In Search of Prosodic Domains in Ancient Hebrew Verse
Lamentations 1-5 and the Prosodic Structure Hypothesis

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Abstract

The study of verse in terms of prosodic constituents and hierarchies is prevalent among linguists today. An analysis of ancient Hebrew poetry within the framework of the prosodic structure hypothesis developed by Elisabeth Selkirk, Marina Nespor and Irene Vogel, and applied to verse by Bruce Hayes, Margaret MacEachern, and Abigail Kaun, is undertaken here. The conclusions of Elan Dresher with regard to the accent system of Tiberian Masoretic Hebrew are also considered. Primary attention is directed to a subcorpus of ancient Hebrew verse: Lamentations 1-5. The essay's conclusions are threefold: (1) the accent system of the Tiberian Masoretic Text does not map the prosody of ancient Hebrew verse except at the inchoate level; (2) ancient Hebrew verse instantiates a strictly layered prosodic hierarchy; (3) three varieties of ancient Hebrew verse, qinah, mashal, and common, are parameterizable in terms of prosodic domains and phonological length. A prosodic workup of Lamentations 1-5 and a glossary of linguistic terms are provided in adjuncts to the body of the essay. [Lam 1 is provided for now.]

Lamentations 1-5 and the Prosodic Structure Hypothesis*

John F. Hobbins

An analysis of language in terms of prosodic constituents organized within a strictly layered hierarchical structure has been developed by Elisabeth Selkirk, Marina Nespor and Irene Vogel, and applied to verse by, among others, Bruce Hayes, Margaret MacEachern, and Abigail Kaun. The levels of the prosodic hierarchy are, in ascending order, the segment and/or mora, the syllable, the foot, the prosodic word, the phonological phrase, the intonational phrase, and the utterance. The levels are strictly layered in the sense that a single constituent of one level is fully parsed into one or more constituents of the next level down, and no constituent is dominated by another constituent of the same rank.[1]

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* A version of this essay was presented at the annual meeting of the Society of Biblical Literature, November 18-21, 2006, Washington, D.C. The discussion following demonstrated the felt need of an introduction to the fields of prosody and metrical phonology among biblical scholars, something I hope to provide on another occasion. I wish to thank Vincent DeCaen, Robert Holmstedt and Ziony Zevit for commenting on drafts of this paper. The usual disclaimers apply.

[1] The standard introduction to prosodic structure theory is Marina Nespor and Irene Vogel, *Prosodic Phonology* (Studies in Generative Grammar 28; Dordrecht: Foris, 1986); see also Marina Nespor, *Fonologia* (Strutture del linguaggio; Bologna: Mulino, 1993). Examples of Elisabeth Selkirk's more recent work includes "The Prosodic Structure of Function Words," in *Papers in Optimality Theory* (ed. Jill Beckman, Laura Walsh Dickey, and Suzanne Urbanczyk; Amherst: GLSA Publications, 1995) 439-470; repr. in *Signal to Syntax: Bootstrapping from Speech to Grammar in Early Acquisition* (ed. James L. Morgan and Katherine Demuth; Mahwah: Lawrence Erlbaum Associates, 1996) 187-214; "Sentence Prosody: Intonation, Stress, and Phrasing," in *The Handbook of Phonological Theory* (ed. John A. Goldsmith; Oxford: Blackwell, 1995) 550-569; "The Interaction of Constraints on Prosodic Phrasing," in *Prosody: Theory and Experiment. Studies Presented to Gösta Bruce* (ed. Merle Horne; Text, Speech, and Language Technology 14; Dordrecht: Kluwer, 2000) 231-262; "Sentence Phonology," in *The Oxford International Encyclopedia of Linguistics* (2d ed.; ed. William Frawley and William Bright. Oxford: Oxford University Press, 2003) 4:41-42. For a fuller bibliographical orientation, see under "Elisabeth Selkirk" in "Annotated Bibliography," online at www.ancienthebrewpoetry.typepad.com. Seminal contributions include Janet Pierrehumbert and Mary Beckman, *Japanese Tone Structure* (Linguistic Inquiry Monographs 15; Cambridge: MIT Press, 1988); Bruce Hayes, "The Prosodic Hierarchy in Meter," in *Rhythm and Meter* (ed. Paul Kiparsky and Gilbert Youmans; Phonetics and Phonology 1; San Diego: Academic Press, 1989) 201-260; Bruce Hayes and Margaret MacEachern, "Are there Lines in Folk Poetry?" *UCLA Working Papers in Phonology* 1 (1996) 125-42; Bruce Hayes and Abigail Kaun, "The Role of Phonological Phrasing in Sung and Chanted Verse," *The Linguistic Review* 13 (1996) 243-303; Bruce

Language-specific phonological phenomena such as intonational breaks, pitch accent and focus tones characterize prosodic domains. Cross-linguistically, entities that correspond to prosodic levels exist in all languages. Faithfulness *to* and autonomy *from* underlying morphosyntactic and information structures characterize prosodic structures. According to the prosodic structure hypothesis, the effects of information structure and morphosyntactic structure on phonology are not direct but are filtered through prosodic structure.

The prosodic structure of poetry in any language represents a more highly constrained version of the prosodic structure of the same language as it otherwise comes to expression. With respect to ancient Hebrew poetry, a search for prosodic hierarchy as described above has not been undertaken. This essay is a preliminary study of the prosodic domains instantiated by ancient Hebrew poetry within the context of the prosodic structure hypothesis. A limited corpus, Lam 1-5, serves as a point of departure.

As any linguistic theory is wont to do, prosodic structure theory uses terms and develops concepts in ways peculiar to itself. Short of a thorough introduction for which space does not allow, brief characterizations of the domain levels of prosodic structure theory and an explanation of technical terms are offered in a glossary at essay's end.

A significant part of ancient Hebrew literature of the First and Second Temple periods has come down to us in a form commonly referred to as the Tiberian Masoretic text. The accent system transmitted by the Tiberian Masoretic text has been intensively studied against the background of the prosodic structure hypothesis by Elan Dresher. Dresher's general conclusions are consequential. In his own words, "the Tiberian Hebrew system of accents is best understood as a prosodic representation." Viewing it as such accounts for the fact that (a) "the structure indicated by the accents resembles syntax but deviates from it," and (b) "phonology nevertheless follows it."[2]

Hayes and Margaret MacEachern, "Quatrain Form in English Folk Verse," *Language* 74 (1998) 473-507; appendices available online at http://www.humnet.ucla.edu/humnet/linguistics/people/hayes/metrics.htm. For the study of verse in terms of prosodic constituents and hierarchies more generally, see *Formal Approaches to Poetry: Recent Developments in Metrics* (ed. B. Elan Dresher and Nila Friedberg; Phonology and Phonetics 11; Berlin: Mouton de Gruyter, 2006).

[2] Bezalel Elan Dresher, "The Prosodic Basis of the Tiberian Hebrew System of Accents," *Language* 70 (1994) 1-52; 48. Dresher's other studies include: "Accentuation and Metrical

Dresher also concludes that Tiberian prosody is discretely but not strictly layered, that is, a given intonational phrase may be broken down into one or more intermediate and discrete levels of organizing phrases each of which may be composed of multiple phonological phrases, but the intermediate levels are not obligatory, and furthermore, do not form domains for phonological rules peculiar to each. The recursivity of suprasegmental phonological phenomena over a series of hierarchical domains may not be as problematic to the Strict Layer Hypothesis as Dresher makes it out to be, but a prosody that skips intermediate levels in unpredictable ways cannot be considered a strictly layered hierarchy. However that may be, Dresher has shown that despite Wickes' influential analysis, the Tiberian accents do not represent a strictly dichotomizing or similarly algorithmic prosodic parse of the biblical text. This is an important result.[3]

Nonetheless, I demonstrate below that the search for a strictly layered prosodic hierarchy in ancient Hebrew poetry comes up positive. The suprasegmental phenomena that characterized the various levels of the hierarchy can only be reconstructed in general and imprecise terms, but the hierarchy itself and the contours of the prosodic system it engenders are clearly discernible.

The Tiberian Masoretic text contains a full-fledged prosodic parse indicated by a system of neumes or cantillation marks, along with parallel prosodic information in the form of phonological changes to non-final constituents of bound structures, sandhi by way of lenition of a series of stops, phonological liaison of adjacent words signaled by *dagesh*, rhythm rules, deceleration markers below the word level, and pausal forms at the word level. The neumes are comprehensive and precise in terms of the prosodic signals they communicate. To a large extent, they render the

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Structure in Tiberian Hebrew," *MIT Working Papers in Linguistics* 3 (1981) 180-208; "Metrical Structure and Secondary Stress in Tiberian Hebrew," *Brown University Working Papers in Linguistics* 4 (1981) 24-37; "Accentuation and Metrical Structure in Tiberian Hebrew," *North Eastern Linguistic Society* 12 (1981) 75-85; "Postlexical Phonology in Tiberian Hebrew," *Proceedings of the West Coast Conference on Formal Linguistics* 2 (1983) 67-78; idem and Harry van der Hulst, "Head-dependent Asymmetries in Phonology: Complexity and Visibility," *Phonology* 15 (1995) 317-352; "The Word in Tiberian Hebrew," in *The Nature of the Word: Essays in Honor of Paul Kiparsky* (ed. Kristin Hanson and Sharon Inkelas; Cambridge: MIT Press, in press); online at http://www.chass.utoronto.ca/~dresher/tibhebword.pdf.

[3] For Dresher's discussion of the Strict Layer Hypothesis, see "Prosodic Basis," 22-23; for his Discrete Layer Hypothesis, see 37-39; for an evaluation of Wickes's theory of masoretic accentuation, see 41-43.

parallel prosodic information named above redundant. Despite the anachronism, the logical place to begin a search for prosodic domains and a prosodic hierarchy instantiated by the poetry contained in Lamentations 1-5, dated almost universally to the 6th century before the current era, is the prosodic parse preserved in the Tiberian Masoretic text, an artifact of the 9th-11th centuries of the current era. To that artifact we now turn.

Searching for Prosodic Domains in MT: A First Attempt
Lamentations 1:1-7

1 ✎ אֵיכָה | יָשְׁבָה בָדָד הָעִיר רַבָּתִי עָם הָיְתָה כְּאַלְמָנָה (3:3):2
✍ רַבָּתִי בַגּוֹיִם שָׂרָתִי בַּמְּדִינוֹת הָיְתָה לָמַס: {ס} (2:2):2
2/6/14

2 ✎ בָּכוֹ תִבְכֶּה בַּלָּיְלָה וְדִמְעָתָהּ עַל לֶחֱיָהּ אֵין־לָהּ מְנַחֵם מִכָּל־אֹהֲבֶיהָ (3:3):3
✍ כָּל־רֵעֶיהָ בָּגְדוּ בָהּ הָיוּ לָהּ לְאֹיְבִים: {ס} 3:3
2/5/15

3 ✎ גָּלְתָה יְהוּדָה מֵעֹנִי וּמֵרֹב עֲבֹדָה הִיא יָשְׁבָה בַגּוֹיִם לֹא מָצְאָה מָנוֹחַ 5:(3:3)
✍ כָּל־רֹדְפֶיהָ הִשִּׂיגוּהָ בֵּין הַמְּצָרִים: {ס} 4
2/4/15

4 ✎ דַּרְכֵי צִיּוֹן אֲבֵלוֹת מִבְּלִי בָאֵי מוֹעֵד כָּל־שְׁעָרֶיהָ שׁוֹמֵמִין כֹּהֲנֶיהָ נֶאֱנָחִים
2:2 3:3
✍ בְּתוּלֹתֶיהָ נוּגוֹת וְהִיא מַר־לָהּ: {ס} 4
2/5/14

5 ✎ הָיוּ צָרֶיהָ לְרֹאשׁ אֹיְבֶיהָ שָׁלְווּ כִּי־יְהוָה הוֹגָהּ עַל רֹב־פְּשָׁעֶיהָ 5:4
✍ עוֹלָלֶיהָ הָלְכוּ שְׁבִי לִפְנֵי־צָר: {ס} 4
2/3/13

6 ✎ וַיֵּצֵא מִבַּת־צִיּוֹן כָּל־הֲדָרָהּ 3
✍ הָיוּ שָׂרֶיהָ כְּאַיָּלִים לֹא־מָצְאוּ מִרְעֶה וַיֵּלְכוּ בְלֹא־כֹחַ לִפְנֵי רוֹדֵף: {ס} (2:3):4
2/4/12

7 ✎ זָכְרָה יְרוּשָׁלַם יְמֵי עָנְיָהּ וּמְרוּדֶיהָ כֹּל מַחֲמַדֶּיהָ אֲשֶׁר הָיוּ מִימֵי קֶדֶם 2:4 2:3
✍ בִּנְפֹל עַמָּהּ בְּיַד־צָר וְאֵין עוֹזֵר לָהּ רָאוּהָ צָרִים שָׂחֲקוּ עַל מִשְׁבַּתֶּהָ: {ס}
2/8/22 2:3 3:3

17/37/105 7/1

In this example, Lam 1:1-7 is parsed in accordance with prosodic structure theory at the following hierarchically ordered domain levels:

utterance (U); intonational phrase (I), phonological phrase (φ), and prosodic word (ω). U's are delimited by the acrostic pattern (א, ב, and so on open each unit), *setumot* (ס), and the verse division. I's are closed by disjunctives of the highest rank, *silluq* (׀) and *atnach* (֑); Φ's by *zaqef* (֪) and *revia* (֒), disjunctives of lower rank. U's are formatted as paragraphs, I's as lines, and φ's as phrases within a line separated by blank spaces. Prosodic word (ω) counts are given in the margin, with φ's grouped into clusters as the accent system would seem to suggest.

Results: φ's of 2 to 5 ω's. I's of 1 to 4 φ's. U's of 2 I's. U's contain an aggregate of 3, 4, 5, 6, or 8 φ's.

Analysis: Prosodic regularities are not evident except in the case of U = I + I. This observation holds true irrespective of what set of assumptions dependent on the formalities of the neumic system serves as a basis for a delimitation of prosodic units and a prosodic hierarchy. The approaches of Raymond de Hoop and Thomas Renz to colometry based on neumes also yield inconsistent results.[4]

There is no reason to doubt Dresher's conclusion that the Tiberian accentual system is a prosodic representation, but the subdivision into intonational phrases in the example of Lam 1:1-7 dichotomizes utterances into semantic rather than prosodic sames. Intonational phrases vary in length from 1 to 4 phonological phrases according to a semantic parse that trumps rather than adjusts itself to a relatively independent prosodic structure. The wide variation in length and contents of intonational phrases in Lam 1:1-7 follows from an ineluctable primary datum: the accents fix in prosody a *semantic* parse of the underlying text. If the semantics of the text as traditionally understood ran counterpoint to prosodic regularities otherwise

[4] Raymond de Hoop, "The Colometry of Hebrew Verse and the Masoretic Accents: Evaluation of a Recent Approach, Part I," *JNSL* 26/1 (2000) 47-73; "The Colometry of Hebrew Verse and the Masoretic Accents: Evaluation of a Recent Approach, Part II," *JNSL* 26/2 (2000) 65-100; "Lamentations: The Qinah-Metre Questioned," in *Delimitation Criticism: A New Tool in Biblical Scholarship* (ed. Marjo C. A. Korpel and Josef M. Oesch; Pericope 1; Assen: Van Gorcum, 2000) 80-104; "'Trichotomy' in Masoretic Accentuation in Comparison with the Delimitation of Units in the Versions: With Special Attention to the Introduction to Direct Speech," in *Unit Delimitation in Biblical Hebrew and Northwest Semitic Literature* (ed. Marjo C. A. Korpel and Josef M. Oesch; Pericope 4; Assen: Van Gorcum, 2003) 33-47; Thomas Renz, *Colometry and Accentuation in Hebrew Prophetic Poetry* (KUSATU 4; Waltrop: Spenner, 2003). Algorithms to the effect that a φ is delimited after every second disjunctive die the death of a thousand qualifications. Unlike de Hoop, Renz does not claim that MT records specifically poetic colometry.

clearly in view, the latter were violated in order to bear witness to the former. For example, Lam 1:1 is dichotomized in MT based on a perfectly acceptable semantic parse, though an equally acceptable semantic parse results in a trichotomization of the text as contextual prosodic regularities require (see below).

The Tiberian accentual system is in actual fact a set of symbols each of which represents one or more musical notes sung to the syllable receiving primary stress in the "prosodic word" over which the symbol is affixed. They do not, however, map a prosodic system that exhibits the kind of symmetries and regularities we would expect in verse. To be sure, in most cases, neumes with disjunctive force divide the text into proportional phrases of, e.g., 3:2, 3:3, 2:2, and 2:2(:3) prosodic words. But in other cases, a division into anomalous units is evident, e.g., 1:1:1 (2:4), 1:2:1 (1:5, 13, 14; 2:10; 5:17), 1:2:2 (2:14), 1:3 (1:21; 2:1), 1:3:1 (2:1, 22), 2:1:1 (3:56), 3:1 (2:16; 3:8), and 3:1:1 (3:31). Furthermore, patterns of stress retention and deletion are inconsistent over the duration of the intonational phrase, a feature of what Dresher refers to as the "variable grain" of TBH prosody. Prosodic deceleration before an I comes to a close is to be expected, but the lack of proportionality across I's and φ's as marked off in MT is excessive for a text in verse.[5]

If it is true that MT does not preserve nor intends to preserve the prosody of the underlying text, but rather a semantic parse of the text by means of prosody, the coincidence of Tiberian prosody with the prosody of the verse preserved in the underlying text will be less than perfect. In the example of Lam 1:1-7, MT turns out to be an unreliable guide to the prosody of the underlying text at the level of I's and φ's.

Just as the phonology, morphophonology, and orthography of Tiberian Hebrew differ in documented ways from ancient Hebrew as attested from First and Second Temple times, the prosodic parse preserved in the Tiberian text also represents an evolution away from the text's original prosody. This is not to deny that MT transmits a prosodic parse of biblical literature traceable at least in part to Second Temple times.[6] But the Tiberian accentual

[5] On the variable grain of Tiberian prosody, see Dresher, "Prosodic Basis," 31-34.

[6] Ernest John Revell, "The Oldest Evidence for the Hebrew Accent System," *BJRL* 54 (1971-72) 214-22; "Biblical Punctuation and Chant in the Second Temple Period," *JSJ* 7 (1976) 181-98; "Pausal Forms in Biblical Hebrew: Their Function, Origin, and Significance," *JSS* 25 (1980) 165-79. For a brief introduction to the evidence regarding

parse cannot be presumed to reflect the prosodic structures the text instantiated at the time of composition or during the early stages of its transmission when its "native" prosody was more likely to have been understood.

Searching for Prosodic Domains in MT: A Second Attempt
Lamentations 1:1-7

1	אֵיכָה | יָשְׁבָה בָדָד	הָעִיר רַבָּתִי עָם		3:3		
	הָיְתָה כְּאַלְמָנָה	רַבָּתִי בַגּוֹיִם		2:2		
	שָׂרָתִי בַּמְּדִינוֹת	הָיְתָה לָמַס:	{ס}	2:2	3/6/14	
2	בָּכוֹ תִבְכֶּה בַלָּיְלָה	וְדִמְעָתָהּ עַל לֶחֱיָהּ		3:3		
	אֵין־לָהּ מְנַחֵם	מִכֹּל אֹהֲבֶיהָ		2:2		
	כָּל־רֵעֶיהָ בָּגְדוּ בָהּ	הָיוּ לָהּ לְאוֹיְבִים:	{ס}	3:3	3/6/16	
3	גָּלְתָה יְהוּדָה מֵעֹנִי	וּמֵרֹב עֲבֹדָה		3:2		
	הִיא יָשְׁבָה בַגּוֹיִם	לֹא מָצְאָה מָנוֹחַ		3:3		
	כָּל־רֹדְפֶיהָ הִשִּׂיגוּהָ	בֵּין הַמְּצָרִים:	{ס}	2:2	3/6/15	
4	דַּרְכֵי צִיּוֹן אֲבֵלוֹת	מִבְּלִי בָּאֵי מוֹעֵד		3:3		
	כָּל־שְׁעָרֶיהָ שׁוֹמֵמִין	כֹּהֲנֶיהָ נֶאֱנָחִים		2:2		
	בְּתוּלֹתֶיהָ נוּגוֹת	וְהִיא מַר־לָהּ:	{ס}	2:2	3/6/14	
5	הָיוּ צָרֶיהָ לְרֹאשׁ	אֹיְבֶיהָ שָׁלְווּ		3:2		
	כִּי־יְהוָה הוֹגָהּ	עַל רֹב־פְּשָׁעֶיהָ		2:2		
	עוֹלָלֶיהָ הָלְכוּ שְׁבִי	לִפְנֵי צָר:	{ס}	3:2	3/6/14	
6	וַיֵּצֵא מִבַּת־צִיּוֹן	כָּל הֲדָרָהּ		2:2		
	הָיוּ שָׂרֶיהָ כְּאַיָּלִים	לֹא־מָצְאוּ מִרְעֶה		3:2		
	וַיֵּלְכוּ בְלֹא־כֹחַ	לִפְנֵי רוֹדֵף:	{ס}	2:2	3/6/13	
7	זָכְרָה יְרוּשָׁלַם	יְמֵי עָנְיָהּ וּמְרוּדֶיהָ		2:3		
	כֹּל מַחֲמֻדֶּיהָ	אֲשֶׁר הָיוּ מִימֵי קֶדֶם		2:(2:2)		
	בִּנְפֹל עַמָּהּ בְּיַד־צָר	וְאֵין עוֹזֵר לָהּ		3:3		
	רָאוּהָ צָרִים	שָׂחֲקוּ עַל מִשְׁבַּתֶּהָ:	{ס}	2:3	4/9/22	
				7/1	22/45/108	

internal divisions of the text, see Emmanuel Tov, *Textual Criticism of the Hebrew Bible* (2d revised ed.; Minneapolis: Fortress, 2001) 50-54, 210-17.

In this example, Lam 1:1-7 is parsed again in accordance with the Strict Layer Hypothesis. This time, induction is fueled by knowledge of regularities and symmetries instantiated by ancient Hebrew poetry more generally. Departures from the Tiberian prosodic representation are kept to a minimum, but unavoidable in two instances (1:2, 6) where a destressed כָּל־ in MT is stressed to obtain a φ with 2 ω's. Analogy with Lam 1-5 and ancient Hebrew poetry in general requires these departures.

Results: φ's with 2 to 3 ω's; I's of 2 to 3 φ's; U's of 3 or 2+2 I's. Lam 1:1-7 instantiates the prosodic system of twos and threes recoverable throughout the extant corpus of ancient Hebrew poetry. It may be noted that Lam 1:1-7, a circumscribable unit in context, contains exactly 22 lines in accordance with a length rule operative in the compositional technique of ancient Hebrew poetry.[7]

The most obvious continuously operating principles of prosodic organization are two. A φ with 2 to 3 ω's is unfailingly followed by another φ with 2 to 3 ω's. An I unfailingly consists of 2 to 3 φ's. I's, φ's, and ω's, it should be emphasized, are prosodic, not syntactic sames. Line level enjambment, in which a syntactic whole is distributed across two or more prosodic wholes, is common in ancient Hebrew verse and in Lam 1:1-7 in particular (14 out of 22 lines). Its occurrence is a function of the prosodic system of twos and threes. Syntactic constraints at work in ancient Hebrew verse are identifiable, but the division of the text into prosodic sames cannot be read off from them. The linguistic maxim that prosody has its own structure independent of syntax is thereby confirmed.[8]

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[7] "Intuitions" about metrical typologies are to be "validated by showing that they converge with usage" (Paul Kiparsky, "A Modular Metrics for Folk Verse," in *Formal Approaches to Poetry*, 7-49; 9). For an introduction to the prosodic system of two and threes and the length rule, and for examples of usage beyond Lam 1-5, see the essays available online at www.ancienthebrewpoetry.typepad.com.

[8] A thoroughgoing attempt at describing syntactic constraints at work in ancient Hebrew verse is that of Michael Patrick O'Connor, *Hebrew Verse Structure* (Winona Lake: Eisenbrauns, 1980; reissued 1997 with "The Contours of Biblical Hebrew Verse, An Afterword to Hebrew Verse Structure" [pp. 631-61]) 86-87, 317-18. For a revision of O'Connor's constraints, see "Excursus on O'Connor's System of Syntactic Constraints" in my "Retaining and Transcending the Classical Description of Ancient Hebrew Verse," available online at www.ancienthebrewpoetry.typepad.com. For the conclusion that "prosody has its own structure independent of syntax," and a demonstration thereof for Japanese, see Midori Hayashi, "Downstep and Prosodic Structure in Japanese," *TWPL* 23.2 (2004) 47-70; 65.

To be sure, the prosody of the text as recovered above may be arrived at by applying a set of ad hoc interpretive rules to the neumic system. U's are delimited by *setumot*, I's by *silluq*, *atnach*, and *zaqef* except in the case of two adjacent *zaqef*'s, in which case the first delimits an I and the second a φ. An ω marked by a disjunctive together with the preceding ω's until the next disjunctive, together with the preceding disjunctive if it marks an isolated ω, or together with the preceding disjunctive and its *servi* if the ω marked by the stronger disjunctive would otherwise remain on its own, count as a φ. Two words joined by a *maqqeph* may be subdivided and count as a φ composed of two ω's.

But the ad hoc rules that work for Lam 1:1-7 are just that. They are a rationalization of the Tiberian neumic system in light of results obtained by other means. Furthermore, they are no longer sufficient by Lam 1:14. There the rules produce an anomalous set of 5 rather than 6 φ's.

One to one correspondence does not obtain between MT's prosodic parse and the prosodic sames Lam 1 contains per discovery by induction. Induction is on firmer ground than usual because of the acrostic structure of Lam 1 in which each acrostichon equals a U and the tendency of each to contain three I's. Comparison with Lam 3 points in the same direction. In Lam 3, the acrostic structure alone is a sufficient guide to the prosodic hierarchy at the levels of U and I. U's and I's are clearly delimited. A comparison of Lam 1:1-7 with Lam 3 strongly favors a division of U's into three I's with allowance for exceptions and of I's into 2 or more rarely 3 φ's, as proposed above.

There is nothing unusual about my reconstruction of the prosodic articulation of Lam 1:1-7. Analogous prosodic parses are available in BHK, BHS, BHQ, and the JPS Hebrew-English Tanakh.[9] But three points are worth emphasizing. (1) The text so understood conforms without strain to the Strict Layer Hypothesis. (2) The text conforms to the prosodic system of two and threes I have discerned more generally in ancient Hebrew poetry. (3)

[9] *Biblia Hebraica* [BHK] (3d ed.; ed. Rudolf Kittel; Stuttgart: Württembergische Bibelanstalt, 1937 [[1]1905; [2]1913]); *Biblia Hebraica Stuttgartensia* [BHS] (ed. Karl Elliger and Wilhelm Rudolph; 5th ed.; Stuttgart: Deutsche Bibelstiftung, 1997 [[1]1967-77]) 1354-55; *JPS Hebrew-English Tanakh: The Traditional Hebrew Text and the New JPS Translation* (2d ed.; Philadelphia: Jewish Publication Society, 1999) 1749-50; *Biblia Hebraica Quinta* [BHQ]*, Fascicle 18: General Introduction and Megillot* (ed. Adrian Schenker; Stuttgart: Deutsche Bibelgesellschaft, 2004) 54-55.

The masoretic prosodic parse is not an adequate basis for a like analysis.[10] The division of Lam 1:1-7 I offer contravenes the masoretic prosodic parse in five instances: 1:1 (division into three lines, not two), 2 (stressing of מִכָּל־ 'from all'), 5 (1:2:1 configuration in the third line is unworkable), and twice in 6 (stressing of כָּל־ 'all'; and placement of כְּאַיָּלִים 'like stags'). Arguments based on analogy justify the contraventions: 1:1 is assimilated to 1:2-6; 1:6 line 2, to 1:3 line 2; and 1:2, line 2, l:5 line 3, and 1:6, line 1 to the regularity of a φ with 2 or 3 ω's attested elsewhere in Lam 1:1-7.

Of course, as soon as one regards the masoretic prosodic parse as a jacket that may require adjustment for a proper fit, not a straitjacket which by definition fits the object on which we find it, a Pandora's Box is thereby opened. At what point does one stop adjusting the jacket?

Opening Pandora's Box, I suggest, is unavoidable. It might as well be done with care. So far as I can see, the best way to do so is (1) to advance definitions for the domains of syllable, foot, prosodic word, phonological phrase, intonational phrase, utterance, and poem on the basis of recursive analysis informed by knowledge of language universals, the history of the Hebrew language, and prosodic boundaries signaled by overt features of the text where available, and (2) simultaneously search for continuously operating principles of prosodic organization. The acrostic structures of Lam 1-4 constitute overt features of an unusually helpful variety. They clearly delimit poems, utterances, and, in Lam 3, intonational phrases. Analysis may also take its cue from the traditional prosodic parse reflected in MT, and should always be cross-checked against it, but cannot, as we have seen, be assimilated to it.

To be sure, definitions of syllable, foot, and prosodic word in ancient Hebrew will never rise above the level of working hypotheses testable against the corpus on hand. But the results of such a test, as we shall see, are of considerable interest.

Searching for Prosodic Sames below the Prosodic Word Level

Competing metrical phonologies of Tiberian Biblical Hebrew (TBH) have been developed which make use of the concepts of "syllable" and "foot" as

[10] On the arbitrariness of MT accentuation, see also Harm van Grol, "Classical Hebrew Metrics and Zephaniah 2-3," in *The Structural Analysis of Biblical and Canaanite Poetry* (ed. Willem van der Meer and Johannes De Moor; JSOTSup 74; Sheffield: Sheffield Academic Press, 1988) 186-206; 196-201.

generally understood in generative phonology.[11] Another line of research has sought to "foot" biblical Hebrew poetry in Tiberian dress.[12] All these accounts fail to engage in thoroughgoing diachronic analysis, which might not matter if it were known that pre-TBH possessed the same syllable structure as TBH.

In fact, the opposite is the case. The $C\acute{v}C_{(v)}C$ structure, where $_v$ is anaptyptic, is vestigial in TBH (with $_v$ realized by a *shewa*), but considered, based on converging lines of evidence, to have been common in Hebrew of the First and Second Temple periods.[13] Referred to as a proto-segholate

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[11] Alan S. Prince, *The Phonology and Morphology of Tiberian Hebrew* (Ph.D. diss., MIT; 1975); John J. McCarthy, *Formal Problems in Semitic Phonology and Morphology* (1979 Ph.D. diss., MIT; Indiana University Linguistics Club ed., 1982; repr. New York: Garland, 1985); Joseph L. Malone, *Tiberian Hebrew Phonology* (Winona Lake: Eisenbrauns, 1993); Henry Churchyard, *Topics in Tiberian Biblical Hebrew Metrical Phonology and Prosodics* (Ph.D. diss.; Univ. of Texas, Austin, 1999), http://www.crossmyt.com/hc/linghebr/index/html, 1-121; Andries Coetzee, *Tiberian Hebrew Phonology: Focussing on Consonant Clusters* (SSN 38; Assen: Van Gorcum, 1999).

[12] Gustav Hölscher, "Elemente arabischer, syrischer und hebräischer Metrik," in *Beiträge zur alttestamentlichen Wissenschaft für Karl Budde: zum siebzigsten Geburtstag am 13. April 1920* (ed. Karl Marti; BZAW 34; Berlin: Töpelmann, 1920) 93-101; Sigmund Mowinckel, "Zum Problem der hebräischen Metrik," in *Festschrift Alfred Bertholet zum 80. Geburtstag* (ed. Walter Baumgartner; Tübingen: Mohr, 1950) 379-94; idem, *The Psalms in Israel's Worship* (tr. D. R. Ap-Thomas; 2 vols.; Oxford: Blackwell; Nashville: Abingdon, 1967) 2:159-75, 261-66; Friedrich Horst, "Die Kennzeichen der hebräischen Poesie," *ThR* 21 (1953) 97-121; and Stanislav Segert, "Vorarbeiten zur hebräischen Metrik I-II," *ArOr* 21 (1953) 481-542; idem, "Die Versform des Hohenliedes," in *Charisteria Orientalia praecipue ad Persiam pertinentia* [Jan Rypka FS] (ed. Felix Tauer, Vera Kubícková, and Ivan Hrbek; Praha: Nakladatelství Ceskoslovenské Akademie Ved, 1956) 285-99; idem, "Die Methoden der althebräischen Metrik," *CV* 1 (1958) 233-41; idem, "Problems of Hebrew Prosody," in *Congress Volume, Oxford 1959* (VTSup 7; Leiden: Brill, 1959) 283-91; Vincent DeCaen, "Theme and Variation in Psalm 111: Generative Metrics and Biblical Hebrew Metre" (2006).

[13] Gotthelf Bergsträsser, *Hebräische Grammatik mit Benutzung der von E. Kautzsch bearbeiten 28. Auflage von Wilhelm Gesenius' hebräischer Grammatik* (2 vols.; Leipzig: Vogel, 1918-29; repr. Hildesheim: Georg Olms, 1962) 1:138; Zellig S. Harris, *A Grammar of the Phoenician Language* (AOS 8: New Haven: American Oriental Society, 1936) 33-34; idem, *Development of the Canaanite Dialects* (AOS 16; New Haven: American Oriental Society, 1939) 80; W. Randall Garr, *Dialect Geography of Syria-Palestine, 1000-586 B.C.E.* (Philadelphia: University of Pennsylvania Press, 1985) 12, 45-47. Since ontology need not recapitulate phylogeny in language any more than in biology, this is not to say that Coetzee is necessarily right and DeCaen necessarily wrong in their argument over the correct analysis of $CvC_{(v)}C$'s in Tiberian Hebrew. See Vincent DeCaen, review of Andries W. Coetzee, *Tiberian Hebrew Phonology: Focussing on Consonant Clusters* (SSN 38; Assen: Van Gorcum, 1999), *JSS* 47 (2002) 317-18.

structure when it occurs in *qVtl* nouns, it often goes unnoticed when it occurs in participles and a series of verb forms. It is best understood as a single, trimoraic syllable. The surface realization of most of these forms in TBH is bisyllabic Cv́CvC. I would draw attention to another type of structure, Cv́(C)C_v, equivalent to the proto-segholate in terms of stress location and morae, and somewhat more common in ancient than in TBH due to a series of forms with, it has often been argued, so-called penultimate stress in ancient Hebrew rather than ultimate stress as in TBH; TBH nonetheless preserves these forms in pause.[14] The final $_v$ always reflects an unstressed *a*, *i*, *o*, or *u* and might thus be considered part of the coda of the tonic syllable. On this analysis, Cv́(C)C_v ≈ Cv́$C_{(v)}$C.

To be sure, phonologists do not usually posit syllables with an unstressed vowel as a constituent of a complex coda. That may be perfectly defensible from the point of view of generative phonology as currently understood, but says little as to conventional understandings of prosody at any given time or place. The following phonological structures, I suggest, were considered prosodic sames in ancient Hebrew; examples are to be read from right to left:

(1) גֶּבֶר (Job 3:3 pausal ≈ γαβρ [Secunda Ps 89:49]) תֶּשֶׁב (1 Kgs 2:20)

(2) וְשֶׁבֶר (Isa 59:7) וַיֵּרֶב (Lam 2:5) וַיָּקֶם (Ps 40:3) וְיֶגֶל (Job 36:15)

(3) תֹּהוּ (Gen 1:2) פִּיהוּ (Lam 1:18) קָמוּ (Ps 54:5) סֹבּוּ (Ps 48:13)

(4) לָמוֹ (Lam 1:22) [יְבֹהֲ]לֻמוֹ (Ps 2:5) [עַבֹ]תֻימוֹ (Ps 2:3)

(5) בַּחֹשֶׁךְ (Job 17:13) וַיּוֹשֶׁב (Ps 107:36)

(6) פִּי (Lam 2:15) יֶהִי (Ezek 16:15) סְבִי (Isa 23:16) [חַ]וָּיְכִי (Ps 103:4)

(7) רֵעֶיהָ (Lam 1:2) הָיָתָה (Lam 1:8) וְקוּמָה (Ps 35:2) יָשַׁבְתָּ (Judg 5:16)

Cv́(C)C_v might be understood as a Cv́(C) syllable to which a post-tonic weightless C_v syllable is appended, and Cv́$C_{(v)}$C as a Cv́ syllable to which a post-tonic weightless C_vC syllable is appended. This interpretation seems to require a vocalic element between the final consonants of the CvCC structure. The evidence of Phoenician, early Greek transcriptions, and the

[14] Mayer Lambert, "L'accent tonique en hébreu," *REJ* 20 (1890) 73-77; Jean Cantineau, "De la place de l'accent de mot en hébreu et en araméen biblique," *Bulletin d'études orientales de l'Institut Français de Damas* 2 (1931) 81-98; 82, 96; Joshua Blau, "Marginalia Semitica I," *IOS* 1 (1971) 1-35; idem, *A Grammar of Biblical Hebrew* (2d ed.; PLO: Wiesbaden: Harrassowitz, 1993) 19; Ernest John Revell, "Stress and the Waw 'Consecutive' in Biblical Hebrew," *JAOS* 104 (1984) 437-444; 444.

Secunda militates against this.[15] However, phonologists allow for the spreading of an onset consonant to the syllable peak, such that C_2 in C_1v́C_2C_3 may still be parsed as Cv, and for the extrametricality of syllables at the periphery of words.[16] Post-tonic syllables like those just examined may have been extrametrical within the prosodic system of ancient Hebrew poetry by definition, given Cv́(C)C_v ≈ Cv́$C_{(v)}$C.

Cv́$C_{(v)}$C and Cv́(C)C_v structures, however we choose to conceptualize them, are always word-final and carry the stress maximum. The syllable types in ancient Hebrew, as best we can reconstruct them, were (with alternative interpretations of the coda of Cv́$C_{(v)}$C and Cv́(C)C_v structures placed between brackets):

C_v Ultrashort vowel, cannot bear stress; monomoraic.
Word-initial, where "word" is prosodic or lexical (לְאֹיְבִים; אֲשֶׁר; בְּתְוּלֹתֶיהָ);
word-medial, after an open or closed syllable (רַדְּפֶיהָ; הַמְּצָרִים).
The word-initial structure C_vC_v, a combination of two C_v's, can bear secondary stress. In this environment, $C_v.C_v$ → Cv.C_v (וּמְרוּדֶיהָ).

[C_v Ultrashort vowel, cannot bear stress; weightless.
Word-final; always preceded by the maximally stressed syllable (מָחֳמַדֶּיהָ).

$C_{(v)}$C Ultrashort vowel, cannot bear stress; weightless.
Word-final; always preceded by the maximally stressed syllable (קֶדֶם).]

Cv and CvC Full vowel, all stress levels, all positions; bimoraic (אֵיכָה; יַד־צָר).

Cv́$C_{(v)}$C Full vowel bears maximum stress (קֶדֶם).
and Cv́(C)C_v Word-final; complex coda; trimoraic (מַחֳמַדֶּיהָ; יְשַׁבְתְּ).

My working hypothesis for the "foot" builds on the correlation between syllable types and stress. A trimoraic syllable always receives the stress

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[15] See the references in n. 13 above; for the Secunda, see Einar Brønno, *Studien über hebräische Morphologie und Vocalismus auf Grundlage der mercatischen Fragmente der zweiten Kolumne der Hexapla des Origenes* (Abhandlungen für die Kunde des Morgenlandes 28; Leipzig: Brockhaus, 1943) 123-50; Gerard Janssens, *Studies in Hebrew Historical Linguistics based on Origen's Secunda* (Orientalia Gandensia 9; Leuven: Peeters, 1982) 147-50; 153-54.

[16] See, among others, Carlos Gussenhoven and Haike Jacobs, *Understanding Phonology* (2d ed.; Understanding Language Series; London: Hodder Arnold, 2005) 144, 195.

maximum. A bimoraic syllable receives a maximum or intermediate stress. A monomoraic syllable receives zero stress. A foot (in all language, not only poetry) is prosodic word internal and consists of from *one to three* syllables in the following shapes:

(1) A stress bearing nucleus consisting of a bimoraic or trimoraic syllable preceded by a non stress bearing onset consisting of one or two monomoraic syllables; a bimoraic syllable; or a monomoraic and a bimoraic syllable, in that order.

(2) An isolated stress bearing bimoraic or trimoraic syllable.

Examples of single-footed prosodic words:

Of (1): אֵיכָה; בְּיַד־צָר; רַבָּתִי; וְהִיא; הֲדָרָהּ; לִפְנֵי (assuming *lipne*, not *lip^{ə}ne*).

Of (2): עָם; קֶדֶם, תֹּהוּ, קָמוּ.

Double-footed prosodic words consist of at least three syllables, and *at least two non-adjacent bimoraic* syllables. One bimoraic syllable receives the primary, the other, secondary stress, according to a right-headed iambic rhythm (*idem* with three-footed words):

כְּאַלְמָנָה; לְאֹיְבִים; עוֹלְלֶיהָ; הַמְּצָרִים; דַּרְכֵי; כְּאַיָּלִים; יְרוּשָׁלַם; בְּתוּלֹתֶיהָ; כָּל־רְדְפֶיהָ; מִמַּחְשְׁבֹתֵיכֶם; בְּשָׁבֵעֹתֵיכֶם; בַּגּוֹיִם; כֵּי־יהוה; עַל־לֶחְיָהּ; הִשְׁגּוּהָ.

Vincent DeCaen, who foots Tiberian Hebrew, and Adam Ussishkin and Daphna Graf, who foot modern Hebrew, have proposed similar algorithms.[17]

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[17] Vincent DeCaen, "Theme and Variation in Psalm 111: Generative Metrics and Biblical Hebrew Metre" (2006); Adam Ussishkin and Dafna Graf, "Emergent Iambs: Stress in Modern Hebrew," available online at www.lucl.leidenuniv.nl/content_docs/faculty/graf/hebrewgrafussishkin.pdf (2006). For an analysis in terms of moraic trochees, see Shelly P. Harrison, "Vowel Quantity and Stress in Jewish Literary Aramaic," *JSS* 2003 (48) 229-257. The מַקְּטָא of masoretic grammatical tradition, it should be pointed out, lies in between the syllable and the foot as understood in metrical phonology (contrast Geoffrey Khan, "Vowel Length and Syllable Structure in the Tiberian Tradition of Biblical Hebrew," *JSS* 32 (1987) 23-82; 41-42). It is also bears noting that the correlation of secondary stress with the placement of *ga'yot* proposed by Seligmann Isaac Baer, "Die Metheg-Setzung," in *Archiv für wissenschaftliche Erforschung des Alten Testaments* 1 (Halle: Verlag der Buchhandlung des Waisenhauses, 1867-1869) 55-67, 194-207; followed by Bergsträsser, *Hebräische Grammatik*, 70-73, 127-30; Ziony Zevit, "Nondistinctive Stress, Syllabic Constraints, and Wortmetrik in Ugaritic Poetry." *UF* 15 (1983) 291-298; 296; and Khan, "Vowel Length," 54-79) was based, as Israel Yeivin points out (*Introduction to the Tiberian Masorah* [tr. and ed. E. J. Revell; SBLMS 5; Atlanta: Scholars Press, 1980]) 241, on a systematization of data

Searching for Prosodic Sames at the Prosodic Word Level

As seen in the "Second Attempt" above, TBH prosodic word delimitation is consistent with a continuously recurring set of regularities and symmetries if and only if in a small number of cases the *maqqeph* is treated as a conjunctive and not a binder of two elements of a single prosodic word. TBH prosodic word delimitation has its own logic.[18] It is naïve to expect that it will reflect in every detail the prosody of the underlying text, but it is also wise to adhere to the regularities of TBH prosody unless counter-arguments suggest otherwise. In my view, a principle at work in TBH prosody, whereby there is deceleration as a phonological or intonational phrase comes to a close, held also in ancient Hebrew. Based on a study of a large corpus of poetic texts, I suggest a normalization of prosodic word delimitation along the following lines:

1. *Cv* and *CvC* clause-initial and adnominal function words, hereafter referred to as 'shorts,' are normally clitic. Short clause-initial function words include: כִּי, מִי, מַה, אִם, אָז, גַּם, פֶּן, עַד, רַק, אַךְ, and אַף. Short adnominals include מִן, אֶל, עַל, עַד, עִם, גַּם, רַק, אַל, בֶּן, בַּת, and אֶת. Exceptions to the rule: shorts receive a prosodic word stress in order to avoid the creation of a prosodic unit containing more than six syllables. In the case of מִי and מַה, promotion to prosodic word status in order to make up one of two elements in a two beat verset is an option. Promotion of other shorts to prosodic word status for the purpose of creating a two beat verset is permissible but highly unusual. Double cliticization with members of the same class (גַּם-כִּי-) is permissible but rare; with members of different classes (עַל-כָּל-*), it does not occur. Clause-initial function words with a *ḥolem* or *ṣere* in TBH retain stress (כֵּן, כֹּה, and לֹא). Adnominal כָּל-/כֹּל is sui generis, but seems to retain stress in a variety of circumstances (see below). This may be evidence for a three way vocalic length contrast in ancient Hebrew (*v̆*, *v*, and *vv*) in which *ḥolem*'s, *ṣere*'s, and diphthongs form a distinct class.

2. *CvCC*, *CvvC*, and multisyllabic function words such as הוֹי, אַיִן (now usually אֵין), עֹדֶד (now עוֹד), בְּלִי (בְּלִי), לָמָּה, and אֲשֶׁר, and prepositions like בֵּין

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drawn from untrustworthy mss. There is no direct correlation between secondary stress and *ga'yot*, as a comparison with *munach-zaqef* and and *methigah-zaqef* structures proves.

[18] Bezalel Elan Dresher, "The Word in Tiberian Hebrew," in *The Nature of the Word: Essays in Honor of Paul Kiparsky* (ed. Kristin Hanson and Sharon Inkelas; Cambridge: MIT Press, in press); online: http://www.chass.utoronto.ca/~dresher/tibhebword.pdf.

(בֵּין), תַּחַת, and מִפְּנֵי, are not clitic. Exceptions to the rule: if followed by a monosyllabic noun, multisyllabic function words are routinely destressed per (5) below. *CvCC* and *CvvC* words, on the other hand, seem to resist stress deletion in this context.[19] Occasionally, the routinized co-occurrence of two short words, such as לָמָּה-לִּי, perhaps by analogy with bound structures treated under (5), appears to create conditions favorable to stress deletion.

3. As adnominals, לֹא and אַל are clitic. As adverbs, at least in earlier poetry, לֹא, אַל, and בַּל are not clitic except in medial prosodic position. In later poetry, אַל and בַּל are always clitic. In Job, לֹא, אַל, and בַּל are clitic.

4. כֹּל-/כָּל is usually clitic, e.g., when it functions as part of the subject at the head of a clause. If circumstances require, it is promoted to prosodic word status so as to create a two beat verset. At the end of an intonational or phonological phrase, it sometimes receives a prosodic word stress as a result of prosodic deceleration. It may also receive rhetorical stress.

5. Bound phrases of up to four syllables are cliticized if the *nomen regens* is monosyllabic: $(C_v.)(CvC.)CvC$ + $CvC(_vC)$. On the other hand, the equivalent of the Tiberian rhythm rule is applied to $Cv.C_v.Cv$ + $CvC(_vC)$ structures. At the end of an intonational or phonological phrase, bound phrases of three or more syllables are sometimes decliticized as a result of prosodic deceleration.

6. Prosodic phrases receiving one stress maximum only and consisting of normally distinct prosodic words occasionally occur in medial prosodic position.

7. נָא is enclitic.

Searching for Prosodic Sames above the Word Level

Prosodic structures above the word level are unusually well-marked in MT Lam. Lam 3 and 5 consistently preserve prosodic structure at the levels of the phonological and intonational phrase. On the other hand, in Lam 1, 2, and 4, MT's prosodic parse fails to unambiguously encode these levels. They may be inferred by induction and analogy. Lam 1:1-7 analyzed above exemplifies the situation. When *pesuqim* and I's coincide as in Lam 3 and 5, the tradition preserves I's per se. Otherwise, it does not.

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[19] Lack of cliticization across a sequence of two monosyllabic words occurs in TBH as well. See example (18b) in Dresher, "The Word in Tiberian Hebrew." Cliticization is favored across syllabic sequences of unequal length.

Conversely, Lam 1, 2, and 4 consistently preserve prosodic structure at the level of utterance; Lam 3 and 5 do not. The corresponding paragraphs in Lam 3 are nonetheless clear on the basis of the acrostic framework to which it adheres. Lam 5 is a 22 line non-acrostic poem. Its lines group into twos and threes in the random fashion as does ancient Hebrew poetry in general, not into an almost uninterrupted sequence of threes as in Lam 1 and 3, or twos as in Lam 4. Each *petuchah* or chapter in Lam also constitutes a prosodic unit which one may call a poem.

Lam 3 stands out as the prosodic unit in which U's, I's, and φ's are most easily identified. The acrostic pattern alone is a sufficient guide to the disambiguation of U's and I's.[20] Still, as far as φ delimitation is concerned, one cannot presume that MT's prosodic parse provides a completely reliable map, though the potential for mismapping is limited given the reduced length, two or three φ's, of an acrostichon in Lam 3. Lam 3 provides baseline data for the delimitation of U's, I's, and φ's elsewhere in Lam 1-5.

A Worked Example

As argued above, the neumes of the MT do not map the prosody of ancient Hebrew verse, even if, at an inchoate level, they often do so willy-nilly, as shown above by applying a set of ad hoc rules to their interpretation. The tradition did not preserve an understanding of the specific constraints that governed verse. Nonetheless, it habitually makes a set of distinctions capable of parsing the prosody of verse with great subtlety.

Two prosodic workups of Lam 1:1-7 are offered below. In the first workup, the familiar orthography, vowels, consonantal diacritics, prosodic signals, and cantillation marks of the Tiberian MT are reproduced in full, with proposed deviations noted in the margin. The workup is remarkable on several counts. It offers a prosodic parse of a poetic text consonant with the Strict Layer Hypothesis, consonant with the basic algorithm of a theory of ancient Hebrew poetry worked out over a larger corpus of poetic texts, and consonant with the data of Lam 1-5 as a whole.

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[20] The acrostic pattern formally delimits the U level of the prosodic hierarchy, but it is possible, and in Lam 3 actual, for U's marked by semantic-syntactic cohesion to cut across the boundaries of the *pro forma* U's of the acrostic structure. The "true" U's of Lam 3 are: 1-2, 3-4, 5-6, 7-9, 10-11, 12-13, 14-15, 16-18, 19-20, 21-23, 24-26, 27-28, 29-30, 31-32, 33-34, 35-36, 37-38, 39-40, 41-42, 43-45, 46-47, 48-50, 51-52, 53-54, 55-56, 57-58, 59-60, 61-63, 64-66.

A second workup seeks to reconstruct a text as close as possible to the form it had in origin. MT's neumic system is adapted for the purpose and MT's vowel system serves to represent a reconstruction of its original phonology. Two qualitative distinctions in Tiberian Hebrew are reverted to quantitative distinctions and necessary adjustments made: a (ַ) and a: (ָ); e (ֶ) and e: (ֵ). The repertoire of ultrashort vowels in MT is not as extensive as one might wish. A simple pretonic *schwa*, if vocal, is assumed to have had the vowel coloring of the vowel from which it was shortened. The *dagesh* is used to express gemination only, not a contrast (non-existent in ancient Hebrew) between spirantized and non-spirantized allophones of the /b/ /g/ /d/ /k/ /p/ /t/ stop sequence. The history of sound change in Hebrew, of course, is the subject of ongoing debate. The best one can do is to formulate hypotheses that are compatible with all the available data.

The resultant text is beautifully cadenced and tightly constrained according to patterns observable in other examples of *qinah* verse. 6th cent. BCE Hebrew phonology as reconstructed here is much closer to TBH than are the reconstructions proposed by Harris and Beyer, or as would be the case if the lead of Freedman and Andersen were followed in their reconstruction of Persian Period Aramaic.[21]

Retroversion to the orthography and phonology the text would have instantiated in origin is integral to proper text-critical methodology and to the study of the text as an example of ancient Hebrew literature. Text critics who leave this step out will remain unaware of text-critical solutions that present themselves once the text is restored to the form it hypothetically had in origin. Students of ancient Hebrew poetry who leave this step out debar themselves from the possibility of discovering prosodic regularities which no longer obtain or were obscured in the aftermath of stress shifts and pronunciation changes that occurred in Hebrew over the course of more than a millennium. A theory of ancient Hebrew poetry which bases itself directly on Tiberian phonology is methodologically flawed. A reconstruction of

[21] The assumptions underlying the reconstruction are outlined in the introduction to the Corpus available online (see next note). For alternative reconstructions of ancient Hebrew and Aramaic phonology, see Zellig S. Harris, "Linguistic Structure of Hebrew," *JAOS* 61 (1941) 143-67; Klaus Beyer, *Althebräische Grammatik. Laut- und Formenlehre* (Göttingen: Vandenhoeck & Ruprecht, 1969); David Noel Freedman and Francis I. Andersen, "The Spelling of Samaria Papyrus 1," in *To Touch the Text: Biblical and Related Studies in Honor of Joseph A. Fitzmyer, S. J.* (ed. Maurya P. Horgan and Paul J. Kobelski; New York: Crossroad, 1989) 15-32; repr. in *Studies in Hebrew and Aramaic Orthography* (ed. David Noel Freedman, A. Dean Forbes, and Francis I. Andersen; BJSUCSD 2; Winona Lake: Eisenbrauns, 1992) 171-88.

ancient Hebrew phonology, however tentative, is a necessary propaedeutic to serious investigation of ancient Hebrew verse.[22]

Statistics regarding syllable counts and other parameters are offered following a presentation of the text. The results of a data analysis are summarized as in an excursus entitled "Prosodic Regularities of Qinah, Mashal, and Common Verse."[23]

Symbols

ס	A strophe made up of three lines, 1:(1:1) in structure
ס	
ס ס ס ס	ס concludes a strophe; ס a sub-stanza; ס a stanza; ס a section
2:(2:2)	A line of three versets; each contains two stress units; the last two form a pair.
°	Reference to a location within the text.
*	MT, if preserved, would violate the general or length rule.
+m or –m	Addition or subtraction of a *maqqeph* vis-à-vis MT.
cv כֹּל	Change in vocalization vis-à-vis MT; change following.
cj G וַיִּרְדֶּנָּה	Conjecture based on witness; conjecture following.
†cj מִשְׁבָּתָהּ	A reconstruction lacking an exact equivalent in the textual record
vd, ld	Change in verset division, or line division, vis-à-vis MT.
= BHS, BHQ	Scansion is in agreement with BHS, BHQ
4/9/24	A stanza consisting of 4 lines, 9 versets, and 24 stress units.
40/90/216 17/6/2/1	A poetic unit made up of 40 lines, 90 versets, and 216 stress units, with a total of 17 strophes, 6 stanzas, and 2 sections.

In the first workup, when MT's accents and use of *maqqeph* (־), by which conjoined words receive a single dominant stress, clash with the proposed scansion, the fact is noted.[24] Prosodic revisions to MT are based on a

[22] A reconstruction of all of Lam 1 is available online at www.ancienthebrewpoetry.typepad.com.

[23] Text critical characterizations and related sigla are modeled on those of the *Oxford Hebrew Bible* (OHB) and *Biblia Hebraica Quinta* (BHQ). For fuller discussions of the relevant evidence, the reader is referred to BHQ, CTAT, and bibliography cited there. Transcriptional conventions build on Matthew P. Anstey, "Towards a Typological Representation of Tiberian Hebrew," *HS* 46 (2005) 71-128.

[24] For technical terms, abbreviations, and full bibliographical references, see "Retaining and Transcending the Classical Description," "Stress in Ancient Hebrew," "Parallelism,"

reconstruction of stress retention and deletion patterns in ancient Hebrew. The rule of twos and threes would not be violated if in the unasterisked cases MT were retained.

The second workup includes an apparatus with justifications for text-critical decisions. On the left hand margins, prosodic word counts are given first, then foot counts, then syllable counts, and then absolute word counts if they differ from prosodic word counts; *x* = "a" verset; *y* = "b" verset; *z* = "c" verset.

"Glossary," "Abbreviations," and "Annotated Bibliography," at www.ancienthebrewpoetry.typepad.com. For a first orientation to the prosodic information encoded by the masoretic accents, see Bezalel Elan Dresher, "The Prosodic Basis of the Tiberian Hebrew System of Accents," *Language* 70 (1994) 1-52; "The Word in Tiberian Hebrew," in *The Nature of the Word: Essays in Honor of Paul Kiparsky* (ed. Kristin Hanson and Sharon Inkelas; Cambridge: MIT Press, in press); online: http://www.chass.utoronto.ca/~dresher/tibhebword.pdf.

Lamentations 1:1-7

Prosodic Workup

1	אֵיכָה | יָשְׁבָה בָדָד	הָעִיר רַבָּתִי עָם	3:3 =HCOT, BHQ	
	הָיְתָה כְּאַלְמָנָה	רַבָּתִי בַגּוֹיִם	2:2 *ld =all	
	שָׂרָתִי בַּמְּדִינוֹת	הָיְתָה לָמַס: {ס}	2:2	3/6/14
2	בָּכוֹ תִבְכֶּה בַּלָּיְלָה	וְדִמְעָתָהּ עַל לֶחֱיָהּ	3:2 †cj וְדִמְעָתָהּ; +m	
	אֵין לָהּ מְנַחֵם	מִכָּל אֹהֲבֶיהָ	3:2 -m; vd = all; *-m cv כֹּל	
	כָּל רֵעֶיהָ בָּגְדוּ בָהּ	הָיוּ לָהּ לְאֹיְבִים: {ס}	3:3	3/6/16
3	גָּלְתָה יְהוּדָה מֵעֹנִי	וּמֵרֹב עֲבֹדָה	3:2 = BHS, HCOT, BHQ	
	הִיא יָשְׁבָה בַגּוֹיִם	לֹא מָצְאָה מָנוֹחַ	3:3	
	כָּל רֹדְפֶיהָ הִשִּׂיגוּהָ	בֵּין הַמְּצָרִים: {ס}	2:2	3/6/15
4	דַּרְכֵי צִיּוֹן אֲבֵלוֹת	מִבְּלִי בָּאֵי מוֹעֵד	3:3	
	כָּל שְׁעָרֶיהָ שׁוֹמֵמִין	כֹּהֲנֶיהָ נֶאֱנָחִים	2:2	
	בְּתוּלֹתֶיהָ נוּגוֹת	וְהִיא מַר לָהּ: {ס}	2:3 -m	3/6/15
5	הָיוּ צָרֶיהָ לְרֹאשׁ	אֹיְבֶיהָ שָׁלוּ	3:2	
	כִּי יְהוָה הוֹגָהּ	עַל רֹב פְּשָׁעֶיהָ	2:2 +m; -m; †cj פִּשְׁעָהּ	
	עוֹלָלֶיהָ הָלְכוּ שְׁבִי לִפְנֵי צָר: {ס}		2:2 = BHS, HCOT vd	3/6/13
6	וַיֵּצֵא מִן בַּת צִיּוֹן	כָּל הֲדָרָהּ	3:2 +m; -m; vd = all; *-m cv כֹּל	
	הָיוּ שָׂרֶיהָ כְּאַיָּלִים	לֹא מָצְאוּ מִרְעֶה	3:3 vd =all; –m	
	וַיֵּלְכוּ בְלֹא כֹחַ	לִפְנֵי רוֹדֵף: ס	2:2	3/6/15
7	זָכְרָה יְרוּשָׁלַם יְמֵי	עָנְיָהּ וּמְרוּדֶיהָ	3:2 cj 4QLam יהוה	
	כָּל מַחֲמֻדֶיהָ אֲשֶׁר הָיוּ	מִימֵי קֶדֶם	(2:2):2 †cj כָּלוּ vd ≈NJV	
	בִּנְפֹל עַמָּהּ בְּיַד צָר	וְאֵין עוֹזֵר לָהּ	3:3 †cj ↓ מִשְׁבָּתָהּ	
	רָאוּהָ צָרִים שָׂחֲקוּ	עַל מִשְׁבַּתֶּהָ: {ס}	3:2 vd =BHS, NJV, HCOT	4/9/22

22/45/110 6/12/30 + 6/12/30 + 6/12/28 + 4/9/22 8/4/2/1

Lamentations 1:1-7

Full Reconstruction

1	אֵיכָה | יָשְׁבָה בָדָד	הָעִיר רַבָּתִי עָם			3:3 *f* 3:3 ***s* 6:5**		
	הָיְתָה כְּאַלְמָנָה	רַבָּתִי בַגּוֹיִם			2:2 *f* 3:3 ***s* 6:5**		
	שָׂרָתִי בַּמְּדִינוֹת	הָיְתָה לָמַס:	{ס}		2:2 ***f* 3:2** ***s* 6:4**	3/6/14	
2	בָּכֹה תִבְכֶּה בַלָּיְלָה	וְדִמְעָתָהּ עַל־לֶחְיָהּ		*w* 3:3	**3:2** *f* 3:3 *s* 6:6		
	אֵין לָהּ מְנַחֵם	מִכֹּל אֹהֲבֶיהָ			**3:2** *f* 3:3 *s* 5:5		
	כָּל־רֵעֶיהָ בָּגְדוּ בָהּ	הָיוּ לָהּ לְאוֹיְבִם:	{ס}	***w* 4:3**	3:3 *f* 4:4 *s* 6:7	3/6/16	
3	גָּלְתָה יְהוּדָה | מֵעֹנִי	וְמֵרֹב עֲבֹדָה			**3:2** ***f* 3:2** *s* 6:6		
	הִיא יָשְׁבָה בַגּוֹיִם	לֹא מָצְאָה מָנוֹחַ			3:3 ***f* 4:3** ***s* 6:5**		
	כָּל־רֹדְפֶיהָ הִשִּׂיגוּהָ	בֵּין הַמְּצָרִים:	{ס}	***w* 3:2**	2:2 ***f* 4:3** ***s* 7:5**	3/6/15	
4	דַּרְכֵי צִיּוֹן אֲבֵלוֹת	מִבְּלִי בָאֵי מוֹעֵד			3:3 ***f* 4:3** ***s* 8:6**		
	כָּל־שְׁעָרֶיהָ שׁוֹמֵמִין	כֹּהֲנֶיהָ נֶאֱנָחִים		***w* 3:2**	2:2 *f* 4:4 ***s* 7:6**		
	בְּתֻלֹתֶיהָ נוּגוֹת	וְהִוא מַר לָהּ:	{ס}		2:3 *f* 3:3 ***s* 6:4**	3/6/15	
5	הָיוּ צָרֶיהָ | לָרֹאשׁ	אֹיְבֶיהָ שָׁלוּ			**3:2** *f* 3:3 ***s* 6:4**		
	כִּי־יהוה הוֹגָהּ	עַל־רֹב פִּשְׁעָהּ		*w* 3:3	2:2 ***f* 3:2** ***s* 5:4**		
	עֹלָלֶיהָ הָלְכוּ	שְׁבִי לִפְנֵי־צָר:	{ס}	*w* 2:3	2:2 *f* 3:3 ***s* 5:4**	3/6/13	
6	וַיֵּצֵא | מִן־בַּת צִיּוֹן	כָּל הֲדָרָהּ		***w* 4:2**	**3:2** ***f* 4:2** ***s* 7:4**		
	הָיוּ שָׂרֶיהָ כָּאַיָּלִים	לֹא מָצְאוּ מִרְעֶה			3:3 ***f* 4:3** ***s* 8:5**		
	וַיֵּלְכוּ בְּלֹא־כֹחַ	לִפְנֵי רוֹדֵף:	{ס}	***w* 3:2**	2:2 ***f* 3:2** ***s* 6:4**	3/6/15	
7	זָכְרָה יְרוּשָׁלַם יהוֹה	עָנְיָהּ וּמְרוּדֶיהָ			**3:2** ***f* 4:3** ***s* 8:6**		
	כָּלוּ מַחֲמֻדֶיהָ אֲשֶׁר הָיוּ	מִימֵי קֶדֶם			**(2:2):2** ***f* (3:2):3** ***s* (5:4):4**		
	בִּנְפֹל עַמָּהּ בְּיַד־צָר	וְאֵין עֹזֵר לָהּ		***w* 4:3**	3:3 ***f* 4:3** ***s* 8:5**		
	רָאֻהָ צָרִים שָׂחֲקוּ	עַל מִשְׁבַּתֶּהָ:	{ס}		**3:2** *f* 3:3 **s 6:4**	4/9/22	

22/45/110 6/12/30 + 6/12/30 + 6/12/28 + 4/9/22 8/4/2/1

1:2 ‹וְדִמְעָתָהּ› ן וְדִמְעָתָהּ M assimusu ‖ **5** ‹פִּשְׁעָהּ› ן פִּשְׁעֶיהָ M assimusu ‖ **6** מן־בת ן מבת M^ket^ ‖ **7** זכרה ירושלם יהוה ן זָכְרָה יְרוּשָׁלַם יְמֵי M aur; זכוֹרה יהוה 4QLam homoi M^qere^ 4QLam assimusu ‖ ‹מַשְׁבַּתָּהּ› ן מַחֲמַדֶּיהָ ‹כָּלוּ› ‖ ירו⌒יהו כל מכאובנו 4QLam facil of M aur; כָּל־מַחֲמַדֶּיהָ מִשְׁבַּתָּהּ M vocal; מִשַּׁבַּתָּהּ G vocal

x,*y*		*x* = 5 to 8	*y* = 4 to 7		*x*+*y* = 9 to 14	*x*-*y* = -1 to 3
x,*y*,*z*	(*x*+*y*)+*z*	*x* = 5	*y* =4	*z* = 4	(*x*+*y*)+*z* = 13	(*x*+*y*)-*z* = 5

compensatable lines:	14 of 22	lines compensatable in reverse: 4 of 22	
σ (*y*+1 to 3):*y* compensations:	13x	ω (*y*+1):y with σ (*x*=*y*):	3x
f (*y*+1 or 2):*y* compensations:	8x	*f* (*y*+1):y with σ (*x*=y):	1x
w (*y*+1 or 2):*y* compensations:	6x	*w* (y+1):y with σ (*x*=*y*-1):	1x

1:2 ‹וְדִמְעָתָהּ› ן וְדִמְעָתָהּ M assim-usu

The archaic fem sfx *āta* occasionally attested in poetry (Ex 15:16; Hos 8:7; Job 5:16; Ps 3:3; etc.; a vestige of the time when the case endings *ātu*/*i*/*a* were operative) was misunderstood as a pron sfx when it ceased to be used at all in the language of the day. The pron sfx is tautological in the context, as Cross pointed out ("Lamentations 1," 107-108). דמעה is a collective sg. Cp Lam 2:18; Ps 126:5.

1:5 ‹פִּשְׁעָהּ› ן פִּשְׁעֶיהָ M assim-usu

On this proposal, the text originally read פשעה; subsequently, the pl marker י was added to bring the text into line with a more common idiom. פשע is a collective sg in affine texts (Isa 24:20; 53:5; Mic 1:5; 3:5; Ps 89:33; Job 8:4) and suits the context here. Bound structures of the type רב + collective sg noun + pron sfx are attested (Jer 30:14, 15; Ezek 28:18; Hos 9:7; cp Ps 25:11). Bound structures of the type רב + pl noun + pron sfx, however, are the norm, and the pl of פשע is attested in Lam 1:14, 22. Vis-à-vis M, פִּשְׁעָה represents the more difficult rdg. If פִּשְׁעָה is read, the "b" verset becomes one syllable shorter than the corresponding "a" verset. In qinah meter, "b" versets are often shorter than "a" versets. Furthermore, פִּשְׁעָה end-rhymes with the preceding verset. Rhyme-schemes, while not obligatory, are ubiquitous in the context. None of these arguments is decisive, but the balance of probability favors פִּשְׁעָה.

1:6 מן־בת M^{ket} ן מבת M^{qere} 4QLam assim-usu

The ketiv reflects an unusual construction. The poet may have chosen it to achieve a 3:2 line.

1:7 זָכְרָה יְרוּשָׁלַם יְמֵי ן זכרה ירושלם יהוה M aur; זכוֹרה יהוה 4QLam homoi ירו⌒יהו

The rdgs of M and 4QLam are explainable as corruptions of the proposed archetype. Once the long impv was misconstrued as a *qatal* vb form with Jerusalem as subj, the stage was set for a reapprehension of *yahwéː* as *y*^{a}*méː*. The reinterpretation would have been facilitated by affine texts (Deut 32:7; Ps 137:7). A PN direct obj complement to זכר is unusual but clearly attested (Gen 8:1; Ps 105:42; cf. Jer 15:15). Ps 105:42 demonstrates the possibility of non-isosemantic obj complements in sequence with זכר. The long impv זכרה occurs in entreaties of later literature (2 Chr 7:42; Neh 5:1; 6:1, etc.). The shorter rdg of 4QLam was caused by parablepsis. Cp 4QLam's omission further on of עניה ו and מחמדיה. For a semantic-syntactic parallel to the line as reconstructed here, cp Lam 3:61.

כָּל־מַחֲמַדֶּיהָ ן ‹כָּלוּ› מַחְמַדֶּיהָ M aur; כל מכאובנו 4QLam facil

In M and 4QLam, the phrase beginning with כל must be the object of זכר. This is semantically unfitting in the case of M. 4QLam has מכאובנו instead of מחמדיה. M may be explained as an aural misapprehension of the proposed rdg. 4QLam attests to the same misapprehension, and to the omission, by parablepsis, of עניה ו and מחמדיה, with מרדיה → מכאביה → מכאובנו. An evocation of Jerusalem's state of impoverishment is expected at this point. The proposed rdg provides it. Cp Lam 5:1-3. For כלה here – "finished are her coveted objects," see Gen 41:30; Isa 15:6.

‹מַשְׁבָּתָהּ› | מִשַּׁבַּתָּהּ G vocal; מִשְׁבָּתָהּ M vocal

The proposed rdg is a virtual ketiv of M. The morphological parse of G is identical; the semantic parse, awkward in context, is not. In TBH, after the application of the reverse of Philippi's law (the so-called law of attenuation), the vocalization would have been מִשְׁבָּתָהּ. "Demise" seems an appropriate gloss for the lemma, a hapax legomenon. The *qere* assimilates, one might assume, to a non-extant idiomatic expression.

Alternative reconstructions of lines of Lam 1:1-7, the pros and cons of which will not be argued here:

5	עָלְלֶיהָ הָלָכוּ	שֶׁבִי לִפְנֵי צָר׃ {ס}	*w* 2:3	2:3 *f* 3:3 ***s* 5:4**
6	וַיֵּלְכוּ בָלֹא כֹּחַ	לִפְנֵי רוֹדֵף׃ {ס}	***w* 3:2**	**3:2 *f* 3:2 *s* 6:4**
7	כָּלְוּ מַחְמֳדֶיהָ אָשֻׁר	הָיוּ מְזַמֵּי קֶדֶם		3:3*f* 4:4 ***s* 7:6**

Lamentations 1:1-7

Full Reconstruction

A block of text = U. A line = I. A part-line = φ. A free standing orthographical unit = ω. An intonational break within a φ: ı; at the conclusion of a φ: a blank space. Hypothetical lengthening of the vowel at the conclusion of a φ: ː; of an I: ːː. Vowels marked *v́* carry maximal stress; *v̀*, medium stress; plain *v*, minimal stress; ultrashort vowels are superscripted and are not stress bearing. Words with a maximum and a medium stress are double-footed. The right foot consists of a non- or minimally stressed syllable followed by the maximally stressed syllable if preceded by another foot. Subscript $_h$, $_y$, $_w$, and $_ʔ$ refer to orthography.

1:1 ʔajː.káː$_h$ ı jaː.ʃáːb^a_h baː.dáːd haː.ʕíː$_y$r ı rab.báːt^i_y ʕáːːmː
haː.jáːt^a_h ı kᵊ.ʔàl.maː.náː$_h$ rab.báː.t^i_y ı bàg.goː$_w$.jíːːm
śar.ráːt^i_y ı bàm.mᵊ.diː$_y$.nóːt haː.jáːt^a_h ı laː.máːːsː

1:2 baː.kóː$_h$ tib.kéː$_h$ ı bal.lájˀ^{i}l^a_h wᵊ.dim.ʕáːt^a_h ı ʕàl.leħ.jáːːh
ʔáj^{i}n láːh ı mᵊ.naħ.héːm mik.kóːlː ı ʔoː.h^e.béːːyh^a
kòl.reː.ʕéː$_y$h^a ı baː.gáːd^u_w báːh háː.j^u_w láːh ı l^o.ʔòː.j^e.bíːːm

1:3 gaː.láːt^a_h jaː.húːd^a ı meː.ʕóːn^i_y wᵊ.meː.róbː ı ʕ^a.boː.dáːːh
híːʔ^a ı jaː.ʃáːb^a_h bàg.goː$_w$.jíːm lóːʔ maː.tsˤáːʔ^a_h ı maː.nóːːħ
kòl.roː.d^e.péː$_y$h^a ı hìś.śiː.gúːh^a báj^{i}n ı hàm.mᵊ.tsˤaː.ríːːm

1:4 daː.r^a.kéː$_y$ tsˤij.jóːn ı ʔ^a.beː.lóːt mib.bél^i_y ı baː.ʔéː$_y$ maw.ʕéːːd
kòl.ʃᵊ.ʕaː.réː$_y$h^a ı ʃòː.meː.míːn kòː.h^e.néː$_y$h^a ı nèʔ.naː.ħíːːm
b^u.tùː.loː.téː$_y$h^a ı nùː.góːt w^a.híːʔ^a ı márː láːːh

1:5 haː.júː$_w$ tsˤar.réː$_y$h^a ı laː.ròːʔʃ ʔòː.j^e.béː$_y$h^a ı ʃaː.lúːː$_w$
kìː$_y$.jah.wéː$_h$ ı haw.gáːh ʕal.róbː ı piʃ.ʕáːːh
ʕòː.laː.léː$_y$h^a ı haː.láːk^u_w ʃébˀ^i_y ı lip.nèː$_y$.tsˤáːːrː

1:6 wàj.jeː.tsˤéːʔ ı min.béːtː tsˤij.jóːn kóːlː ı h^a.daː.ráːːh
haː.júː$_w$ śar.réː$_y$h^a ı k^a.ʔàj.jaː.líːm lóːʔ maː.tsˤáːʔ^u_w ı mar.ʕéːː$_h$
wàj.jeː.léːk^u_w ı bᵊ.loːʔ.kóːħ lip.néː$_y$ ı roː.déːːp

1:7 z^o.kóːr^a_h j^u.rùː.ʃaː.léːm ı jah.wéː$_h$ ʕon.jáːh ı wì.mᵊ.ruː.déːːyh^a
kaː.lúː$_w$ ı màħ.muː.déː$_y$h^a ʔ^{a}ʃéːr ı haː.jùː$_w$ mí.j^a.mèː$_y$ ı qéːːd^{ɛ}m
bì.n^o.póːl ʕam.máːh ı b^i.jad.tsˤáːrː w^a.ʔájˀ^{i}n ı ʕoː.zéːr láːːh
raː.ʔúːh^a tsˤar.ríːm ı śaː.ħáːq^u_w ʕál ı màʃ.baː.táːːh

Lamentations 1:1-7

A Translation

A block of text = U. A line = I. A half-line (in a tripartite line, a third of a line) = φ. A free standing orthographical unit = ω. An intonational break at the conclusion of a φ: a blank space. A longer intonational break concludes each line. *Qinah* meter is approximated.

1:1 How_is_it she_sits alone a_city once_full of_folk
She's_become like_a_widow a_mistress among_nations
a_princess among_states become a_serf.

1:2 She_weeps and_weeps in_the_night tears on_her_cheek
a_supporter she has_not among_all her_friends
her_neighbors all betrayed_her became her_enemies.

1:3 Dispersed is_Judah, by_poverty dire_enslavement to_escape
she that_sat among_nations has_found no_place of_rest
all_her_pursuers overtook_her twixt narrow_passes.

1:4 The_roads to_Zion are_mourning for_lack of_comers to_feasts
all_her_gates are_deserted her_priests full_of_sighs
her_maidens led_away for_her it_is gall.

1:5 Her_foes are_now uppermost her_enemies at_ease
for_Yahweh brought_her_agony for_the_magnitude of_her_sin
her_children have_gone captive before_foe.

1:6 Fróm fair_Zion departed áll her_splendor
her_princes became like_harts that_find no_place for_pasture
they_fled without_strength before the_pursuer.

1:7 Remember Jerusalem, Yahweh her_poverty, her_homelessness
her_treasures are_finished those possessed from_days of_yore
when_her_people fell by_foe's_hand with_no_one her to_help
foes looked_on and_laughed át her_demise.

Prosodic Regularities of Qinah, Mashal, and Common Verse

As was widely known before research on prosodic regularities in biblical poetry fell out of fashion, Lam 1-4 adheres to a meter with certain characteristics, and Lam 5 to a meter with other characteristics. Armed with precise definitions of prosodic domains, it is possible to describe the prosodic regularities of this corpus in terms of a few concise formulae, and make comparisons with other corpora. The domains parameterized below: the *utterance* (U), the *intonational phrase* (I), the *phonological phrase* (φ), the *prosodic word* (ω), and the *syllable* (σ). *Foot* (*f*) and orthographic word (w) counts are not parameterized because the resultant ranges, unlike syllable ranges, are not diagnostic indicators capable of distinguishing varieties of ancient Hebrew verse.

Lamentations 1-4

U = I + I or I + I + I. Predominant distribution: I + I + I in Lam 1-3; I + I in Lam 4.
I = $\varphi_1 + \varphi_2$ or $(\varphi_1 + \varphi_2) + \varphi_3$. $\varphi = \omega + \omega$ or $\omega + \omega + \omega$.
$\varphi_1 + \varphi_2$: φ_1 = n σ (min 5, max 8). φ_2 = n - (0 to 4) σ (min 4, max 6).
$(\varphi_1 + \varphi_2) + \varphi_3$: $\varphi_1 + \varphi_2$ = n σ (min 6, max 9). φ_3 = n - (0 to 4) σ (min 3, max 6).

Qinah meter elsewhere: Jon 2:3-10; Ps 27:1-11; 42; 43; 101; Ezek 19:1-14; Isa 14:4b-20.

Lamentations 5

U = I + I and I + I + I Distribution: random alternation.
I = $\varphi_1 + \varphi_2$ or $(\varphi_1 + \varphi_2) + \varphi_3$. $\varphi = \omega + \omega$ or $\omega + \omega + \omega$.
$\varphi_1 + \varphi_2$: φ_1 = n σ (min 5, max 9). φ_2 = n +/- (0 to 3) σ (min 5, max 9).
$(\varphi_1 + \varphi_2) + \varphi_3$: $\varphi_1 + \varphi_2$ = n σ (min 5, max 8). φ_3 = n - (0 to 2) σ (min 8, max 8).

Mashal meter elsewhere: Prov 1:10-33; 2:1-22; 8:1-21; Ps 111; and often.

Psalms 2, 4, 6, 103, 137

U = I + I and I + I + I Distribution: random alternation.
I = $\varphi_1 + \varphi_2$ or $(\varphi_1 + \varphi_2) + \varphi_3$. $\varphi = \omega + \omega$ or $\omega + \omega + \omega$.
$\varphi_1 + \varphi_2$: φ_1 = n σ (min 2, max 10). φ_2 = n +/- (0 to 6) σ (min 2, max 10).
$(\varphi_1 + \varphi_2) + \varphi_3$: $\varphi_1 + \varphi_2$ = n σ (min 2, max 10). φ_3 = n - (0 to 6) σ (min 2, max 10).

Common meter elsewhere: Isa 1:2-20; Zeph 1-3; Job 3; and often.

"Sorry it took so long, pal. It was a lot of wood to go through. You know, it only works if you have every piece." Mike to Sulley in *Monsters Inc*.

Glossary of Terms

The terminology used here has been used elsewhere in a variety of ways. Definitions of general terms are offered first. A glossary of more technical terms follows.

Poetry is a genre of verbal art in which highly patterned and highly figured language predominates. The patterns which qualify as "poetic" in a given language and time are established by convention. As far as ancient Hebrew poetry is concerned, the dominant patterns consist of co-occurring structures of parallelisms woven into the fabric of the text at the phonological, morphological, syntactic, prosodic, and semantic levels.

A ***poem*** is a sustained example of verbal art of the genre defined above.

"***Verse*** is language in lines," as Charles Hartman famously stated.[25] More precisely, as Albert Willem de Groot put it, "Continuous correspondence of successive segments, called 'lines,' is the only constant feature which distinguishes verse from prose."[26] As far as verse in ancient Hebrew is concerned, the units of measurement which most clearly correspond to each other continuously are the stress unit, the verset, the line, and the strophe. These terms are defined in relationship to one another in the general rule.

Prose may be defined as a genre of verbal art in which the patterned and figured language conventional in poetry does *not* predominate.

Prose, nevertheless, may instantiate verse as defined above. Examples from world literature are well-known. Clausular periodic structures characterize a part of the classical and medieval rhetorical prose tradition in Latin. The most common meter in Sanskrit, the *śloka* ("praise"), is the verse mode of choice for a diverse range of literary genres from epic to fable to grammar to astronomy.[27] As far as ancient Hebrew prose genres are concerned, legal, rhetorical, and even narrative prose often possesses a cadence that approximates the division of ancient Hebrew poetry into

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[25] Charles O. Hartman, *Free Verse: An Essay on Prosody* (Princeton: Princeton Univ. Press, 1980) 11; cited by Walter T. W. Cloete, *Versification and Syntax in Jeremiah 2-25: Syntactical Constraints in Hebrew Colometry* (SBLDS 117; Atlanta: Scholars Press, 1989) 5.

[26] Albert Willem de Groot, "The Description of a Poem," in *Proceedings of the Ninth International Congress of Linguists, Cambridge, Mass., August 27-31, 1962* (ed. Horace G. Lunt; The Hague: Mouton, 1964) 294-300; 299; cited by W. T. W. Cloete, *Versification*, 5

[27] For details, see the articles entitled "Prose Rhythm" and "Indian Prosody" in *The New Princeton Encyclopedia of Poetry and Poetics* (gen. ed. Alex Preminger, Terry V. F. Brogan; Princeton: Princeton Univ. Press, 1993) 979-81 and 600-603, respectively.

clusters of two or three stress units. But consistency in this respect is hard to find. Clusters of four stress units 1+3, 3+1, and 1+2+1 in configuration occasionally occur. Syntactic parallelisms of verset length units across line length units, or alternatively, of line length units across strophe length units, are not the norm as they are in poetry. Enjambment is the rule in prose. The high density of semantic, syntactic, morphological, and phonological parallelisms across units of verset, line, and strophe length characteristic of ancient Hebrew poetry is but fitfully attested in ancient Hebrew prose. In prose narrative, *waw*-introduced structures, consecutive and otherwise, parallel each other with great regularity, but said structures vary widely in length. A frequent use of syndetic coordination and hypotaxis and a sparing use of apposition are typical of prose. To be sure, poetry also makes use of hypotaxis in conditional sentences and oaths. The subject deserves further study.

The terms ***meter*** and ***rhythm*** are often conflated. An excellent definition of meter was given by John Lotz: "the numerical regulation of certain properties of the linguistic form."[28] The problem is that language in general possesses meter in this sense. At the highest level of abstraction, all one can say is that verse generally adheres to a more strictly defined set of regularities than do other forms of speech and literature in a given language. As a practical matter, however, the problem rarely obtains. Verse is characterized by specific and describable stylizations of the more general metrical properties observable in speech and literature within a given language and time frame. The stylizations which qualify as "verse" are established by convention. We normally reserve the term "meter" for the metrical properties of verse.

If it is true that ancient Hebrew poetry instantiates a kind of accentual or tonic verse, then the comments and distinctions of Viktor Zhirmunsky are worth keeping in mind:

> Pure tonic verse is based on a count of the stressed syllables; the number of unstressed syllables is a variable quantity . . . When attention is focused on the stressed syllables, groups of unstressed syllables – even though they contain varying numbers of syllables – may be perceived as equivalent to each other.

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[28] John Lotz, "Elements of Versification," in *Versification: Major Language Types* (ed. William K. Wimsatt; New York: Modern Language Association / New York Univ. Press, 1972) 1-21; 2; cited by M. O'Connor, *Hebrew Verse Structure* (Winona Lake: Eisenbrauns, 1980) 67; and Cloete, *Versification,* 11.

> Of course, the number of unstressed syllables between stresses is of essential importance in shaping the rhythm of individual lines or of the poem as a whole: since, however, such syllables form no part of the compositional structure, they belong to the area of rhythm, not meter.[29]

Put another way, feet in the sense of classical prosody exist in ancient Hebrew poetry but are not metrical.[30] The patterns or lack of them in which they co-occur belong to the dimension of rhythm, not meter.

Another key term is ***prosody***. As I use the term, all language is subject to prosodic constraints at various levels. Syllables, feet, words, phrases, and utterances in a given language come in certain shapes and sizes, phonologically speaking, and not others. In poetry, language-specific constraints are stylized according to convention.

An explanation of the some of the more important linguistic terms used above is provided here. The explanations have no claim to originality. They include abstracts from other sources indicated by the following abbreviations:

G & H Carlos Gussenhoven and Haike Jacobs, *Understanding Phonology* (2d ed.; Understanding Language Series; London: Hodder Arnold, 2005).

H & M Bruce Hayes and John J. McCarthy, "Metrical Phonology," in *The Oxford International Encyclopedia of Linguistics* (2d ed.; ed. William Frawley and William Bright. Oxford: Oxford University Press, 2003) 3:54-57.

L Ilse Lehiste, "Syllables and Stress in Phonetics," in *The Oxford International Encyclopedia of Linguistics* (2d ed.; ed. William Frawley and William Bright. Oxford: Oxford University Press, 2003) 4:189.

Extrametricality. At the periphery of a word – that is, at its right or left edge – a phonological constituent (syllable, consonant, vowel, mora, etc.) may be extrametrical, that is, irrelevant from the point of view of foot formation and/or prosodic structure more generally. (G & H).

Foot. In metrical phonology, the sequence of syllables that make up a word are parsed into groupings called ***feet***. Each foot has a single *strong* or

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[29] Viktor Maksimovich Zhirmunsky, *Introduction to Metrics: The Theory of Verse* (tr. and ed. C.E. Brown; introd. Edward Stankiewicz and Walter N. Vickery; The Hague: Mouton, 1966) 171; cited by Cloete, *Versification*, 9.

[30] For a discussion, see my "Regularities in Ancient Hebrew Verse: An Overview," online at www. ancienthebrewpoetry.typepad.com.

prominent syllable. A strong syllable is stressed to a greater degree than other syllables (if any) in the foot. See ***stress***. Feet so understood tend to consist of two syllables. (H & M). Cross-linguistically, languages tend to have one of two kinds alternating rhythm, *trochaic rhythm* (even duration, initial prominence) or *iambic rhythm* (uneven duration, final prominence). (G & H). Long before the advent of metrical phonology, biblical Hebrew was described as possessing an iambic-anapestic rhythm. This still seems right, with allowance made for the ***extrametricality*** of post-tonic syllables. But perhaps post-tonic syllables in ancient Hebrew, which always have a C_v shape, are better analyzed as (a component of) the complex coda of the syllable that carries the strongest stress within a prosodic word.

Intonational Phrase. An "intonational phrase" in prosodic structure theory is marked off from its environment by intonational boundary tones, pauses, and final lengthening. In the context of ancient Hebrew verse, it tends to correspond to two syntactic structures of equal rank in parallelism; more generally, to a complex syntactic unit subdivisible into two or three components. Cross-linguistically, an intonational phrase consists of one or more phonological phrases; under the general rule, of two to three phonological phrases.

Mora. Many languages have more than one kind of syllable based on the number of segments in the rhyme (peak + coda; see ***syllable***). Vowels are always moraic; coda segments may or may not be. Languages with vowel-length distinctions have both monomoraic and bimoraic syllables. Ancient Hebrew is a case in point, insofar as ultrashort and full vowels are reconstructible for it. It is not uncommon for languages to allow the last syllable of the word to have three morae. Ancient Hebrew, in which word final $CvC_{(v)}C$ and $Cv(C)C_v$ are frequent, falls into this category. (G & H).

Phonological phrase. A "phonological phrase" as understood in prosodic structure theory is marked off from its context by pitch accents, focus tones, phonological caesurae, and other closure phenomena. A phonological phrase is a prosodic, not a syntactic unit. Phonological and syntactic phrases do not necessarily align. In varieties of verse which make use of strong enjambment rarely or often, this of course is beyond dispute. Cross-linguistically, a phonological phrase consists of one or more prosodic words; under the general rule, of two to three prosodic words.

Prosodic word. A prosodic word is the domain of word stress. In many languages, an orthographic word may be composed of a lexical word preceded or followed by a short function word the whole of which is

dominated by a single main stress. Orthographically distinct short function words may also be constituents of prosodic words. Such words are known as pro- and enclitics. A prosodic word consists of ***feet*** each of which has a single strong or prominent syllable.

Right-headed iambic rhythm. In metrical phonology, two fundamental laws of alternating rhythm are recognized at the ***foot*** level: trochaic rhythm (even duration, initial prominence) and iambic rhythm (uneven duration, final prominence). *Right-headed* iambic rhythm means that iambs are formed beginning word's end moving backwards.

Stress. In metrical phonology, stress is an abstract property that is instantiated physically by a variety of mechanisms such as length and pitch that differ across languages. Stress is a property of ***feet, prosodic words*, and *phonological phrases***. It is usually *culminative*: each word or phrase has a single strongest syllable; it is *rhythmically distributed*: syllables bearing equal levels of stress tend to occur at roughly equal intervals; it is *hierarchical*: it usually occurs in a number of degrees – primary, secondary, tertiary, etc. The existence of multiple levels reflects the hierarchical nature of rhythmic structure. (H & M).

Strict Layer Hypothesis. An analysis of language in terms of prosodic constituents organized within a strictly layered hierarchical structure first developed by Elisabeth Selkirk. The levels of the prosodic hierarchy include, in ascending order, the **mora** (μ), the ***syllable*** (σ), the ***foot*** (*f*), the ***prosodic word*** (ω), the ***phonological phrase*** (φ), the ***intonational phrase*** (I), and the ***utterance*** (U). The levels are strictly layered in the sense that a single constituent of one level is fully parsed into one or more constituents of the next level down, and no constituent is dominated by another constituent of the same rank.

Suprasegmentals. Phonological phenomena such as stress, rhythm, and intonation.

Syllable. A syllable is a sequence of *segments* grouped around an obligatory *nucleus*, ordinarily a vowel (though in many languages, liquids and nasals may also constitute syllable nuclei; syllable fricatives are also attested). An initial margin, if any, is referred to as the *onset*; the remainder of the syllable, as the *rhyme*, composed of the nucleus or *peak* and optionally, a final margin, known as the *coda*. Margins are usually but not always consonants. A segment is a vowel or a consonant. (L). In many languages, a syllable is categorizable in terms of weight elements such that it may be either light (monomoraic), heavy (bimoraic), or superheavy (trimoraic). See ***mora***. The

concept of a syllable is not self-evident as many assume. The native grammatical traditions of the Arabic and Hebrew languages engaged in prosodic analysis without recourse to the concept of a syllable.

Utterance. In prosodic structure theory, Utterances are closed by "full stops" or similar. Cross-linguistically, an utterance consists of one or more intonational phrases; under the general rule, of two to three intonational phrases.