The Structured Mishnah

An Address by Moshe Kline to the Talmud Faculty of

The Jewish Theological Seminary of America

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1. I want to thank Professor Roth for the opportunity of speaking today. My subject is a new edition of the Mishnah which I have edited, *The Structured Mishnah*, or in Hebrew, המנחה כדרכה. I will begin with a disclaimer. This edition is not based on critical analysis of manuscripts. It uses the Kaufman text as found in Albeck’s edition. It does not utilize parallels from the Tosefta or any other literature. It does not take a stand on any historical or developmental issues relevant to the Mishnah. In short, it does not speak to most of the issues that generally concern the scholarly community. Nevertheless, I have come here to speak with you because I am convinced that The Structured Mishnah should become a standard edition, accessible to all students and scholars. The reason why it should become an accepted standard is that it presents the text of the Mishnah as it was composed.

2. The Structured Mishnah reflects a new approach to reading the *Mishnah*. It presents each chapter of the Mishnah as a tightly woven composition, rather than an agglomeration of laws. This presentation is based on the discovery of the rules according to which the chapters of Mishnah were constructed. Identifying the rules made it possible to recreate the literary formats of the chapters, and consequently, to read the chapters as coherent compositions. The format in which the Mishnah text is presented in The Structured Mishnah enables the reader to grasp each chapter as a conceptual unit. The whole chapter appears printed on a single
page, formatted in a manner that emphasizes both its division into components, and the relationships between its components. During this talk I will introduce four chapters as examples. First I will demonstrate the principle of hierarchical division in chapters through Taanit ch. 1. I will then introduce the concept of two-dimensional planning with the examples of Shabbat chs. 6 and 16. Finally, I will address the problem of interpreting a two-dimensional text through the example of Hagiga ch. 1. I will begin with a short summary of the development of The Structured Mishnah.

3. The Structured Mishnah is based on a simple observation which led to a significant discovery when systematically applied to all the chapters of the Mishnah. The initial observation was that there often appears to be hierarchical organization within the chapter. Small units of text, similar in size to mishnayot, are regularly grouped according to key words. These key words often comprise an opening or closing phrase. The existence of such groups of linguistically related segments would seem to indicate that the chapters were divided on more than one level. If so, it might be possible to identify the structures of chapters, and consequently, the rules according to which the chapters were constructed. Ultimately, it might be possible interpret a chapter as a unit by analyzing its formal structure. A form of this hypothesis was first tested, to the best of my knowledge, by the Maharal of Prague in Derech Chaim, his ground-breaking commentary on mesechet avot. The Maharal’s successful experiment was limited to part of a single chapter, the “pairs” section of the first chapter of avot. The clarity of his findings was an inspiration to try similar experiments analyzing the Mishnah. Preliminary findings, also in avot, were presented to Professor David Weiss-Halivni in the early 1980’s. He indicated that while the findings were interesting, they would be significant only if they applied to the whole of the Mishnah. This challenge inspired the research that resulted in The Structured Mishnah. A progress report, in the form of an analysis of Eruvin 10, was published in Alei Sefer, 14, 1987.
4. According to Halivni’s challenge, each and every chapter of the Mishnah had to be analyzed in order to determine whether its internal divisions could be identified. It would then be necessary to systematize the findings. Certain facts became apparent after analyzing only a few select chapters. All of the chapters contained at least two levels of internal division. A method was then devised to layout the chapter in a manner that would indicate these two levels of division according to a convenient visual key. The chapters were laid out as tables with the major divisions occupying the rows of the tables and the minor divisions segments of the rows.

Characteristics of Chapters
1. The tabular layout made it possible to see the two levels of division immediately. For convenience, I will refer to the major divisions as “rows”, and the minor divisions as “segments”. As the investigation progressed, certain characteristics of the chapters came into focus. For example, no chapter was found to contain more than five rows, major divisions. Similarly, no row contained more than three segments. This
second characteristic, the limited number of subdivisions within a row, led to the early identification of a third and crucial characteristic. All of the chapters appeared to be structurally symmetrical. The first row always had the same number of segments as the last row. If the chapter contained four rows, then the second and third rows had the same number of segments, as well as the first and fourth. If the chapter had five rows, then the second and fourth were identical, as well as the first and fifth.

6. We will now look at some sample chapters. There is a color code (appended) which explains the colors used to mark parallels within the chapters. The first example we will look at, Taanit 1, is a five-row chapter that contains all three types of rows; two containing one segment, two containing three segments, and one containing two segments. The rows are numbered 1-5. Segments are marked by Hebrew letters, א-ח. The Hebrew letters in parentheses indicate the division into mishnayot that appears in the Albeck edition of the Mishnah. The segments are read from right to left across the row, and then down to the right side of the next row.

7. The first chapter of Taanit demonstrates some of the basic literary techniques employed by the author of the Mishnah. I have divided the text into ten segments and organized them in five rows. In rows 2-4, all the segments within each row have the same opening: in row 2 "שואלין את הגשמים"; in row 3 "נאליד ... ולא ירדו גשמים"; in row 4 "עברו אלו ולא נענו". The text has been highlighted with two highlights. The blue highlight indicates a parallel between all segments of a row. In rows 1 and 5 a green highlight is employed to mark a closure, "גשמים סימן קללה", a phrase that appears in the opening and closing pericopes of the chapter. I will introduce other highlights that mark other literary techniques in the following examples. They are summarized in the color code. Taanit 1 is an excellent example of how the structure of a chapter can be deciphered by a linguistic key. Once the parts of the chapter have been identified, the structural symmetry
becomes apparent. In this case, the structural symmetry is reinforced by the conceptual symmetry between “שואלין” in 2 and “נענו” in 4, the two three-part rows.

8. The chapter is symmetrical because rows 1 and 5 have the same number of segments, as well as 2 and 4. It should be noted that although rows 1 and 5 have only one segment, nevertheless, it is clear that 1 can not be part of row 2, nor can 5 be part of row 4. The clarity of the opening formulae in rows 2 and 4 taken together with the closure phrase in 1 and 5 require that that 1 and 5 be seen as single segment rows. This point can be important when considering just how the chapters were created, and for what purpose, because it emphasizes that the rows are planning units. In this example, the clear designation of the rows by linguistic patterns emphasizes that they constitute five blocks of text.

9. Taanit 1 is almost entirely chronological, encompassing the rainy season in Israel from beginning to end. The temporal order of events should be a sufficient principle for organizing the laws contained in the chapter. If the Mishnah were merely a legal compendium, no other internal structure would be necessary. And yet, for some reason, the author has utilized highly precise and extremely sophisticated linguistic formatting in addition to the chronological ordering. So there are two, evidently independent, principles of organization in the chapter, the chronological order linked to the content of the laws, and the linguistic patterning that leads to seeing the chapter as a five-part symmetrical construct. The layer of structure evidenced by the linguistic formatting and symmetry indicates that in addition to any function the Mishnah may serve as a receptacle for legal traditions, it is also a literary construct ---and a work of art. Even though the chapter could have been arranged simply according to chorological order, a larger and more complex framework was added. Additional examples will demonstrate just how important the literary format of the chapters was to the author.
10. The formal structure of the chapter indicates that it was planned as an integral unit. The closure created with "גשמים סימן קללה", together with the fact that 1 and 5 have only one segment, demonstrates that the beginning and end were conceived together. The complementary opening phrases in 2, שואלין, and 4, נענו, reinforce the symmetry created by having the same number of segments in these two rows. More than anything, the combination of chronological order with a superimposed formal linguistic structure testifies that the chapter has been planned as a whole unit. Nothing can be added or subtracted, and it is all “tightly woven”. It is like a tapestry woven on the loom in which all of the threads have been pulled as tight as possible to form a single indivisible fabric. The next example, Shabbat 6, like Taanit 1, has two principles of organization, one linguistic/formal and one substantive. We will see that it has been woven as two independent, and yet inseparable documents, thus reflecting the character of its ostensible principle of organization, gender distinctions vis-à-vis the laws of the Sabbath.
Example 2: Shabbat 6, Division into Columns

1. (א) לא יאש נמשך הממשר
לא יבריח בום שנפי בורגל מהם
לא יַמתו
לא יקַצְנו בום ישראל יַמות
לא יַמצו בום דברים
לא יָּבֵשׁו
לא יַּתכְדו
לא יָּכְמו
ואם נהיה יִֽהּ נְתַא.

2. (ב) לא יאש יְִשָּׁה
לא יַּפְּרָּט
לא יַּפְּלָר
לא יַּפְּלָר
לא יַּפְּלָר
ואם יִֽהּ נְתַא.

3. (ג) שלא יאש השטח
לא יַּפְּלָר
לא יַּפְּלָר
לא יַּפְּלָר
לא יַּפְּלָר
ואם יִֽהּ נְתַא.

4. (ד) לא יאש השטח
לא יַּפְּלָר
לא יַּפְּלָר
לא יַּפְּלָר
לא יַּפְּלָר
ואם יִֽהּ נְתַא.

5. (ה) שלא יאש השטח
לא יַּפְּלָר
לא יַּפְּלָר
לא יַּפְּלָר
לא יַּפְּלָר
ואם יִֽהּ נְתַא.

6. (ו) שלא יאש השטח
לא יַּפְּלָר
לא יַּפְּלָר
לא יַּפְּלָר
לא יַּפְּלָר
ואם יִֽהּ נְתַא.

7. (ז) שלא יאש השטח
לא יַּפְּלָר
לא יַּפְּלָר
לא יַּפְּלָר
לא יַּפְּלָר
ואם יִֽהּ נְתַא.
11. In the previous example we saw a chapter composed of different sized rows. In this example we will look at a chapter in which all of the rows are the same size, two segments. I will refer to chapters containing rows of a uniform length as “regular”, and those containing rows of different lengths, like Taanit 1, as “irregular”. Both types of chapters are symmetrical. There are roughly twice as many regular chapters in the Mishnah as irregular. While Taanit 1 demonstrated the minimum of two levels of internal division found in all chapters, Shabbat 6 has four levels of division within it. The third level, marked with the uppercase A-C, contains parallel subdivisions of segments 3 א and 3 ב. Sub-segment C is further divided into the parallel divisions marked with lowercase a-c.

12. The format that I have chosen for laying out the chapters has proven especially fortuitous in deciphering certain aspects of regular chapters. Very often, when these chapters are arranged as tables, clear relationships can be seen in the columns as well as in the rows. Shabbat 6 is a paradigm of a chapter in which there is “sense” in the columns. I have introduced the red highlight to indicate a vertical parallel. In Shabbat 6, the vertical parallel demonstrates that the chapter was planned as two parallel texts distinguished by gender. The right-hand column refers exclusively to women and the left hand column to men. The arrangement of the chapter in columns changes its focus from laws concerning the Sabbath to a composition on gender.

13. The general theme of Shabbat 6 is transferring gender-linked accoutrements between domains. However, the legal categories of permitted, forbidden, requiring a sin offering or not, play only a minor role in the organization of the chapter. The author has created six structural parallels connecting women and men, the three rows and the three parallel sections, A-C, of the segments of row 3. The meta-legal character of the composition is clearest in row 3.
<table>
<thead>
<tr>
<th>3A</th>
<th>Ritual Purity</th>
<th>3A</th>
<th>Women</th>
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</table>
| ב. נשים נסיכות של טמאים מדרס | א. נשים שטורחות ויצא檢 בבחסכת נשים
| ייצא니 בכות בשהבת | ג. נשיםируют ייצא檢 בבחסכת נשים
| נוכסן בכות bruk | ד. נשיםирует ייצא檢 בבחסכת נשים
| ממוכן冊ות של טמאים | ה. נשיםирует ייצא檢 בבחסכת נשים
| א. ייצא檢 בכות בשהבת |

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<tr>
<th>3B</th>
<th>Children and Other Exotics</th>
<th>3B</th>
<th>Women</th>
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| ב. חכמים ובני מלכים בזוגין | א. בניהן ייצא檢 בכות
| ג. כל אדם אלא שדבר חכמים בהווה | ד. ערביות ייצא检 הערולים ומידוープ הפגועות
| ה. בני מלכים בזוגין | ה. כל אדם אלא שדבר חכמים בהווה
| ו.нятие ייצא检 הערולים | ו. כל אדם אלא שדבר חכמים בהווה

<table>
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<th>3C</th>
<th>Three Small Articles</th>
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14. The parallels within row 3 have been created using different techniques. Parallel 3A is based on matters of ritual purity:

<table>
<thead>
<tr>
<th>בירת תחรอות ויעייאת בה שבת</th>
<th>👻نمוכות של טמאין מדרס</th>
</tr>
</thead>
<tbody>
<tr>
<td>כבלם טמאין אלי יづくり בה שבת</td>
<td>👻טמאין בות בותך</td>
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<tr>
<td>טמאין בות בותך</td>
<td>👻וכנסים בות בותך</td>
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</tbody>
</table>

15. The second parallel, 3B, is complex, containing both formal and linguistic elements. Both segments begin by mentioning children, followed by what I have termed “exotics”: Arabian and Medianite Jewish women in column א and Jewish princes in column ב. The parallel concludes by stating in both segments “ככל אדם אילא שדברו חכמים become her.” The parallel in 3C is based on both structure and content. Each segment lists three small objects. Finally, both columns display an element of closure based on the third item in the third section of the third row: in cC3 א and מטבע, ב and מטבע. It should be noted that the items chosen to create closure, מטבע, on the female side, and מכסר, on the male side are themselves symbols for female and male.

16. The extraordinarily complex parallel created in row 3, like the linguistic formatting we found in Taanit 1, far exceeds the needs of a legal compilation. Shabbat 6 may be more of a dissertation on gender than on the laws of the Sabbath. In any case, we have seen that the chapter has been very carefully constructed and that the tabular arrangement reflects its inner structure. Lest you say that the division by gender indicates that this is a unique and non-representative chapter, I have included another example from mesechet
Shabbat, chapter 16, which is virtually identical to 6 in structure. However, the distinction between the columns in 16 is between preventing damage in column א and הנאה in column ב.
Example 3. Shabbat 16: Parallel Columns, Damage and 

Preventing damage

1 א
(א) לכל כבשים בצלאל מקדש ואונן מפי להלקה (ב) לכל יותר הצלאל מצילין אתן מקדש ואונן מפי להלקה.

ב שוטר חתים בכבש דצマー תعلاج לבישת חתים

ג מנזר
(ג) לכל כבשים בצלאל מקדש ואונן מפי להלקה (ב) לכל יותר הצלאל מצילין אתן מקדש ואונן מפי להלקה.

2 א
(א) רבי שמעון בן נמחאמר במשנים את המכשפות על ח寄せ מגוון לשון בשתי שמות

ב שער
(ב) כי אם מתכאת בכאן מקדש ואונן מפי להלקה (ב) לכל יותר הצלאל מצילין אתן מקדש ואונן מפי להלקה.

ב שער
(ב) כי אם מתכאת בכאן מקדש ואונן מפי להלקה (ב) לכל יותר הצלאל מצילין אתן מקדש ואונן מפי להלקה.

ב שער
(ב) כי אם מתכאת בכאן מקדש ואונן מפי להלקה (ב) לכל יותר הצלאל מצילין אתן מקדש ואונן מפי להלקה.

ב שער
(ב) כי אם מתכאת בכאן מקדש ואונן מפי להלקה (ב) לכל יותר הצלאל מצילין אתן מקדש ואונן מפי להלקה.
17. Like Shabbat 6, 16 also contains three rows of two segments each. Within row 1 and row 3 the segments are further divided into three elements, A-C. In both rows, 1 and 3, the parallel division of the segments is accompanied by linguistic parallels that demonstrate that the two columns were constructed in parallel, like the columns of Shabbat 6.

18. The parallels within row 1:

   a. refer to what is saved in A-מצילין;

   b. the contents of a vessel in B, highlighted byואף על פי שיש בו;

   c. andollahיינכמציליןארוך in C, with the addition in both C elements ofבכתייהאאמראף.

19. The parallel between the three part 3 א and the three part 3 ב is formed by the parallel use ofngr in the first element, A, and the parallel betweenמעשהברבנמליאולfirstly andmuושארבבפגינוןובכםברבר לברב in the C elements of 3. The vertical linkage between rows 1 and 3 is accomplished by linguistic hooks:בואו at the end of 1 ב and הנכרי from the beginning of 3 ב combine in 2 ב. The vertical linkage between 3 א and the beginning of 3 ב is accomplished by the combination ofדלקה from 1 א withעלגבי, and התא in the beginning of 3 א. Each of the columns has a separate subject, avoiding damage in א and הנאה, benefitting, in ב. So Shabbat 16, like Shabbat 6, was conceived and constructed as the two parallel texts that appear in the columns ofהמשנה כדרכה.
20. Before turning to the final example, I want to point out an added value of the formatted text that appears in המשנה כדרכה. Each chapter has a format that is easy to notate. For example, Shabbat 6 and 16 are “3X2” chapters, that is, chapters constructed of three rows of two segments each, and Taanit 1 is 13231.

This simple notation of formats has enabled me to construct an Exel data base of all the chapters of the Mishnah which is possible to sort by format and other criteria. This function made it possible to find another chapter that had the same format as Shabbat 6. The clear identification of literary formats couple with the data base as a tool, to make possible new types of research based on comparing similarly constructed chapters. As an example of what can be done with the data base, here is a chart that summarizes all of the formats used in the Mishnah and how many chapters appear in each format. You can see that the most common format is 3X3 with over 80 chapters constructed in this format. The next example is a 3X3 chapter.
## Summary of Chapter Formats

<table>
<thead>
<tr>
<th>Format</th>
<th>Chapters</th>
</tr>
</thead>
<tbody>
<tr>
<td>3X3</td>
<td>84</td>
</tr>
<tr>
<td>2X3</td>
<td>61</td>
</tr>
<tr>
<td>3X2</td>
<td>54</td>
</tr>
<tr>
<td>232</td>
<td>36</td>
</tr>
<tr>
<td>4X3</td>
<td>35</td>
</tr>
<tr>
<td>4X2</td>
<td>33</td>
</tr>
<tr>
<td>2X2</td>
<td>27</td>
</tr>
<tr>
<td>5X2</td>
<td>23</td>
</tr>
<tr>
<td>5X3</td>
<td>19</td>
</tr>
<tr>
<td>323</td>
<td>18</td>
</tr>
<tr>
<td>2332</td>
<td>11</td>
</tr>
<tr>
<td>121</td>
<td>7</td>
</tr>
<tr>
<td>12121</td>
<td>7</td>
</tr>
<tr>
<td>12321</td>
<td>7</td>
</tr>
<tr>
<td>13331</td>
<td>7</td>
</tr>
<tr>
<td>23332</td>
<td>7</td>
</tr>
<tr>
<td>1331</td>
<td>6</td>
</tr>
<tr>
<td>33233</td>
<td>6</td>
</tr>
<tr>
<td>12221</td>
<td>5</td>
</tr>
<tr>
<td>212</td>
<td>5</td>
</tr>
<tr>
<td>22322</td>
<td>5</td>
</tr>
<tr>
<td>32223</td>
<td>5</td>
</tr>
<tr>
<td>1221</td>
<td>4</td>
</tr>
<tr>
<td>131</td>
<td>4</td>
</tr>
<tr>
<td>13231</td>
<td>4</td>
</tr>
<tr>
<td>21212</td>
<td>4</td>
</tr>
<tr>
<td>21312</td>
<td>4</td>
</tr>
<tr>
<td>23232</td>
<td>4</td>
</tr>
<tr>
<td>313</td>
<td>4</td>
</tr>
<tr>
<td>3223</td>
<td>4</td>
</tr>
<tr>
<td>32323</td>
<td>4</td>
</tr>
<tr>
<td>23132</td>
<td>3</td>
</tr>
<tr>
<td>31213</td>
<td>3</td>
</tr>
<tr>
<td>13131</td>
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</tr>
<tr>
<td>22122</td>
<td>2</td>
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<tr>
<td>31313</td>
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<tr>
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</tr>
<tr>
<td>3113</td>
<td>1</td>
</tr>
<tr>
<td>32123</td>
<td>1</td>
</tr>
</tbody>
</table>

Grand Total 524
Example 4: Hagiga 1, Woven Text

1a (א) לכל תביית בריאה
2b (ב) בות משלים ומעשים ותנשא הגדורים ותקנים
הנהר ההשכינ שלחון היה
ובשו שיאו לכל עלולה ברדוע
אחת קפוא
cל שיאו לכל תלוכם
על כמות שבשלאציב
עלולה מירשלשל תל חבית
בחיית יʔא שמי
ובחיית לכל לאל חלבב
עלולה מירשלשל תל חבית
שואם של שלג

2a (ב) ישראלי וחכם מעשה בהנהר
בכדרים יבslideDown בענשוה 베מה
הנהרמיס בתשובה שבשלה
ובכדרים נפשות
אל Litecoin ולא מותק

3a (ג) ידידי השדוע
עשתות השדוע
העריות
יש לו לעם שסמכ
ונון גוזר והרור

3b (ה) התניא דרומי וברור
איך לא יאג משמכר

3c (ו) הדינן השדוע
נתניא השדוע
שם שctors מעשה אלהים
וה_COOKIE בחר
2f (ו) עAmeric משלים והוגי
נכסים מעיים
כמו שלמים מרבים וอลעות מעיים
כותר מובח ואוללים מעיים
והח ממעי
על אמר מעשה כף ושתי כף
על אמר בער
בברכת ה' אלהיך אשר נתן לך

2g (נ) מי שיא
בט יבוא הרטוש שהלאה
فقد את כל החלוק
וניש בשארוק שלחון
בר חלוק אל עם
Ｙניק תבר אבראני
על אמר
מעוני אל כל תקף
שתורר אל בכל חלונים
(ו) רב שמעון בין מסכים זעמר
איוה מעונת שיאו לכל תקף
והב היא על הער קלד ממנה ממנה
אלא לחר שמיית חקוק פורח
섬בק את חלוני יוער
בר שמיעון בין מים זעמר
אין קרויים מעוני
נשポート העם בתשובה והנמעות
 neo
ה thoảiים שבט וחアクセ

3d (ז) הדריום וברור
איך לא יאג משמכר

3d (ח) הדריום וברור
איך לא יאג משמכר

3d (ט) הדריום וברור
איך לא יאג משמכר

3d (ט) הדריום וברור
איך לא יאג משמכר

3d (ט) הדריום וברור
איך לא יאג משמכר

3d (ט) הדריום וברור
איך לא יאג משמכר

3d (ט) הדריום וברור
איך לא יאג משמכר
## Vertical Key

<table>
<thead>
<tr>
<th>א</th>
<th>ב</th>
<th>ג</th>
</tr>
</thead>
<tbody>
<tr>
<td>ימ טוב הראשות stellt sich heraus.</td>
<td>בוראות שית כף וחרתה מעשה כף</td>
<td>יום טוב שני שלפסח</td>
</tr>
<tr>
<td>ב</td>
<td>(א)acak</td>
<td>(ב) מי שיש עלoczim מרבים</td>
</tr>
<tr>
<td>ב</td>
<td>בהראיה שתי כסף וחגיגת מעה כסף</td>
<td>נכסים מעטים</td>
</tr>
<tr>
<td>ג</td>
<td>(ג) יום טוב ראשון שלפסח</td>
<td>על זה נאמר מעשה כף ושתי כף</td>
</tr>
<tr>
<td>ה</td>
<td>(ד) ישראל יוצאין יד חובה</td>
<td>זה תלמיד חכם הפורש מן התורה</td>
</tr>
<tr>
<td>ב</td>
<td>(ה) מי שיש לו אוכלים מרבים ונכסים מעטים</td>
<td>זה הוא על העורות והולד ממנה ומיד</td>
</tr>
<tr>
<td>ג</td>
<td>היומ טוב ראשון שלהחג</td>
<td>זה הם גופי התורה</td>
</tr>
<tr>
<td>ב</td>
<td>(ו) מנהרヴיר בזון</td>
<td>21. In the previous two examples, I have established that the columns are to be seen as central elements in the composition of the chapters. Let me remind you that we began with the division into rows, that is, major subject divisions, as the obvious and first division. Now, having seen that both the rows and the columns must be considered planning elements, we are faced with the unlikely and yet inevitable conclusion that some chapters were planned as two dimensional constructs, having both vertical and horizontal “sense”. The two examples from mesechet shabbat are in fact tables. They have meaning embedded in both the columns and the rows, and the meaning of any given segment of text is, at least in part, defined by its place in the table. Consequently, any interpretation that claims to be a close reading of the chapter as it was composed, must take into account the tabular format. This conclusion is far reaching. Essentially, it demands the creation of a new type of commentary, one that attempts to describe the chapter as a coherent literary</td>
</tr>
</tbody>
</table>
entity, rather than a collection of laws. I will use the example of Hagigah 1 to draw the guidelines for this type of commentary. Basically, these are the same guidelines to be used for *studying* the chapter as a unit.

The study begins, as in the previous examples, with observation of linguistic patterns. However, rather than just noting these patterns, I will show how they can be used as a jumping off point for a broad interpretation of the whole chapter as a table.

22. The three rows of Hagigah 1, the major divisions of the chapter, are defined by three different principles. Row 1 contains three disputes between beit Shamai and beit Hillel concerning matters related to the pilgrimage holidays. The second row presents three aspects of the personal obligation to bring sacrifices on the holiday, as indicated by the opening words of each segment of the row, ‘ישראל’ in 2 א and ‘מי ש’ in both 2 ב and 2 ג. Row 3 is concerned with the biblical foundations of various laws. When the three rows are arranged in the format of the Structured Mishnah, a vertical key appears in the columns. For your convenience, I have attached this key to the text of the chapter. This linguistic key shows that the middle segment of each column, segment 2, combines significant terms from segments 1 and 3 of its column. This would seem to indicate that the columns as well as the rows were planning units, and that the chapter was constructed as a table, or weave, having both vertical and horizontal “threads”.

23. The first step of interpreting this weave is to define the planning lines of the chapter, the warp and the weft, which are the rows and columns of המשנה כדרכה. After the planning lines have been identified, the interpretation should explain how each segment of the chapter is affected by the two lines that intersect in it.
<table>
<thead>
<tr>
<th></th>
<th>Definitions of &quot;Warp and Weft&quot;</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Personal observance of festivals and proof texts</td>
<td>Three disputes between the schools of Hillel and Shamai concerning personal observance of festivals</td>
</tr>
<tr>
<td>2</td>
<td>Intrinsic/Self lacking any external dependency</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Bridging the Extrinsic and Intrinsic Quantified</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Extrinsic/Other dependent on external or extraneous source</td>
<td></td>
</tr>
</tbody>
</table>

### Proof texts

<table>
<thead>
<tr>
<th>1x</th>
<th>(a)</th>
<th>(b)</th>
<th>(c)</th>
<th>(d)</th>
<th>(e)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1)</td>
<td>התר ḥnerim pforthin poir</td>
<td>הלוכין שבת חגים ומעילות</td>
<td>הני הלוכין תשראית ומעילות</td>
<td>יש לית תוד הבה</td>
<td></td>
</tr>
<tr>
<td>(2)</td>
<td>יש לך אוכלין מעטים</td>
<td>מעולים מעטים</td>
<td>מעולים מעטים</td>
<td>לא יירא אוכלין מעטים</td>
<td>לא יירא אוכלין מעegis</td>
</tr>
<tr>
<td>(3)</td>
<td>(a)</td>
<td>(b)</td>
<td>(c)</td>
<td>(d)</td>
<td>(e)</td>
</tr>
<tr>
<td>(1)</td>
<td>(a)</td>
<td>(b)</td>
<td>(c)</td>
<td>(d)</td>
<td>(e)</td>
</tr>
<tr>
<td>(a)</td>
<td>(a)</td>
<td>(b)</td>
<td>(c)</td>
<td>(d)</td>
<td>(e)</td>
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<tr>
<td>(b)</td>
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<td>(b)</td>
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<td>(d)</td>
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<tr>
<td>(c)</td>
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<tr>
<td>(d)</td>
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<td>(c)</td>
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<tr>
<td>(e)</td>
<td>(a)</td>
<td>(b)</td>
<td>(c)</td>
<td>(d)</td>
<td>(e)</td>
</tr>
</tbody>
</table>

### Definitions of Warp and Weft

- **Warp** refers to the internal, self-contained aspects of a text or concept, lacking any external dependency.
- **Weft** refers to the bridging of the Extrinsic and Intrinsic, often quantified through external or extraneous sources.
- **Extrinsic** refers to aspects that are dependent on external or extraneous sources.
- **Intrinsic** refers to aspects that are self-contained, lacking any external dependency.
24. I have summarized my definitions of the six planning lines of Hagiga on the second page of the Hagiga example, labeled “Warp and Weft Interpretation”. The definitions appear as a super-text around the actual text of the chapter. Obviously, the definitions are flexible and apt to change as the interpretation develops. (BTW, the development of a set of definitions for the weave has proven to be an exciting and worthwhile classroom activity as it demands that the students master the details of the chapter in order to integrate them.) The process of defining the weave begins with the more obvious weft threads, the rows of our table. The definitions I have suggested for rows 1 “Three disputes between the schools of Hillel and Shamai concerning personal observance of festivals” and 3 “Proof texts” are self-explanatory. Row 2 “The integration of lines 1 and 3” needs some clarification.

25. The vertical key has already suggested that row 2 is a complex row, compounded of aspects of rows 1 and 3, because each segment of row 2 combines terms from the parallel segments of 1 and 3. This linguistic skeleton needs some fleshing out. Comparing 1 and 2, we can see that the parallels are more than linguistic. The parallel sections of 1 and 2 have parallel subjects. 1 א and 2 א relate the obligations of the festival to personal status: young or old, Israelite or priest. 1 ב and 2 ב discuss the monetary value of the offerings. 1 ג and 2 ג refer to offerings that are sacrificed on the intermediate days of the festivals.

26. Each segment of 2 has a double link to its parallel segment in 3. The first link is made through the legal categories mentioned in 3. The second link is made through the degree of intertextuality used in the segments, ranging from none in א to much in ג.
a. Segment 3 א refers to נדרים which appears in 2 א and states that it is not connected to any biblical source; no verses or persons are quoted in 2 א, it is stam mishnah.

b. Segment 3 ב mentions חיגנות, the subject of 2 ב; 3 ב speaks of laws that are linked to sources and 2 ב quotes both the Torah and the Mishnah with the unusual form על זה נאמר.

c. Segment 3 ג mentions עריות which appear in 2 ג; 3 ג speaks of substantive laws (גוף תורה) that are derived from the sources. The parallel segment, 2 ג, contains Mishnah, a proof text and a “Talmudic” debate.

27. We can conclude that row 2 has been carefully constructed to be a conceptual middle between 1 and 3, and that there is a basis for my definition of the row as “the integration of lines 1 and 3”. Before turning to the warp, we should take a moment to marvel at the artistic majesty of the Mishnah as demonstrated through the elegant complexity of row 2. It is quite clear now that this chapter (as all chapters of Mishnah) was crafted and constructed according to a plan and is not simply a collection of thematically related laws. We can no longer view the Mishnah as a somewhat eclectic collection of previously existing material. It is a magnificent literary construct, fabricated by a master craftsman.

28. For the sake of brevity I will just outline the analysis of the columns. Each column has an integrating theme. As hinted by the dyad אין and יש in 3 א and 3 ג, the outside columns should be taken as opposites based on dependency (סמיכות) on outside factors. If we define the integrating theme of א as “intrinsic” (לא סומך) then the corresponding theme of ג should be “extrinsic” (סמך), or perhaps “dependent”. I chose “intrinsic” for א because both 1 א and 2 א are laws of personal status and the subject of 3 א is something
which is self sufficient, devoid of external linkage. All the segments of column ג, on the other hand detail laws that are dependent on other laws or texts. Column ב will then be in some way a medium between the two opposed concepts. The common theme of “quantification” found in all three segments of ב is a good candidate for middle between “intrinsic” and “extrinsic”. Numbers are directly associated with what is being numbered and thus intrinsic, while still not being the thing itself but rather an abstraction. The test of whether or not the two sets of definitions that I have suggested are useful is whether new meaning can be derived from observing their interaction in specific segments. I will give an example of how this form of interpretation works by interpreting the formats of the three disputes between ב"ה and ב"ב in row 1.

29. Each of the disputes has a different format. The first, 1 א, is based on a specific detail of the law presented in the beginning of the Mishnah, אורה קטן. The third dispute, 1 ג, however, is not at all connected to the substance of the opening part of the Mishnah. It is apparently appended because of a linguistic link, מ"ה חולין, מ"ה המעשר. The dispute itself is extraneous to the subject of the Mishnah, which is concerned with the source of sacrifices on the intermediate days of the festival. Formally, then, the disputes in 1 א and 1 ג are antithetical; the one based on a detail within the opening law, and the other not connected to the content of the opening law. We could say that the connection between the first dispute and the body of the Mishnah is intrinsic to the Mishnah while the dispute in 1 ג is extrinsic to the Mishnah. The middle dispute, 1 ב is inseparable from the articulation of the law itself. The dispute is neither inherent in the Mishnah nor extraneous to it. The dispute and the Mishnah are inseparable, merging the aspects of intrinsic and extrinsic. This reading explains the formats of the disputes as an essential component of the chapter because each one has been formatted in accordance with the rule of its column. This is the direction to be followed when
studying the chapter according to its tabular structure or creating a new commentary based on an understanding of the chapter as a coherent literary unit, as it is displayed in הנשה כדרכה.

30. To summarize some of the key features of Hagigah 1: Its middle row is a conceptual middle between rows 1 and 3. Its central column, ב, is a conceptual middle between א and ג. This indicates that all of the 6 triads of the structure, the rows and the columns, are read in such a manner that the middle segment is understood as a conceptual middle as well as a structural middle. A lemma of this observation is that the chapter is visually oriented, having two poles, and that it contains visual logic, rather than oral logic. The distinction I make between oral and visual logic is based on the placement of the synthetic element in the middle of a set in visual logic: thesis, synthesis, and antithesis. Oral logic places the synthesis at the end, because the antithetical pair must be heard before the synthesis can be grasped. This has pedagogical implications for the study of the Mishnah. The order of study in a three part line should not be the order of appearance, thesis, synthesis, antithesis- but rather thesis, antithesis, synthesis, and in the terms of הנשה כדרכה: א, ג, ב.

31. Now let me summarize what I have attempted to communicate in this talk. I began by speaking about the hierarchical division that I found in chapters of Mishnah, as opposed to the linear flow of the mishnayot in our books. I noted with the example of Taanit 1 that there are clear signs within the Mishnah that chapters should be divided on at least two levels. I suggested using a visual layout that would highlight the chapters’ internal divisions. A two-tiered system based on laying out the major divisions as rows and the minor divisions as segments of the rows was presented. This layout demonstrated that the chapter was conceived as a perfectly symmetrical composition. Next I demonstrated through the example of Shabbat 6 that the
columns created by successive rows could have sense within them, dividing according to female and male in
the example. I then added another example, Shabbat 16, which reinforced the point that there was meaning
to be found in the columns. I concluded that the chapters must be two dimensional documents if they have
meaning in both the rows and the columns. With the last example, hagiga 1, I demonstrated how to approach
a two dimensional document as a subject of study.
# Color Code

Colored type is used to indicate structural elements in the text. There are three different classes of colored elements.

## KEY

<table>
<thead>
<tr>
<th>I</th>
<th>II</th>
<th>III</th>
</tr>
</thead>
<tbody>
<tr>
<td>Horizontal Links</td>
<td>Vertical Links</td>
<td>Closure</td>
</tr>
<tr>
<td>Simple Parallel</td>
<td>Internal Parallel</td>
<td>Chiastic Closure</td>
</tr>
<tr>
<td>Synthetic Middle</td>
<td>Parallel between Rows</td>
<td>Simple Closure</td>
</tr>
</tbody>
</table>

## Example 1 Simple Parallel

<table>
<thead>
<tr>
<th>א</th>
<th>ב</th>
<th>יא</th>
</tr>
</thead>
<tbody>
<tr>
<td>תפלת הערבי אין לקבע ושלאמוטסינ כל יום</td>
<td>תפלת המנחה עד הערב</td>
<td>רב יודה אומר עד פלג המנחה ורב יודה אומר עד שבע שעות</td>
</tr>
<tr>
<td>תפלת הערבי אין לקבע ושלאמוטסינ כל יום</td>
<td>תפלת המנחה עד הערב</td>
<td>רב יודה אומר עד פלג המנחה ורב יודה אומר עד שבע שעות</td>
</tr>
</tbody>
</table>

In example 1 above, the colored text is used to demonstrate an element common to all three segments of row 1.

1. The color indicates a common linguistic element or concept that appears in all segments of the row.
Example 2 **Synthetic Middle**

In the following example, color is used to indicate the conceptual construction of a three-part line. The middle segment combines aspects of the two extreme segments.

<table>
<thead>
<tr>
<th>א</th>
<th>ב</th>
<th>ג</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>א</strong></td>
<td><strong>ב</strong></td>
<td><strong>ג</strong></td>
</tr>
<tr>
<td>אמר רבי יוחנן בן קרhapus</td>
<td>למה קדמה שמע להיה ואמר</td>
<td>אמר רבי יהושע בן קרחה</td>
</tr>
<tr>
<td>למך קדמה שמע להיה ואמר</td>
<td>ובין ברכה ארשונה לשניה</td>
<td>למה קדמה שמע להיה ואמר</td>
</tr>
<tr>
<td>אף דר שייבל עלי</td>
<td>בין ברכה ארשונה לשניה</td>
<td>ובין ברכה ארשונה לשניה</td>
</tr>
<tr>
<td>על מלחך שמי חוחלה</td>
<td>בין ברכה ארשונה לשניה</td>
<td>בין ברכה ארשונה לשניה</td>
</tr>
<tr>
<td>אחריכר יכיב עלי על מצות</td>
<td>בין ברכה ארשונה לשניה</td>
<td>בין ברכה ארשונה לשניה</td>
</tr>
<tr>
<td>להיה ואמר ליאמר</td>
<td>בין ברכה ארשונה לשניה</td>
<td>בין ברכה ארשונה לשניה</td>
</tr>
<tr>
<td>שחייה ואמר יאמר</td>
<td>בין ברכה ארשונה לשניה</td>
<td>בין ברכה ארשונה לשניה</td>
</tr>
<tr>
<td>ביכמ ביבלח</td>
<td>בין ברכה ארשונה לשניה</td>
<td>בין ברכה ארשונה לשניה</td>
</tr>
<tr>
<td>יאמר אני נתג אלא בום</td>
<td>בין ברכה ארשונה לשניה</td>
<td>בין ברכה ארשונה לשניה</td>
</tr>
</tbody>
</table>

The **first color** marks a linguistic element common to the first two segments of the row. The **second color** marks elements common to the second and third segments. The combination indicates that the central segment contains aspects of both the **adjacent segments**.
<table>
<thead>
<tr>
<th>Example 3</th>
<th><strong>Internal Parallel</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A</strong></td>
<td>(ג) ונתן לו את הקרן ונשבע לו על החמש. יוליכנו אחריו א来る אספל למידי אל יתן לא לבניא ולא לשהלחין. אבצל념ו בלשלוביתו דימ עם מת תחיו ילורשים.</td>
</tr>
<tr>
<td><strong>B</strong></td>
<td>(ו) ונתן לו את הקרן ולא נתן לו את החמש. מחול לו על הקרן ולא מחול לו על החמש. מחול ללע זה לעל זה החש מפתוחת משה פרונת בקרן.</td>
</tr>
<tr>
<td><strong>C</strong></td>
<td>(ז) ונתן לו את החמש ולא נתן לו את הקרן. מחול לו על החמש ולא מחול לו על הקרן. מחול ללע זה לעל זה החש מפתוחת משה פרונת בקרן.</td>
</tr>
</tbody>
</table>

**Colored type** is used in example 3 to indicate internal parallels. In each of the two sections a single phrase appears in each of three subsections. While each section contains a different repeating phrase, the sections are structurally identical, being divided into three subsections containing a repeated phrase.
In example 4 the colored type indicates linguistic parallels between parallel segments in different rows. The first segment of line 1 contains text that appears in the first section of line two also. Similarly, the second and third segments of line one contain expressions that appear again in the parallel segments of the second line.
Example 5  **Chiastic Closure**

| א | (א) החובל בחברו
| | ב | (ב) רופי חוכה ייב ל럽אותו
| | ג | (ג) האומר סמא את עינו
| | ד | (ד) התוקע לחברו נותן לו סלע
| | ה | (ה) את צעך ישב אול חובה
| | ו | (ו) התוקע לברוחן ותלול לחוצה
| | ז | (ז) עליית השawaiter במרזוב

In example 5  **chiasm color one** and  **chiasm color two** are used together to indicate a chiasm. A phrase that appears in the **upper right hand** corner of the chapter returns in the **lower left hand** corner. Similarly, a phrase that first appears in the **upper left hand** corner of the chapter reoccurs in the **lower right hand** corner.
In the example above *colored type* is used to indicate closure. A phrase that appears in the opening unit of the chapter reappears again at its close. This form of closure is found only in chapters in which the first and last rows of the chapter contain a single unit.