A Diagram of the Open Land of the Levite Cities in Nahmanides’ Commentary on the Torah

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Diagram 1. “The Shape of the City and the Open Land”: MS Parma 2978, fol. 194v

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Diagrams and drawings that form part of ancient texts have always presented a problem for those attempting to copy or print them. Scribes have had trouble dealing with them because it is difficult to copy a diagram without a solid grasp of its content. Important details may inadvertently be omitted or corrupted owing to a lack of understanding of their significance. As for the printer, even if he understands the illustration and its significance, printing it presents a complicated technical problem, and he may well end up deciding to exclude it. For these reasons many illustrations have historically been omitted from manuscripts and printed texts, and when we discover them in older manuscripts it becomes necessary to establish their authenticity.

Several medieval commentators included maps, sketches, and diagrams within their commentaries. Rashbam testifies that Rashi, his grandfather, "set forth and sketched the boundaries of the land" (Rashbam’s commentary on Nm 34.2), and two maps which Rashi included in his commentary on the end of the Book of Numbers have been discovered in manuscripts and published.1 Similarly, Rashi included in his commentary on the Book of Ezekiel some maps related to the future Temple and the inheritances of the tribes.2 In his commentary on the Torah, he included diagrams pertaining to the menorah and the manner in which the priests were anointed, and in his commentary on the Prophets we find drawing of some minor details, related with the Temple description in the Book of Kings. These are discussed by Gruber, who presents a series of proofs as to their authenticity.3 Other Franco-German biblical commentators such

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3. See Mayer I. Gruber, "Light on Rashi’s Diagrams from the Asher Library of Spertus College of Judaica," The Solomon Goldman Lectures 6 (1993): 73–85. Gruber reviews (on p. 77) six maps and four diagrams that appear in Rashi’s commentary (the maps are Jacob’s ladder and his journey from Beer Sheba to Beth El [Gn 28.10]; a map of the area of Shilo [Jg 21.19]; and the maps from Numbers and from Ezekiel mentioned above. The diagrams include the menorah
as R. Joseph Kara,⁴ R. Joseph Bekhor Shor,⁵ Rabbi Eliezer of Beaugency,⁶ and R. Hezkiah b. Manoah (Hizkuni),⁷ also included various diagrams in their commentaries.

This essay discusses the diagram that Nahmanides (Ramban) included in his commentary on the Torah. The diagram relates to the Levite cities and the open land attached to them, as described in chapter 35 of Numbers, and it illustrates the original interpretation proposed by Ramban in keeping with his interest in what he saw to be the plain meaning of the text (al derekh ha-peshat). Editions of Ramban’s commentary that have appeared in recent years have not included the diagram, nor do they mention its existence in the manuscripts. Other commentators who have addressed Ramban’s view in this regard and either explained or opposed it, have similarly made no mention of his diagram.⁸

As part of a comprehensive investigation of the manuscripts of Ramban’s commentaries, Gruber also discusses Rashi’s diagrams in other articles that he has written. See also Rashi’s Diagrams in MGbK: Genesis, vol. 2 (Ramat-Gan, 2000), 230; Exodus, vol. 2 (2007), 110, 196; Kings (1995), 9, 44.

4. The map of the area of Shilo appears in Kara’s commentary on Jg 21.19 (S. Epstein [ed.], R. Joseph Kara’s Commentary on the Early Prophets [Hebrew; Jerusalem, 1972], 27; MGhK edition includes the words “like this,” but omits the maps!). A diagram of the entrance to the inner Sanctuary is included in the Kara’s Commentary on 1 Kgs 6.31 (MGbK: Kings [Ramat-Gan, 1995], 45). A diagram of the “branch and rush” is included in his commentary on Is 9.13–14 (MGbK: Isaiah [Ramat-Gan, 1996], 77).

5. Bekhor Shor reproduces, in his commentary on Numbers (to Nm 35.4), a diagram of the open spaces of the Levite cities, reflecting his own original commentary. To his view, four open spaces are added to the city, each measuring two thousand cubits by a thousand cubits. In a large city of four thousand by four thousand cubits, the open space surrounding the city does not extend the entire length of the corners but rather only for two thousand cubits. See Yehoshafat Nevo, ed., The Commentary of Rabbi Joseph Bekhor Shor on the Torah (Hebrew; Jerusalem, 1994), 302. Another diagram is reproduced in Bekhor Shor’s commentary on Ex 28.36, to show the inscription on the head-plate of the High Priest. See MGbK: Exodus, 2:107.

6. Rabbi Eliezer of Beaugency’s commentary on Is 38.8 includes a diagram of the sundial of Ahaz. See MGbK: Isaiah, 406. In his commentary on the chapters pertaining to the future Temple, in Ezekiel, he includes three diagrams; see MGbK: Ezekiel, 326–28.


8. The MGbK edition of Numbers is due to be published shortly, and it will include the diagram of the areas appended to the Levite cities.
ban’s commentary on the Torah, thirty-four manuscripts of Ramban’s commentary on Numbers were examined—the diagram appears in fifteen of them. The diagram will be given below according to these manuscripts (see also picture 1: a photocopy of MS Parma 2978 [De Rossi 489], fol. 194v). I will explain Ramban’s exegetical approach to the verses in question and the details of his diagram.

Ramban’s Approach “In Accordance with the Literal Meaning”

Numbers 35 (1) In the plains of Moab by the Jordan at Jericho, the Lord spoke to Moses, saying: (2) Command the Israelites to give, from the inheritance that they possess, cities for the Levites to live in; you shall also give to the Levites open lands surrounding the cities (migraḥ b’le-’arim seviṭotehem). (3) The cities shall be theirs to live in, and their open lands shall be for their cattle, for their livestock, and for all their animals. (4) The open lands of the cities, which you shall give to the Levites, shall reach from the wall of the town outward a thousand cubits round about. (5) You shall measure, outside the city, for the east side two thousand cubits, for the south side two thousand cubits, for the west side two thousand cubits, and for the north side two thousand cubits, with the town in the middle; this shall belong to them as open land for their cities. (Modified from the NRSV)

The central exegetical problem that arises here is the relationship between the “one thousand cubits” specified in verse 4, and the “two thousand cubits” mentioned in verse 5. To Rashi’s view, the city is surrounded

9. The beginning of this research was supported by Herzog College in Allon Shevut. My thanks to Mr. Ariel Shaveh, who performed an initial checking of the manuscripts of Ramban’s commentary on the book of Numbers in order to locate those that include the diagram.

10. The diagram appears in these fifteen manuscripts (which are ordered here according to the diagram’s accuracy, from the best to the worse): Parma 3258 (De Rossi 1378; B. Richler, Hebrew Manuscripts in the Biblioteca Palatina in Parma: Catalogue [Jerusalem, 2001], no. 591); Oxford, Bodleian Library, Opp. 33 (Ad. Neubauer, Catalogue of the Hebrew Manuscripts in the Bodleian Library [Oxford, 1886–1906], no. 239); Parma 2978 (De Rossi 489; Richler, 595); Torino, Biblioteca Nazionale Universitaria A II 1 1; Munich 137; Parma 2572 (Richler, 596); St. Petersburg 144; London, British Library, Harley 5504 (G. Margoliouth, Catalogue of the Hebrew and Samaritan Manuscripts in the British Museum [London, 1899], no. 212); London, British Library, Harley 5503 (Margoliouth, 209); London D. Weinmann; Paris 220; Paris 223; Milan, Biblioteca Ambrosiana, C 180 Inf.; Vatican Neofiti 7; Munich 362. In two other MSS—Paris 222 and Fulda qu A 2—the diagram itself is absent, but there is a reference to it in the body of the commentary.
by two concentric rectangular areas, each with a different purpose. As cited by Nahmanides (Ramban), Rashi explains as follows:11

**And open land**—A space [consisting of] open land outside and around the city, in order to make the city pleasant; and they [the Levites] are not permitted to build any building there or to plant any vineyard, or to sow any crop. *A thousand cubits round about,* But afterward [in verse 5] it says [that it should be] *two thousand cubits!* How can we explain this? He assigned two thousand cubits for them around [the cities], of which the inner [area of a] thousand [cubits, as mentioned in verse 4] was to be free [open] space, and the outer [area of a thousand cubits] was to be for fields and vineyards round about. This is Rashi’s language, taken from the words of our rabbis.12

Ramban acknowledges that Rashi’s view reflects the opinion of the Sages, but he proposes his own interpretation, based on the literal meaning of the verses:

The correct interpretation according to the plain meaning of Scripture seems to be that Scripture [in verse 4] is stating that they should assign as open space a thousand cubits directly round about the city, meaning that [the combined open space of *both sides* of the city] should be a thousand cubits long, five hundred on each side, and similarly [the open space of *both sides* together] of the width, should be a thousand cubits, five hundred cubits on each side. After this he stated [in verse 5] that they should make a square [the dimension of which was to be] two thousand cubits by two thousand cubits, and the city should be situated in the center of the square. He thus added to them [in verse 5] an open space not directly facing the city, equal to the measurement directly in front of the city, so that you find when leaving a thousand cubits as open space round about the city as he assigned at first [in verse 4], the city will be a square of a thousand by a thousand cubits. Thus the city is one fourth of what is given to the Levites.

As Ramban understands it, the two thousand cubits are measured not “from the wall of the city outward” but rather represent a measurement of the outer perimeter of the total area. The square consisting of the city

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12. Rashi’s interpretation is based on the opinion of R. Eliezer, son of R. Yose ha-Gelili, in mSot 5.3 (bSot 27b).
along with its surrounding open space measures $2000 \times 2000$ cubits. To support his view Ramban points to the wording of verse 5, and compares it with parallel expressions used in relation to the Sanctuary and to the Temple described by Ezekiel.

In order to arrive at this interpretation, Ramban is forced to accept two rather problematic assumptions. The one is that the measurement of the thousand cubits around the city, as mentioned in verse 4, does not mean a thousand cubits in each direction, but rather five hundred cubits to the north and five hundred cubits to the south, which together total a thousand cubits, and similarly, five hundred cubits to the east and another five hundred to the west. The second assumption is that the specifications in verse 5 correlate with those in verse 4, establishing a fixed measurement for the city itself, such that the city always measures $1000 \times 1000$ cubits.

The measurement in verse 5 adds a certain area over and above that specified in verse 4: the four corners completing the square each measure $500 \times 500$ cubits. To Ramban’s view, the function of this additional area is indicated by the traditional rabbinical interpretation of these verses: it is meant for fields and vineyards, while the first area may not be plowed or sown. However, the term *migrash* ("open space" or "open land") is used in the text to refer to both categories, as we see in the summary concluding verse 5: "This shall belong to them as open land for their cities."

Ramban hints here at two further proofs supporting his view, both based on logic and induction. One pertains to the geometric logic of the additions to the city:

Such a four-sided plane figure having all its sides equal [and all its corners right angles] is indeed a pleasingly suitable appearance for cities to have, not that they should measure two thousand cubits around the city in all directions, thus eliminating the corners.

In other words, if we understand verse 5 in accordance with Rashi and the opinion of the Sages, who measure two thousand cubits from the city outward, the most obvious conclusion is that four squares are added, one on each of the four sides of the city, creating a total area resembling the

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13. As Rashi understands it, only the first area is referred to as "*migrash,*" since the term indicates "a space [consisting of] open land," "and they [the Levites] are not permitted to build any building there (as inside the city) or to plant any vineyard, or to sow any crop (as in the additional area)." In his commentary on Ez 48.17, Rashi likewise emphasizes that "all the open spaces attached to a city, in Scripture, refer to open space, with no houses *nor any field.*"
form of the symbol \(+\). Geometric logic, on the other hand, demands that the total area assume a square form.\(^{14}\)

The second proof hinted at in Ramban’s words concerns the quantitative relationship between the city and the surrounding area. He concludes: “Thus the city is one fourth of what is given to the Levites.” According to Rashi’s understanding, the open spaces surrounding the city are much greater. For example, for a city of 1000 \(\times\) 1000 cubits, the surrounding open land would occupy an area eight times larger than the city itself—not including the corners, or twenty-four times larger—including the corners.

Generations of commentators have attempted to explain Ramban’s view. Some of them included sketches in their explanations.\(^{15}\) Rabbi Chavel’s diagram proposes a different interpretation from the one arising from the other illustrations (by Shadal, Y. Stern, and P. Y. Lieberman), but in his English edition\(^{16}\) he retracts his proposal and explains Ramban’s view in the accepted fashion. Other commentators have struggled with Ramban’s view and have generally accepted Rashi’s understanding of it. In the sixteenth century Rabbi Judah Loew (Maharal) of Prague discussed the issue in his commentary, Gur Arye on Nm 35.4:

From (Ramban’s) words it would seem that the second open space is only 2000 \(\times\) 2000 (cubits, including the city). But this cannot be, for if the city was two thousand cubits, how can any open space be made for it, according to his explanation? For the city itself measures two thousand cubits!

Similar difficulties were raised in the nineteenth century by Jacob Meklenburg of Koenigsberg\(^{17}\) and by Samuel David Luzzatto (Shadal) of Padua.\(^{18}\) From where does Ramban draw his assumption that the text

\(^{14}\) Admittedly, Rashi’s view may be understood as indicating an area shaped like a square (or a rectangle), including the corners.


\(^{16}\) Chavel, Ramban: Commentary, 4:390, n. 59.

\(^{17}\) J. Z. Meklenburg, Ha-Ketav veha-Kabala, ed. Lublin (Hebrew; Benei Berak, 2006), 357. The work was first published in 1839.

\(^{18}\) Luzzatto, Shadal’s Commentary, 495–96. Maklenburg and Luzzatto offer their own explanations for the measurements of the open spaces for the Levite
is speaking about a city of 1000 by 1000 cubits? And how could this be possible—were there not Levite cities that were greater than this? Several of the later commentators have tried to address these difficulties. What was unknown to all those who tried to explain Ramban’s interpretation—opponents and supporters alike—was that Ramban himself attached a diagram to his commentary, clarifying his view. It was only the technical difficulties facing the various scribes and printers of his manuscript that caused the diagram to be omitted from the printed editions, such that it was not widely known.

Ramban’s diagram appears in fifteen manuscripts. There are several discrepancies between them, but a broad comparative examination with careful analysis of the intention of the diagram leads, to my view, to an accurate reconstruction of the original. The diagram is titled “The Shape of the City and the Open Land.” Below I present its original form in Hebrew (diagram 2), followed by the same diagram in English (diagram 3).

Let us now review the elements composing the diagram:

a. The diagram is shaped like a square which is subdivided into a grid of nine identical blocks. It is a schematic illustration, apparently not created to any uniform scale. It was reproduced in this way in most of the accurate manuscripts.

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19. Chavel points to the opinion of Abaye in the talmudic discussion in the *b’Eruvin* 56b, as a possible source for Ramban’s opinion. Lieberman, *Ramban’s Commentary*, 347, suggests that, according to Ramban’s view, a larger Levite city would be apportioned a larger open space, to be determined in accordance with the principles set forth in the text: a square plot whose area is three times that of the city.

20. Because Hebrew is written in the opposite direction to English, I have had to introduce two changes in order to preserve Ramban’s intended meaning: I have reversed the direction of the verse that is inscribed around the diagram, so as to make sense in a continuous reading, and I have exchanged the blocks containing the split sentences (block 4 and block 6; block 2 and block 8) (see below, n. 21).

21. For the purposes of my discussion I will attach numbers to the nine blocks comprising the diagram, as follows:

<table>
<thead>
<tr>
<th>Hebrew diagram</th>
<th>English diagram</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 2 1</td>
<td>1 2 3</td>
</tr>
<tr>
<td>6 5 4</td>
<td>4 5 6</td>
</tr>
<tr>
<td>9 8 7</td>
<td>7 8 9</td>
</tr>
</tbody>
</table>
b. Outside the outer square there is an inscription consisting of four phrases, based on verse 5: “The east side: two thousand cubits; the south side: two thousand cubits; the west side: two thousand cubits; the north side: two thousand cubits.” Each of these four phrases is written along the appropriate side of the diagram, and each is split between the two ends of the side. The tops of the letters face toward the square, while the bottoms face outward. This form of writing allows the verse to be read continuously, as it appears in the text, with the reader turning the page around as he reads it.22

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22. The phenomenon of a verse that is written vertically or upside down in order to facilitate a continuous reading, on one hand, and smooth integration into a diagram, on the other, is also to be found in Rashi’s commentary, and, following
### The Shape of the City and the Open Land

<table>
<thead>
<tr>
<th>Side</th>
<th>Measurement</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>East side</td>
<td>two thousand cubits</td>
<td>500 by 500 fields and vineyards</td>
</tr>
<tr>
<td>South side</td>
<td>two thousand cubits</td>
<td>500 by 500 fields and vineyards</td>
</tr>
<tr>
<td>North side</td>
<td>500 by 500 fields</td>
<td>A city of 1000 by 1000 as stated: “the city being in the midst”</td>
</tr>
<tr>
<td>West side</td>
<td>500 by 500 fields</td>
<td>500 and they are “a thousand cubits round about”</td>
</tr>
</tbody>
</table>

**Diagram 3: An English equivalent diagram**

- The end of the verse —“the city being in the midst”—appears in the middle block. The full inscription in this block is divided into two lines: “A city of 1000 by 1000 / as stated: ‘the city being in the midst’.”
- In each of the four corner squares there are two lines of writing: “500 by 500 / fields and vineyards.” These are written in the normal fashion.
- The four squares that flank the “city” on the four sides each contain two lines of writing. One line pertains to the measurements of the square:

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his example, in Hizkuni’s commentary. Both commentators include the same verse in their maps: “They proceeded in the wilderness and encompassed the land of Edom and the land of Moab, and they came by the east side of the land of Moab” (Jg 11.18). See Grossman, “Marginal Notes,” 94 and 86 (par. 19); Ofer, “The Maps,” 441–43; Ofer, “Hizkuni’s Commentary,” 76–77.
"1000 by 500." This line is written in the same direction as corresponding the 1000 cubit side: it is written vertically in the two squares that are on the sides (4, 6), and horizontally in the top and bottom square (2, 8).

f. The other phrase that appears in these four squares represents the crux of Ramban’s innovation in interpreting this unit. Many of the scribes did not fully understand what it meant, and therefore they corrupted it: in block #4 (the right-hand block of the Hebrew diagram) and in block #8 (the bottom block), we find the words, “an open land 500 with.” In the opposite blocks (#6 and #2; the left-hand block of the Hebrew diagram and the top block), we find the words, “500, and they are a thousand cubits round about.”

These two parts of the phrase ought to be read continuously: “An open land (of) 500 with / 500, and they are ’a thousand cubits round about’.” In other words, the words “a thousand cubits round about” in verse 4 refer to the joining of the 500 cubits on one side of the city with the 500 cubits on the other side. Ramban divides the phrase such that the expression “500” appears in each half. This phrase must therefore be written in such a way that it will be possible to read it continuously. In the right block and the left block it is written in normal fashion, but at a uniform height, and with no writing in the middle square to break the connection between these two parts. In the top and bottom blocks it is written vertically, on the right side of each square, with the tops of the letters facing the right side, with the same view to facilitating a continuous reading.

Location of the diagram: in most of the manuscripts (twelve) the diagram appears at the end of the commentary on the Book of Numbers, prior to the commentary on Deuteronomy. This represents a convenient location, since in many cases the author leaves an empty page or two between one book and the next. The diagram belongs to Numbers 35, which is near the end of the book, and the distance between the textual discussion of the “open land” and the end of the book is not great. However, even in those manuscripts where there is no empty page between

23. Our reproduction follows most of the accurate manuscripts, where in the vertical writing the tops of the letters face left (in the Hebrew), while the horizontal phrases are written upside down. It is difficult to understand the need for this upside-down writing. In picture 1 (of MS Parma 2978), however, all four writings are written vertically.

24. The terms “left” and “right” in the last passage fit the original Hebrew diagram. For the English one they have to be altered.
one book and the next, the diagram is still placed at the end of the Book of Numbers. Apparently, this represents the original location of the diagram in Ramban’s commentary, and therefore it is preserved by the manuscript’s copiers.

**Authenticity of the diagram as belonging to the early version of Ramban’s commentary**: Ramban completed his commentary on the Torah prior to his move to the Land of Israel, but after he arrived there he introduced more than two hundred and fifty addenda, elaborations, and other changes. Some thirty five manuscripts of the whole commentary are known to us today; about a quarter of them represent the “early version” with no addenda, nearly half of them include the addenda and represent the “final version,” while the rest are mixed manuscripts that include some of the addenda.

The diagram entitled “The Shape of the City and the Open Space” appears in three manuscripts that unquestionably represent the “early version” of the commentary: Munich 137; St. Petersburg 144; and London D. Weinmann (In another manuscript of the “early version”—MS Fulda—the diagram is mentioned, but not reproduced). Hence we may conclude that the diagram was included in Ramban’s commentary even in its early version, and the reason for its omission in other manuscripts is the technical difficulty that it presented to the scribes.

The appearance of the diagram (or at least evidence of its existence) in seventeen of the manuscripts of Ramban’s commentary (half of all the manuscripts known to us) represents proof of its authenticity. In other words, it proves that Ramban himself included it as an integral part of his commentary. It is unreasonable to posit that someone else introduced into the text a diagram meant to explain the commentary, without indicating his involvement, and that so many scribes gave recognition to the diagram and took pains to copy it over. The phenomenon of marginalia


26. The difficulty facing the scribes is clearly evidenced in the manuscripts. Even where the diagram does appear, it has often undergone some corruption: some scribes omit or jumble some of the inscriptions; others replace some of the inscriptions that were not clear to them. The most important yardstick for measuring the level of accuracy is the phrase that is split between the opposite squares.
to a commentary, which is characteristic of Rashi's commentary on the Bible, for example, is fairly uncommon in Ramban's commentary, and such addenda were not widely disseminated. Moreover, the fact that many scribes tried to copy the details of the diagram accurately, despite not understanding it or perceiving its full significance, indicates that they regarded it as an authentic and integral part of the commentary. Had it been they themselves who had felt a need to illustrate Ramban's view, we would have expected to see a wide variety of sketches and inscriptions. Only a few of the scribes, who did not understand the split phrases, replaced them with more easily understandable text.

The absence of the diagram in the other manuscripts may be explained on technical grounds, as arising from the disinclination on the part of the scribes to take on this complicated illustration. Ramban's diagram enjoyed relatively broad dissemination in relation to the illustrations of other commentators. But despite the fact that the diagram appears in about half of the existing manuscripts, it was omitted in printed editions and its existence was unknown to generations of scholars of Ramban's commentary.

27. In preparing his edition, Chavel made use of three manuscripts from the New York Jewish Theological Seminary (MSS JTS L 206, 869, and 870). The diagram discussed here does not appear in those three manuscripts, and hence it would appear that he was not aware of its existence.