CONCORDIA THEOLOGICAL QUARTERLY

CTQ

Volume 60: Number 4

OCTOBER 1996

The Annual Symposia of Concordia Theological Seminary (January 1997) 241

The Future Role of the Bible in Seminary Education
Walter C. Kaiser 245

From Text to Context: Hermeneutical Principles for Applying the Word of God
G. Waldemar Degner 259

Metrics in Hebrew Poetry: The Book of Lamentations Revisited
David Noel Freedman and Erich A. von Fange 279

Books Received 306

Book Reviews 307

CONCORDIA THEOLOGICAL QUARTERLY

CTQ

ISSN 0038-8610

The CONCORDIA THEOLOGICAL QUARTERLY, a continuation of *The Springfielder*, is a theological journal of the Lutheran Church-Missouri Synod, published for its ministerium by the faculty of Concordia Theological Seminary, Fort Wayne, Indiana.

The CONCORDIA THEOLOGICAL QUARTERLY is indexed in *Religion Index One: Periodicals* and abstracted in *Old Testament Abstracts* and *New Testament Abstracts.*

The CONCORDIA THEOLOGICAL QUARTERLY is published in January-April, July, and October. All changes of address (including clergymen of the Missouri Synod), subscription payments, and other correspondence concerning business matters should be sent to Concordia Theological Quarterly, Concordia Theological Seminary, 6600 North Clinton Street, Fort Wayne, Indiana 46825. The annual subscription rate is $10.00 within the United States, $15.00 U.S. in Canada, and $20.00 U.S. elsewhere ($30.00 if dispatch by airmail is desired).

Metrics in Hebrew Poetry: The Book of Lamentations Revisited

David Noel Freedman
and
Erich A. von Fange

The state of the art of grasping the structure of Hebrew poetry as expressed in the Book of Lamentations has been outlined in detail by Freedman (1972) and Hillers (1972). Analyses of all or part of the text of Lamentations have been developed by Andersen and Forbes (1983) Cross (1983) Radday and Pollatschek (1986) and Shea (1979). Kugel (1982) poses strong views of biblical poetry as non-metric parallelism in the continuing dialog on the mystery of this form of writing. To his credit is his stress on the message, rather than the structure. All in all, the greater surprise is not how much is known about Hebrew poetry, but rather how much knowledge of the art has been tragically and irretrievably lost, a consequence of centuries of persecution and destruction of the people who developed this art form more than three millennia ago. The few who could have handed down the answers in their writings over the centuries to the questions scholars ask about the form did not or could not.

The purpose of this paper is to apply several procedures to the text of Lamentations drawn from descriptive and inferential statistics which may not have been reported in the literature up to this time. This application is made without any illusion that the art and genius of this genre of poetry may be so easily explained. Since, however, so little is known about the structure of this form of poetry, any advance, no matter how slight, may be welcomed by those who are interested in the analysis of this form of ancient literature. Four metrical systems in poetry are generally recognized: the syllabic, the accentual, the accentual-syllabic, and the quantitative. The first three analyses below, following Freedman (1972), treat only the syllabic, which is to say, the number of syllables per line without regard to the stress of the syllables relative to each other. This view of poetry is based on the conviction that the empirical study of poetry demonstrates that meter is a prime physical and emotional constituent of poetic meaning (Fussel, 1979). Here then, we focus on accentual analyses.

Specifically, we shall first explore the following aspects of the syllabic structure of Hebrew poetry as expressed in the Book of

Lamentations:

(1.) The Colon: Is Budde's qina meter hypothesis from the nineteenth century actually supported by modern statistical analysis?

(2.) The Line: Can unbalanced line length as a rhythmic device (suggested by Budde's qina meter for the colon) be demonstrated through statistical analysis?

(3.) The Stanza: Can statistical analysis provide insights into the anomalous four-line stanzas (1:7 and 2:19)?

Data for this aspect of the study were furnished by Freedman (Appendix B). Conventional statistical tests were applied to the data. Such tests are able to identify differences or relationships which may not appropriately be attributed to chance. It is important to note that such analyses treat the poem as a whole rather than verse by verse. If we find only chance differences in a given analysis, our results support the strongly held view that there is no meter in that poem. If, on the other hand, if we find differences which cannot properly be attributed to chance, then a case is made for structure or meter in the poem. At the outset it should be stated that statistical analysis is not without its own special problems and hazards, since inferential statistics by definition is a way of dealing with some forms of uncertainty. In another context Portnow and Petersen (1984) have emphasized possible hazards and errors in applying statistical analysis to the study of biblical texts, and such cautions are always in order.

The first question is this: Do the colons of each line of the Book of Lamentations demonstrate Budde's hypothesis of a deliberate long-short pattern? In order to test the hypothesis derived from this question, Freedman's "A" and "B" counts for Lamentations 1 in Appendix B were analyzed by means of Wilcoxon signed-ranks tests, that is, it was hypothesized that the syllable-count of the first colon of each line tended to be greater than the second of that line. Similarly, the remainder of Lamentations was analyzed line by line in the same way. The results are recorded in Table 1 and leave little room for debate. All 22 tests for Lamentations 1-4 provided strong support for Budde's hypothesis. Lamentations 5, which contains unique features, displayed a pattern of colons of equal length.

Table 1 is read as follows: The length in syllables of the first colon ("A" count) was compared verse by verse with the length of the second colon in line 1. The sum of the syllables for the twenty-two first colons is 164 while the sum of the second colons is 127. According to the Wilcoxon test the difference in length between the first and second colons, measured in syllables, is too great to be attributed to chance factors. The asterisks in Table 1 indicate each test which produced a significant difference. It is important to note that in every case, without exception, the first colons exceed the second colons in length significantly. The analysis of stresses in Table 1 is discussed later in the paper.

The second question is this: Can unbalanced line length as a rhythmic device (suggested by Budde's unbalanced quina meter found in the colons) be demonstrated through statistical analysis?

The 838 syllables of Lamentations 1 divide themselves up as follows, as seen in Appendix B and Table 1:

Lines 1 of the 22 stanzas: 291 total syllables.

Lines 2 of the 22 stanzas: 264 total syllables.

Lines 3 of the 22 stanzas: 271 total syllables.

One Line 4: 11 syllables (analyzed below).

Have the first lines been made deliberately longer than the second? We examine the question of line-length by means of the chi-square goodness-of-fit test. First we observe within each stanza how line 1 compares in syllable length with line 2. In each of the 22 stanzas there are three possibilities: line lengths may be the same; the first line may be longer than the second; or line 2 may be longer than line 1. If each combination occurs as a matter of chance, (that is to say, if the poet ends the line when he completes the thought), we should expect each option to occur about equally often, which is to say, seven and a third (7 1/3) times for each option out of twenty-two stanzas.

The result of this analysis, as reported in Table 2, was a chi-square of 13.55 with two degrees of freedom, giving a probability of less than .005 that the differences observed could have been due to chance: X^2 (2) = 13.55, $p < .005$. By actual count line 2 was shorter

than line 1 in sixteen (16) of the twenty-two (22) stanzas. We conclude that line 2 was significantly shorter than line 1 in the poem. It follows, then, that the difference was a deliberate poetic device.

In comparing line 1 with line 3 in each stanza, we note that in eleven (11) of the twenty-two (22) stanzas line 3 was shorter than line 1, but the resulting X^2 (2) = 2.7 was a non-significant difference. Figure 1 is a graphic depiction of the meter and implied rhythmic structure of the poem.

The line length of lines in Lamentations 2, 3, and 4 demonstrates careful crafting by the poet, but with a very different design. In each case, whether stanzas consist of three lines or two, it is striking to observe that each set of twenty-two first lines, twenty-two second lines, twenty-two third lines (where they occur) was given an equal quota of syllables by the poet ("A" counts): Lamentations 2: 279, 279, 280; Lamentations 3: 283, 284, 286; Lamentations 4: 297, 303. One may also see the "B" counts in Table 1. Lamentations 5 consists of one line stanzas. The pattern of deliberately creating equal line-lengths in each poem is just as striking as the unequal pattern found in Lamentations 1. Lamentations 4 is especially instructive on metric structure. In terms of syllable-counts eight (8) stanzas are "long-short" (i.e., line 1 is longer than line 2), and precisely eight (8) stanzas balance them with a "short-long" pattern. The remaining six (6) stanzas consist of lines of equal length. There seems to be no indication of random line-length despite the fact that line-lengths do vary.

The third question is this: Is there evidence supporting the view that the anomalous four-line stanzas in Lamentations 1 and 2 were part of the original structure of the poems? The results of the analyses of the first two questions show beyond reasonable doubt that great care was exercised in crafting the poems within predetermined structural patterns: colons of a long-short pattern, lines made deliberately unequal, and a second pattern of lines made deliberately equal. We also see below that there are examples of poems of apparently predetermined fixed length in terms of total number of syllables. Findings such as these provide a method of approaching an analysis of the third question which will either support the position taken by some that one of the four lines under examination here was

a later addition to the stanza or, on the other hand, support the position that a fourth line was part of the plan at the outset.

The total number of syllables per poem divided by the number of stanzas (twenty-two of course) in each poem provides a quota of syllables per stanza. We can fairly assume that the writer kept his counts stanza by stanza in order to balance the poem as a whole within its predetermined structure. The advantage of analyzing acrostics is that we can control the stanzas without question, and we can control the lines in Lamentations 3 (and perhaps Lamentations 5 as well). Most other biblical poetry cannot be analyzed with equal assurance, since the structure in terms of verses and chapters was rather arbitrarily added many centuries later than the time of writing of the texts .

We may now explore the view that the poet could express a thought in any stanza which went beyond the syllable quota, but in every case this action had to be balanced off somewhere by another stanza which was shorter by an equal amount. The poems vary in the amount of freedom taken by the writer and the manner in which longer and shorter stanzas were balanced. The necessity of such a pattern becomes a matter of logic. If total length in number of syllables is fixed for an acrostic, which seems clearly demonstrable, then some kind of quota system is required. Otherwise the poet is likely to end up with too many or too few syllables toward the end of the poem.

One observation of interest in Lamentations 1 is how closely the actual count follows the quota throughout the poem as shown in Table 3. The entire pattern, stanza by stanza, of actual syllable-counts versus the cumulative quota-counts is instructive of the painstaking manner in which the poem may have been crafted.

The lines that make up the stanzas, however, could vary without affecting the structure described above. Adding a line does not affect the overall pattern; *exempli gratia*, stanza length is calculated at thirty-nine (39) syllables, which is multiplied by twenty-two (22). The total of 858 syllables holds regardless of the number of lines. We can argue that this interesting speculation into the art of the poet can be supported since there is no real difference in length between chapter 3 with sixty-six (66) lines and chapters 1 and 2 with sixty-seven (67).

All have twenty-two (22) stanzas. How does the "norm" of 858 syllables per acrostic poem relate to the difficult choice of using "A" counts or "B" counts? The "A" counts are all low and the "B" counts are all high, which is virtually what we would expect.

The stanzas preceding and following Lamentations 1:7 (the four-line stanza) may speak to the question of whether or not a fourth line was added to the original text. We may argue on the basis of syllable-quotas per stanza, regardless of how the quotas are met in the poem as a whole, that the maximum deviation from the quota ought to occur in stanza 1:7 if indeed a fourth line was a later addition. The maximum deviation in the entire poem, however, is found in 1:6; and, therefore, the additional line in 1:7 may be the poet's way of again returning toward balance for reasons we shall explore in the discussion below. One may observe in Figure 2 that stanzas 1:4 and 1:10 are closely in balance with respect to the quota of syllables allotted to each stanza cumulatively. Stanzas 1:5 and 1:6 head progressively into maximum negative imbalance and are immediately followed by the peculiar 4-line stanza at 1:7. Stanzas 1:8 and 1:9 are the mirror image of 1:5 and 1:6 which serve the function of bringing the allotment of syllables back into complete balance. Visually, the structure appears as shown in figure 2, and it seems reasonable to conclude that 1:7 with its four-line structure is indeed an integral part of the plan for the poem as a whole.

The metric pattern in Lamentations 2 is very different from that in Lamentations 1, but there is support in a different way for the integrity of the four-line stanza in Lamentations 2:19. We may argue again that, if a fourth line were a later addition to the original three lines, maximum deviation from the cumulative quota of syllables ought to occur at that point in the poem. The maximum deviation, however, occurs at 2:14 and we find again that the four-line structure at 2:19 serves to bring the metric structure toward balance. It seems that such a function would be an impossibility if a fourth line were a later addition. One might argue that the entire poem preceding 2:19 anticipates a climactic longer stanza just before the close, since all stanzas preceding 2:19 without exception are on the deficit side of their syllable-quota.

Anyone acquainted with the structure of modern hymnody will

observe points of similarity with the structure of ancient Hebrew poetry as expressed in the Book of Lamentations. Both patterns, unbalanced line- lengths, and patterns of equal line-length in terms of syllable counts, are commonly found in the chorale and in other hymn forms. While much of the best in poetry is written in lines of equal meter, the pattern of Lamentations 1 as illustrated in Figure 1 is especially intriguing. The pattern cries out to be sung instead of spoken. We need not be disturbed by the fact that the stanzas in all the poems vary somewhat in length as shown in Table 1. If the text is sung, there are simple devices to equalize the length of the text for each stanza in order to fit the music; but it may be equally important to recognize the dramatic effect of departing from the quota of syllables for each stanza. Furthermore, we may assume that the ancient Hebrew poet used devices analogous to the manner in which William Shakespeare fit his thoughts within the tight structure of the sonnet. Overall, however, despite the exceptions and poetic devices, the falling rhythm shines through.

Perhaps the irregular stanza might be viewed as a kind of *meter rubato* in the way it is echoed in the *tempo rubato* of Chopin. To heighten dramatic effect Chopin stole a little time here and lingered a bit too long there throughout a masterwork instead of following a steady unchanging beat. The poet is not a mason laying down uniform cinder blocks all in a neat row. He is juggling phrasing, varying, contrasting, intertwining ideas, climaxing, to convey his poetic message. The text itself finally must provide the answers to the anomalies in the structure of the poems. As Freedman (1972) has observed: "In the poems there is a wide range of variation in the length of lines and stanzas. These deviations form their own patterns, as we have observed, and the end product was strictly controlled by factors of overall length and a strong sense of balance.

Table 4 illustrates two important methods of quantifying how the syllable-counts vary within the poems. A standard deviation (SD) of 1.7 informs us that two-thirds (2/3) or about 68% of all syllable-counts in a given set of colons fall within 1.7 in either direction of the mean, and 2 standard deviations in either direction cover 95% of all variation. The larger the standard deviation, the larger is the amount of variation. Another useful concept, the coefficient of variation, is

simply the size of the standard deviation as compared with the mean or average. A coefficient of variation of .10 (written as 10) tells us that the standard deviation is about one-tenth (1/10) the size of the mean. Both the standard deviation and the coefficient of variation provide a way of making meaningful comparisons. By way of illustration we find that the lines of four short free-verse poems of Walt Whitman have coefficients of variation as follows (Allison, 1983): 24, 33, 46, 30. These are larger than anything we find in Lamentations. Such analyses may be useful in studying the difference between free verse and blank verse and perhaps other aspects of poetic structure.

The anomalous four-line stanzas call for additional comment. If the idea is accepted that they are integral to the text, again the confirmation must lie in the text itself in terms of climax, emotional peak, outburst of grief, focus, deliberate jarring, the jolt of the unexpected, all with the purpose of heightening the impact of the message. The fourth line is like the beauty spot to accent the face; it is like the anomalous pitch or volume or rhythm in the climax of a musical masterpiece, unlike anything before or after in the composition.

The Book of Lamentations includes poetic structure with tight, disciplined boundaries, such as the rigid demands of the acrostic or the lines of equal length regardless of the thought expressed. Yet such tightly disciplined structures are found in all the arts, and the artistic genius revels in expression within such voluntary bounds. No one has ever argued that the Haiku or the fugue suffers artistically from its rigid structure. Its beauty, on the contrary, is marvelously enhanced. There is good reason to believe that the poet knew exactly where he was in syllable-counts at the end of each stanza of each poem. Figure 3 suggests a simple pebble-counting system which would show the poet exactly where he was at all times during the writing of the poem.

Analysis of the syllabic structure of Lamentations has proved to be a fruitful way of demonstrating that a definite structure was built into the Book of Lamentations. There is design in the ancient Hebrew poetry here, as opposed to the idea that the poet's thoughts were expressed in nothing more than free verse (the idea that the poet expressed a thought and continued speaking in each verse or line or

colon until he had finished expressing the thought) and thus any apparent structure coincidental. That this view is untenable in the face of strong evidence has been amply demonstrated. Important as parallelism is as a poetic device, there is more to Hebrew poetry than this one attribute.

An additional way of examining the possibility of structure is to analyze the pattern, if any, of stresses or accents in each colon and line. This sort of analysis is not without its hazards and frustrations as Freedman (1986) has described. It is well known that stress-counts may vary somewhat depending on the assumptions made about the text. There is, nevertheless, sufficient certainty in enough of the text that structure may be examined, and at the same time one may grant minor variations in some of the stress-counts. These alternate counts, however, are not of sufficient magnitude to blur a decision as to whether or not design is present.

With this qualification in mind, the results below of the analysis of stress-counts are striking. The accent-counts for each chapter of Lamentations, as yet unpublished, were provided by Freedman (1986), as may be seen in Appendix B and Table 1.

The fourth question is this: Can unbalanced stress patterns as a rhythmic device (suggested by Budde's unbalanced qina-meter hypothesis) be demonstrated through statistical analysis? On the basis of the stress-counts in Appendix B twelve tests (Wilcoxon signed-ranks tests) of stress patterns by colons were conducted as follows: Lamentations 1-3 (9 tests for the nine lines), Lamentations 4 (2 tests), and Lamentations 5 (1 test). In each of the twelve analyses the number of stresses in the first colon was significantly greater than in the second, as shown in Table 1. These results appear to be a remarkable confirmation of Budde's hypothesis. The pattern of stresses in each line can hardly be a matter of chance or coincidence. Perhaps the most striking result discovered is that in Lamentations 5, where the syllabic structure is carefully balanced, we find that the number of stresses in the first colons is significantly greater than in second colons.

A further analysis of stress patterns was undertaken by comparing the total number of stresses per line within each chapter of Lamenta-

tions 1-4. In Lamentations 1 we find still another way in which the idea of the falling rhythm is expressed. The total number of stresses in lines 1 is significantly greater than those in lines 2 and of lines 3. The complexity is striking; in all these cases— lines 1, 2, and 3—the totals of the first colons are greater than those of the second ones. At the same time a second falling rhythm occurs in that the mean totals of the stresses in lines 1 are significantly greater than those in both lines 2 and 3. And all of these things are crafted into the poem in addition to what we earlier discovered of the syllabic pattern of Lamentations 1. Thus three different but superimposed forms of Budde's hypothesis are found in Lamentations 1.

In Lamentations 2, 3, and 4 the number of stresses is in balance for each line. There are no significant differences in the number of stresses per line within each of the chapters. Chapters 1-4 of Lamentations, despite the difference just noted, are remarkably similar in the number of stresses per line, a further indication of careful crafting of the structure of the poem.

Lamentations 5 differs remarkably from the earlier chapters in Lamentations, yet follows a pattern which is found in a number of other Old Testament poems. It has the proper number of verses for the acrostic, yet no acrostic has yet been discovered in it. It consists of 22 single-line verses. For this distinctive pattern the lines are longer and there are more stresses per line as compared with the earlier chapters. The poet has changed to another style in the final chapter.

One might suppose that syllable-counts and stress-counts are tied closely to one another, but Table 5 shows that the two may run quite different courses independent of one another. Only three of twelve comparisons, expressed in Pearson product-moment correlation-coefficients (r), show significant relationships between stress and syllable counts. Stress-counts and syllable-counts are not locked together.

Summary and Conclusions

What we appear to have, then, in the Book of Lamentations is an example of great complexity and sophistication in terms of the craft of poetry. We are beginning to glimpse new vistas of structure not previously imagined or explored. We are finding patterns of syllabic

structure interwoven with patterns of stresses analogous to the ancient art of contrapuntal writing, the art of the fugue. Syllabic structure and stress-pattern, each going its own way, are still related in a most marvelous fashion. We know nothing of the musical accompaniment for these poems. We can only assume that the music was a further enhancement of the structure already supplied by syllabic structure and stress-pattern, that somehow it made straight what is crooked—that is, it placed rhythmic regularity on the individual colons and lines and verses which vary from one to the other, yet reveal a remarkable unity and patterning overall. The following conclusions seem well supported by the analyses in this study:

(1.) Budde's hypothesis is powerfully and remarkably supported by means of conventional statistical tests. All colons in Lamentations 1 2, 3, and 4 (not 5) exhibit this support. Many of the tests show less than one chance in 10,000 that the structure could be a chance one. The pattern is true of both "A" and "B" counts equally well.

(2.) In Lamentations 1, lines 1 are significantly longer than lines 2 in the "A" and "B" counts. Lines 3 appear to fall between lines 1 and 2 in length. The whole pattern as suggested in Figure 1 may be a carefully planned rhythmic device. The differences are unusual and perhaps imply that Lamentations 1 has a distinctly different structure from that of the rest of Lamentations.

(3.) Lamentations 2, 3, 4, and 5 are different poetic structures from Lamentations 1 in some important respects. Lamentations 2 shows no significant differences in line-length. In Lamentations 3 the line-lengths are carefully equalized. Lamentations 4 shows no significant differences in line-length, but the lines are now about 14 syllables in length instead of the 12-13 syllables per line in previous chapters. Lamentations 5 lines are 16 syllables in length.

(4.) There is evidence of some kind of counting system to keep the stanzas balanced as to length, as, for example, a longer stanza being balanced by a shorter one. The poet, therefore, worked his craft within a tightly disciplined pattern of length

of colons, lines, and stanzas. A simple practice of counting pebbles or tokens is suggested.

(5.) The anomalous four-line stanzas were planned to be such. Very striking in 1 is the way in which the author anticipates the longer stanza by shortening the previous two stanzas to make room for a fourth line within the overall quota of 38 ("A" count) or 39 ("B" count) syllables per stanza.

(6.) The analysis of accent or stress, despite all its problems, provides further insights into the complex structure of ancient Hebrew poetry.

(7.) The methods of analysis used in this investigation seem well suited to further application in the study of ancient Hebrew poetry.

We have briefly examined several aspects of the Book of Lamentations and have found that statistical analysis, both descriptive and inferential, shows possibilities of shedding some light on the craft of ancient Hebrew poetry which may not have been apparent from other forms of analysis. One may still, of course, ask this question: "Why should the argument be on whether ancient Hebrew poetry is metric structure or parallelism in form? Why should there not be parallelism within a tightly disciplined metric structure, just as the acrostic itself is a tightly defined structure within which the poet displayed his art?"

Further investigation into other acrostics as well as other forms of Hebrew poetry is likely to shed additional light on the mystery of the construction of Hebrew poetry. Tantalizing things are in the air for the "obsessed" researcher. Someone must open up the mystery of the non-alphabetic poem of 22 (normally) stanzas. What other device besides the alphabet would make up the initial sound or word of 22 verses? The cryptic and intriguing device which plays on the letter *aleph* in Deuteronomy 32 suggested by Skehan (1971) suggests that there are other surprises awaiting discovery in the structure of ancient Hebrew poetry. There is some hint that the ancient division of the Semitic alphabet into two equal halves—the abecedary (A-B-C-D) and the elementum (L-M-N)—may play some role in the analysis of some of the acrostic poems, but this task awaits development.

APPENDIX A: TABLES AND FIGURES

TABLE 1

ANALYSIS OF LAMENTATIONS BY COLONS

Lam	Lines	Syllables 'A' Count	Total	Syllables 'B' Count	Total	Stresses	Total
1	1	164:127*	291	169:130*	299	66:48*	114
	2	147:117*	264	154:120*	274	57:46*	103
	3	150:121*	271	159.121*	280	60:46*	106
			837	866			327
2	1	157:122*	279	160:124*	284	65:51*	116
	2	164:120*	279	158:124*	282	64:46*	110
	3	159:120*	280	165:121*	286	65:49*	114
			850	864			344
3	1	166:117*	283	168:120*	288	68:43*	111
	2	167.117*	284	170:119*	289	67:46*	113
	3	167:119*	286	169:121*	290	66:46*	112
			853	867			336
4	1	163:134*	297	166:138*	304	66:48*	114
	2	160:143*	303	160:144*	304	60:52*	112
			600		608		226
5	1	181:173	354	191:184	375	70:62*	132

NOTES: Lam 1:7 Line 4: 7:4; 8:5; 2:2
Lam 2:19 Line 4: 7:5; 7:5; 2:2

*A significant or "non-chance" difference is indicated; the first total is significantly larger than the second.

TABLE 2

LAMENTATIONS 1:

ANALYSIS OF LINE LENGTH BY SYLLABLES

FIRST LINES COMPARED WITH SECOND LINES

	N	X^2
Lines are equal	2	
Line 1 has more syllables	16	13.55*
Line 2 has more syllables	4	
Total Lines	22	

FIRST LINES COMPARED WITH THIRD LINE

	N	X^2
Lines are equal	5	
Line 1 has more syllables	11	2.70
Line 3 has more syllables	6	
Total Lines	22	

* A significant difference is indicated.

FIGURE 1

The Plan of Lamentations 1 ('A' Count): Meter and Implied Rhythm

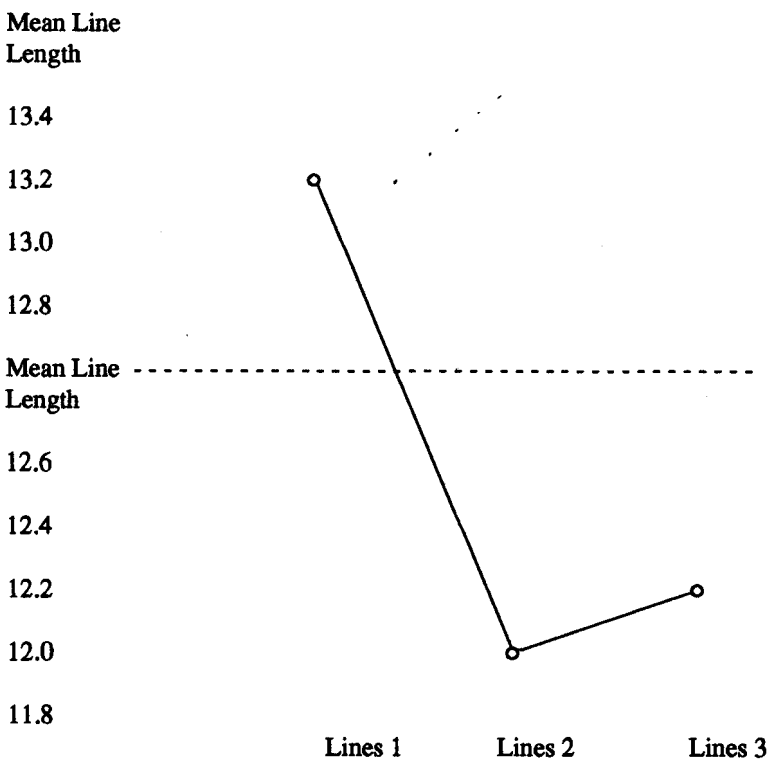
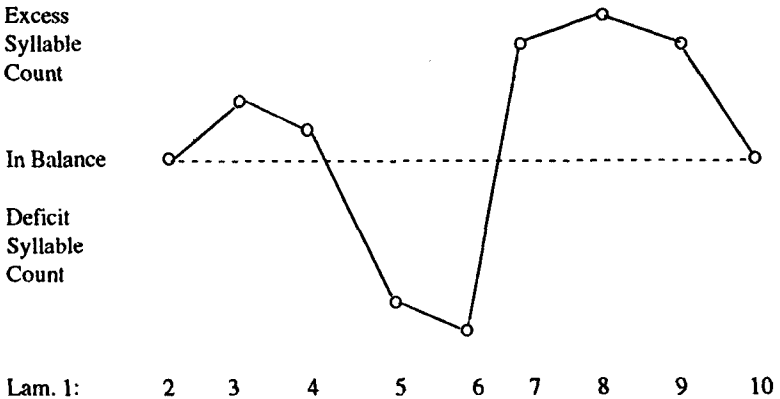


TABLE 3

THE SYLLABLE QUOTA CONCEPT: LAMENTATIONS 1
BY STANZAS 'A' COUNTS

Stanza	Quota (38)	Actual
1	38	38
2	76	76
3	114	116
4	152	153
5	190	185
6	228	221
7	266	270
8	304	310
9	342	346
10	380	380
11	418	419
12	456	459
13	494	497
14	532	533
15	570	569
16	608	610
17	646	648
18	684	685
19	722	724
20	760	760
21	798	802
22	836	838

FIGURE 2
LAMENTATIONS 1:2 through 1:10 ('A' Count)



NOTE: The maximum deficit is in verse 6; the anomalous stanza is in verse 7; the maximum number of surplus syllables is inverse 8.

TABLE 4
VARIATION OF LINE SYLLABLE COUNTS ('B') OF LAMENTATIONS COMPARED WITH FREE VERSE PATTERNS OF WHITMAN

Chapter	Lines	Mean	S.D.	C.V.
1	1	13.6	1.7	13
	2	12.5	1.5	12
	3	12.7	1.9	15
2	1	12.9	1.8	14
	2	12.8	1.1	9
	3	13.0	2.4	18
3	1	13.1	1.9	15
	2	13.1	2.0	15
	3	13.2	1.5	11
4	1	13.8	1.1	8
	2	13.8	1.7	8
5	1	17.0	2.0	12
Whitman	A	18.2	4.4	24
	B	14.2	4.2	30
	C	12.0	5.5	46
	D	14.3	4.2	30

NOTES: "S.D." signifies "standard deviation."
"C.V." signifies "coefficient of variation."

FIGURE 3

A Suggested Pebble-Counting System for Controlling Stanza Length when Overall Length Is Controlled

Stanza	Deficit	Balance	Excess	
1		0000000		
2		0000000		
3		00000	00	
4		000000	0	
5	00000	00		
6	0000000			maximum deficit
7		000	0000	anomalous stanza
8		0	000000	maximum excess
9		000	0000	
10		0000000		
11		000000	0	
12		0000	000	
13		0000	000	
14		000000	0	
15	0	000000		
16		00000	00	
17		00000	00	
18		000000	0	
19		00000	00	
20		0000000		
21		000	0000	
22		00000	00	

NOTE: When all the pebbles are in the balance bowl, the quota of syllables is exactly in balance. In Stanza 3 there is a net excess of two syllables, which is reduced to a net excess of one in Stanza 4. Stanzas 5 and 6 are shorter apparently to prepare for the additional line in Stanza 7. By the time we reach Stanza 10, the poem is back in perfect balance.

TABLE 5

RELATIONSHIPS BETWEEN SYLLABLE COUNTS ('A') AND STRESS COUNTS FOR LAMENTATIONS 1-5

Chapter	Lines	Mean Syllables	Mean Stresses	Correlation
1	1	13.2	5.2	+.49*
	2	12.0	4.8	+.26
	3	12.3	4.8	+.30
2	1	12.7	5.4	+.21
	2	12.7	5.1	+.14
	3	12.7	5.2	–.09
3	1	12.9	5.2	+.49*
	2	12.9	5.1	+.24
	3	13.0	5.1	+.12
4	1	13.5	5.2	+.50*
	2	13.8	4.9	+.33
5	1	16.1	6.0	+.34

* A significant (non-chance) relationship is indicated

APPENDIX B

Lamentations 1 Colon Counts: Syllables and Stresses

	Syllable: "A" Counts						Syllable: "B" Counts						Stress Counts					
V	1a	1b	2a	2b	3a	3b	1a	1b	2a	2b	3a	3b	1a	1b	2a	2b	3a	3b
1	9	4	7	6	7	5	9	4	7	6	7	5	4	2	2	2	2	2
2	7	7	5	5	7	7	7	7	5	6	8	7	3	2	2	2	3	2
3	9	6	7	6	7	5	9	6	7	6	9	5	3	2	3	2	3	2
4	7	7	7	6	6	4	7	7	8	7	7	4	3	3	3	2	2	2
5	6	5	5	5	8	3	7	6	5	6	9	3	3	2	2	2	3	2
6	7	4	8	6	7	4	7	4	9	6	7	4	3	2	3	2	3	2
7	7	8	4	7	7	5	7	9	5	7	7	5	2	3	2	4	4	2
8	8	8	8	6	5	5	9	8	10	6	6	5	3	3	3	2	2	2
9	6	7	6	5	7	5	7	7	6	5	7	5	2	2	2	2	3	2
10	5	5	6	5	5	8	5	6	6	5	5	8	3	2	2	2	2	2
11	6	5	9	4	8	7	6	5	9	4	8	7	3	2	3	2	3	2
12	9	6	8	5	6	6	9	6	8	5	6	6	4	2	3	2	3	3
13	10	4	6	6	7	5	10	4	6	6	7	5	3	2	3	2	2	2
14	6	7	6	4	7	6	6	7	6	4	7	6	3	2	2	2	2	3
15	6	6	6	5	6	7	6	6	6	5	6	7	3	2	3	2	3	2
16	10	6	9	4	7	5	10	6	9	4	7	5	4	3	3	2	3	2
17	8	5	7	5	7	6	9	5	7	5	7	6	3	2	3	2	2	2
18	5	6	6	6	8	6	5	6	7	6	8	6	3	2	3	2	2	2
19	8	5	7	5	6	7	8	5	7	5	6	7	2	2	2	2	3	2
20	7	6	7	6	6	4	7	6	7	6	6	4	3	2	3	2	3	2
21	9	5	7	5	10	6	9	5	7	5	13	6	3	2	3	2	5	2
22	9	5	6	5	6	5	10	5	7	5	6	5	3	2	2	2	2	2

NOTE: Lamentations 1:7 contains a fourth line: "A"-7:4; "B" 8:5; stresses 2:2. Counts for such additonal lines are always included in the totals for reason stated in the text. It is freely acknowledged that a small number of colons lend themselves to different evaluations as to number of syllables and stresses. Thus minor discrepancies will occur in the counts, but the total impact of these variants does not change the outcome of statistical analysis.

Lamentations 2 Colon Counts: Syllables and Stresses

	Syllable: "A" Counts						Syllable: "B" Counts						Stress Counts					
V	1a	1b	2a	2b	3a	3b	1a	1b	2a	2b	3a	3b	1a	1b	2a	2b	3a	3b
1	10	4	6	5	8	4	10	4	6	5	8	4	4	2	3	2	3	2
2	8	6	6	7	4	8	9	6	6	7	4	9	3	3	2	3	2	3
3	6	5	7	5	11	5	6	5	7	5	11	5	3	2	3	2	4	2
4	7	7	8	5	7	0	7	7	8	5	7	0	3	3	3	2	3	0
5	8	5	7	5	7	7	8	5	8	5	7	7	3	2	3	2	3	2
6	7	5	7	5	7	4	7	5	7	5	7	4	3	2	3	2	3	2
7	8	5	6	6	8	4	8	5	6	7	8	4	3	2	3	2	4	2
8	4	8	3	8	7	5	4	8	3	8	7	5	2	3	2	3	3	2
9	8	8	5	6	8	5	9	9	6	6	9	5	3	3	3	2	3	2
10	5	8	7	5	7	7	5	8	7	5	7	7	2	3	3	2	3	2
11	8	6	7	5	8	5	8	6	7	5	8	5	3	2	3	2	3	2
12	7	6	8	4	6	5	7	6	8	4	6	5	2	3	2	2	2	2
13	9	6	9	6	7	4	9	6	9	6	7	4	3	2	3	2	3	2
14	6	4	8	6	4	7	6	4	8	6	4	7	3	2	3	2	2	3
15	7	5	9	6	8	11	7	5	9	6	8	11	3	3	3	2	3	5
16	6	4	8	6	9	6	6	4	8	6	9	6	3	2	3	2	3	2
17	8	5	7	6	8	5	8	5	7	6	8	5	4	2	4	2	3	3
18	8	5	7	5	7	6	8	5	7	5	7	6	3	2	3	2	3	2
19	6	5	6	6	6	5	7	5	6	6	6	5	3	2	3	2	3	2
20	8	5	8	6	10	5	8	6	8	6	10	5	3	3	3	2	3	2
21	7	4	8	5	6	5	7	4	8	5	8	7	3	2	2	2	3	2
22	6	6	9	5	9	5	6	6	9	5	9	5	3	2	4	2	3	2

NOTE: Lamentations 2:4 lacks a second colon in line 3. Lamentations 2:19 contains a fourth line: "A"=7:5; "B"=7:5; stresses 2:2.

Lamentations 3 Colon Counts: Syllables and Stresses

	Syllable: "A" Counts						Syllable: "B" Counts						Stress Counts					
V	1a	1b	2a	2b	3a	3b	1a	1b	2a	2b	3a	3b	1a	1b	2a	2b	3a	3b
1	8	5	7	4	6	5	8	5	7	4	6	5	4	2	3	2	3	2
2	8	5	7	5	8	5	8	5	7	5	8	5	3	2	3	2	2	2
3	8	5	8	6	8	6	8	5	8	6	8	6	3	2	3	2	3	2
4	5	6	10	5	9	6	5	6	11	5	9	6	3	2	3	2	3	2
5	6	5	9	7	8	5	6	5	9	7	8	5	2	2	3	2	2	2
6	8	6	8	5	7	7	8	6	8	5	7	7	3	2	3	2	3	2
7	8	4	7	4	6	4	8	4	7	4	6	4	3	2	3	2	3	2
8	8	7	7	6	9	5	8	7	7	7	9	5	3	2	2	2	4	2
9	6	6	7	5	6	4	6	6	7	5	6	4	3	2	3	2	3	2
10	7	5	7	5	8	5	7	5	7	5	8	5	3	2	3	3	3	2
11	7	3	7	5	7	6	7	3	7	5	7	6	3	1	3	2	3	2
12	6	5	6	5	8	6	6	5	6	5	8	6	3	2	3	3	3	2
13	7	6	7	6	7	5	7	6	7	6	7	5	3	2	3	2	3	2
14	11	7	9	5	9	5	11	7	9	5	9	6	3	2	3	2	3	2
15	10	5	7	6	9	5	10	7	7	6	9	5	3	2	3	2	3	2
16	7	5	7	5	7	5	7	5	7	5	7	5	3	2	4	2	4	2
17	9	5	6	5	8	6	9	5	6	5	8	6	3	2	2	2	3	3
18	7	5	7	5	6	6	7	5	7	5	6	6	3	2	3	2	3	2
19	7	5	9	8	7	5	7	5	11	8	9	6	3	2	4	2	3	2
20	8	4	9	5	7	6	9	5	9	5	7	6	4	2	3	2	3	2
21	7	7	8	5	9	6	8	7	8	5	9	6	3	2	3	2	3	2
22	8	6	8	5	8	6	8	6	8	6	8	6	4	2	4	2	3	3

NOTE: The 66 verses of Lamentations 3 are analyzed according to their acrostic pattern, i.e., as though Lamentations 3 consisted of 22 verses of three lines each

Lamentations 4 Colon Counts: Syllables and Stresses

	Syllable: "A" Counts				Syllable: "B" Counts				Stress Counts			
V	1a	1b	2a	2b	1a	1b	2a	2b	1a	1b	2a	2b
1	6	6	7	5	6	6	7	5	3	3	3	2
2	7	6	9	6	8	7	9	6	3	2	4	3
3	7	6	6	6	7	6	6	6	3	2	2	2
4	6	6	7	5	6	6	7	5	3	2	3	2
5	8	6	8	6	8	6	8	6	2	2	3	2
6	8	5	7	7	8	5	7	7	3	2	3	3
7	7	5	8	5	8	5	8	5	3	2	3	2
8	7	7	7	6	7	7	7	6	3	2	3	3
9	8	6	9	6	8	6	9	6	4	2	3	2
10	9	6	7	5	9	6	7	5	3	2	3	2
11	8	6	7	7	8	6	7	8	3	3	3	2
12	7	6	7	7	7	7	7	7	3	2	3	2
13	6	6	7	4	7	7	7	4	2	2	2	2
14	7	6	5	7	7	6	5	7	3	2	2	2
15	9	8	6	12	9	8	6	12	4	3	2	4
16	7	7	9	7	7	7	9	7	3	2	3	2
17	9	6	9	5	9	6	9	5	3	2	2	2
18	6	7	5	11	6	7	5	11	2	2	2	4
19	8	5	8	8	8	5	8	8	3	2	2	3
20	8	6	8	5	8	6	8	5	4	2	3	2
21	8	5	6	7	8	6	6	7	3	3	3	2
22	7	7	8	6	7	7	8	6	3	2	3	2

Lamentations 5 Colon Counts: Syllables and Stresses

	Syllable: "A" Counts		Syllable: "B" Counts		Stress Counts	
V	1a	1b	1a	1b	1a	1b
1	9	10	9	11	4	3
2	10	6	11	6	3	2
3	8	8	9	8	3	2
4	8	8	9	8	3	3
5	8	8	8	9	3	3
6	6	5	7	7	3	3
7	9	11	10	12	3	3
8	8	6	8	6	3	3
9	9	7	9	8	3	3
10	9	8	9	8	3	3
11	7	9	7	9	3	3
12	7	9	7	9	3	3
13	8	9	8	9	3	3
14	8	8	9	8	3	2
15	7	8	7	9	3	3
16	8	8	9	8	3	3
17	9	9	9	9	4	3
18	7	7	7	7	3	2
19	9	6	9	7	4	3
20	8	8	9	9	3	3
21	11	7	13	8	4	3
22	8	8	8	9	3	3

NOTE: Lamentations 5 continues the pattern of 22 verses, but it is not an alphabetic acrostic.

References and Note

1. Alexander Allison and others. *The Norton Anthology of Poetry*. Third Edition. New York: Norton, 1903. The poems selected were the following: "Vigil Strange I Kept on the Field One Night"; "Beat! Beat! Drums!"; " On the Beach at Night"; "To a Locomotive in Winter."

2. David Noel Freedman. "Acrostics and Metrics in Hebrew Poetry." *Harvard Theological Review*, 65 (1972), 367-392.

3. David Noel Freedman. *Pottery, Poetry and Prophecy*. Winona Lake, Indiana: Eisenbrauns, 1980.

4. David Noel Freedman. "Acrostic Poems in the Hebrew Bible: Alphabetic and Otherwise." *Catholic Biblical Quarterly*, 48 (1986), 408-431.

5. Paul Fussel. *Poetic Meter and Poetic Form*. Revised Edition. New York: Random House, 1979.

6. Delbert R. Hillers. *Lamentations*. The Anchor Bible: Volume 7A. New York: Doubleday, 1972.

7. James L. Kugel. *The Idea of Biblical Poetry: Parallelism and Its History*. New Haven: Yale University, 1982.

8. Carol L. Meyers and M. O'Connor. *The Word of the Lord Shall Go Forth: Essays in Honor of David Noel Freedman in Celebration of His Sixtieth Birthday*. Winona Lake, Indiana: Eisenbrauns, 1983. Of special significance are Frank Moore Cross, "Studies in the Structure of Hebrew Verse: The Prosody of Lamentations 1: 1-22," and Francis I. Andersen and A. Dean Forbes, " 'Prose Particle' Counts of the Hebrew Bible."

9. Stephen L. Portnoy and David L. Petersen. "Biblical Texts and Statistical Analysis: Zechariah and Beyond." *Journal of Religious Literature*, 103:1 (1984), 11-21.

10. Yehuda T. Radday and Moshe A. Pollatschek. *Vocabulary Richness: A Key to the Structure of Lamentations*, in press.

11. P. W. Skehan. "The Structure of the Song of Moses in Deuteronomy 32: 1-43," in *Studies in Israelite Poetry and Wisdom. The Catholic Biblical Quarterly: Monograph Series I*, 1971. Pages 74-75.

12. W. Shea. " The Qinah Structure of the Book of Lamentations." *Biblica*, 60 (1979), 103-107.

13. The use of statistical methods for biblical studies is still in its infancy. The authors welcome questions and discussion of procedures followed. The jargon

of statistics was avoided as much as possible. Tests used for the study included the Wilcoxon signed-ranks test, the sign test, the chi-square test, the t-test, and the Pearson product-moment correlation test. Much of the data originally analyzed by means of t-tests were reworked with the Wilcoxon test. Results were the same for establishing significant differences, but for theoretical considerations, the Wilcoxon is the preferred test.

Books Received

Fackre, Gabriel, Ronald H. Nash, and John Sanders. *What About Those Who Have Never Heard?: Three Views on the Destiny of the Unevangelized.* Edited by John Sanders. Downers Grove, IL: Inter-Varsity Press, 1995. 168 Pages. Paper.

Phillips, Timothy R. and Okholm, Dennis L., editors. *Christian Apologetics in the Postmodern World.* Downers Grove, IL: Inter-Varsity Press, 1995. 238 Pages. Paper.

Dawn, Marva J. *Reaching Out without Dumbing Down: A Theology of Worship for the Turn-of-the-Century Culture.* Grand Rapids: William B. Eerdmans, 1995. xi + 316 Pages. Paper. $16.99.

Fee, Gordon D. *Paul's Letter to tlhe Philippians.* The New International Commentary on the New Testament. Grand Rapids: William B. Eerdmans, 1995. xlvi + 497 Pages. Cloth. $34.99.

Lawson, Steven J. *Faith Under Fire: Standing Strong When Satan Attacks.* Wheaton, IL: Crossway Books, 1995. xv + 219 Pages. Cloth. $17.99.

Lapidge, Michael, editor. *Archbishop Theodore: Commemorative Studies on His Life and Influence.* Cambridge/New York: Cambridge University Press, 1995. xiii + 343 Pages. Cloth. $59.95.

Wallis, Bascom. *Mark's Memory of the Future: A Study in the Art of Theology.* N. Richland Hills, TX: BIBAL Press, 1995. ix + 234 Pages. Paper. $14.95.

Conyers, A. J. *A Basic Christian Theology.* Nashville: Broadman & Holman Publishers, 1995. ix + 261 Pages. Paper. $19.99.

Dorman, Ted M. *A Faith for All Seasons: Historic Christian Belief In Its Classical Expression.* Nashville: Broadman & Holman Publishers, 1995. vii + 391 Pages. Paper. $27.99.

Green, Joel B. *The Theology of the Gospel of Luke.* New Testament Theology. Cambridge/New York: Cambridge University Press, 1995. xiv + 170 Pages. Cloth. $44.95; Paper. $12.95.

Luz, Ulrich. *The Theology of the Gospel of Matthew.* Translated by J. Bradford Robinson. New Testament Theology. Cambridge/New York: Cambridge University Press, 1995. xiv + 166 Pages. Cloth. $44.95; Paper. $12.95.

Constable, Giles. *Three Studies in Medieval Religious and Social Thought: The Interpretation of Mary and Martha, The Ideal of the Imitation of Christ, The Orders of Society.* Cambridge/New York: Cambridge University Press, 1995. xix + 423 Pages. Cloth. $59.95.

Arndt, David, et al. *Chapel Talks for Christian Children.* Milwaukee: Northwestern Publishing House, 1995. 86 Pages. Paper. $15.00.

Rian, Edwin H. *The Presbyterian Conflict.* Philadelphia: The Committee for the Historian of the Orthodox Presbyterian Church, 1940; repr. 1992. v + 242 Pages. Paper. $11.95.

Hart, D. G., and Muether, John. *Fighting the Good Fight: A Brief History of the Orthodox Presbyterian Church.* Philadelphia: The Committee on Christian Education and The Committee for the History of the Orthodox Presbyterian Church, 1995. 217 Pages. Paper. $11.95.

Johnson, Phillip E. *Reason in the Balance: The Case Against Naturalism in Science, Law & Education.* Downers Grove, IL: Inter-Varsity Press, 1995. 245 Pages. Cloth. $19.99.