the shape of a square with sides 2km (plus a bit due to the size of the actual residential core in the centre); halfway out to the boundary is the city wall, ringing the city core at a distance of about 500m. The total area is then something larger than 2x2 = 4 sq km, or 400 ha (hectares). How much larger?

To answer this we need to make a good guess at the population of such a city, which with the help of the Torah is of course not too difficult to do. Go back a bit in Bemidbar, and read

Num 26:62 And their registered ones were twenty-three thousand, every male from a month old and above.

Dividing 23 000 males between 48 cities, we see that nearly 500 males would be found in each city, on average. How many families would that be? Well, we need to know what the average number of males in a Hebrew family was.

Again, the Torah is enormously helpful, for two reasons: first,

Num 26:51 These are the registered ones of the children of Yisra'el: six hundred and one thousand seven hundred and thirty.

Bear in mind, please, that this is the total of the most recent census, taken for the purpose of allotting the ground, at the same time that the Levites were counted. It is also rather conclusive that this was the number of *males* (except perhaps it may include those remarkable women, the daughters of Tselophhad^a son of Hephher). We also know from Torah (I'll leave it to you to find out where) that each Levite male was a proxy for the first-born of each Israelite family in the other tribes. We can therefore simply say

Number of families in the 11 tribes = number of Levite males (+1 for Tselophhad's daughters!?)
= 23 001

Average number of males per family in the 11 tribes = (Total number of "registered ones") / (Number of families)
= 601730 / 23001
= 26 roughly

Let's work on the fact that no males of the "older generation" were crossing the Jordan (apart from Yahusha and Kaleb). Thus we are looking at not entirely mature families (no grandparents, unless a few youngish ones). A reasonable breakdown of the number of males per family would run something like this: one father, 3-4 male children - say 4-5 males. (Of course it could be quite a lot higher, but not likely to be much lower.) Thus one guess could be that 500 males per Levite city would correspond to about 100 Levite families, maybe fewer. What are the relevant considerations?

First, the average number of families per tribe in the other 11 tribes was 23001/11 = slightly over 2000. Assuming the tribe of Levi to be about average in this respect to the other tribes, it would have had about 2000 families at this stage, meaning a little over 40 families per city.

Second, if the Levites were similar to the other tribes in the number of males per family (26), then the number of families required for 23000 males would be slightly under 900, meaning a little under 20 families per city.

(Distributing 23000 Levite males over 2000 Levite families, we find another estimate of the number of males per family, namely 11-12, comfortably between our lower estimate of 4-5 and upper one of 26. Why so much lower than the average Israelite family? Perhaps some light will dawn on this question a little later.)

I suggest then that we use the two figures of 20 and 100 as the outer limits for the number of families intended per Levite city at the time. We will find that they do not greatly affect the answer to our question. Let's start by using the larger number:

How much space do 100 families need for housing? Not much. Middle Eastern houses of the time would be unlikely to be as much as 20 metres square (400m²), more likely 10-15 metres square (100-225m²). Take the worst case, with the 100 houses each taking 20x20 sq metres, and the city core could easily be contained within a space of 200x200 sq metres, which is a mere 4 ha. Let us add something for lanes and public spaces, say increasing the square to 300x300m² or 9ha. (If there were only 20 families, these figures would reduce to 0,8ha and 1,8ha, with sides of roughly 30m and 45m respectively.) Note that pretty well any point within the built-up area would be accessible from any other without exceeding the limits of "a Sabbath day's journey", i.e. roughly 500m.

Now our mental picture spreads a bit with the borders of the (square) open space stretching out to 2300 metres in each direction, or 529 ha. Subtract the 9 ha of the city core, and we have 520 ha for 100 families for livestock farming, i.e. just over 5ha each. Of this 5ha, 1,6 ha is within the confines of the walls and would presumably be used mainly for overnight shelter safe from marauding bands and animals. One would expect to find stalls, cowsheds, sheep pens etc in this area, and perhaps small huts for herders particularly in the lambing or calving seasons, although as one thinks of Yahusha's parables in John's Gospel about the shepherd and the flock these sound like an unusual luxury.

About 3½ ha per family is thus free primarily for grazing. This does not require that each family was allotted a specific portion of the open space to wall or fence for their own flocks and herds, it sounds more like a communal grazing area; but each family was entitled to benefit from resources equivalent to about 3½ha, proportionally more if the families were larger and so there were fewer families per city - in the case of a 20-family city, about 15ha. If a 40-family community, about 10ha.

So we now have an idea of how large a farm should be *for rearing livestock for the subsistence needs* of the family: at least 5ha, perhaps as much as 20-25ha. Two questions remain:

1. How can a community of only 100 families (let alone 20!) be regarded as a "city"?
2. What about all the cereal/vegetable/fruit needs of the Levites if they're only raising protein on the hoof?

The first is easier. The Israelites did not award the rank of "city" to a settlement on grounds of population, but on grounds of whether it could sustain a *minyan*. A *minyan* is a group of 10 "men of leisure", not idle people, but people blessed with enough spare time for Torah study and the operations of the synagogue. Synagogue? In Numbers?? Yes. I commend to my reader the writings of Greg Kilian on this topic - search on Google for Greg+Kilian+synagogue. To make my point, I'll just quote a few very condensed pages of not-too-flowing quotes from one of his writings (emphases and "lumpiness" are my fault):

Let's start by examining the concept of a community. A community, qahal in Hebrew, is a Jewish community of any size. The qahal was a well established concept and was called an *ekklesia* in the Nazarean Codicil (*BEF comments: "New Testament" in most people's thinking*). In English we translate the Greek *ekklesia* as church. So, whenever we see the word church in our Nazarean Codicils, we should have in mind the concept of a qahal, a community or congregation. A community does not happen because folks happen to live together. A qahal requires much work and the support of HaShem:

Tehillim (Psalm) 127:1 "Except HaShem builds the house, they labour in vain that build it; except Ha-Shem watches over a city [community] the watchman keeps watch in vain."

The Midrash on this Psalm gives us some insight as to what kind of work is required to establish and prosper a qahal:

Midrash to Tehillim 127:1 "R. Judah the Prince sent R. Hiyya, R. Jose, and R. Ammi to visit cities in the land of Israel, and to set up in them teachers of Scripture and instructors of Oral Law. They came to one city in which they found no teacher of Scripture and no instructor of Oral Law, and they said to the people: 'Fetch us the chief watchmen of the city.' The people brought the watchmen of the city to the Rabbis, and the Rabbis said: 'Are these the watchmen of the city? In truth, they are the destroyers of the city.'" And when the people asked the Rabbis: 'Who then, are the watchmen of the city?' the Rabbis answered: 'The watchmen of the city are the teachers of Scripture and instructors of Oral Law.'" Hence it is written: "Except HaShem watches over a city, the watchman keeps watch in vain."

From this midrash we learn that the study and application of the scriptures and the oral law, are the work that a group of people put in to establish a qahal. However, without a structure to impart this wisdom, the qahal will not prosper. The structure that establishes and prospers a qahal is the synagogue.

Church[2]. The Greek Ecclesia means simply an Assembly: any assembly of people who are called out (for that is the etymological meaning of the word) from other people. Hence, it is used of the whole nation of Israel as distinct from other nations. The Septuagint uses the word Ecclesia seventy times when it translates the Hebrew word: kve (qahal could also be

spelled Cahal), from which we get our English word call. It means to call together, to assemble, or gather together.

Since I have explored the concept of a qahal in greater depth in my paper on Church, I will not elaborate here.

Let me repeat:

“The synagogue is the structure
that HaShem established
to regulate
and establish
a qahal (community)
and to cause it to prosper.”

Once a community is established with the structure of the synagogue, then HaShem establishes and prospers the qahal. This notion will help us to understand the second verse of Tehillim 127:

Tehillim (Psalm) 127:2 “It is in vain for you that you rise up early, and sit up late. You that eat the bread of toil, so He [Elohim] gives unto His beloved in sleep.”

The synagogue provides the structure whereby a qahal, a community, becomes rooted in HaShem. The synagogue is an extension of the Bet HaMikdash, the Temple. The Bet HaMikdash served the community in the same way that the synagogue serves the community. Attending services in the Bet HaMikdash is like attending the services in the synagogue. The synagogue serves the same purpose for a community that the Temple served for the nation. The fortunes of the Jew and the Jewish families are intimately tied to the proper functioning of the synagogue and its officers. Without the Bet HaMikdash and the synagogue, the qahal will languish and will not prosper as the Prophet declares:

Chagee (Haggai) 1:4-10 “Is this a time for yourselves to sit in your paneled houses, whilst the House (of [Elohim]) is in ruins? So now, thus said Ha-Shem, Master of Legions: Set your heart to (consider) your ways! You have sown much but bring in little, eating without being satisfied, drinking without quenching thirst; dressing, yet no one is warmed; and whoever earns money earns it for a purse with a hole. Thus said Ha-Shem, Master of Legions: Set your heart to your ways! Go up to the mountain and bring wood and build the Temple; I will be pleased with it and I will be honoured - said Ha-Shem. You looked for much (produce) but, behold, it is little; you bring it home and I blow upon it. Why is this? - The Word of Ha-Shem, Master of Legions - because of My Temple which is ruined, whilst you run, each to his own house. Therefore, because of you, the heavens withhold from giving (dew), and the land withholds its produce.”

The synagogue,
together with the Temple,
is the most important institution
in Judaism.

The well-being of the individual, the family, and the community depends on the structure and officers of the synagogue.

The synagogue, traditionally, was the name of the building where Jews and Gentiles gathered to pray. But, in a classical sense, a synagogue is to a Chaburah (fellowship) what a cathedral is to a parish church. That is, a synagogue and its officers is the structure of a very large and well established community, while a Chaburah (fellowship) is a gathering of a smaller community for fellowship, prayer, and learning.

Chaburah members create the structure of their group. They decide when, where, and how often they are to meet, how their meetings will be conducted, and what they will do together. Some chaburot are composed solely of adults, while others include entire families. Itself a surrogate extended family, the Chaburah broadens the network of people available to provide support to its members, and affords husbands, wives, and children a

sense of belonging. Both during periods of crisis and at times of celebration, families can turn to one another for support.[3]

The structure and purpose of the synagogue is very different from the Chaburah, as we shall see.

Terms:

Synagogue: [Middle English, from Old French sinagoge, from Late Latin synagoga, from Greek sunagoge, assembly, synagogue, from sunagein, to bring together : sun-, syn- + agein, to lead]

Sephardi: Esnoga,
Yiddish: Shul
Ukrainian: kloyz
Polish: shtibl

In Judea and Babylon the synagogue was called "Bet HaKneset"[4].
Ezekiel called it a "Little Sanctuary" (Yehezkeel 11:16).
In the Greek versions of the Apocrypha they reference "proseuche" or "House of Prayer"¹.

A Beit Noach (a gathering of those who follow the seven Noachide laws) is called Kenesiyah (a small and feminine word to denote that it is a receptor from the Bet Kneset.)

The Origin of the Synagogue:

There is some debate as to when the synagogue first came into existence. There are some that say Moses instituted it, others say that it began when Judah was carried into captivity in Babylon. There are papyri that show that Egyptian Jews had synagogues as early as the fifth century BCE.[5] I believe that Moses instituted the synagogue because of the following verses:

Yeshayahu (Isaiah) 8:13-16 [YHWH of Hosts] is the one you are to regard as holy, he is the one you are to fear, he is the one you are to dread, And he will be a sanctuary; but for both houses of Israel he will be a stone that causes men to stumble and a rock that makes them fall. And for the people of Jerusalem he will be a trap and a snare. Many of them will stumble; they will fall and be broken, they will be snared and captured." Bind up the testimony and seal up the law among my disciples.

Tehillim (Psalms) 74:1-8 {A <maskil> of Asaph.} Why have you rejected us forever, O [Elohim]? Why does your anger smolder against the sheep of your pasture? Remember the people you purchased of old, the tribe of your inheritance, whom you redeemed--Mount Zion, where you dwelt. Turn your steps toward these everlasting ruins, all this destruction the enemy has brought on the sanctuary. Your foes roared in the place where you met with us; they set up their standards as signs. They behaved like men wielding axes to cut through a thicket of trees. They smashed all the carved paneling with their axes and hatchets. They burned your sanctuary to the ground; they defiled the dwelling place of your Name. They said in their hearts, "We will crush them completely!" They burned every place where [El] was worshiped in the land.

Strong's dictionary defines a 'sanctuary' as:

4720 miqdash, mik-dawsh'; or miqqedash (Exod. 15:17), mik-ked-awsh'; from 6942; a consecrated thing or place, espec. a palace, sanctuary (whether of Jehovah or of idols) or asylum:-chapel, hallowed part, holy place, sanctuary.

----- Dictionary Trace -----

6942 qadash, kaw-dash'; a prim. root; to be (causat. make, pronounce or observe as) clean (ceremonially or morally):-appoint, bid, consecrate, dedicate, defile, hallow, (be, keep) holy (-er, place), keep, prepare, proclaim, purify, sanctify (-ied one, self), x wholly.

The Targum (Pseudo-Jonathan to Shemot 18:20), the Jerusalem Talmud (in Ex., xviii, 20), the Midrash (Yalkut, Ex. 408), and Josephus (Apion, 2:175), the tradition of the Alexandrian Jews, according to the witness of Philo, "De Vita Mosis" (III, 27), as well as the Nazarean Codicil all ascribe the synagogue's origin to Moses:

Il Luqas (Acts) 15:21 For Moses of old time hath in every city them that preach him, being read in the synagogues every sabbath day.

Another term used to prove that Moses gave us the synagogue is the term: "Assembly of Elders". This term is found in:

Yehezkehel (Ezekiel) 14:1 Some of the elders of Israel came to me and sat down in front of me.

Yehezkehel (Ezekiel) 20:1 In the seventh year, in the fifth month on the tenth day, some of the elders of Israel came to inquire of HaShem, and they sat down in front of me.

An elder, zaken, as we shall see, is one of the officers of the synagogue.

Requirements

A synagogue could be formed in any town large enough to have a congregation capable of supporting ten Torah scholars, who were men of leisure[7]. These men were not lazy or idle men, but, were at leisure only to take care of the synagogue, and to give themselves to Torah study.

Megilah 5a MISHNAH. WHAT IS RECKONED A LARGE TOWN? ONE WHICH HAS IN IT TEN MEN OF LEISURE.[8] ONE THAT HAS FEWER IS RECKONED A VILLAGE. IN RESPECT OF THESE[9] IT WAS LAID DOWN THAT THEY SHOULD BE PUSHED FORWARD BUT NOT POSTPONED. THE TIME, HOWEVER, OF BRINGING THE WOOD FOR THE PRIESTS,[10] OF KEEPING THE [FAST OF] THE NINTH OF AB,[11] OF OFFERING THE FESTIVAL SACRIFICE,[12] AND OF ASSEMBLING THE PEOPLE[13] IS TO BE POSTPONED[14] [TILL AFTER SABBATH] BUT NOT PUSHED FORWARD. ALTHOUGH IT WAS LAID DOWN THAT THE TIMES [OF READING THE MEGILLAH] ARE TO BE PUSHED FORWARD BUT NOT POSTPONED, IT IS PERMISSIBLE ON THESE [ALTERNATIVE] DAYS[15] TO MOURN, TO FAST, AND TO DISTRIBUTE GIFTS TO THE POOR. R. JUDAH SAID: WHEN IS THIS?[16] IN PLACES WHERE PEOPLE COME TO TOWN ON MONDAYS AND THURSDAYS. IN PLACES, HOWEVER, WHERE THEY DO NOT COME TO TOWN EITHER ON MONDAYS OR THURSDAYS, THE MEGILLAH IS READ ONLY ON ITS PROPER DAY.

GEMARA. [TEN MEN OF LEISURE]: A Tanna taught: The ten unoccupied men who attend synagogue.[17]

Every community large enough to have a significant Jewish population which could support the three Hakhamim (Rabbis) who make up the bench of three, and the other seven officers, would have a synagogue. ***If a city was not big enough to have and support these ten officers, then it was not called a city, it was called a village.***

Megilah 3b R. Joshua b. Levi also said: A city in which there are not ten men of leisure[18] is reckoned as a village. What does he tell us? We have already learnt this: 'What is a large town? One in which there are ten men of leisure. If there are less than this, it is reckoned as a village'. — He had to point out that the rule applies to a city,[19] even though [leisured] people come there from outside.[20] R. Joshua b. Levi also said: A city which has been laid waste and afterwards settled is reckoned as a city. What is meant by 'laid waste'? Shall I say, that its walls have been destroyed, in which case if it became settled[21] it is reckoned as a city but otherwise not? [How can this be], seeing that it has been taught: R. Eleazar son of R. Jose says: [The text says], which has a wall;[22] [which implies that it is to be reckoned as a city] even though it has not a wall now, provided it had one previously?[23] What then is meant by 'laid waste'? Laid waste of its ten men of leisure.

The reason for ten Torah scholars[24] can be deduced from Numbers 14:27 "How long shall

this evil congregation exist, complaining about Me?[25] I have heard how the Israelites are complaining about Me.” If we take away Joshua and Caleb, and there remains only ten; namely the spies of the land. The idea of a “minyan” (“number”) is also inferred from this passage. Now, these “spies” were not ordinary men, but rulers, i.e. Judges or Hakhamim, as we can see in:

Bamidbar (Numbers) 13:1-16 And HaShem spake unto Moses, saying, Send thou men, that they may search the land of Canaan, which I give unto the children of Israel: of every tribe of their fathers shall ye send a man, every one a ruler among them. And Moses by the commandment of HaShem sent them from the wilderness of Paran: all those men [were] heads of the children of Israel. And these [were] their names:

*Of the tribe of Reuben, Shammua the son of Zaccur.
Of the tribe of Simeon, Shaphat the son of Hori.
Of the tribe of Judah, Caleb the son of Jephunneh.
Of the tribe of Issachar, Igal the son of Joseph.
Of the tribe of Ephraim, Oshea the son of Nun.
Of the tribe of Benjamin, Palti the son of Raphu.
Of the tribe of Zebulun, Gaddiel the son of Sodi.
Of the tribe of Joseph, [namely], of the tribe of Manasseh, Gaddi the son of Susi.
Of the tribe of Dan, Ammiel the son of Gemalli.
Of the tribe of Asher, Sethur the son of Michael.
Of the tribe of Naphtali, Nahbi the son of Vophsi.
Of the tribe of Gad, Geuel the son of Machi.*

These [are] the names of the men which Moses sent to spy out the land. And Moses called Oshea the son of Nun Jehoshua.

A “ruler”, in the Torah, is a Hakham, a Judge on the Bet Din. We can see again that the ten are Tsadiqim, righteous ones, from Avraham’s plea:

Bereshit (Genesis) 18:23-33 And Abraham drew near, and said, Will You consume the righteous with the wicked? Peradventure there are fifty righteous within the city: will You consume and not spare the place for the fifty righteous that are therein? That be far from You to do after this manner, to slay the righteous with the wicked, that so the righteous should be as the wicked; that be far from You: shall not the Judge of all the earth do right? And Ha-Shem said, If I find in Sodom fifty righteous within the city, then I will spare all the place for their sake. And Abraham answered and said, Behold now, I have taken upon me to speak unto Ha-Shem, who am but dust and ashes: peradventure there shall lack five of the fifty righteous: wilt You destroy all the city for lack of five? And he said, I will not destroy it, if I find there forty and five. And he spoke unto Him yet again, and said, Peradventure there shall be forty found there. And He said, I will not do it for the forty’s sake. And he said, Oh let not Ha-Shem be angry, and I will speak: peradventure there shall thirty be found there. And he said, I will not do it, if I find thirty there. And he said, Behold now, I have taken upon me to speak unto Ha-Shem: peradventure there shall be twenty found there. And he said, I will not destroy it for the twenty’s sake. And he said, Oh let not Ha-Shem be angry, and I will speak yet but this once: peradventure ten shall be found there. And He said, I will not destroy it for the ten’s sake. And Ha-Shem went his way, as soon as He had left off communing with Abraham: and Abraham returned unto his place.”

Note that Abraham was looking not for ordinary men, but for “righteous men”. He was looking for men who knew Torah and Halakha and followed it as a pattern in their lives. This is what makes one righteous. Keep in mind that a quorum of ten Jewish men can form a minyan, these same ten can NOT form a synagogue. To form a synagogue we need to have Tsadiqim (righteous men) or rulers (judges or Hakhamim). These ten Tsadiqim (“A’asarah Tsadiqim” in Hebrew) could also form a minyan.

Some say that the 10 men of the synagogue is derived from the smallest group that Moses created in 1:

Shemot (Exodus) 18:13-21 The next day Moses took his seat to serve as judge for the people, and they stood around him from morning till evening. When his father-in-law saw all that Moses was doing for the people, he said, "What is this you are doing for the

people? Why do you alone sit as judge, while all these people stand around you from morning till evening?" Moses answered him, "Because the people come to me to seek [Elohim]'s will. Whenever they have a dispute, it is brought to me, and I decide between the parties and inform them of [Elohim]'s decrees and laws." Moses' father-in-law replied, "What you are doing is not good. You and these people who come to you will only wear yourselves out. The work is too heavy for you; you cannot handle it alone. Listen now to me and I will give you some advice, and may Elohim be with you. You must be the people's representative before [Elohim] and bring their disputes to him. Teach them the decrees and laws, and show them the way to live and the duties they are to perform. But select capable men from all the people--men who fear [Elohim], trustworthy men who hate dishonest gain--and appoint them as officials over thousands, hundreds, fifties and tens.

Notice that the ten men are spoken of in regard to the dispensation of justice. This was the primary purpose of the bench of three and a major purpose of the officers of the synagogue. This is why they had to be Tsadiqim - Judges on the Bet Din.

The primary purpose of the synagogue was the dispensation of justice, which was primarily achieved through the study, teaching, and application of the Torah, The Prophets, the Writings (Tanach), and the Oral Law. This means that these ten Tsadiqim had to be well learned in the Torah and Halakhah. They had to be trained as Judges (Today we would call these men Rabbis or Hakhamim). This can be seen in:

Il Luqas (Acts) 17:1 When they had passed through Amphipolis and Apollonia, they came to Thessalonica, where there was a Jewish synagogue. As his custom was, Paul went into the synagogue, and on three Sabbath days he reasoned with them from the Scriptures,

Il Luqas (Acts) 15:19-21 "It is my judgment, therefore, that we should not make it difficult for the Gentiles who are turning to God. Instead we should write to them, telling them to abstain from food polluted by idols, from sexual immorality, from the meat of strangled animals and from blood. For Moses has been preached in every city from the earliest times and is read in the synagogues on every Sabbath."

Il Luqas (Acts) 19:8 Paul entered the synagogue and spoke boldly there for three months, arguing persuasively about the kingdom of God.

Luqas (Luke) 13:10 On a Sabbath Yeshua was teaching in one of the synagogues,

So, a synagogue is a structure where Yeshua and all the Apostles and disciples went to learn, teach, and apply justice.

The principle *[sic]* service of the synagogue was held on Sabbath morning, and included, according to the Mishna, the recitation of the Shema[26], prayer, Reading from the Torah and Haftarah with translation, a sermon (derashah - 'searching') based on the Torah reading, and finally the Aaronic benediction. The sages often interchanged the word 'synagogue' with the phrase 'house of prayer', though they everywhere agree that the assemblage was primarily one for instruction in the Torah.[27]

The Officers:

The following are the officers in an ideal synagogue, in a large city. These are not found in every village synagogue. These are the ideal, not the normal found in all synagogues, but rather only in the larger synagogues. Consider the size a town might have to be in order to support three Rabbis just for the Bench of three, for example. [BEF: Yes, Greg, I'm doing just that in this paper.]

The "ten Tsadiqim", the "righteous men", or officers of the synagogue are:

Hakhamim - bench of three - Bet Din 3
Sheliach Bet Din/ Sheliach Tsibur 1
Darshan or Magid 1
The Masoret 1
Parnassim or Shamashim 3

Moreh/Meturgeman 1

Total 10

Now that we see the offices of these ten men, let's look at each individual officer:
ihš ,hc - Bet Din

vaka ka sc□ The bench of three Judges
,xbfv atr Rulers of the synagogue - Archisynagogue

The community was governed by the Bet Din, the house of justice; or sunédrión transliterated ihšvbx, Sanhedrin. The members of the Bet Din were called "rulers". The Bet Din had it in their power to dispense justice to the community.

These men (minimum of 3) were the Judges. These were the Hakhamim, the Rabbis, who were well schooled in the law - the Torah. It was this office that decided any differences that arose in the community. They judged matters concerning money, thefts, losses, restitutions, ravishing a virgin, of a man enticing a virgin, of the admission of proselytes, laying on of hands, and other matters spoken about in tractate Sanhedrin. These were also called the Rulers of the Synagogue, because they were responsible for caring for the synagogue and they exercised the chief power.

And so on. But I have quoted enough already to show, I think, how essential it would be that the Levite cities, and particularly those of them that were the cities of refuge for the nation, would have to be able to support a *minyan*, and not just an ordinary *minyan*, but preferably a full-blown synagogue with its bench of judges.

(You may have some reservations about the importance of the Oral Law, but that should not detract from the overall picture that Killian sketches. Also, applying the term "Rabbi" to the time we are considering would probably carry a lot of inappropriate overhead.)

What are the implications of this for our understanding of how large a farm should be? (You have probably picked up that I am not interested - yet - in solitary farms, but farms in the context of community, and at this stage particularly Levitical community as an example of a *righteous community*.) It means that the families of at least 10 men have to be thriving from their enterprise to such an extent that these men (probably the older ones, the *elders*, the best-trained in *Torah* and *halakah*) are not needed full-time on the land but are able to spend quite a lot of time on Torah study and on adjudicating the disputes that arise from time to time between members of the community. (Of course, the community might well support their families materially to some extent in recognition of the valuable services provided by these men.) Thus at least 10 families need to be thriving above a subsistence level - it would be a very affluent community which could spare more than 1 male per family from farming to serve in the *minyan*. And there is another consideration:

It is no coincidence, to my mind, that according to Exodus 18:13-21, in order to support a *minyan* based on rulers of 10s (the smallest number admitted) a community would have to comprise at least 50 families, which as we have calculated could well be the starting size of the Levitical cities. (This is assuming that the *rulers of tens* are each "ruling" over ten **families** rather than ten individual males - if we are looking at a small number of large families, then typically the father of each nuclear family would be ruling over 26 males anyway, which does not seem to fit.) However, if one argues that the minimum number of "rulers" on the *minyan* is the 3 mentioned by Killian, then we are looking at a minimum community size of $3 \times 10 = 30$ families, which is not too far out of kilter with my lower estimate of 20 families, and comfortably accommodated by 40 families.

Starting size... what happens as the city's population grows and the borders spread outward? How does the area of "open land" change? Let's look at an example or two, based on the thought that the area of the city core would grow roughly in proportion to the population. Let's look at a 75% increase, which would increase the city core size to $400 \times 400 \text{ m}^2$, and a 165% increase which would grow it to $500 \times 500 \text{ m}^2$.

In the first case the total area increases from $2300 \times 2300 \text{ m}^2$ to $2400 \times 2400 \text{ m}^2$, i.e. from 520ha available to 560ha. In the second case it goes from 520ha to 600ha. These increases in area are nowhere near the increases in population implying perhaps that the city must become more efficient economically as the population grows, or that subsistence support must come in increasingly from outside - or a combination of

both. Another possibility is that in the earlier stages of the city's growth, there would be a greater need for prosperity per family to enable the formation and sustaining of a *minyan* from day one. But it is important to note that Levites as a class were not expected to be free from daily secular labour. Certainly it was critical to the wellbeing of the nation that they specialize in study of Torah, but not to the exclusion of the obligation to work. (In addition to their local functions upholding the synagogue, Levites provided the singers and other support personnel for the Temple, which obliged them to spend quite a lot of time on non-subsistence activities. For a culture to thrive and develop, individuals must obviously find spare time from the effort to exist that can be devoted to "cultural activities". The converse of this statement is that the effort to exist must be accompanied by a significant surplus in agricultural production.)

We have noted already that the Levites were given land for livestock, not for the cultivation of crops, although it is unlikely that they didn't cultivate anything at all, not even a herb garden. Clearly though their non-meat, non-dairy food requirements must have been provided largely from outside of their cities. Where from, and on what economic basis? Did they have to trade meat and/or milk for their cereals and fruits?

The answer to this is mainly found in what I think is generally one of the most poorly presented, even misrepresented, topics in the Torah: *tithing*. And I do not want to get too far off the track in order to present a corrective teaching here, but be warned that some of the ideas that emerge from the Scriptures may not sit too well with what you may have heard from the pulpit.

Let's look at the all-time favorite Scripture verse on this topic:

Mal 3:10 "Bring all the tithes into the storehouse, and let there be food in My house. And please prove Me in this," said יהוה of hosts, "whether I do not open for you the windows of the heavens, and shall pour out for you boundless blessing!"

Sometimes it will be incorporated in a fuller reading, probably the following:

Mal 3:8 "Would a man rob Elohim? Yet you are robbing Me! But you said, 'In what have we robbed You?' In the tithe and the offering!"

Mal 3:9 "You have cursed Me with a curse, for you are robbing Me, this nation, all of it!"

Mal 3:10 "Bring all the tithes into the storehouse, and let there be food in My house. And please prove Me in this," said יהוה of hosts, "whether I do not open for you the windows of the heavens, and shall pour out for you boundless blessing!"

I have to ask here, a simple yet inconvenient question: Who was this addressed to? Who was robbing Elohim? **Who**, in other words, was responsible to *bring all the tithes into the storehouse*? Listening to a prosperity-gospel preacher, or the chairman of the Ch_ch Finance Committee, you might conclude that it was the rank-and-file, common-or-garden sitting-in-the-pew Jew, replaced nowadays by the equivalent Xtian. Not quite. Shall we see what the Torah says about *storehouse[s]*, and particularly in relation to tithing?

Oddly enough, the Torah says ***nothing, nothing at all***, apart from this one verse, Malachi 3:10. So what are "they" being accused of, if there is no obligation laid down? How are we to understand this swingeing indictment? Perhaps we need to look a little further and deeper. When in doubt, turn to Young's Literal Translation, which does not indulge much in the sort of interpretive translation that you often find elsewhere, e.g. the KJV ...

Mal 3:10 Bring in all the tithe unto the treasure-house, And there is food in My house; When ye have tried Me, now, with this, Said [YHWH] of Hosts, Do not I open to you the windows of heaven? Yea, I have emptied on you a blessing till there is no space.

OK, so what is this "treasure-house" (Hebrew: *otsaw*) and why should it be having the tithe put into it? Well, we can gain invaluable insight by searching on *this* word rather than "storehouse", because we then are pointed to

Neh 10:38 and the priest, son of Aaron, hath been with the Levites in the tithing of the Levites, and the Levites bring up the tithe of the tithe to the house of our Elohim unto the chambers, to the treasure-house;

(Nehemiah was busy restoring the society of Judah after the Babylonian captivity. Here was one of the things he was restoring, the bringing of the tithe into the *treasure-house* which is clearly described as consisting of chambers within the temple complex.) And whose tithe was it? **Who** was being tithed? Why, it was **the Levites**! The Levites had to give a tenth of what *they* had received and bring that to the Temple to be stored

in the *treasure-house* so that there would be food in the Temple. Food for whom? Why, the priests who ministered there continually and those particular Levites who were doing duty by rote for several weeks each year (like the father of John the Baptist) and so were separated from their own food supplies at home. This is made almost painfully clear by the phrase *the tithe of the tithe* which will lead us shortly into further understanding. But first, let me point out that Malachi wrote several decades after Nehemiah did, so was addressing an abuse of the arrangements that Nehemiah put into place.

Another question which I imagine might be on your mind at this stage is, *what exactly was included in the tithe?*

For enlightenment we need to look more broadly at the convenient Nehemiah passage, although we could come to the same conclusions from a wider study of the Pentateuch:

Neh 10:32 And we imposed commands on ourselves, to give from ourselves yearly one-third of a shekel for the service of the House of our Elohim:

Neh 10:33 for the showbread, and for the continual grain offering, and for the continual burnt offering of the Sabbaths, of the New Moons, for the appointed times, and for the set-apart offerings, and for the sin offerings to make atonement for Yisra'el, and all the work of the House of our Elohim.

Neh 10:34 And we cast lots among the priests, and the Lēwites, and the people, for bringing the wood offering into the House of our Elohim, according to our fathers' houses, at the appointed times year by year, to burn on the altar of יהוה our Elohim as it is written in the Torah,

Neh 10:35 and to bring the first-fruits of our soil and the first-fruits of all fruit of all trees, year by year, to the House of יהוה,

Neh 10:36 also to bring the first-born of our sons and our livestock, as it is written in the Torah, and the firstlings of our herds and our flocks, to the House of our Elohim, to the priests attending in the House of our Elohim.

Neh 10:37 And that we should bring the first-fruits of our dough, and our contributions, and the fruit from all kinds of trees, of new wine and of oil, to the priests, to the storerooms of the House of our Elohim; and the tithes of our land to the Lēwites, for the Lēwites should receive the tithes in all our rural towns.

Neh 10:38 And the priest, son of Aharon, shall be with the Lēwites when the Lēwites receive tithes, and the Lēwites bring up a tenth of the tithes to the House of our Elohim, to the rooms of the storehouse.

Neh 10:39 For the children of Yisra'el and the children of Lēwi bring the offering of the grain, of the new wine and the oil, to the storerooms where the vessels of the set-apart place are, where the priests who attend and the gatekeepers and the singers are, and we should not neglect the House of our Elohim.

First, please note that the annual cash levy of 1/3 shekel referred to in the first verse was not a requirement of Torah - it was a convenient well-accepted arrangement to ensure a constant provision of the offerings mentioned in the second verse - which were a requirement of Torah. So it was a popular and voluntary means to a required end. There was something else required by Torah for the burnt offerings to be made (particularly during the three great pilgrim festivals every year, when the population of Jerusalem might swell by a factor of 10 or more, and an enormous increase in the number of offerings over the weekly norm would be experienced), and that was the firewood - verse 34 shows that rather than increase that cash levy, the people agreed to be subject to the casting of lots for when who should bring their wood contribution (in kind!) to the Temple. Please note an important point in this verse: even the priests and the Levites, along with the ordinary people, had this obligation placed on them.

Please note, please, as we go forward, that cash was not acceptable as a substitute for everything! Some things needed to be given or tithed in kind... This was a powerful disincentive against nationally moving to a predominantly money-based economy. It is interesting to note that the second tithe on an Israelitish farmer, which was really a kind of "vacation savings" that he was supposed to set aside so that he could take it up to Jerusalem with him to be able to enjoy at the Pilgrim Festivals, could be taken in kind or be converted to cash, it was up to him. (If he took cash, it would presumably be rather cost-inefficient because of high prices in Jerusalem at the time because of the increased demand resulting from so many visitors there at once, like Durban in the December holidays.) But the tithes to the Levites, and the first-fruit offerings in Jerusalem, had to be in kind, there was no cash option in this instance.

Verses 35-37a refer to the bringing of the firstfruits of various kinds to the priests attending in the Temple, indeed to the storehouse of the House of Elohim. This was commanded by Torah, but it did not count as tithing. It is in fact contrasted in vs37 to *the tithes of our land* which had to be brought to - wait for it - *the Lēwites, for the Lēwites should receive the tithes in all our rural towns*. Actually *rural towns* is a bit of a flier, the thought is rather that they should receive *all the tithes in the cities of our tillage*. In other words,

if it is cultivated (grown in “tilled” land), tithe it in the cities for the Levites to receive conveniently. When they have received it, they can keep 90% for their own use, but the remaining 10% they must take up to Jerusalem for storing and use in the Temple complex by the people working there. It’s a perfectly simple and sensible arrangement when you think it through.

So what kind of stuff went up to Jerusalem? Mainly grain, new wine, and oil as we see in verse 39. (Under “grain” we must understand several different kinds of cereal, including wheat and barley amongst others. These grains would have a very long shelf life, not having been milled - remember Joseph was able to keep supplies for between 7 and 14 years in Egypt; he used large below-ground chambers.) Why “new wine” and not some from a better-proven vintage? Because it was most likely **not** the post-fermentation stuff that employs the attention of oenologists today - it was much more likely to be a fresh grape-juice, perhaps concentrated by boiling down to a cordial, with a very long shelf life in sealed clay pots and only needing to be mixed with water when it was to be drunk. Drunkenness amongst priests was not permitted in Moshe’s time, and had clearly become a problem in the time of Eli, who was anyway in flagrant disobedience of several commands of Torah. One cannot imagine Nehemiah, intent on restoring the Temple worship in all its purity, encouraging the Levites to bring stocks of alcoholic wine to the Temple so that the priests could disgrace the place where the Almighty had fixed His Name!

The oil would have been primarily olive oil.

Verse 38 requires that the priest needs to be overseeing the Levite as he collects tithes from the locals.

Verse 39 is very useful because of the light it throws on a custom: the people who had given their tithes to the local Levite(s) would possibly help him carry *his* tithe thereof up to Jerusalem. (One can imagine considerable logistical problems for the Levite if such help was not offered.)

So, in Malachi 3, who is being excoriated?

Clearly, ***the Levite*** bears the primary responsibility and is getting the blame. It is *his* tithe that he is responsible for getting to Jerusalem, the ordinary people only had to get *their tithe* to *him* in his local city. The Levite is not responsible for making sure the *landsvolk* bring in their tithe to him, he has to work with what he gets. And if we are so daring as to read a bit more of Malachi’s book, in the run-up to 3:10 we will see that it is indeed the participants in the Levitical covenant, priests included, who are being whacked. Apparently the Levites were receiving tithes from the local farmers but were not passing on their 10% to the Temple. It may be that the people were not keen to help them cart it up to Jerusalem, but this thought does not come out in the Scriptures. So the whole nation was being punished for the retentiveness of the priests-at-the-local-level (and I must hasten to point out that they too were all Levites, just those Levites whose ancestor was Aaron - both Moses and Aaron were Levites) and the Levites more generally.

If we were to extrapolate this to the context of the Ch_rch generally (not that I think that we should, but because the ch_rchmen themselves do it so frequently) wouldn’t the appropriate parallel be, that the members bring their “tithes and offerings” to the “local-Levites-equivalent”, i.e. the ch_ch leadership (by their own thinking), who should then tithe onwards to the Temple? At this particular moment in history, I think a good case could be made out for sending some of this tithe to, say, the *Temple Mount Institute* who are diligently making all necessary preparations for the rebuilding of the Temple in Jerusalem, the re-establishment of the Aaronic priesthood and the ceremonial sacrifices. Another appropriate destination for some of this tithe might be *Jerusalem Prayer Team* under Dr Mike Evans who are desperately trying to prevent the imminent tearing apart of Jerusalem which is being plotted internationally in order to attempt (futilely, you may be sure) to appease militant Islam. And I am sure you could think of other current efforts to provide secure infrastructure for the Temple in Jerusalem. However, it seems that this “tithe-of-a-tithe”, maybe even more, is usually swallowed up by denominational coffers, which is perhaps another reason for being wary of denomination-based Xtianity. Why should St Peter’s be resplendent while the Temple is not even rebuilt yet?

As an alternative interpretation within the context of the current-day local ch-ch which doesn’t raise uncomfortable questions about the relationship of the local congregation to the Temple in Jerusalem, perhaps the members-in-the-pew should tithe to the caretaker and the musicians (these were roles that the non-priestly Levites fulfilled), who in turn should tithe of what they receive to the preachers/pastors.

Enough tongue-in-the-cheek stuff. I am not concluding that in the time of Malachi it was *only* the Levites who were failing to bring in their tithe, I am only stressing that their *tithe of whatever they received* was not getting to the Temple treasure-house, and if the fault had lain mainly with the common people not bringing their tithes to the local Levites, why, I am sure we would have seen some different wording in Malachi 3:10

and its precedent verses.

All this has been something of a diversion, but important enough in its own right to deserve exposure; and it is not of no use at all in helping us answer the question of our title.

We have already noted that the Levites were given grazing land around their cities for their livestock and thus needed little or no animal protein to be supplied via the tithe. This was for their normal day-to-day existence in their cities. (They would of course also get milk, wool, leather and so on from their livestock.) When they went up to Jerusalem for their shift of Temple-duty, they would eat meat from some of the sacrifices there; the rest of their diet would be taken from the *treasure-house* of the Temple which should have been supplied via the procedure described above by Nehemiah, which had broken down in the time of Malachi.

Since the grain, “new wine” and oil in the Temple came from the Levites who were not engaged in its production, clearly its source was the tithe of the produce of the people who farmed with these products. (There was also “first-fruits” of all sorts of fresh produce and livestock, but these went straight to the Temple, none being deducted for the local Levites.) So they were providing the local Levites with *their* needed grain, “new wine” and oil through the tithing procedure.

To summarise thus far: Each Levite city, consisting of between perhaps 20 large families and 100 small families, would receive the grain, wine and oil tithes of up to 500 families of other tribes in their area (not all would necessarily be farming). From this each Levite would take 10%, i.e. as much as another half a family's requirements, up to the Temple in Jerusalem, to contribute to the storehouse famously mentioned in Malachi 3:10. The Temple would thus be receiving about 1% of the total crops harvested by the farmers of Israel. (I use this awkward wording for a very specific reason which I explain below.) Since each average Levite family is keeping 5 times as much produce as the average farming family is retaining, it is clear that in general the Levitical city can indeed support a significant number of “men of leisure” to form an outstanding minyan as the basis of the synagogue. But the Levite carries the responsibility of supplying the tithe to the Temple.

Estimating it from another angle, 2000 Levite families across the land would receive the tithes of about 23000 Israelite families, on average about 1,15 Israelite-families' worth of nett produce per Levite family. But bear in mind also that the average Levite family would on these figures be less than half the size of the average Israelite family (11-12 males vs 26) and so the amount of produce in the tithe would allow the Levite family to live that much more above the normal lifestyle level than the average Israelite family was living, even after the “Temple-tithe” had been carted up to Yerushalayim.

It should be fairly simple to put these concepts together and calculate how large an average Israelitish farm would need to be to support those dependent on it, but there are some more helpful factors that could be considered and brought into the equation first.

One of these factors is the requirement of what I might term “charitable inefficiency” in the harvesting process. Another is “preferential charitable access” to the harvest. A third is the fact that not all Israelites were farming - as a nation they were known to turn their hands to e.g. seafaring, trade, commerce and banking, not to mention academic pursuits. And of course we note that the Messiah's adoptive father, Joseph of Nazareth, was well-known as a carpenter. (In fact, if you think about it, it was necessary that Joseph was not a landowner for the sake of his adopted Son's Messianic mission.)

All these factors tend to increase the number of people depending for supplies on the average Israelitish farm by decreasing the number of people farming for subsistence. Let's look at them one by one.

Preferential charitable access to the harvest: The Israelitish farmer was not allowed to harvest from every square metre of his cultivated land, instead he had to allow “the poor” to harvest the margins of his crop. How big a margin is not specified, so it was clearly within the control of the farmer (although “normal” expectations would surely build up over the years). Think of a 1ha field of wheat, conveniently square: 100m x 100m. Even a 1m margin being made available to the poor to harvest (roughly the amount people standing at the edge of the grain would be able to reach in and reap, thus a fairly natural interpretation of the margin) would diminish the farmer's crop by 4%; a 2m margin - letting a second poor family have a whack at the edge harvest - would bring it down by nearly 8%. Not a trivial amount! (By the way, at a reasonably good yield of say 3 tonnes/hectare, the farmer would be giving away nearly 250kg of wheat, enough for the wheat needs of a poor family for somewhere between 3 and 6 months.) But that was not all...

Charitable inefficiency: The farmer, having given away the easiest part of his crop to harvest to the poor,

now faces the problem of not being allowed to collect the totality of the remainder, because he is not allowed to send sweepers behind the main reapers to pick up the bits that have fallen to the ground of the field, or, in the orchard, the fruits that, hiding behind the foliage, were not plucked initially. Once his team of reapers have been through, the remainder is left for the poor to collect. How much might that add up to? 10% sounds like pretty sloppy reaping, 5% is maybe about right, 2% sounds like quite a tight operation. It's very interesting to read the book of Ruth with these issues in mind.

So it sounds as though a normal Israelitish farmer could easily be giving around another 5-10% of his harvest away directly to the poor by following Torah during the harvest. And this is during a normal year, in the *shabbat* year (every seventh year) he must leave his land fallow, not cultivate anything, but he can feed himself and his family from what grows by itself. However, he is not free to reap anything beyond that, his field for that year is basically open territory and anyone can come and likewise eat from what is growing there on its own. (He can of course go and forage in his neighbours' fields in the same way. And there is a promise that the harvest in the 6th year will provide what is needed to carry him through the 7th year.)

Ignoring the effect of the Shabbat year, plus various additional and rather complicated restrictions on how soon he could start consuming crops from new plantings etc, we see that the upright Israelitish farmer in a normal year gave of his crop roughly

10% to the poor who came to glean

10% of 90% to the local Levites in the Levitical city

(incidentally, you will note that supporting the poor takes precedence over supporting the religious establishment)

2*10% of 90% to himself for enjoying the Pilgrim Festivals

totalling about 37% of his harvest that he was not allowed to use for normal daily requirements, seed replenishment, long-term storage and trade. The need for the latter then had to be provided by 63% of the annual harvest. Assuming that he would be satisfied with 30% for non-subsistence purposes, then his farm needed to provide about 3 times as much of a total crop as he and his family would actually eat over the space of a year while at home. (I am of course talking in overall average terms, there would surely be barter amongst farmers for some specific foodstuffs.) This would imply that less than half of the Israelitish adult male population, maybe as little as a quarter, could be involved in non-farming occupations, excluding the Levitical tasks.

If more than this fraction were to be so involved, then the farmer would need to grow correspondingly more food for non-subsistence purposes and his farm would need to provide 4, 5, 6 or even more times as much food as he needed for himself and his family. If we rather arbitrarily take a multiplier of 6, we are probably looking at a farm size of between 10ha and 15ha - for crop-farming. Add a similar area for livestock to that needed by the Levites, and we are looking at 15-20ha being worked per farming family. (This is not to say that *each* farming family worked so much land - because of the Jubilee year provision, an active farmer could rent land from an inactive one, returning the land every 50th year along with acknowledgement that the inactive family held the title to it.)

If we naively take this figure of 20ha and multiply it by the total number of families in the 11 tribes, we get a total area of 460 000ha under cultivation or livestock in Israel. However we should divide this by a significant number to account for all the non-farming families, maybe by a factor of 4 or 5, coming down to a minimum area of 100 000ha. (Even non-farming families would have *owned* farmlands, which they were free to rent out more or less continuously to more agriculturally-inclined brethren. Thus the actual land area under cultivation from time to time would probably have been well above this minimum. One must also note that by emigration and captivity many Israelites became independent of the produce of the land of Israel as time went by.)

Right. We've circled cautiously around the title question and viewed it from several perspectives, and now comes the time to draw conclusions. However, first I must confess to my hidden agenda: to see what useful light is thrown by the Torah on how much land (and people-assets) would be needed by an intending Torah-based largely self-sufficient community.

In summary: a pattern has emerged of a community of at least 40 families providing a core of at least 450-500 males of all ages (plus corresponding females!) each working (or owning and renting out, at least in part) minimally 2,5ha of cropland plus 5ha for grazing. A core area of up to 5ha in total might be required for the community's dwellings, plus about 60ha for safe penning of livestock. Therefore a viable subsistence-level righteous community could be established on approximately 365-400ha of mixed farmland, of which about

100ha would be for crops. With a further 100ha or so, the community could provide a significant surplus to needy neighbours, as well as having a marketable excess for generating a cash income.

Some pointers have been given here to what is meant by *righteous community*, but the topic will be discussed in more depth and detail in a larger paper to which this is a necessary precursor. Notably lacking from this paper is any discussion of the issue of arability for a number of reasons.

Now: here is my first very rough seed for a logo to encapsulate the concept of a *righteous community* - one that is substantially self-sufficient but exists in order to overflow into the needs of the surrounding world with Torah-knowledge as well as food:

SUR *VIVE*
PLUS !

I would first like the *vive* and the *plus* to fit more tightly to the *SUR* and the exclamation mark, as well as fitting between the top and bottom levels of the letters of the *SUR*. A nice font would also be an improvement. Finally a pleasant agricultural landscape for a background, perhaps with an olive tree (or two, for obvious reasons).

Any of my readers like to give it a shot? JPGs awaited anxiously... Alternatives also welcome!

Say among all the nations: YHWH reigns! Basil Fernie, 25 November 2008