This volume brings together papers relating to the pronunciation of Semitic languages and the representation of their pronunciation in written form. The papers focus on sources representative of a period that stretches from late antiquity until the Middle Ages. A large proportion of them concern reading traditions of Biblical Hebrew, especially the vocalization notation systems used to represent them. Also discussed are orthography and the written representation of prosody.

Beyond Biblical Hebrew, there are studies concerning Punic, Biblical Aramaic, Syriac, and Arabic, as well as post-biblical traditions of Hebrew such as piyyuṭ and medieval Hebrew poetry. There were many parallels and interactions between these various language traditions and the volume demonstrates that important insights can be gained from such a wide range of perspectives across different historical periods.

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Cover image: Detail from a bilingual Latin-Punic inscription at the theatre at Lepcis Magna, IRT 321 (accessed from https://www.wikipedia.org/wiki/File:Inscription_Theatre_Lepcis_Magna_Libya.JPG). Leaf of a Syriac prayer book with Western vocalization signs (source: Wikimedia Commons). Leaf of an Abbasid-era Qurʾān (vv. 64.11–12) with red, yellow, and green vocalization dots (source: Wikimedia Commons). Genizah fragment of the Hebrew Bible (Gen. 11–12, Cambridge University Library T-S A1.56; courtesy of the Syndics of Cambridge University Library). Genizah fragment of a Karaite transcription of the Hebrew Bible in Arabic script (Num. 14.22–24, 40–42, Cambridge University Library T-S Ar. 52.242; courtesy of the Syndics of Cambridge University Library). Greek transcription of the Hebrew for Ps. 22.2a in Marc. 27.46 as found in Codex Bezae (fol. 99v; courtesy of the Syndics of Cambridge University Library).
1.0. INTRODUCTION

Throughout the long history of Hebrew poetry of Andalusi origin, the methodological foci and analytical proposals found in manuals have changed and evolved, always adapting to the new realities of who was producing and consuming these types of compositions. Today, it is understood that Andalusi Hebrew metrics is based on a set succession and combination of long and short syllables, with the different sequences producing different metres.¹ It is also widely accepted that metrical adaptation was carried

¹ This study was carried out under the auspices of ERDF/Ministry of Science, Innovation and Universities–State Research Agency, Project: The Judeo-Arabic Legacy of al-Andalus: The Linguistic Heritage PGC2018-094407-B-I00. In this paper I will use the following abbreviations in a conventional way: C for consonant; V for vowel; S for sabab kāfīf; L for sabab tāqīl; W for watid majmūʿ; V for watid mafrūq; LS for fāṣila šuγrā; LW for fāṣila kubrā; T for tenuʿa; Y for yated; – for long vowel; and ˘ for short vowel.

¹ This, for instance, was the approach used in the classic work by Schirmann (1995, 119–22, especially n. 105).
out by Dunash ben Labraṭ in tenth-century Cordoba.\(^2\) However, arguments continue even today about whether this system is based on an opposition of long and short syllables (traditional quantitative pattern) or open and closed syllables with phonic accents giving the composition its rhythm (accentuated pattern).\(^3\)

The traditional conception seems to have its origin in the introductions to Hebrew metrics written by Abraham ibn ‘Ezra in his *Sefer Ṣaḥot* and Moshe Qimhi in *Mahalak shevile ha-daʿat*.\(^4\) As both authors, Ibn ‘Ezra and Qimhi, were ‘distributors’ of the Andalusi legacy in Europe, it is not surprising that they found a simplified formula to transmit and adapt the complex classical ‘arūḍ to an Arabic-speaking and Romance-speaking public who had either lost quantitative rhythm or never known it. According to this model, metres originated in the alternation of the medieval metrical units known in Hebrew as *yated* (a sequence correlated with CVCVC) and *tenuʿa* (a sequence correlated with CVC), producing what both men considered the Hebrew metres and, to some extent, this is still used today to scan any verse that employs this metrical system, whether the poet was Arabic-speaking or not. Both authors seem to have echoed the vowel theory of Moshe’s

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\(^2\) Although medieval sources had already attributed this adaptation to Dunash ben Labraṭ, the first modern academic to defend it was Brody (1937) in response to questions from Pinsker, Shamhuni, and Harkabi.

\(^3\) For a summary of the different theories on Andalusi metrics in general, see Corriente (1986; 1991; 1998, 90–121 and 31–37).


\(^5\) See folios 45–50 of the Venice edition (1546).
father, Yosef Qimhi,\textsuperscript{6} converting the concept of \textit{ḥarf}, understood in the metrical system used between the tenth and twelfth centuries as the smallest unit that can be scanned, into an alternation of short and long syllables.\textsuperscript{7} This form of scanning became established on the Iberian Peninsula as well, and was described in the early fourteenth century by David ben Yom Ṭob ben Bilya of Portugal.\textsuperscript{8} The model was very widespread and would become the version transmitted among the different Jewish communities in Europe during the sixteenth and seventeenth centuries.

This alternation of short and long syllables is similar to what Orientalist William Jones did centuries later when he believed that the Arabic \textit{ʿarūḍ} was simply a copy of Greek and Latin

\footnotesize{\textsuperscript{6} The theory of ten vowels, five large or long and five small or short, was first put forward in \textit{Sefer ha-zikkaron} (ed. Bacher 1888, 17–19).

\textsuperscript{7} On the metrical syllables, \textit{ḥarf} or \textit{mora} see Frolov (2000, 68–93). At the end of the chapter, Moshe Qimhi himself confesses that he manipulated the Andalusi metrical system when he says: יראיך שתרדו שאת החולק לමני הדר אצנצה מיה שועים חכמי השיר במעמה יד חזקיה השיר/Linux החכמים והכמים והכפים התחת \textit{you should know that this division into types of verses (= metres) is not exactly what poetry experts used, since they divided the verse into sections and introduced the types (= feet) under each category; however, this division (\textit{yated-tenuʿa}) seems easier to me‘. [This passage is at the bottom of folio 50 just before the colophon in the Venice edition (1546)].}

\textsuperscript{8} Edited by Allony (1966). The triple approach to vowels (Masoretic, grammatical, and metrical) can also be seen at the end of the fifteenth century in Saʿadyah ibn Danān (Cohen 2000, 66–76, for the Arabic version and 155–67 for the Hebrew version).}
metrics, an idea that can be found even today in manuals on classical Arabic metrics written in Europe. Much more interesting is the mixed system to study Andalusi Hebrew metrics devised by David Yellin, who, after recognizing the Kalilian metrical system in medieval Hebrew metrics, used the paʿal paradigm to scan and catalogue the metres.

Thus, up to four different basic prosodic models of Andalusi Hebrew metrics can be identified:

(i) the original or indigenous model used between the tenth and twelfth centuries, faithfully conveyed in an anonymous manual, to a lesser extent in the first texts on metrics and even in later pieces such as Yaʿaqov ben Elʿazar ha-Bavli’s thirteenth-century work;

(ii) the Romance model, devised by Andalusi authors exiled in southern Europe after the arrival of the Almohads;

(iii) the classical or European model, inspired by the methods of classical Greek poetry;

(iv) the mixed or Israeli model codified by David Yellin, a hybrid of all the earlier models and the one used today.

2.0. THE INDIGENOUS MODEL

This is the original model on which the Arabic metrical science (ʿilm al-ʿarūḍ) used by medieval poets in arabophone settings was

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9 Yellin (1939) and Yellin (1940, 44–53).
based. The classical Arabic metrical system is composed of sixteen metres, fifteen of which, considered classical, are attributed to Al-Ḳalīl ibn Aḥmad al-Farāhīdī (718–791), with the last (mutadārak) attributed to his disciple ʿAbū al-Ḥasan Saʿīd ibn Masʿada al-Mujāšīʿī (d. 830), known as Aḵfash al-ʿAwsat.

The units or metrical syllables are formed by joining two or more vocalised letters followed by a quiescent letter. The union of two letters is called sabab ‘rope’ (the type used to tie down a tent), that of three letters in two syllables (CVCVC or CVC̆) is called watid ‘peg’ (the kind used to fix a tent rope), while the sequence of four or more letters (CVCVCVC or CVCVC̆) is known as fāṣila ‘fastener’.

Two types of sabab are recognised:

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12 For the description of the metrics in this work, I have followed, firstly, classic medieval treatises like the work by Ibn ʿAbd Rabbīhi, Kitāb al-ʿIqd al-Farīd (ed. Amīn et al. 1948), the annotated edition of La Khazradjyah (ed. Basset 1902), the Kitāb al-ʿArūḍ by Ibn Jinnī (ed. al-Hayb 1989), and that by al-Rabaʿī (ed. Badrān 2000) in addition to al-Kāfī by al-Ṭabrīzī (ed. Shamseddīn 2008), and, secondly, modern classical manuals like those by Álvarez Sanz y Tubau (n.d.); ʿAtīq (1987); Sobh (2011); and Hāšimī (n.d.).

13 For the concept of harf as letter, as syllable, and as mora, and for how it is used to compose feet and metres, see Frolov (2000, 68–93). For its definition in Hebrew, see Jastrow (1897, 4).

14 The metaphor consists of understanding the verse as a tent (bayīt) held in place with a sabab ‘rope’, which is, in turn, fixed with a watid ‘peg’ assisted by a fāṣila ‘fastener’.

15 To catalogue the syllables and feet, I will use the Hebrew alphabet and reproduce the original Arabic vocalisation with the Hebrew vowels
1. Sabab kafif ‘light rope’ (henceforth abbreviated as $s$): a succession of two letters, the first vocalised and the second quiescent, i.e., one closed syllable (CVC, represented as פַע) or its equivalent, the open syllable with a long vowel (C$\bar{V}$, represented as פַא), since lengthened letters are considered quiescent consonants. To vocalise the first letter, any of the vowels (א, אַ, אֲ, א, אֵ, וֹ, and א) can be used. Therefore, for metrical purposes, בַא, הַפ, and פַת are identical.

2. Sabab taqil ‘heavy rope’ (henceforth abbreviated as ל): a succession of two vocalised letters, i.e., two short open syllables (CVCV, represented as פַע). These occur rarely and, in fact, are always followed by a sabab kafif, producing the sequence known as fāsila ṣuγrā (see below). To create a sabab taqil, a compound shewa or a ḫaṭef vowel (א, א, and א) is used and this implies that the vowel that precedes it is also a vocalised letter, for example, the mem and the ʿayin in מַע ש ה, which is equivalent to פַע לַן (henceforth abbreviated as LS). Licence to use this is reserved only and exclusively for feet that require the presence of this metrical syllable. The sequence seems to have been established on the basis of sequences involving a vowel and a following ḫaṭef as in הַנִּינ and הַרַּכְכ, in which the vowel before the ḫaṭef was parsed as short. There is no consensus among grammarians, however, about the existence of the saba taqil, since it depends on whether the mobile shewa and ḫaṭefim were considered vowels. According

$qibbuṣ (damma), pataḥ (fatha) and ḥireq (kasra). Bear in mind that in a case like פַע ולַן, shureq can never be used with the waw, since for metrical purposes in this foot, it is a quiescent letter like final nun, meaning that it cannot receive any vowels.
to Ḥayyūj, the sequence is impossible.\textsuperscript{16} Ibn Janāḥ\textsuperscript{17} and Yosef Qimḥi,\textsuperscript{18} however, accept it. According to the anonymous manual,\textsuperscript{19} it is not possible in Hebrew in isolation, although in practice it is used.\textsuperscript{20}

Two types of \textit{wati}d are also recognised:

1. \textit{Watid majmūʿ} ‘joined peg’ (henceforth abbreviated as \textit{W}): a succession of three letters, where the first and second are vocalised and the third is quiescent, i.e., a CVCVC sequence (represented as \textit{פַע ל}) or CVC\(\ddot{V}\) (represented as \textit{פַע ו}). Examples of this type are כ ב ר, ב נ ה, and וּפֹה. As in the case of the \textit{sabab kafīf}, an open syllable with a long vowel is considered to contain a final quiescent letter.

2. \textit{Watid mafrūq} ‘separated peg’ (henceforth abbreviated as \textit{V}): a succession of three letters, where the first is vocalised, the second quiescent, and the third vocalised, i.e., CVCCV (represented as \textit{פ ע ל} or \textit{פַאע}). This only appears in two circumstances and there is no consensus among the grammarians concerning it. The first case is apocopated imperatives and imperfects of verbs whose first radical is \textit{yod}, in either \textit{binyan qal}, such as בָּכְר, or \textit{hifīl}, such as בָּשֵׁי. However, acclaimed authors such as Ḥayyūj argue

\textsuperscript{16} Jastrow (1897, 7).
\textsuperscript{17} Derenbourg (1880, 277–90) and Alahmad Alkhakaf and Martínez Delgado (2018, 39–49 and 99–106).
\textsuperscript{18} Bacher (1888, 17–18).
\textsuperscript{19} Martínez Delgado (2017, 35).
\textsuperscript{20} Martínez Delgado (2017, 51 and 84).
that this type of sequence is equivalent to CVCC,\textsuperscript{21} while the author of the anonymous manual claims to perceive a \textit{patah} /a/ sound after the last quiescent consonant\textsuperscript{22} and thus considers this a CVCCV sequence. The other case occurs in segolate nouns whose third radical is weak, such as ב נ ה, in which, according to the phonological theory of the period, the accent on the first radical creates a weak letter and the final heh does not count for metrical purposes. It would scan, therefore, as פ ע ל, i.e., CVCC or CVCCV.

There are also two types of \textit{fāṣila}:

1. \textit{Fāṣila suqār} ‘small fastener’ (henceforth abbreviated as \textit{LS}, i.e., \textit{sabab taqil} + \textit{sabab kafif}): a succession of four letters, the first three of which are vocalised and the last quiescent (CVCVCVC, represented as פ ע ל ת). This commonly occurs where there is a vowel followed by a ħaṭef, as in י מ ד, or in cases where in the scansion of the verse a shewa is read as vocalic after a short vowel, as in ב ד ב ר.

2. \textit{Fāṣila kubrā} ‘large fastener’ (henceforth abbreviated as \textit{LW}, i.e. \textit{sabab taqil} + \textit{watid majmū‘}): a succession of five letters, the first four of which are vocalised and the last quiescent (CVCVCVCVC, represented as פ ע ל ת ת). The only author who defends its existence is Ibn Janāḥ who argues that it occurs in the

\textsuperscript{21} Jastrow (1897, 7).

\textsuperscript{22} Martínez Delgado (2017, 52 and 83).
words, which for metrical purposes would be respectively.\textsuperscript{23}

The feet result from the succession of two or three of these prosodic units or syllables. The combination of metric syllables produces up to ten feet. Two of them are composed of five letters: \textit{ws} and \textit{sw}; and the other eight are composed of seven: \textit{wss}, \textit{sww}, \textit{wls}, \textit{wsw}, \textit{wsw}, \textit{sws}, \textit{svs}, and \textit{sww}.

Once inside the poem, these feet usually undergo a series of modifications that alter their original appearance, which are known as \textit{ziḥāfūt} or \textit{ʿilal}, depending on their position and constancy in the composition. The metres are formed by a succession of feet, sometimes eight (four in each hemistich) and other times six (three in each hemistich). In classical theory, these sequences serve to develop and organise the five metrical circles displayed by Al-Ḵalīl ibn Aḥmad al-Farāhīd in his now lost \textit{Treatise on Metrics}. These five metrical circles are arranged as follows

1. \textit{Muktalaf}: two asymmetrical feet that are repeated twice per hemistich. It includes the classical metres \textit{tawīl} (\textit{wsw 2x in each hemistich}), \textit{madīd} (\textit{swsw 2x in each hemistich}), and \textit{basīt} (\textit{swsw 2x in each hemistich}).\textsuperscript{24}


\textsuperscript{24} Theory would later include derived or modern \textit{mustāṭīl} \textit{wsw 2x in each hemistich} and \textit{mumtadd} \textit{swsw 2x in each hemistich} metres in this circle.
2. **Mu’talaf**: two symmetrical hemistichs that repeat the same foot three times. It includes the classical metres *wāfir* (מַפַאעַלַת WLS 3x per hemistich) and *kāmil* (מַפַאעַלַת LSW 3x per hemistich).²⁵

3. **Muštabah**: two symmetrical hemistichs that repeat the same foot three times. It includes the classical metres *hazaj* (מַפַאעַלַת WSS 3x per hemistich), *rajaz* (מַפַאעַלַת SSW 3x per hemistich), and *ramal* (מַפַאעַלַת SWS 3x per hemistich).

4. **Mujtalab**: three feet (two of them always the same) are repeated in each hemistich. It includes the classical metres *sarīʿ* (מַפַאעַלַת מַפַאעַלַת מַפַאעַלַת SSW SSW SSV 1x in each hemistich), *munṣarīḥ* (מַפַאעַלַת מַפַאעַלַת מַפַאעַלַת SSW SSW SSW 1x in each hemistich), *kafīf* (מַפַאעַלַת מַפַאעַלַת מַפַאעַלַת SWS SWS SWS 1x in each hemistich), *mudārīʿ* (מַפַאעַלַת מַפַאעַלַת מַפַאעַלַת SSS SSS SSS 1x in each hemistich), *muqṭādāb* (מַפַאעַלַת מַפַאעַלַת מַפַאעַלַת SSV SSW SSW 1x in each hemistich), and *mujattā* (מַפַאעַלַת מַפַאעַלַת מַפַאעַלַת SSW SWS SSW 1x in each hemistich).

5. **Muttafaq**: the same foot repeated eight times. It only includes the classical metre *mutaqārib* (מַפַאעַלַת WS 4x in each hemistich). Some manuals add the *mutadārak* metre when it is included with the Kalilian circles (מַפַאעַלַת WS 4x in each hemistich) along with its variant (מַפַאעַלַת SS 4x in each hemistich).

²⁵ The theory would later include the derived metre *mutawaffir* or *mustawfīr* (מַפַאעַלַת SWL 3x per hemistich) in this circle.
The succession of these feet produces the verse or bayt. The verse is made up of two hemistichs; the first hemistich is known as the ṣadr (in Hebrew delet) and the second as ‘ajz (in Hebrew soger). The term for the first two or three feet (depending of the length of the hemistich) is ḥašw ‘stuffing’, while the last feet in each hemistich have their own name, ‘arūd for the last foot of the first hemistich and ḏarb for the last foot of the second hemistich.

The verse can be complete (tāmm), if all its feet are used; in the case of ṭawil its complete form is:

<table>
<thead>
<tr>
<th>‘ajz</th>
<th>ṣadr</th>
</tr>
</thead>
<tbody>
<tr>
<td>ḥašw ḫaṣiḥ</td>
<td>ḥašw ḫaṣiḥ</td>
</tr>
<tr>
<td>ḏarb ḫaṣiḥ</td>
<td>‘arūd ḥašw</td>
</tr>
</tbody>
</table>

The verse can be partial (majzūʾ), if it has supressed a foot in each hemistich. In ṭawil this would be:

| ḥašw ḫaṣiḥ | ḥašw ḫaṣiḥ |

26 Unlike the Romance model, which understood that the verse is produced by the succession and alternation of yated and tenuʿa; this conception distorts the metrical nature of these compositions.

27 In the medieval Hebrew tradition (Romance or later), there are no known names for these basic components on which part of the rhythm is based, perhaps because they had already lost their original function in a non-arabophone context, as suggested by the words of Moshe Qimhi. Nevertheless, it is possible that the terms delet and soger originally referred to these two feet and not to the hemistichs.

28 This form is used in the metres ṭawil, basīṭ, wāfir, kāmil, rajaz, ramal, sarīṭ, munsariḥ, ḥafīf, and mutaqārib.
It can be weak (manhūk) if two-thirds of the metre is supressed.
In źawīl this would be:

مضخلل نمضخلل

It can be divided (maštūr) if a complete hemistich is eliminated
In źawīl this would be:

مضخلل نمضخلل

Moreover, if the poet rhymes ʿarūḍ and darb in both hemistichs
at the beginning of the poem, i.e., both feet share the rhyme and
foot, this rhythm is called taṣrīʿ.

Finally, according to this model, Hebrew verse scans in the
following way:

(1)

لَبِبِي بَكَرِي هِم وَعِينٍ مُّدَمَّمةٍ لَّمْ يَسْلُبَنِي مَلاَكُهُ مَيْمَعَتْ

My heart burns in my bowels and my eyes spill tears be-
cause I am homesick for Hammot and Mefaʿat (Shemuel
ha-Nagid)²⁹

لَبَأَبِي بِكَربِي هِم وَعَيْنٍ مُدَمَّمَتُتْ لَمْ يَسْلُبْنِي مَلاَكُهُ مَيْمَعَتْ

The scansion would be the same as in an Arabic verse such as:³⁰

فَأَمَّا نَحْبُمُ نَجْيَمُ مِنْ مَرْحَبَةَ الْقُوْمُ رَأْيُنُي بِيَامَأَا

²⁹ Sáenz-Badillos and Targarona Borrás (1988, 42*).

³⁰ I took the following example from Kitāb al-ʿarūḍ by Al-Raḥāʾi (Badrān
2000, 61). The same example is used by Elʿazar ben Yaʿaqob (Yahalom
2001, 111). This is not the only case where they coincide, which is why
it is quite possible that one of the sources of Arabic verse that this Iraqi
author had was the treatise by al-Raḥāʾi (eleventh century).
As for the tribe of Tamīm, Tamīm ben Mur, the people found them sleeping soundly.

This scans as follows:

\[
فَٲلْفَأ هِمَلْقَو مُرَؤٍى يِيِمَآ
فَع وَل نٌْ فَع وَل نٌْ فَع وَل نٌْ
\]

Additionally, all of these feet can be modified. If the sabab in the stuffing (ḥašw) feet is affected, the modification is known as zihāfāt (these may be isolated), and if both the sabab and the watid of the ‘arūḍ and ḏarb are affected, it is called ‘ilal (once applied, it must be maintained throughout the poem). The zihāf is always an elision or modification that affects the second letter of the sabab. Its use is not necessary and it never alters the metre. Although theoretically it should be avoided, it is reflected quite commonly in poetic lines. It affects only the sabab and is found especially in the ṭawīl, basīṭ, and hazaj metres.

The modification or zihāf can be simple:

- **ṯalm**: the first letter of the watid majmūʿ is eliminated. 
  \[ \text{펙סָל} > \text{סֶלֶל} \]

- **ʾidmār**: the vowel of the second letter is eliminated. 
  \[ \text{מֶחֶמָסָל} > \text{סֶמֶסָל} \]

- **kabn**: the second letter of the foot is eliminated when it is quiescent. 
  \[ \text{מֶסֶנָל} > \text{סֶנָל} \]

- **waqs**: the second vocalised letter of the foot is eliminated. 
  \[ \text{מֶסֶנָל} \]

- **ṯayy**: the fourth letter is eliminated when it is quiescent. 
  \[ \text{מֶסֶנָל} \]
José Martínez Delgado

‘ašb: the fifth letter is made quiescent when it is vocalised. مَفَاعِلَةٌ > مَفَاعِلَتَهُ

qabḍ: the fifth letter of the foot is eliminated when it is quiescent. مَفَاعِلَتَهُ > مَفَاعِلَتَهُ

‘aql: the fifth vocalised letter is eliminated. مَفَاعِلَتَهُ > مَفَاعِلَتَهُ

kaff: the seventh quiescent letter is eliminated. مَفَاعِلَتَهُ > مَفَاعِلَتَهُ or مَفَاعِلَتَهُ

ḥadḍ: the last sabab kaff of the foot is supressed. مَفَاعِلَتَهُ > مَفَاعِلَتَهُ

However, it can also be compound, i.e., two modifications can apply in the same foot. This can only occur in the second, fourth, fifth, and seventh letter.31 There are four types:

kabl: kaban + tayy. مَفَاعِلَتَهُ > مَفَاعِلَتَهُ

kazl: ‘idmār + tayy. مَفَاعِلَتَهُ > مَفَاعِلَتَهُ

šakl: kaff + kaban. مَفَاعِلَتَهُ > مَفَاعِلَتَهُ

naqṣ: kaff + ‘ašb. مَفَاعِلَتَهُ > مَفَاعِلَتَهُ

In turn, ‘īlal is an alteration that affects both the sabab and the watid of ‘arūḍ and ourceb and once applied, it must be maintained throughout the poem. It can consist of an addition or suppression.

The following are additions:

31 Not all the metres accept these double modifications; an incompatibility occurs and solutions like mu‘āqaba, murāqaba, and mukānafa are used, depending on the types of metres.
The Prosodic Models of Andalusi Hebrew Metrics

**tarfīl**: a *sabab kafif* is added to the *watid majmū‘* at the end of the foot.

**tadyīl**: a quiescent letter is added to the *watid majmū‘* at the end of the foot.

**tasbīḡ**: a quiescent letter is added to the *sabab kafif* at the end of the foot.

Along with these three, another addition exists that can be applied to any foot, known as *kāzm*. It consists of adding one or several letters to the beginning of the stich or hemistich and is used in the *ṭawil*, *madīd*, *basīṭ*, *kāmil*, and *ramal* metres.

The following are suppressions:

**ḥadf**: the last *sabab kafif* in the foot is supressed.

**qatf**: a *sabab kafif* in the foot is supressed and the preceding vowel disappears.

**qasr**: the second letter in the *sabab kafif* is supressed and the vowel of the first letter is eliminated.

**qat‘**: the last letter of the *watid majmū‘* is supressed and the vowel of the second letter is eliminated. When this phenomenon occurs in *mustaṭīl*, it is called *tašʿīt*, i.e., to shorten one foot in a syllable.

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32 Some theorists believe that *qasr* and *qat‘* are the same; however, *qasr* applies to *sabab kafif* and *qat‘* to *watid majmū‘*. 
\(\textit{ḥadd}\): the \textit{watid majmū́} at the end of the foot is suppressed.
\(\text{ utiliser } = \text{ manthun} > \text{ manthun}.^33\)

\(\textit{salm}\): the \textit{watid maf\textrsquo;rū́q} at the end of the foot is suppressed.
\(\text{ utiliser } = \text{ manthun} > \text{ manthun} \) (only in the \textit{sari} metre).

\(\textit{wagf}\): the vowel of the last letter of the \textit{watid maf\textrsquo;rū́q} is eliminated.
\(\text{ manthun } > \text{ manthun} \) (specifically in the \textit{sari} and \textit{munsarih} metres).

\(\textit{kašf}\): the last letter of the \textit{watid maf\textrsquo;rū́q} is suppressed.
\(\text{ manthun } > \text{ manthun} \) (specifically in the \textit{sari} and \textit{munsarih} metres).

Just as there can be double additions, likewise double suppression can occur:

\(\textit{batr}: \textit{ḥadd} + \textit{qat}, \) the quiescent letter of the \textit{watid majmū́} is suppressed and eliminated, leaving what precedes it quiescent.
\(\text{ utilis} > \text{ utilis} > \text{ utilis} \) (\textit{madid}).

Additionally, other suppressions exist that can be applied to any foot. These are:

\(\textit{kharm}: \) the first letter of the \textit{watid majmū́} of the first foot at the beginning of the verse is suppressed in the \textit{tawil}, \textit{hazaj}, \textit{muḍāri}, \textit{muqtaḍāb}, and \textit{mutaqārib} metres.
\(\text{ utilis } > \text{ utilis} > \text{ utilis} \) (\textit{madid}).

When this occurs in the foot \(\text{ manthun } > \text{ manthun} \), it is called \textit{ʿadīb}.

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^33 Some theorists argue that this can only occur in the foot \(\text{ manthun } > \text{ manthun} \).
\( \text{ṭarm:} \ talm + qabd. \) When this occurs in the foot it is called \( \text{šatr} \).

\( \text{karb:} \ talm + kaff. \)

\( \text{qasım:} \ talm + \ ‘asb. \) This should not be confused with \( \ ‘adb \), which occurs only at the beginning.

\( \text{jamm:} \ talm + kašf. \)

\( \ ‘aqd: \ talm + naqṣ. \)

With this model, it is possible to affirm that the metre used in the first known compositions by Dunash ben Labraṭ (ca. 958) is a modified version of mustaṭīl (WSSSS).\(^34\) This was established as a classical formula and was reproduced and used exclusively in the \textit{musammatā} genre (both \textit{muṭallaṭ} and \textit{murabba‘}) by the four great Hebrew poets of the Golden Age (mid-eleventh to mid-twelfth century), namely Samuel ben Nagrela, Shelomo ibn Gabirol, Moshe ibn ‘Ezra, and Yehuda ha-Levi. An example of this scan- 

sion is as follows:\(^35\)

(2) 

\[ \text{Know, my heart, wisdom, science and reflection. Follow the} \]

\[ \text{paths of intelligence, listen to the disciplined ones} \]

\[ \text{traditionally catalogued as} \text{tawil. Ya‘aqob ben El‘azar catalogues it as a} \]

\[ \text{variant of hasaj (Yahalom 2001, 88), although metrical theory does} \]

\[ \text{not permit such a sequence in this metre.} \]

\[ \text{Sáenz-Badillos (1980, 1*; vocalisation mine).} \]
The second foot, פַע לַן, has been modified by qatʿ (tašīt because it occurs in mustaṭil), producing פַע לַן.

In the following composition, likewise, Ibn Gabirol has not created a hybrid metre, but rather has applied a ʿtalm modification to the ʿtawil metre with a tašrīʿ rhythm, as confirmed by the second verse:

(3) מי זוֹת כֹּמָה יַשָּׁרְעָה וּנְשַׁקָּפֶה, הָיָה בִּתָה בֵּרוּ בֵּרָה יַמְאָדָה, יָרְקָה בָּרִי מָרָי בֵּכִשְׁפֹּתרֵה.

Who is this who rises like the dawn and comes into sight, shines like a radiant sun, so beautiful

Like a daughter of kings, noble and elegant; her aroma is like the aroma of burnt myrrh and a thurible

מַיֶּת כּוֹנָשָׁאָר עֶלֶה וּנְשַׁקָּפֶה הָיֲאֵר אֶדְרָךְּמָה בֵּאוּרָה מָאָרָאָפָה, מְפַע לוּ בְּמָאָסְעֵיָה מְפַע לוּ בְּמָאָסְעֵיָה, מְפַע לוּ בְּמָאָסְעֵיָה מְפַע לוּ בְּמָאָסְעֵיָה, מְפַע לוּ בְּמָאָסְעֵיָה מְפַע לוּ בְּמָאָסְעֵיָה.

The same can be said about the funeral epitaph of Shemuel ben Shoshan of Toledo dated 1257 (lines 2 and 4):

37 the metre is wāfir (with ʿarūḍ and ʿdārb affected by qatf) with frequent modification of the original foot מְפַע לוּ בְּמָאָסְעֵיָה, with ʿasb, producing מְפַע לוּ בְּמָאָסְעֵיָה in all its feet except the second, without any need to eliminate the ʿhaṭef vowel beneath the guttural consonant during the scan-

sion:

36 Brody and Schirmann (1974, 98).

37 Millás-Cantera (1956, 77–78).
At times, editors argue that the compositions lack metre (\(-\---/\-\-\-\-\)). However, this model makes it possible to identify the metre by taking into account the modifications. For example, the following composition by Yehuda ha-Levi\(^{38}\) is clearly a *mutaqārib* affected by *talm*:

(5) 

\[
\begin{align*}
\text{יְהָעָץ} & \quad \text{וּמַיְקָם} \\
\text{בַּמְרַם} & \quad \text{שַׁחַקָם} \\
\text{וּעַל} & \quad \text{יָם} \\
\text{רַחְוִקָם} & \quad \text{צְדֵקָה} \\
\text{כִּרְחַּ} & \\
\end{align*}
\]

Who decides and executes this in the high Heavens, and over the far-off seas, his justice shines

3.0. THE ROMANCE MODEL

The first allusions to this model are found in the writings of the Andalusi Jews who settled in Provence after the Almohad conquest of 1146. The oldest treatise that uses this model to explain Andalusi Hebrew metrics is *Sefer Ṣaḥot* by Abraham ibn ‘Ezra, written in Mantua in the mid-twelfth century.\(^{39}\) This is an adaptation of the original Andalusi metrical system of feet appropriate for a non-arabophone context and is a much smaller, simplified

\(^{38}\) I am following the edition by Sáenz-Badillos and Targarona (1994, 476–83).

\(^{39}\) See note 4.
version of the original model with a mixture of elements that were in vogue in Andalusi Hebrew poetry, such as the repeated use of *musammat*.

Unlike the complexity of the original Andalusi model, the only rule specified by Abraham ben ʿEzra is: the number of vowels simply must be maintained; mobile *shewa* followed by a vowel is called *yated*. After this brief clarification, he distinguishes seventeen forms that constitute eleven metres, of which only ten are classical. At no time does he speak of feet, only of an alternation of *yated* (henceforth abbreviated as Y) and *tenuʿa* (henceforth abbreviated as T). Ibn ʿEzra distinguishes the metres without naming them. The first three cases are Hebrew *musammat*:

1. YTTTT: Ibn ʿEzra shows that this sequence can repeat in a line three (muṭallat or ternary) or four (merubbaʿ or quaternary) times.

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40 In fact, the first poems attributed to Dunash ben Labraṭ were scanned using this Eastern form that resulted from the appearance of internal rhymes (*sammatata*) in the monorhyme lines of *qaṣidas* (for the relationship between *musammat* and *muwaṣṣah*, see Corriente [1998, 24–25], and for Hebrew poetry, see Martínez Delgado [2016, 39–58]). These compositions are formed by dividing the verse into sections with rhyme that is identical, but different from the end of the last foot, i.e., *bbba*, *ccca*, *ddda*, etc. These divisions of the verse can become *murabbaʿ* (quaternary) or *muḵammam* (quinary).

41 This is the derived or modern *mustaṭil* form, but applying *tašʿīṯ*, producing *muḥasṭar*.
2. TTTT: the line must be a *musammat merubbaʿ* (quaternary: *bbba, ccca*, etc.), it has no *yated*, according to Ibn ʿEzra, it is ʼם ‘light’ and may even dispense with the internal rhymes of the *musammat*.

3. YTYT: the line must be a *musammat merubbaʿ* (quaternary: *bbba, ccca*, etc.) where a *shewa* has been added to each foot (YT). This is the classical *mutaqārib* metre in its complete form.

4. TTYTT: this metre continues to have a *merubbaʿ* (quaternary) line, but it is ‘greater’ than the previous one. The internal rhyme alternates between the different feet that form the hemistichs of the verses (*abab, abab*, etc.). According to Ibn ʿEzra, a *shewa* can be added at the beginning of each sequence (YTYTT) and then the original, complete form of the *ṭawil* reappears.

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42 Although known as *mišqal ha-tenuʿot* in Hebrew, this is the Arabic metre *mutadārak* modified according to Arabic norms, as Yellin (1939, 192) suspected. This foot does not have to repeat throughout the entire verse; it can alternate with ʼם, which is common in Arabic since its complete use is rare, even in that language. This metre accepts the *qaṭʿ* modification in all its feet. Because of this, once the modifications are applied, the metre changes its name.

43 This is a complete form of the Arabic *ṭawil* metre modified with *karm* at the beginning of each hemistich ʼם, ʼם.
5. YTTYTT: this is one of the most common metres in Hebrew and corresponds to the Arabic ḥazaj. Ibn ʿEzra asserts that some add YT to the end of this sequence, producing YTT YTT YT, which is in point of fact the wāfīr metre.

6. TTYTTYTT: this metre is, according to Ibn ʿEzra, the richest, because it has up to three types of variants. The first is obtained by adding a shewa to the beginning of the YTTYTTYT line; the second adds a vowel to the end, producing TTYTTYTTT; the third is the only one that preserves ḍarb and ʿarūḍ, producing a complete classical sequence TTYTTYTTY TTYTTYTTT.

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44 In the Del Valle edition (1977, 150) yated + tenuʿa + yated + two tenuʿot, but the scansion of the poem itself confirms the error.

45 This is the kāmil metre with an ʾidmār modification in the stuffing (ḥašw) feet and ḥadd in the ḍarb, without any sign of its ʿarūḍ. In Hebrew, the version of this metre known as kāmil muḍmar is the most commonly used one. See Martínez Delgado (2012, 277–80).

46 This is really a recourse used by the Jewish poets to reconcile it with its original foot; in other words, in the first foot of the hemistich, the second vowel of the fāṣila ṣuğrā is replaced by a sabab ḥafīf, since there is no consensus about this sequence in Hebrew. According to Arabic theory, if the last two feet undergo an ʾidmār modification, the primitive form must appear in the poem so that it is not confused with rajaz; thus, the first foot is different and has a form that does not exist in Arabic.

47 This is a kāmil muḍmar where ḍarb and ʿarūḍ are first affected by qaṭʾ (פַע לַאתן > פַע לַאתן) and then by ʾidmār (פַע לַאתן > פַע לַאתן). This confusion is very common in Hebrew metrics. On the šalem and ha-šalem we-ha-soʿer metres see below §5.0.
7. TTYTYT: this is the classical mujatt metre in partial form (majzū) with complete ‘arūḍ and identical ḍarb.

8. TYTTYT: this verse actually reproduces an incomplete TYTT sequence, but this is the ramal metre as it is most commonly used.

9. TTTYTY: in principle, it is not clear in the text if this is a variant of the previous case or a new metre. Given that it is clearly a rajaz in the majzū, or partial, form with complete ‘arūḍ and identical ḍarb, it should be identified as a different metre. According to Ibn ʿEzra, it is used with a merubba verse (quaternary musammat).

10. TTYTY: according to Ibn ʿEzra, in this sequence that repeats four times, the Y at the end must be replaced by T. The complete sequence would be TTYTY TTYTY TTYTY TTYTT. According to the author, this is a difficult metre to use (kabed) in Hebrew.

49 In the Del Valle edition (1977, 153), the final YT is omitted according to the scansion of the verse; as this sequence makes no sense; I am following Lippmann (1827, xi).

50 This is a majzū, or partial, verse with complete ‘arūḍ and identical ḍarb.

51 This is the basīṭ metre with ‘arūḍ in complete form (tāmm) and ḍarb modified by qat (כסל טאעלי = פַעַלְתָּנָן > פַעַלְתָּנָן)
José Martínez Delgado

11. TYTY. Ibn 'Ezra asserts that this is the most difficult of all. According to the example, it is used with a merubba' line (quaternary musammat).

Moshe Qimhi presents something similar in his work Mahalak Shevile ha-Da'at. As above, the prosodic units are Y and T. Qimhi distinguishes the following metres:

1. TTTTTTTT (mutadārak, 2 in Ibn 'Ezra’s classification);
2. YTTTT (mustaṭīl, 1 in Ibn 'Ezra’s classification);
3. YTTTTYTTT (kāmil, 6 in Ibn 'Ezra’s classification);
4. YTTYTTYT (wāfir, 5 in Ibn 'Ezra’s classification);
5. YTTYTT (hazaj, 5 in Ibn 'Ezra’s classification);
6. YTTYTTYTTT (tawil, 4 in Ibn 'Ezra’s classification);
7. YTYTTYYT (mutaqārib, 3 in Ibn 'Ezra’s classification);
8. TYTTYT (ramal, 8 in Ibn 'Ezra’s classification);
9. TTYTTTTYTTT (basīṭ, 10 in Ibn 'Ezra’s classification);
10. TTYTTTTYT (sari‘, not found in Ibn 'Ezra’s classification);
11. TTTYTTYTTT (rajaz, 6 in Ibn 'Ezra’s classification);

This is the mutadārak metre; its modified variant known as mišqal ha-tenu‘ot is much more common in Hebrew, see 2. TTTT.

This is a modified version. The first stuffing (ḥašw) foot has been modified with qaṣr and the second with 'idmār. The verse must be majzū‘, or partial, with ‘arūḍ modified with ḥadd and 'idmār, according to the classical norm.
12. TTYTYT (*mujtaṭṭ*, 7 in Ibn ʿEzra’s classification);
13. TTYTTYTT (*kāmil*, 6 in Ibn ʿEzra’s classification);\(^{54}\)
14. TTYTTY (*rajaz*, 9 in Ibn ʿEzra’s classification);
15. TTYTTTT (*munsariḥ*, not found in Ibn ʿEzra’s classification);
16. TTYTY (*basīṭ*, 10 in Ibn ʿEzra’s classification);
17. TTYTTYTTT (*rajaz*, 6 in Ibn ʿEzra’s classification);

This model was highly successful and is frequently found in other manuals on metrics written between the fourteenth and fifteenth centuries in the Iberian Peninsula. It appears, for example, in the work of David ben Yom Ṭob ben Bilya from Portugal, who divides the vowels into kings (*qameṣ*, *pataḥ*, *šere*, *segol*, *holm*, and *hireq*) and servants (*shewa* and *qibbuš ṣefatayim* or *shureq*) and, as Qimḥi did, includes up to eighteen variants of what are today considered nine metres.\(^{55}\) In the last years of Nasrid Granada, Saʿadya ibn Danān wrote an introduction to his dictionary that included the tripartite conception of Hebrew vowels (Masoretic, grammatical, and metric). He dedicated an entire chapter to the art of

\(^{54}\) This is a modified version. A syllable is added to *kāmil muḍmar* at the end (*tarfīl*) so that it is not confused with *rajaz*. TT TTY TT in the edition, the scansion of the verses used as an example is followed.

\(^{55}\) Allony (1966).
writing poetry,\textsuperscript{56} following this model in broad terms and deviating in many respects from the indigenous model when he tried to merge them. Beginning in the fifteenth century, this was the model that was transmitted among the different Jewish communities dispersed around Europe in works by distinguished teachers such as Avshalom ben Moshe Mizraḥi, Abravanel, and David ben Yahya from Portugal, and in the sixteenth and seventeenth centuries in the works of the Italians Emmanuel ben Yequti’el, Azaría de Rossi, Samuel Archivolti, and Emmanuel Fransis, and the Dutchman Salomón de Oliveyra.\textsuperscript{57}

4.0. THE CLASSICAL OR EUROPEAN MODEL

The inspiration for this model is classical Greek poetry and to some extent it is the heir to the thesis set forth by William Jones (1746–1794) for Arabic metrics in his 	extit{Poeaeos Asiaticae Commentariorum Libri Sex} (Lipsiae, 1777\textsuperscript{2}) and continued, first by Heinrich Ewald (1803–1875) in his 	extit{De Metris Carminun Arabicorum Libri Duo} (Brunsvigae, 1825–1854), and then by William Wright (1830–1889) in his renowned 	extit{A Grammar of the Arabic Language} (Cambridge, 1969\textsuperscript{3}).\textsuperscript{58} With regard to Andalusi Hebrew poetry, the most complete and exact description of this model comes

\textsuperscript{56} See Cohen (2000, 66–76) for the Arabic version and ibid. (155–67) for the Hebrew version.

\textsuperscript{57} A review of all these authors can be found in Del Valle (1988, 349–459).

\textsuperscript{58} On the history of the study of ʿarūḍ in Europe, see Frolov (2000, 1–22).
from María José Cano, who used this method to codify and scan the entire dīwān of the Andalusi poet Shelomo ibn Gabirol.59

In this model, metre is understood to be quantitative and based on alternating long and short syllables. As with the Romance model, only two basic prosodic syntagms are recognised:

*Yated*: the succession of short and long syllables (*iambo* in Greek and *watid majmūʿ* in Arabic), represented below by \(| - \sim |\).

*Tenūʿa*: a long syllable (*sabab kafif* in Arabic), represented below by \(| - |\).

The vowel in the long syllables can be any of the seven Tiberian vowels, while the vowels in the short syllables can only be the simple *shewa*, its three compounds and the waw conjunction vocalised with *shureq* (י).

The feet are composed of three or four syllables and, therefore, can, from a prosodic point of view, be binary or ternary.

### Binary (reading from right to left)

<table>
<thead>
<tr>
<th>Arabic</th>
<th>Classical</th>
<th>Romance</th>
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<tbody>
<tr>
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<tr>
<td>פִּשְׁעֵל</td>
<td></td>
<td>YT</td>
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<tr>
<td>פִּשְׁעֵל</td>
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<td>TT</td>
</tr>
</tbody>
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According to this model, the metres can be symmetrical (the first two feet are identical), asymmetrical (the first two feet are different), or free (muwaššaḥ or šīr ha-ʾezor).

The line (bayit) is divided into two hemistichs. The first is known as delet and is responsible for determining the metre in this model. The second, known as soger, is usually a repetition of the first, carries the rhyme, and also usually takes most of the modifications (the addition or suppression of syllables, the suppression of a letter, or even the whole hemistich).

The symmetrical or simple metres can be binary or ternary:

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**Binary feet (reading from right to left):**

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<th>mutaqārib</th>
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<table>
<thead>
<tr>
<th>mutadārak</th>
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<td>TT</td>
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</table>
Ternary feet (reading from right to left)

|        | TY | TTY | TTY | TTY | | TY | TTY | TTY | TTY |
|--------|----|-----|-----|-----| | ----|-----|-----|-----|
| \(\text{wāfir}\) | \(\text{- - -}\) | \(\text{- - -}\) | \(\text{- - -}\) | \(\text{- - -}\) | | \(\text{- - -}\) | \(\text{- - -}\) | \(\text{- - -}\) | \(\text{- - -}\) |

|        | TTY | TTY | | TTY | TTY |
|--------|-----|-----| | ----|-----|
| \(\text{hazaj}\) | \(\text{- - -}\) | \(\text{- - -}\) | | \(\text{- - -}\) | \(\text{- - -}\) |

|        | TY | TYT | TYT | | TY | TYT | TYT |
|--------|----|-----|-----| | ----|-----|-----|
| \(\text{ramal}\) | \(\text{- - -}\) | \(\text{- - -}\) | \(\text{- - -}\) | | \(\text{- - -}\) | \(\text{- - -}\) | \(\text{- - -}\) |

|        | YTT | YTT | YTT | | YTT | YTT | YTT |
|--------|-----|-----|-----| | ----|-----|-----|
| \(\text{kāmil}\) | \(\text{- - -}\) | \(\text{- - -}\) | \(\text{- - -}\) | | \(\text{- - -}\) | \(\text{- - -}\) | \(\text{- - -}\) |
The asymmetrical or compound metres alternate binary and ternary feet (reading from right to left):

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### 5.0. The Israeli Method

This is a mixed system devised by David Yellin to study Andalusi Hebrew metrics\(^\text{60}\) based on the first codifications of Yehuda ha-Levi’s metrics by Heinrich Brody\(^\text{61}\). It is, in short, a hybrid of the indigenous and classical forms, but with some confusion produced by the Romance model.

Brody’s initial conclusions about Andalusi Hebrew metrics were harshly criticised by Halper (1913). He said that Brody did not correctly identify many metres and manipulated the vocalisation because he paid more attention to theory than to practice, basing his analysis on Freytag and blindly following Ibn Danān. Brody concluded that some feet are impossible in Hebrew: two short vowels cannot follow each other (they are replaced by a long vowel in Arabic), and there can be no \textit{watid mafrūq} (no Arabic verses end in a short vowel, since they are always scanned as long). According to Halper, viewed from the Arabic, all metres fit, but Arabic can use long and short syllables, while Hebrew prefers to use long ones. This, then, led Brody to assert that there are some impossible metres in Hebrew. Halper questioned the extent to which Arabic metres can be used to analyse Hebrew

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\(^{60}\) Yellin (1939; 1940, 44–53).

\(^{61}\) Brody (1895).
metres. He argued that the equation of Hebrew mobile shewa with an Arabic short vowel is an artificial equivalence used by Hebrew poets that should not affect the recitation of the poem. It would appear that Halper was describing Arabic metrics using Greek categories and understood that all syllables are long in Hebrew, including accentuated ones. He argued that the arabo-phone Jews were aware that shewa often corresponded to short Arabic vowels and made the change. Halper rightly suspected that a vowel followed by shewa could be two short vowels.

In these circumstances, David Yellin saw no other choice but to catalogue all the Arabic metres used by Shemuel ha-Nagid following the indigenous model. This resulted in the new system that recognises the five Ḳalilian circles in Hebrew metrics and uses the root paʿal to represent schematically the scansion and to catalogue the metres. However, the current use of the paʿal scheme to scan these compositions from the classical period (tenth–twelfth centuries) is unsatisfactory since it distorts the reality of the modifications applied. In Yellin’s system the metrical patterns are reduced to seven basic feet:

<table>
<thead>
<tr>
<th>ש&quot;ע&quot;ל</th>
<th>מפה&quot;ל</th>
<th>פ&quot;ע&quot;ל</th>
<th>פ&quot;ע&quot;ל</th>
<th>פע&quot;ל</th>
<th>מ&quot;ע&quot;ל</th>
<th>נ&quot;ע&quot;ל</th>
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<tr>
<td>(WS)</td>
<td>(SSW)</td>
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The last two feet are actually forms that result from modifications (ziḥāfāt) in the indigenous model: נפאל (ss) and נפאל ים (sss).

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62 See my list in Martínez Delgado (2017, 123–37).

63 For the Hebrew adaptation of these circles, see Yellin (1940, 47–52).
The Prosodic Models of Andalusi Hebrew Metrics

(sss), and in no case form part of the original metre. In fact, it is these modified forms that confirm that the Jewish poets were respecting the Arabic feet and did not Hebraise them as Yellin claims. If they had done so, the foot \( \text{ פַע ול ן } \) (never \( \text{ פ עוּל ן } \)) would have resulted in an impossible \( \text{ פ ע } \) after a double \( batr \)-type modification.

Nonetheless, the exhaustive cataloguing of metres carried out by Yellin is one of the most important contributions to the study of Hebrew metrics in modern times. This system, however, creates some confusion when attempting to identify metres, such as mixed metres and bimetric compositions and, of course, when attempting to identify metres in the first Hebrew poetry written in the mid-tenth century. By way of example, Yellin correctly identified the \( šalem \) metre. He spoke, however, of another mixed metre devised by the Hebrew poets that he called \( ha-šalem we-ha-soʿer \). The application of classical metre to these compositions shows that the poets were really using two different Arabic metres, \( kāmil \) and \( rajaz \), on each occasion.

Finally, the greatest contribution of this model has been in the area of nomenclature for the study of Andalusi Hebrew poetry. These are the Hebrew translations of the names of Arabic metres that are used today in any study in this field.

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64 Yellin (1939, 189 n.1 and especially 195).
<table>
<thead>
<tr>
<th>Arabic</th>
<th>Hebrew (20th cent.)</th>
<th>Ibn Danān (15th cent.)</th>
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<tr>
<td>َتَوْيِل</td>
<td>َأَرُوك</td>
<td>َأَرُوك</td>
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<tr>
<td>ُمَدِيد</td>
<td>ميتموديد</td>
<td>ُمَشْعُك</td>
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<td>ُبَسِيَت</td>
<td>ميتپاشت</td>
<td>ُپَاشُت</td>
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<td>َوُقِيَر</td>
<td>ميروبب</td>
<td>ُوُدِف</td>
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<td>ُكَمِل</td>
<td>سَلَم/سَلَم وَسُوْرِ</td>
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<td>مَنَن</td>
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<td>ُرَاجَز</td>
<td>سَلَم/سَلَم وَسُوْرِ</td>
<td>ُهَرُذ</td>
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<tr>
<td>ُرَامَال</td>
<td>قَلْوُاُ</td>
<td>ُهُوَل</td>
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<td>مَهِيِر</td>
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<td>دوْهَر</td>
<td>مِيْعُتَتَر</td>
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<td>قَل</td>
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<tr>
<td>ُمُذَارِيْ</td>
<td>دَوْم</td>
<td>مٌِدَّاممَ</td>
</tr>
<tr>
<td>ُمُجَتَّوِن</td>
<td>قَتْوُاُ</td>
<td>پَسْوٌا</td>
</tr>
<tr>
<td>ُمُقْتَادَاب</td>
<td>—</td>
<td>مِيْعُسَسَف</td>
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<td>ُمُتَقَارِبِ</td>
<td>مِتْقِارِب</td>
<td>مِتْقِارِب</td>
</tr>
<tr>
<td>ُمُتَدَأْرَك</td>
<td>مَشْلِيم/مِيْشَقَال حَا-تِئُوْت</td>
<td>تَوْنِي</td>
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</table>

All the important studies of Hebrew Andalusi metrics have been based on this system, including N. Allony’s work (1951) on the metrics of Dunash ben Labraṭ and other poets from the Golden Age, A. Mirsky (1961, 25–35) on the diwân of the wandering poet Yišḥaq ben ِකَالْفُن, and Y. Yahalom (2001) in his study of Yaʻaqob ben Elʻazar. This is also the model used in the important anthology of Schirmann (1954–1959) and the main
modern editions of the *diwāns* composed by the four great Hebrew poets of the Golden Age, Samuel ibn Nagrela,\(^{65}\) Shelomo ibn Gabirol,\(^{66}\) Moshe ibn ʿEzra,\(^{67}\) and Yehuda ha-Levi.\(^{68}\)

### 6.0. References


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\(^{65}\) For *Ben Tehillim*, see the edition by Sáenz-Badillos and Targarona Borrás (1997), and for the rest, Jarden (1966–1992).

\(^{66}\) For example, his secular poetry, ed. by Brody and Schirmann (1974). See also Jarden (1971–1972); and Jarden (1975).

\(^{67}\) This is the case for his secular poetry edited by Brody (1934); Brody (1942); Pagis (1977); and his liturgical poetry, Levin and Rosen (2012).

\(^{68}\) See the classic edition by Brody (1894); and the anthology of Yehudah ha-Levi by Sáenz-Badillos and Targarona Borrás (1994).


Jastrow, Morris. 1897. The weak and geminative verbs in Hebrew by Abū Zakariyyā Yaḥyā ibn Dāwud of Fez, known as Ḥayyūḡ; the Arabic text now published for the first time. Leiden: Brill.


Millás Vallicrosa, José María and Francisco Cantera Burgos. 1956. Las inscripciones hebraicas de España. Madrid: C.S.I.C.


mehkar ha-Yahadut le-yad Bet ha-midrash le-rabanim be-Amerikah.


