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.
Lamentations 1-5 and the Prosodic Structure Hypothesis*

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An analysis of language in terms of prosodic constituents organized within a strictly layered hierarchical structure was first developed by Elisabeth Selkirk. 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

The prosodic hierarchy itself functions as a set of constraints on prosodic structure. 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. Prosodic structure as understood by Selkirk, Nespor and Vogel, Pierrehumbert and Beckman, and Hayes, MacEachern, and Kaun has informed approaches to the study of languages and verse around the world.²

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¹I wish to thank Vincent DeCaen, Robert Holmstedt and Ziony Zevit for commenting on earlier drafts of this paper. The usual disclaimers apply.


The prosodic structure of poetry in any language represents a stylization, or 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, the 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.”

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.

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.

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4 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.
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 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

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* (Israel) and *atnach* (*א*). *Φ’s* are closed by *zaqef* (ץ) and *revia* (ץ), 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.\(^5\)

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 accentual system fixes in prosody a \textit{semantic} parse of the underlying text. If the semantics of the text as traditionally understood ran counterpoint to prosodic regularities otherwise clearly in view, the latter were violated in order to bear witness to the former. Thus 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 many 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 (1:13, 14; 2:10; 5:17), 1:2:2 (2:14), 1:3 (1:21; 2:1), 1:3:1 (2:2, 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 \( \varphi \)’s as marked off in MT is excessive for a text in verse.\(^6\)

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 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 \( \varphi \)’s.

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\(^6\) On the variable grain of Tiberian prosody, see Dresher, “Prosodic Basis,” 31-34.
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 most likely represents an evolution away from the text’s original prosody as well. This is not to deny that MT transmits a prosodic parse of biblical literature traceable at least in part to Second Temple times. But the Tiberian accentual 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

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.8

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.9

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 zagef except in the case of two adjacent zagef’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

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8 “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.

than usual because of the acrostic structure of Lam 1 in which each acrostic equals a U and the tendency of each acrostic 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. But three points are worth emphasizing. (1) The text so understood conforms without strain to the Strict Layer Hypothesis. (2) The text also conforms to the prosodic system of two and threes I have discerned more generally in ancient Hebrew poetry. (3) The masoretic prosodic parse is not an adequate basis for a like analysis. The division of Lam 1:1-7 I offer contravenes the masoretic prosodic parse in four instances: 1:1 (division into three lines, not two), 2 (stressing of מִכָּל ‘from all’), and 6 (2x) (stressing of כָּל ‘all’; and placement of קנָלִים ‘like stags’). Arguments based on analogy with other subunits 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 and 1:6, line 1 to the regularity of a φ with 2 or 3 ω’s attested everywhere else in Lam 1:1-7.

Of course, as soon as one regards the masoretic prosodic parse as a jacket that may require an adjustment here or there 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 thoroughly examined. 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.

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11 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.
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 generally understood in generative phonology. Another line of research has sought to “foot” biblical Hebrew poetry in Tiberian dress. 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 CvC(C)C structure, where C is anaptyptic, is vestigial in TBH (with C 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. Referred to as a proto-segholate 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 CvC. I would draw attention to another type of structure, Cv(C)C, equivalent to the proto-segholate in terms of stress location and morae, and far 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. The final C 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, \( \text{CV}(C)C_v \approx \text{CV}C_{(v)}C \).

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. (Job 3:3 pausal \( \approx \gamma_βp [\text{Secunda Ps 89:49 non-pausal}] \))
   - (1 Kgs 2:20)
   - (Job 36:15)
   - (Ps 40:3)

2. (Lam 2:5)
   - (Ps 48:13)

3. (Ps 54:5)
   - (Ps 2:3)

4. (Ps 2:5)
   - (Ps 107:36)

5. (Job 17:13)
   - (Ps 103:4)

6. (Ps 4:2)
   - (Ps 35:2)

7. (Ps 4:8)
   - (Ps 35:2)

\( \text{CV}(C)C_v \) might be understood as a \( \text{CV}(C) \) syllable to which a post-tonic weightless \( C_v \) syllable is appended, and \( \text{CV}C_{(v)}C \) as a \( \text{CV} \) syllable to which a post-tonic weightless \( C_v \) syllable is appended. This interpretation seems to require a vocalic element between the final consonants of the \( \text{CV}CC \) structure. The evidence of Phoenician, early Greek transcriptions, and the Secunda militates against this. However, phonologists allow for the spreading of an onset consonant to the syllable peak, such that \( C_2 \) in \( C_1 C_v C_2 C_3 \) may still be parsed as \( C_v \), and for the extrametricality of syllables at the periphery of words. Post-tonic syllables like those just examined may have been extrametrical within the prosodic system of ancient Hebrew poetry by definition, given \( \text{CV}(C)C_v \approx \text{CV}C_{(v)}C \).

\( \text{CV}C_{(v)}C \) and \( \text{CV}(C)C_v \) structures, however we choose to conceptualize them, are always word-final and carry the stress maximum. The syllable types in ancient Hebrew,

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16 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) 123-30; Gerard Janssens, Studies in Hebrew Historical Linguistics based on Origen’s Secunda (Orientalia Gandensia 9; Leuven: Peeters, 1982) 147-50; 153-54.

as best we can reconstruct them, were (with alternative interpretations of the coda of 
\(Cv(C)C\) and \(Cv(C)v\) structures placed between brackets):

\(C_v\)  Ultrashort vowel, cannot bear stress; monomoraic.
Word-initial, where “word” is prosodic or lexical (במלחי; אשֶר; לְאֹֽיְבִֽים).
Word-medial, after an open or closed syllable (ברִית).
The word-initial structure \(C_vC_v\), a combination of two \(C_v\)'s, can bear secondary stress. In this environment, \(C_vC_v \rightarrow Cv.C_v\) (וּמְרוּדֶ֔יהָ).

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

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

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

\(Cv\) and \(CvC\)  Full vowel, all stress levels, all positions; bimoraic (רֹֽדְפֶ֥יה; אֲשֶׁר).

\(CvC_v\)  Full vowel bears maximum stress (מקלץ).
and \(Cv(C)v\)  Word-final; complex coda; trimoraic (⾽ָבֶת; מקָּלָץ; מַחֲמֻדֶ֔יהָ).

My working hypothesis for the “foot” builds on the correlation between syllable types and stress. A trimoraic syllable always receives the stress 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): לֵלָל; הָרָדָה; אָכֶה (assuming lipne, not lip^ne).

Of (2): קָמָה, תֹ֨הוּ, קָ֤מוּ.

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):

כָּרָדֵיפָה; בַּתָּלוּתָה; רַבָּתִי; בְּיַד־צָ֗ר; וְהִ֥יא; הֲדָרָ֑ה; יַד־צָ֗ר; וּמְרוּדֶ֔יהָ.

Vincent DeCaen, who foots Tiberian Hebrew, and Adam Ussishkin and Daphna Graf, who foot modern Hebrew, have proposed similar algorithms.18

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18 Vincent DeCaen, “Theme and Variation in Psalm 111: Generative Metrics and Biblical Hebrew Metre” (2006); Adam Ussishkin and Daphna Graf, “Emergent Iambs: Stress in Modern Hebrew,” online at: www.luc.leidenuniv.nl/content_docs/faculty/graf/hebrewgrafussishkin.pdf (2006). The אָמַקְטָ 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
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. 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, דָּעַ, רַק, אַךְ, and אַף.

   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 (כִּי-גַּם) is permissible but rare; with members of different classes (כָּל-עַל), it does not occur. Clause-initial function words with a הֹלֶם or שֶׁרֶה in TBH retain stress (כֵּן, כֹּה, and לֹא). Adnominal כֹּל-כָּל 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 (’, v, and vv) in which הֹלֶם’s, שֶׁרֶה’s, and diphthongs form a distinct class.

2. CvCC, CvvC, and multisyllabic function words such as הוֹי, נֵי (now usually אֵין), אֵין (now usually אֵין), דָּעָ֫, לִיבֶּ֫, דֹּעָ֫, בְּלִי, מָּהלָ֫, and אֲשֶׁר, and prepositions like בֵּין, חַתָּ֫, 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. Occasionally, the routinized

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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.
co-occurrence of two short words, such as יִלֶ֫-לָּמָּה, perhaps by analogy with bound structures treated under (5), appears to create conditions favorable to stress deletion.

3. As adnominals, לא and על are clitic. As adverbs, at least in earlier poetry, ולא, וב, and על are not clitic except in medial prosodic position. In later poetry, ולא and על are always clitic. In Job, ולא, וב, and על are clitic.

4. בסל 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: (Cv)(CvC)CvC + CvC(Cv). On the other hand, the equivalent of the Tiberian rhythm rule is applied to CvC(Cv + CvC(Cv) 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. הוא 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.

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. 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

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21 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.
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. To be sure, 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 deviations suggested by prosodic analysis 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.

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 (ָו) and a: (ַו); e (ִו) and e: (ֵו). The repertoire of ultrashort vowels in MT is not as extensive as one might wish. A simple 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 resultant text is beautifully cadenced and tightly constrained according to patterns observable in other examples of qinah verse. The reconstruction of 6th cent. BCE Hebrew phonology offered here is much closer to TBH than are the reconstructions put forward 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.22

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 which 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

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methodologically flawed. A reconstruction of ancient Hebrew phonology, however tentative, is a necessary propaedeutic to serious investigation of ancient Hebrew verse.\textsuperscript{23}

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.”\textsuperscript{24}

Symbols

\begin{itemize}
\item \(\textcircled{30}\) A strophe made up of three lines, 1:(1:1) in structure
\item \(\textcircled{25}\) \(\textcircled{15}\) concludes a strophe; \(\textcircled{25}\) a sub-stanza; \(\textcircled{15}\) a stanza; \(\textcircled{1}\) a section
\item 2:(2:2) A line consisting of three versets of two stress units each; the last two form a pair.
\item ° Reference to a location within the text.
\item * MT, if preserved, would violate the general rule or the length rule.
\item +m or –m Addition or subtraction of a maqqeph vis-à-vis MT.
\item cv ח Change in vocalization vis-à-vis MT; change following.
\item 4/9/24 A stanza consisting of 4 lines, 9 versets, and 24 stress units.
\item 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.
\end{itemize}

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.\textsuperscript{25} Unasterisked revisions to MT are based on a reconstruction of stress retention and deletion patterns in ancient Hebrew. The rule of twos and threes would not be violated if in these cases MT were retained.

The first workup departs from MT if and only if prosodic criticism so suggests. The second workup goes its own way more often based on a global textual analysis. 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; \(x = \text{“a” verset}; y = \text{“b” verset}; z = \text{“c” verset}\).

\textsuperscript{23} A reconstruction of all of Lam 1 and 3 is available online at \url{www.ancienthebrewpoetry.typepad.com}.
\textsuperscript{24} 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,” \textit{HS} 46 (2005) 71-128.
\textsuperscript{25} For “lines,” “stress,” “parallelism,” other technical terms, abbreviations, and full bibliographical references, see “Retaining and Transcending the Classical Description,” “Stress in Ancient Hebrew,” “Parallelism,” “Glossary,” “Abbreviations,” and “Annotated Bibliography,” respectively, available online at \url{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,” \textit{Language} 70 (1994) 1-52; “The Word in Tiberian Hebrew,” in \textit{The Nature of the Word: Essays in Honor of Paul Kiparsky} (ed. Kristin Hanson and Sharon Inkelas; Cambridge: MIT Press, in press); online: \url{http://www.chass.utoronto.ca/~dresher/tibhebword.pdf}. 
Lamentations 1:1-7
Prosodic Workup of MT

3:3
אֵיכָ֣ה בָדָ֗ד לָעָ֔ם רַבָּ֣תִי הָעִיר

2:2 *Id
הָוָה כָּלָ֔מָה רַבָּ֣תִי הָגּוֹיִם

2:2 קד הָוָה כָּל־רֵעֶ֨יהָ לָהּ בָּגְדוּ כָּל־רֹֽדְפֶ֥יהָ הַמְּצָרִֽים:

3:2 +m
דרְפֹּתָה עִלָּה לָבֹּלָה אָלֶ֔יהָ נַחֵ֖ם אֹֽהֲבֶ֑יהָ כֶּלֶֽהֶם:

3:2 -m; vd; *-m cv של הָוָּה כָּל־רֵעֶ֨יהָ לָהּ בָּגְדוּ כָּל־רֹֽדְפֶ֥יהָ הַמְּצָרִֽים:

3:3
הָוָּה לָבֹּלָה אָלֶ֔יהָ נַחֵ֖ם אֹֽהֲבֶ֑יהָ כֶּלֶֽהֶם:

3:6
בָּאֵ֣י מִבְּלִי שֽׁוֹמֵמִ֔ין כָּל־שְׁעָרֶ֨יהָ נֶֽאֱנָחִ֑ים כֹּֽהֲנֶ֖יהָ נּוּגוֹת בְּתֽוּלֹתֶ֥יהָ מַר לָֽהּ׃ וְהִ֥יא לְאֹֽיְבִֽים׃

2:2
רֹאְשׁ֙וֹת צִיּוֹן דַּרְכֵ֨י מִוּעֵ֔ד בָּאֵ֣י מִבְּלִי שֽׁוֹמֵמִ֔ין כָּל־שְׁעָרֶ֨יהָ נֶֽאֱנָחִ֑ים כֹּֽהֲנֶ֖יהָ נּוּגוֹת בְּתֽוּלֹתֶ֥יהָ מַר לָֽהּ׃ וְהִ֥יא לְאֹֽיְבִֽים׃

2:3
לְרֹאשׁ צָרֶ֤יהָ הָי֨וּ שָׁל֔וּ אֹֽיְבֶ֣יהָ הַמָּגָּרִ֔ים שָׂרֶ֗יהָ הָי֣וּ כְַאַיָּלִים מִרְעֶ֔הלֹֽא־מָצְּא֑וּ בְּלֹא־כֹ֖חַוַיֵּֽו לְכ֥וּ רֹדֵֽף׃ לִפְנֵ֥י לֶ֛יהָ֯ שְׁבִ֖י לִפְנֵ֥י צָֽר׃

3:2
מִן־יֵצֵ֥א הֲדָרָ֑ה־כָּל כֹּל־שָׂרֶ֗יהָ הָי֣וּ כְַאַיָּלִים מִרְעֶ֔הלֹֽא־מָצְּא֑וּ בְּלֹא־כֹ֖חַוַיֵּֽו לְכ֥וּ רֹדֵֽף׃ לִפְנֵ֥י לֶ֛יהָ֯ שְׁבִ֖י לִפְנֵ֥י צָֽר׃

2:3
לְרֹאשׁ צָרֶ֤יהָ הָי֨וּ שָׁל֔וּ אֹֽיְבֶ֣יהָ הַמָּגָּרִ֔ים שָׂרֶ֗יהָ הָי֣וּ כְַאַיָּלִים מִרְעֶ֔הלֹֽא־מָצְּא֑וּ בְּלֹא־כֹ֖חַוַיֵּֽו לְכ֥וּ רֹדֵֽף׃ לִפְנֵ֥י לֶ֛יהָ֯ שְׁבִ֖י לִפְנֵ֥י צָֽר׃

22/45/110
6/12/30 + 6/12/30 + 6/12/28 + 4/9/22
8/4/2/1
Lamentations 1:1-7

A Reconstruction

3:3 f:3 s 6:5 Kennicott רַחַיָּה רֶבֶתָּה יְהוָ֣ה שָׁבַּ֔ח יִשְׂרְאֵ֣ל 1

2:2 f:3 s 6:5 קֶרֶּה מֶלֶם שֶׁלָּ֖הוּ יֵֽשָׁבַּֽת הָאַ֥רֶץ 2

3/6/14 2:2 f:3 s 6:4 היה הל מֵעֹ联系我们 שִׁלָּ֖הוּ יְהוָ֣ה שָׁבַּ֔ח יִשְׂרְאֵ֣ל 3

3:2 f:3 s 6:6 וֹדְמַֽה שָׁלֵ֖הוּ לֶבַּ֑ת בְּנֵי יִשְׂרְאֵ֣ל 4

3/6/16 3:3 f:4 s 6:7 וֹדְמַֽה שָׁלֵ֖הוּ לֶבַּ֑ת בְּנֵי יִשְׂרְאֵ֣ל 5

3/6/15 2:2 f:4 s 7:5 w:3 2 בָּעָא בַּמְלֹֽה לָרֹאָ֣שׁ שֵ֑ל יְהוֹתָֽה תִּבְכֵ֥י יַרְדוֹנָֽה 6

3/6/15 2:2 f:3 s 6:4 בָּעָא בַּמְלֹֽה לָרֹאָ֣שׁ שֵ֑ל יְהוֹתָֽה תִּבְכֵ֥י יַרְדוֹנָֽה 7

3/6/16 2:2 f:4 s 5:4 w:3 3 בָּעָא בַּמְלֹֽה לָרֹאָ֣שׁ שֵ֑ל יְהוֹתָֽה תִּבְכֵ֥י יַרְדוֹנָֽה 8

3/6/13 2:2 f:3 s 5:4 w:2 3 בָּעָא בַּמְלֹֽה לָרֹאָ֣שׁ שֵ֑ל יְהוֹתָֽה תִּבְכֵ֥י יַרְדוֹנָֽה 9

3/6/15 2:2 f:3 s 6:4 בָּעָא בַּמְלֹֽה לָרֹאָ֣שׁ שֵ֑ל יְהוֹתָֽה תִּבְכֵ֥י יַרְדוֹנָֽה 10

3/6/16 2:2 f:4 s 5:4 w:3 3 בָּעָא בַּמְלֹֽה לָרֹאָ֣שׁ שֵ֑ל יְהוֹתָֽה תִּבְכֵ֥י יַרְדוֹנָֽה 11

4/9/22 3:3 f:3 s 6:4 בָּעָא בַּמְלֹֽה לָרֹאָ֣שׁ שֵ֑ל יְהוֹתָֽה תִּבְכֵ֥י יַרְדוֹנָֽה 12

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

1:2 מַשְׁפָּתָּה יְהוָ֣ה יִשְׂרְאֵ֣ל לָוֹת בַּמְלֹֽה מַשְׁפָּתָּה יְהוָ֣ה יִשְׂרְאֵ֣ל בַּמְלֹֽה מַשְׁפָּתָּה יְהוָ֣ה יִשְׂרְאֵ֣ל בַּמְלֹֽה מַשְׁפָּתָּה יְהוָ֣ה יִשְׂרְאֵ֣ל בַּמְלֹֽה

M assim-usu || 5

Mmasch | Mmasch | Mmasch | Mmasch

Mqere 4QLam assim-usu || 7 4QLam homoi M au; 4QLam homoi M au; 4QLam homoi M au; 4QLam homoi

ъ | ¶ןיִֿאַ֤וָֿמַר

mashbath | mashbath | mashbath | mashbath

M vocal ||

x y

x = 5 to 8

y = 4 to 7

x+y = 9 to 14

x-y = -1 to 3

(2x+y)+z = 14 of 22

compensatable lines:

(lines compensatable in reverse: 4 of 22)

σ (x+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
The archaic fem sfx ā́ta 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 ā́tu/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).

בִּשְׁעָהּ is a collective sg. Cp Lam 2:18; Ps 126:5.

On this proposal, the text originally read פִּשְׁעָהּ; subsequently, the pl marker י was added to bring the text into line with a more common idiom. פִּשְׁעָה 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 רֹב + 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 רֹב + pl noun + pron sfx, however, are the norm, and the pl of פִּשְׁעָה 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.

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

The rdgs of M and 4QLam may be explained as corruptions of the proposed rdg. Once the long impv was misconstrued as a qatal vb form with Jerusalem as subj, the stage was set for a reapprehension of yahwé: as י"הו. The reinterpretation would have been facilitated by affine texts (Deut 32:7; Ps 137:7). A PN direct obj complement to זָכְר 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 זָכְר. The long impv זָכְר 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 מִשְׁבַּת. For a semantic-syntactic parallel to the line as reconstructed here, cp Lam 5:1-3. For כל here – “finished are her coveted objects,” see Gen 41:30; Isa 15:6.

The proposed rdg is in fact the virtual ketiv of M. In Tiberian Hebrew, after the application of the reverse of Philippi’s law (the so-called law of attenuation), the vocalization would have been מִשְׁבַּת. “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:
Lamentations 1:1-7

A Reconstruction

The reconstruction of the phonology of 6th century BCE Hebrew is a matter of educated conjecture. Allowance for stress shifts and adherence to the principle that Babylonian, Palestinian, Secunda and DSS Hebrew sometimes provide access to less advanced linguistic forms than does Tiberian Hebrew characterize the reconstruction. A block of text = U. A line = l. A half-line (in a tripartite line, a third of a line) = φ. A free standing orthographical unit = ω. An intonational break within a φ: l. At the conclusion of a φ: a blank space. Hypothetical lengthening of vowel or consonant at the conclusion of an l: ·. Vowels marked ̀ carry maximal stress; ́, 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 r refer to orthography.

1:1 ʔaj.kát.h jà jä.táb.h bá: dá:d
    ha:ját.t.h kâ.ʔál.mà:nâ.h
    šâ.راد.t.y bâ:m.mî.dî:nô:t
    ha:ját.t.h lâ:mâ:s::

1:2 bá:kô.h tib.ké:h bâl.lâjt.h
    ʔâ:j’n lá:t.h mî.nah.hé:m
    kôl.ré: fé:h bâ: fâ:d.w bâ:h

1:3 gât.lât.t.h jâ:hú:d.m ê:m: ʃô:nî
di:ʔâ:j bâ:g.go:w.jî:m
    kôl.ô.ré: ʃô:hi:-wise:ghâ
    bâ:j’h mà:m.mî.şâ:a:rí:m

1:4 da:ʃ.ké:y ʃâ:ij.jò:n ðâ:be:lô:t
    kôl.jë: ʃâ:re:gh à: ʃö:me:mi:n

    kî.y.jâ:h.wè:h ã hâ:w.gâ:h
    ʃô:la:le:gh à:hà.nâ.lâ:w

    wà:j.je:le:kh à:bâ:lo:kî:h

    kà:lú:w mà:m.mà:dë:y à:hà:jú:w
    bì:nö:pôl:łâ:m.mà:h bà:jad.tsà:r
    hà:šî:r î rab.bà:t.y ʃâ:m
    rab.bà:t.y bâ:g.go:w.jî:m
    hà:ját.t.h lâ:mâ:s::
    wâ:di.nî:bo:dà:h
    bâ:j’h mà:m.mî.şâ:a:rí:m
    wâ:hi:jh à:mâ:lâ:h
    ʃô:jì:m.bê:gh à:n ʃà:lu:ù:w
    ʃâ:la:ro:bî pîf.ʃâ:m
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.26

1:1 How is it she sits alone
   She’s become like a widow
   a princess among states
   a city once full of folk
   a mistress among nations
   become a serf.

1:2 She weeps and weeps in the night
   a supporter she has not
   her neighbors all betrayed her
   tears on her cheek
   among all her friends
   became her enemies.

1:3 Dispersed is Judah, by poverty
   she that sat among nations
   all her pursuers overtook her
   dire enslavement to escape
   has found no place of rest
   twixt narrow passes.

1:4 The roads to Zion are mourning
   all her gates are deserted
   her maidens led away
   for lack of comers to feasts
   her priests full of sighs
   for her it is gall.

1:5 Her foes are now uppermost
   for Yahweh brought her agony
   her children have gone
   her enemies at ease
   for the magnitude of her sin
   captive before foe.

1:6 From fair Zion departed
   her princes became like stags
   they fled without strength
   all her splendor
   that find no place for pasture
   before the pursuer.

1:7 Be mindful of Jerusalem, o Yahweh
   finished her coveted objects those possessed
   when her people fell by foe’s hand
   of her poverty and distress
   from days of yore
   with no one her to help
   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 = φ1 + φ2 or (φ1 + φ2) + φ3. φ = ω + ω or ω + ω + ω.
φ1 + φ2: φ1 = n σ (min 5, max 8). φ2 = n - (0 to 4) σ (min 4, max 6).
(φ1 + φ2) + φ3: φ1 + φ2 = n σ (min 6, max 9). φ3 = 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 = φ1 + φ2 or (φ1 + φ2) + φ3. φ = ω + ω or ω + ω + ω.
φ1 + φ2: φ1 = n σ (min 5, max 9). φ2 = n +/- (0 to 3) σ (min 5, max 9).
(φ1 + φ2) + φ3: φ1 + φ2 = n σ (min 5, max 8). φ3 = 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 = φ1 + φ2 or (φ1 + φ2) + φ3. φ = ω + ω or ω + ω + ω.
φ1 + φ2: φ1 = n σ (min 2, max 10). φ2 = n +/- (0 to 6) σ (min 2, max 10).
(φ1 + φ2) + φ3: φ1 + φ2 = n σ (min 2, max 10). φ3 = 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

An explanation of 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:


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 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-anapesthetic 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 Cv 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 CvCvC and Cv(C)Cv 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.