# The Historical Depth of the Tiberian Reading Tradition of Biblical Hebrew

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ישׂשׂכָר וע

Cover image: T-S AS 8.129. A leaf from a Cairo Geniza biblical codex containing Gen. 30.17–20 and showcasing Moshe Moḥe's non-standard Tiberian pointing of the standard Tiberian pronunciation of *Issachar* (see within, ch. 4), courtesy of the Syndics of Cambridge University Library.

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# INTRODUCTION

This book focuses on an acknowledged dimension of the received Tiberian Masoretic biblical tradition the extent and significance of which is seldom fully appreciated: dissonance between its pronunciation and spelling arising from its composite nature. At issue are cases of linguistic disharmony wherein the written and reading components of the tradition, i.e., its consonantal text and vocalisation, diverge.[1] Sometimes, such differences are explicitly signalled within the Tiberian manuscript tradition via the mechanism known as *ketiv-qere* and/or are noted in masoretic grammatical treatises. In many other cases, however, dissonance is not so acknowledged, and is detectable only in apparent mismatch between orthography and vowel pointing.

The composite nature of the Tiberian tradition is not a novel object of enquiry; nor are apparent instances of resulting dissonance.[2] Indeed, in the case of many of the individual phe-

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[1] Of course, the extant so-called consonantal text is not purely consonantal, as it includes numerous *matres lectionis* that represent vowel sounds. There is also a degree of dissonance internal to the Tiberian reading tradition itself, i.e., between vocalisation and accentuation; see M. Breuer (1980; 1981, 262); Y. Breuer (1991, 191–242; 2022); Kogut (1994); Price (2006); Revell (2015, 1–3); Habib (2021, esp. 13–14, 186–315).

[2] See Ginsberg (1934; 1937); Kahle (1959, 78–86, 100, 171–79); Barr (1981, 27, 35–36; 1984, 31; 1987, 207–22); Morag (1974); Hughes (1994); Tov (2012, 46–47); Joosten (2015); Hendel (2016, 31–32); Khan (2013a, 45–52, 68; 2013b; 2021, I:56–85); Habib (2020); Hornkohl (2020a; 2020b).

nomena summarised in this introduction or discussed in chs 1–18 below, scholars have previously raised the possibility of discord within the combined Tiberian written-recitation tra-dition. It is also commonplace to attribute the dissonance in question to secondary developments in the reading tradition vis-à-vis the tra-dition reflected in the consonantal text. Against this scholarly background, the present monograph is intended to make a pair of contributions.

One is the mere collection of relevant features in a single resource. It is hoped that this will serve to improve upon the current situation, in which important discussions of Tiberian writ-ten-reading dissonance are scattered among various studies, so that the frequency of the phenomenon goes underestimated and the combined significance under-appreciated.

The other innovation involves the attempt to contextualise more precisely than is often done secondary deviation of the pronunciation tradition from the ostensible earlier pronunciation reflected in the consonantal tradition. Sensing secondary development, scholars often correctly, but rather cursorily and vaguely, declare the pronunciation tradition that has been preserved in the Tiberian vocalisation anachronistic and unreliable, without plumbing its historical depth. Obviously, the pronunciation tradition predates the medieval development of the graphic symbols with which it was eventually recorded, but by how much? As is repeatedly emphasised in this study, though the Tiberian pronunciation tradition regularly preserves Iron Age features and is not immune to Byzantine and medieval developments, the regularity of meaningful affinity between its apparent

secondary devel-opments and acknowledged Second Temple forms of Hebrew demands that the Tiberian reading tradition be considered a product of Second Temple times.

But this is not the whole story. First, because much of the Tiberian pronunciation tradition accompanies a consonantal tradition anchored in First Temple times, its linguistic testimony cannot be considered exclusively representative of the Second Temple Period. The Tiberian reading tradition may have largely crystallised in the Second Temple Period, with clear indications of drift in the direction of later norms, especially where the ambiguity of certain consonantal forms made them amenable to secondary realisations. Yet, beyond the fact that the similarity between Iron Age and Second Temple Hebrew far exceeds the difference that distinguishes them, some degree of linguistic evolution was prevented by the unambiguousness of many consonantal forms that were not amenable to secondary realisations. In other words, in the marriage of the reading and written components, the latter acted as a brake of sorts, preventing fuller development of the reading tradition in line with Second Temple linguistic conventions.

Second, as is regularly stressed below, many of the secondary, characteristically late developments discussed in this study, have clear antecedents in CBH and/or Iron Age epigraphic Hebrew. This means that, while they may accurately be described as especially typical of Second Temple Hebrew, they often crop up as minority alternatives in earlier material. Thus, even in palpable cases of dissonance there is continuity between the First Temple Hebrew of the CBH consonantal tradition and of Iron Age

epigraphy and Second Temple deviations in the Tiberian pro-
nunciation tradition.

## 1.0.  *Ketiv-Qere, Qere Perpetuum,* and Beyond

The works that comprise the Hebrew Bible reflect diverse au-
thors, sources, genres, locales, social groups, time periods, and
secondary hands. It would be reasonable to expect substantial
linguistic diversity. Yet various processes of standardisation have
resulted in the levelling of a great deal of the expected diversity,
so that the combined Tiberian written-reading tradition is re-
markably uniform. Even so, Tiberian BH shows signs of diverse
idiolects, registers, genrelects, regional dialects, sociolects, and
chronolects.

  Another aspect of BH diversity stems from variation in the
traditions in which the Hebrew Bible has been transmitted. For
example, the Tiberian, Babylonian, and Samaritan traditions pre-
sent different manifestations of BH, with differences ranging from
pronunciation to grammar.

  Even within the dominant Tiberian Masoretic tradition,
readers confront differences between the written and reading
components of the tradition, i.e., the consonantal text and the
vocalisation, respectively. In many places in the text, such disso-
nance is explicitly acknowledged and marked by the mechanism
known as *ketiv-qere*. In the majority of such cases—the approxi-
mate number of which, estimated between 800 and 1500, varies
depending on the manuscript and expert opinion (Yeivin 1980,
55; Ofer 2019, 92; Habib 2020, 285)—divergence between what
is written (*ketiv* = the Aramaic passive participle כתיב 'written')
and what is read (*qere* = the Aramaic passive participle קרי

'read') is indicated via vocalisation of the written form with the vowels of the form to be read, the consonants of which are given in the side or intercolumn margin. The discrepancy can involve a single letter, a whole word, or spacing between words. In other cases, the reading tradition has no parallel for a word or phrase, or, alternatively, requires the recitation of a word or words not included in the accompanying consonantal text. Sometimes, the *qere* specifies the meaning of a *ketiv* (Khan 2013a, 45–46; 2021, 33–49).

In cases of consistent conflict between the written and reading components of the tradition, no marginal note signals the discrepancy between consonantal spelling and pronunciation. Rather, the vocalisation alone signals the correct reading (Khan 2021, 34). Examples include realisation of the tetragrammaton יהוה *yhwh* as יְהֹוָה *ʾăḏōnā̆y* 'LORD' (= אֲדֹנִי 'Lord') or יְהֹוִה *ʾĕlōhīm* 'GOD' (= אֱלֹהִים 'God, god'); see below, ch. 1) and of ירושלם *\*yərūšā̆lēm* 'Jerusalem' (cf. שָׁלֵם 'Salem' Gen. 14.18) as *yərūšā̆layim* (see below, Introduction, §3.1). The phenomenon of consistent replacement of the *ketiv* with the *qere* is commonly known as *qere perpetuum*.

Whatever the exact explanation for individual cases of *ketiv-qere*, they constitute, at their most basic level, acknowledged instances of divergence between the written and pronunciation traditions, wherein the latter supersedes the former for purposes of oral recitation.

The *ketiv-qere* phenomenon is relevant to the subject of this monograph in two respects. First, many such divergences apparently reflect secondary developments in the reading tradition vis-

à-vis the corresponding earlier, i.e., more original, consonantal feature, e.g., the tetragrammaton יהוה *yhwh* realised as יְהֹוָה or יְהוָֹה *ʾăḏōnāy* 'LORD' or יְהוָֹה *ʾĕlōhīm* 'GOD'.[3]

Additionally, notwithstanding their secondary character—and despite the fact that evidence for the (inter)marginal mechanism for signalling *ketiv-qere* and of *qere perpetuum* in masoretic codices comes no earlier than medieval manuscripts—the specific forms encountered in the *qere* tradition are clearly not just Byzantine or medieval developments, but are rooted in antiquity. This is borne out by several pieces of evidence, be it rabbinic, textual/versional, or perceptible within the Masoretic tradition itself.

First, several types of *ketiv-qere* are mentioned in the Talmud (Yeivin 1980, 56, §98, 58–59, §§102–4).

Euphemistic *qere*:

ת"ר (=תנו רבמן) כל המקראות הכתובין בתורה לגנאי קורין אותן
לשבח...

Our Sages taught: All of the scriptures that are written in the Torah in impolite language are read in language beyond reproach…' (Megilla 25b; see below, ch. 3)

*Qere wela ketiv* 'read but not written' and *ketiv wela qere* 'written but not read':

אמר רבי יצחק מקרא סופרים ועיטור סופרים וקריין ולא כתיבן וכתיבן
ולא קריין הלכה למשה מסיני...

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[3] But cf. the discussion in Hornkohl (2022), where it is emphasised that there is not always clear diachronic linguistic progression between *ketiv* and *qere* readings of more or less equal plausibility.

> Rabbi Yitzḥak said: "The vocalisation of the scribes, and the ornamentation of the scribes, and the verses with words that are read, but not written, and those that are written, but not read, are all *halakha* transmitted to Moses from Sinai…" (b. Nedarim 37b)

*Qere perpetuum*:

ר' אבינא רמי כתיב זה שמי לעלם וזה זכרי לדור דור אמר הקב"ה לא
כשאני נכתב אני נקרא נכתב אני ביו"ד ה"א ונקרא אני באל"ף דל"ת

> Rabbi Avina posed a challenge: "It is written זה שמי לעלם וזה זכרי לדור דור 'This is my name forever and this is my memorial for all generations' (Exod. 3.15). The Holy One, blessed be he, said: 'Not as I am written am I read. I am written with *yod* and *heh*, but I am read with *ʾalef* and *dalet*.'" (b. Pesaḥim 50a)

Moreover, *qere*-type forms (along with *ketiv*-type forms) are routinely reflected in the ancient translations and non-Masoretic biblical traditions.[4] An intriguing case discussed below (ch. 3, §1.1) is that of the Latin Vulgate rendering of *ketiv* שיניהם 'their urine' versus *qere* מֵימֵי רַגְלֵיהֶם 'water of their feet' (Isa. 36.12b). Jerome's rendering is *urinam pedum suorum* 'urine of their feet', which looks to be a conflation of the *ketiv* and *qere* traditions. This and other examples show that the interpretive diversity that many *ketiv-qere* cases reflect significantly preceded the literalisation of said diversity via the medieval masoretic *ketiv-qere* mechanism. As further evidence, consider the preliminary figures

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[4] See Gordis (1971, 55–66) for the relationship between *ketiv-qere* and the ancient versions. See Hornkohl (2022) for a comparison of Tiberian *ketiv* and *qere* and the combined Samaritan written and reading tradition.

given by Hornkohl (2020a, 412, fn. 5), who reports approximately equal proportions of agreement with *ketiv* and *qere* among the 159 cases of MT *ketiv-qere* paralleled in the BDSS.[5]

There are also instances of inner-biblical diversity that indicate the adoption of a secondary tradition over an earlier one in the case of parallel texts. CBH Josh. 21.11–39 presents around fifty instances of the word מִגְרָשׁ 'pastureland' followed by the 3FS possessive suffix ה-. Written מגרשה, these show that the word was treated as a singular, presupposing a Tiberian realisation along the lines of מִגְרָשָׁהּ 'its pastureland'.[6] In the LBH parallel to Josh. 21.11–39 in 1 Chron. 6.40–66, the orthography is consistently different, מגרשיה, the added *yod* indicating that the noun had come to be construed as a plural, 'its pasturelands'. Intriguingly, the vocalisation of the form in Josh. 21.11–39, i.e., מִגְרָשֶׁהָ, is not that of the singular implied by the orthography in Joshua, but corresponds instead to the plural morphology reflected in the spelling (and vocalisation) in 1 Chron. 6.40–66, מִגְרָשֶׁיהָ 'its pasturelands' (Barr 1984). The crucial point in the context of the present discussion is that the plural construal in question and the resulting dissonance between the written and reading compo-

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More precisely, of the 159 cases of MT *ketiv-qere* paralleled in the BDSS, 70 show at least partial agreement with the *qere*, 72 partial agreement with the *ketiv*, and in 17 cases the form agrees with neither or is ambiguous. See also Kutscher (1974, 519–21).

[6] This form may be attested in the phrase לְמַעַן מִגְרָשֶׁה לָבַז (Ezek. 36.5), cf. ESV 'that they might make its pasturelands a prey', but the phrase is also analysable as an Aramaic-style infinitive (see below, ch. 12, §2.2, fn. 17).

nents of the tradition in Joshua should be dated no later than the consonantal text of the Chronicles passage (Khan 2020, I:57).

Beyond demonstrating special affinity between the Tiberian pronunciation of a CBH text and the orthography and pronunciation of its LBH parallel against the pronunciation tradition ostensibly reflected by the CBH orthography, the foregoing example also draws attention to an important point regarding explicit notation: *the written-reading divergence in Joshua is nowhere acknowledged in the Masoretic tradition as an instance of* ketiv-qere *dissonance*. This highlights the necessity of moving beyond cases of *ketiv-qere* dissonance formally acknowledged in the Masoretic tradition in order more fully to appreciate the historical depth of the Tiberian BH linguistic tradition. To be sure—and this is of critical importance in the present connection—*the extent of divergence between the Tiberian written and reading traditions exceeds instances of written-reading divergence explicitly recognised as* ketiv-qere *or* qere perpetuum. Indeed, most of the studies of written-reading divergence collected in the present volume have not traditionally been considered cases of *ketiv-qere*.

At this point, it is worth dedicating a few lines to terminology. In several of his studies, Khan (2013b, 464; 2020, I:34) utilises the terms *qere* and *ketiv* not just for acknowledged instances of dissonance explicitly recorded as cases of *ketiv-qere* and *qere perpetuum*, but also for cases of dissonance unacknowledged in masoretic sources. This is justified, since the extent of diversity within the Tiberian tradition is not exhausted by its recognition in masoretic sources. Notwithstanding the unassailable logic Khan's broad definitions of *ketiv* and *qere*, however, in deference

to common usage and to avoid misunderstanding, the terms *ketiv* and *qere*are in the present work reserved for traditionally acknowledged cases. For their part, instances of written-reading dissonance not explicitly recognised in masoretic notations and treatises are referred to herein as differences between 'the written and reading components of the Tiberian biblical tradition' or, more briefly, as differences between 'the Tiberian written (or orthographic or spelling) and reading (or pronunciation or recitation) traditions'.

This terminology is not entirely satisfying. Beyond its verbosity, it is admitted that the labels suffer from a degree of inconsistency and imprecision. For one thing, the Tiberian written and reading forms are alternately treated as divergent elements of a single composite tradition and as related but separate traditions. The reader should bear in mind both the interrelatedness and the independence of the two elements.

Moreover, it is clear that the written tradition (or the written component of the combined tradition) was more than just the product of scribal transmission, but presupposes its own accompanying oral realisation. From this perspective, even within the composite Tiberian written-reading tradition, the reading tradition (or the reading component of the combined tradition) is not the sole pronunciation tradition reflected. The spelling of the consonantal text also presupposes a corresponding pronunciation tradition. Further, the written tradition (or component), often referred to as the 'consonantal text', itself likely incorporates multiple layers, probably including material that was at one time written in (more) purely consonantal orthography and only later

augmented with final and internal *matres lectionis*.[7] This obviously means that the orthographic tradition itself likely reflects various strata of oral realisations. While this level of diversity rarely has implications for the phenomena discussed throughout the monograph, where it is significant, e.g., in the case of 1st-person *wayyiqṭol* forms, in ch. 17, it is discussed in detail.

Finally, as already noted, the extant Tiberian pronunciation tradition manifests a degree of diversity. The occasional divergence between vocalisation and accents has already been mentioned (above, fn. 1). Beyond this, diversity in the Tiberian pronunciation tradition sometimes arises from differences in opinion and realisation among representatives of the tradition (Khan 2020, 92–99). For example, see below, ch. 4, on diversity among Tiberian authorities on the graphic representation and phonetic realisation of the proper name *Issachar*.

## 2.0. The Tiberian Reading Tradition in Historical Context

As is well known, it was not until the Middle Ages that the Tiberian vocalisation was definitively literised in the form of diacritics added to consonantal manuscripts. In contrast to the Tiberian consonantal tradition, which is already reflected in proto-masoretic DSS manuscripts (as one tradition among several repre-

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[7] Consider, in this connection, the orthographic disparity between Deut. 2.24–35; 3.14–4.1 as reflected in 4Q31 (4QDeut[d]) and in the MT. While both show final and internal *matres*, the Qumran rendition is consistently more defective than the MT rendition, thereby almost certainly reflecting an earlier stage in orthographic development, though there is no obvious evidence of linguistic disparity and only slight textual incongruence.

sented in the Dead Sea fragments), the comparatively late written attestation of the vocalic tradition has led some to regard it with suspicion, as a largely secondary product of dubious textual, exegetical, and linguistic credibility. This scepticism arises from two considerations: first, the acknowledged oral nature of the reading tradition; second, the presumed temporal distance between textual composition and crystallisation of the reading tradition, at least as far as CBH material is concerned. All things being equal, it is reasonable to suspect that an unwritten tradition temporally far removed from its written counterpart would be more vulnerable to change than a similar written tradition, a temporally proximate oral tradition, or a temporally proximate written tradition.

 While such concerns cannot be dismissed, they arguably betray a degree of misunderstanding. First, it is important to bear in mind that there was never a time when the written tradition of the Hebrew Bible was unaccompanied by audible tradition. Barr (1981, 35) states:

> Reading traditions existed in the temple and synagogue from ancient times. Such reading traditions may well have antedated, rather than followed, the acceptance of a particular manuscript tradition as authoritative. When a more or less authoritative written text came to be accepted, it was found that no manuscript agreed entirely with the reading tradition that was already deemed to be correct.

In this way Barr accounts for acknowledged instances of *ketiv-qere* dissonance. But it is equally applicable to divergences between the written and reading components of the Tiberian tradition unregistered as instances of *ketiv-qere* in masoretic sources.

As to the matter of the presumed relative vulnerability of an orally transmitted pronunciation tradition vis-à-vis a written tradition, it is illustrative to present as a corrective the Karaite view noted by Khan (2021, I:123–24):

> The Karaite Hebrew grammarians of the tenth and eleventh centuries were, in general, concerned with the reading tradition (*qere*) reflected by the Tiberian vocalization signs and showed little concern for the orthography of the written text (*ketiv*) (Khan 2000b; 2003; 2013b). The Karaite al-Qirqisānī, in his discussions of the bases of authority for the Hebrew Bible, contended that the ultimate authoritative source was the reading tradition of the people of Palestine (by which he meant Tiberias), rather than the written form of the text with orthographic inconsistencies. One of his justifications was that the reading tradition had been transmitted by the whole community (ʾumma) since the time of the prophets whereas the written orthography had been transmitted on the authority of small circles of scribes, which is, therefore, more liable to corruption or wilful change. (Khan 1990c)

The textual centrality of the oral tradition among the Karaites is illustrated by, among other things, their practice of recording biblical texts in Arabic letters. Crucially, the letters are not mere transliterations of the Hebrew consonantal tradition, but transcribe the oral realisation of the biblical text (Khan 2021, I:122–23). Similarly, as already seen, while masoretic scribes were obliged to reproduce the established consonantal text of the Hebrew Bible without changes, the definitive form of the biblical text read in public was that represented by the consonants with the vocalisation and accentuation, and—decisively—the *qere* when this differed from the *ketiv*.

And what of the time span that is thought to separate the composition of the biblical texts and their final vocalisation? Even if one or more communities eventually managed to preserve an ancient oral tradition, is it reasonable to imagine that such traditions might extend back to the biblical period? In the present volume an effort is made to answer this question. In the meantime, several preliminary considerations may be raised.

First, it is important to acknowledge that, as far as the relationship between the consonantal text and the vocalisation is concerned, instances of written-reading dissonance, while not rare, are far from the norm. Throughout the vast majority of the biblical text, the consonantal text and pronunciation tradition seem to be in harmony, with no reason to suspect divergence between the written and reading components of the Tiberian biblical tradition.

Second, focusing on the relatively rare cases of written-reading dissonance, it is true that points of divergence between the Tiberian tradition's written and reading components often reflect secondary developments in the reading tradition. Significantly, however, these secondary divergences frequently correspond to developments especially characteristic of the language of Second Temple sources. The marked affinity between the Tiberian reading tradition and Second Temple Hebrew is strong evidence that the reading tradition was largely finalised in the Second Temple Period.

But there is need for nuance. The reading tradition's late crystallisation should not be taken to mean that it is uniformly comprised of Second Temple Hebrew. Beyond the fact that com-

monalities linking First and Second Temple Hebrew far outnumber differences that divide them, there is no reason to doubt the routine preservation of genuine Iron Age linguistic features in a tradition that acquired its final shape in the post-exilic period.

Finally, it is here emphasised that many cases of dissonance between the Tiberian consonantal and vocalisation traditions, though secondary and relatively late, are not in fact Second Temple innovations. Rather, they frequently constitute minority Iron Age developments whose distinctive Second Temple character relates to late *proliferation*. Indeed, it was precisely on the basis of such Second Temple proliferation that their use was extended within the biblical reading tradition to pre-Second Temple material. In other words, the anachronistic character of the recitation tradition's deviations from the pronunciation implied by the consonantal text frequently lies not in the *nature* of the deviation—many of which are attested in early material—but in the *extension* of such secondary features, often to the point of their *standardisation*. It is this standardisation, rather than mere occurrence, that is diagnostic of Second Temple crystallisation.

If the arguments in this volume prove compelling, then the Tiberian reading tradition must be deemed a linguistic artefact of considerable historical depth. The analogy of depth can be understood in two ways, i.e., the linguistic tradition both extends deeply into history and comprises multiple layers of material (Hornkohl 2020b, 228–29). Indeed, its most obvious secondary features, in the form of divergences from the written tradition—which, again, it must be emphasised, are comparatively few—reflect dates no later than the Second Temple Period and, in many

cases, represent secondary developments already attested in the CBH consonantal tradition and/or Iron Age epigraphy. This, in turn, demands a broad scholarly reassessment of the ramifications of the reading tradition's antiquity for exegetical, textual, and linguistic research. No longer can the Tiberian vocalisation be summarily dismissed as hopelessly anachronistic, with little to no connection to the earliest linguistic forms of the biblical texts. Rather, it merits serious consideration, even in its most obviously secondary and most conspicuously late features.

## 3.0.  Examples

Before turning to the eighteen individual studies that make up the bulk of this monograph, it will be helpful to prime the reader with brief summaries of known cases of dissonance between the written and reading components of the Tiberian biblical tradition, most of which have been discussed elsewhere. In the following cases, the Tiberian reading tradition is characterised by the standardisation of a secondary development known from post-exilic sources. Even so, in some cases, the secondary feature has roots in CBH and/or Iron Age epigraphy.

## 3.1.  The Toponym 'Jerusalem': יְרוּשָׁלַםֵ versus יְרוּשָׁלַיִם[8]

The accepted Tiberian pronunciations of the toponym 'Jerusalem'—namely, contextual יְרוּשָׁלַםֵ *yərūšā́layim* (pausal יְרוּשָׁלָםֵ *yərū-šā́lā́yim*) and contextual directional יְרוּשָׁלֵמָה *yərūšā́laymā́* (pausal directional יְרוּשָׁלֵמָה *yərūšā́lā́ymā́*)—conflict with the dominant spellings of the name in the written component of the Tiberian

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biblical tradition, namely ירושלם and ירושלמה (which spellings occur in all but five of 643 cases). The orthography does not reflect the triphthong in the ending -*ayim* (pausal -*ā̊yim*) or the diphthong in the ending -*aymā̊* (pausal -*ā̊ymā̊*). This mismatch has resulted in the unique situation of two vowels being marked between the last two consonants of the word: יְרוּשָׁלַ͏ִם (pausal יְרוּשָׁלָ͏ִם) or יְרוּשָׁלֶ͏ַמָה (pausal יְרוּשָׁלָ͏ַמָה). A similar strategy is employed in the Babylonian tradition, though it not infrequently shows just a single vowel between the *lamed* and *mem*. Yeivin (1985, 1088–89) attributes such incomplete vocalisations in the most ancient stratum of the tradition and in the composite vocalisation to no more than a lack of rigour on the part of punctuators, whereas he entertains the possibility that the frequency of such vocalisations in the tradition's intermediate stratum reflects a different phonological realisation.

Aside from dominating in the Tiberian and Babylonian written traditions, the spelling ירושלם is also found in the earliest epigraphic attestation of the city's name, in an inscription from Khirbet Beit Lehi (5.2), which dates to the late sixth century BCE. And such spellings persist in Second Temple documents and literature. The realisation represented by the spelling might have been expected to yield something along the lines of Tiberian \**יְרוּשָׁלֶם* \**yərūšā̊lēm*. Similar realisations with monophthongs in the final syllable are found in BA יְרוּשְׁלֶם, TA יְרוּשְׁלֵם/-לֶם, Syriac ܐܘܪܫܠܡ/ܐܘܪܫܠܶܡ, Greek Ιερουσαλημ, and Latin *Hierusalem* (HALOT 437a). Consider also the form of the toponym שָׁלֵם 'Salem' (Gen. 14.18; Ps. 76.3).

However, against the view that the Tiberian reading tradition's pronunciation *yərūšā̊layim* is a medieval innovation, spellings presupposing the diphthongal ending, in the form of ירושלים and ירושלימה, appear five times in the Tiberian written tradition (Jer. 26.18; Est. 2.6; 1 Chron. 3.5; 2 Chron. 25.1; 32.9) and are common in non-Tiberian biblical and post-biblical sources, e.g., DSS biblical and non-biblical material, coins from the Second Temple Period, and rabbinic literature.

The overall distribution of the spelling ירושלים in ancient Hebrew sources, including the combined Tiberian written-reading tradition, indicates that a realisation along the lines of *yərūšā̊layim* represented a Second Temple convention that was standardised in the Tiberian reading tradition despite the dominant orthography. This is consistent with the view that the Tiberian reading tradition took its essential shape in the Second Temple Period. Evidence is insufficient to substantiate whether or not the sort of pronunciation preserved in the Tiberian reading tradition predates the Second Temple Period.

## 3.2. Univerbalisation of the Infinitive Construct with Prefixed -ל[9]

In the Tiberian tradition, the phonetic realisation of the *qal* II-*bgdkpt* construct infinitive varies depending on whether or not the form is preceded by a prefixed preposition and on the identity of the preposition. Blau (2010, 213–14) explains as follows:

> The construct infinitive is frequently governed by prepositions, especially by ל. Originally this לְ had a fully preposi-

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[9] Hornkohl (2020a, 230–57).

tional meaning, as, e.g., 'in order to' (e.g., וַיֵּרֶד יְהֹוָה לִרְאֹת אֶת־הָעִיר 'and the Lord came down to see the town' Gen 11:5); later the ל became a part of the infinitive…. This is reflected both by the form and by the syntactic usage of the preposition. Formally, the ל became integrated into the infinitive. In some forms of the *qal* infinitive, the ל appears to be in close internal juncture: the *šwa* that begins the infinitive behaves as a genuine quiescent *šwa*, and subsequent ב, ג, ד, כ, פ, ת letters are vocalized as stops, e.g., לִנְפֹּל 'to fall', as opposed to simple נְפֹל and כִּנְפֹל/בִּנְפֹל 'when falling'. In Rabbinic Hebrew the univerbalization of the infinitive with ל is even more progressed: the ל is always attached to the infinitive, even after other prepositions, and the infinitive is totally remodelled after the prefix-tense…. The special vocalization of the construct infinitive in Biblical Hebrew after ל, corresponding to the vocalization of the prefix-tense… is undoubtedly in the line of Rabbinic Hebrew (and may even reflect the impact of Rabbinic Hebrew on the Masoretes) (see also Blau 2010, 115).

However, several lines of argumentation converge to show that the apparent distinction between the Tiberian written and reading traditions is not as neat and tidy as a mere dichotomy of BH versus RH. Rather, pre-rabbinic evidence, including some from the Tiberian written tradition itself, shows that the process of univerbalisation that is attested in the reading tradition and that culminated in RH, was also earlier very much underway. Significant pieces of evidence include:

1. apparent DSS transitional forms, e.g., לגוע\* *\*liggoaʿ* 'to touch' (4Q53 f2–5i.5; cf. BH לָגַעַת/לִנְגֹּע and RH לִיגַּע), which was secondarily corrected to ליֹגוע\* *\*lingoaʿ*, and לשול *\*liššol* 'to clear away' (1QM 10.1–2; cf. BH לִנְשֹׁל\* and RH לִישֹׁל\*)—

the apparent assimilation of *n* in these forms was possible only after the vowel following *n* had shortened to zero;

2. the distinction in preposition vocalisation, -לְ, on the one hand, versus -בְּ and -כְּ, on the other, in *qal* I-*y* and II-*w/y* verbs, e.g., בְּלֶדֶת 'when bearing' versus לָלֶדֶת 'to bear' and בְּבוֹא 'in coming' and כְּבוֹא 'after coming' versus לָבוֹא 'to come (in the Tiberian as well as Babylonian traditions, and with parallels in the Samaritan tradition);

3. the overall rarity of infinitives construct without a preceding preposition in all biblical consonantal traditions and the dominance of infinitives with -לְ in late material, e.g., Tiberian LBH, BA, DSS Hebrew, the Hebrew of BS, and RH;

4. the predominantly late character of structures involving an infinitive with -לְ preceded by another preposition;

5. the substitution in late material of infinitives with preceding -לְ for CBH infinitives without preceding -לְ.

It has been argued that the Tiberian phonological realisation of *qal* II-*bgdkpt* construct infinitives is a rabbinic or later anachronism alien to older BH phonology. Against this claim, phonological, morphological, and syntactic evidence may be adduced to demonstrate that the univerbalisation of the infinitive construct with -לְ was underway in the linguistic stratum reflected in classical biblical consonantal material. The corresponding CBH reading tradition may indeed reflect a later stratum, perhaps vaguely contemporaneous with the combined Tiberian LBH written-reading tradition, but the difference more of degree than essence, since both strata lie at points on the same developmental line, which culminated in RH.

## 3.3. יוֹם הַשִּׁשִּׁי versus הַיּוֹם הַשִּׁשִּׁי 'The Sixth Day' and Similar[10]

BH norms of noun-attribute concord typically involve agreement in gender, number, and definiteness. However, exceptions, especially in terms of agreement in definiteness, have long been known. Further complicating matters is the apparent dissonance between the written (consonantal) and reading (vocalic) components of the Tiberian biblical tradition, especially in poetry (Ley 1891; Lambert 1898; GKC §126h; Barr 1989, 310–12, 325–33). In poetic compositions in the Hebrew Bible, when the sequence [noun + article + adjective] is preceded by a clitic preposition, e.g., -בְ, -כְ, or -לְ, the double-article DETERMINED NOUN + DETERMINED ADJECTIVE formulation dominates; but when the noun has no attached preposition, the construction occasionally has a single-article ANARTHROUS NOUN + DETERMINED ADJECTIVE formulation.

Conspicuous in this connection—even outside of poetry—are expressions comprising the noun יוֹם 'day' and an attributive ordinal numeral. In the Tiberian biblical tradition, when this combination is preceded by a clitic preposition, it consistently comes in the symmetrical, double-article formulation DETERMINED NOUN + DETERMINED ORDINAL (of the 126 occurrences, 125 involve -בְ, one -לְ). Conversely, on eight occasions when there is no preceding clitic preposition, an alternative, asymmetric, single-article ANARTHROUS NOUN + DETERMINED ORDINAL syntagm obtains. The incongruity is especially conspicuous in the local discord

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[10] Hornkohl (2020b).

among the three relevant cases in (1), which occur in successive verses.

(1)     וַיְכַל אֱלֹהִים בַּיּוֹם הַשְּׁבִיעִי מְלַאכְתּוֹ אֲשֶׁר עָשָׂה וַיִּשְׁבֹּת בַּיּוֹם הַשְּׁבִיעִי
        מִכָּל־מְלַאכְתּוֹ אֲשֶׁר עָשָׂה: וַיְבָרֶךְ אֱלֹהִים אֶת־יוֹם הַשְּׁבִיעִי וַיְקַדֵּשׁ אֹתוֹ...
        'And **on the seventh day** God finished his work that he
        had done, and he rested **on the seventh day** from all his
        work that he had done. So God blessed **the seventh day**
        and made it holy…' (Gen. 2.2–3a)

Consider also the diversity between the three cases in (2):

(2)     וְשִׁבְעַת יָמִים מַצּוֹת תֹּאכֵלוּ אַךְ בַּיּוֹם הָרִאשׁוֹן תַּשְׁבִּיתוּ שְּׂאֹר מִבָּתֵּיכֶם כִּי
        כָּל־אֹכֵל חָמֵץ וְנִכְרְתָה הַנֶּפֶשׁ הַהִוא מִיִּשְׂרָאֵל מִיּוֹם הָרִאשֹׁן עַד־יוֹם
        הַשְּׁבִעִי:
        'Seven days you shall eat unleavened bread. **On the first
        day** you shall remove leaven out of your houses, for if an-
        yone eats what is leavened, **from the first day until the
        seventh day**, that person shall be cut off from Israel.'
        (Exod. 12.15)

Broadly speaking, there are two approaches to explaining
the clash between single- and double-article יוֹם + ordinal con-
structions in the Tiberian biblical tradition. According to the first
approach, they are to be viewed as abbreviations of common
phrasal constructions in which the initial article has been deleted,
perhaps under vernacular pressure. This is in line with S. R.
Driver's ([1892] 1998, §209) observation on such RH cases as
כנסת הגדולה 'the great synagogue' (m. ʿEruvin 10.10) and יצר הרע
'evil inclination' (m. ʾAvot 2.11) that "the usage appears to have
arisen in connexion with familiar words, which were felt to be
sufficiently definite in themselves without the addition of the ar-

ticle." Parade Masoretic BH examples of single-article construc-
tions include בִּשְׁנַת הָרְבִיעִית חָצֵר הַפְּנִימִי 'inner court' (Ezek. 40.28),
לִיהוֹיָקִים בְּדֶּרֶךְ 'in the fourth year of Jehoiakim' (Jer. 46.2), and
הַטּוֹבָה וְהַיְשָׁרָה 'in the good and right way' (1 Sam. 12.23). While
some such 'pseudo-construct' expressions are likely genuine ves-
tiges that reflect a linguistic stage before the standardisation of
determination agreement (Borg 2000), others (like the three pre-
ceding examples) are probably secondary results of construal as
fixed compounds, whether the resulting nouns were deemed
common (lexicalisation) or proper (onymisation) (Moshavi and
Rothstein 2018, 116, fn. 54).

Single-article יוֹם + ordinal constructions are arguably to be
explained differently (GKC §126w, fn. 9). Several pieces of evi-
dence may be cited in support of the view that, in this case, an
archaic single-article construction was secondarily supplanted by
a double-article alternative. First, within Tiberian BH, the com-
plementary distribution of single- and double-article יוֹם + ordinal
constructions is suspiciously suppletive. The double-article alter-
native obtains only where a cliticised preposition permits its ar-
ticulation before יוֹם, or, in the absence of such a preposition—
crucially—in acknowledged late contexts: LBH Dan. 10.12 and
Neh. 8.18 and NBDSS 4Q216 7.12 = Jub. 2.21 and 4Q284 f2ii
3–4; f3.2.

Further evidence of the Second Temple character of the
symmetrical DETERMINED NOUN+DETERMINED ORDINAL construc-
tion comes from Aramaic and Syriac. Not only do the Targums
and the Peshiṭta, respectively, rather consistently present double-
article constructions composed of DETERMINED NOUN + DETER-

MINED ORDINAL—including, notably, in most of their renderings of the eight cases of Masoretic CBH single-article formulation—but this agreement is routine in those languages outside of biblical translations, too. It is possible that convergence with Aramaic contributed to the process of movement from single- to double-article יוֹם + ordinal structures, though the process may well have begun within Hebrew in connection to the standard norm of adjectival agreement.

If double-article יוֹם + ordinal structures are indeed secondary in ancient Hebrew, then this explains the suppletion in Tiberian CBH. The single-article construction was preserved only where the consonantal text was not amenable to double-article vocalisation. On the basis of the consistency of single-article יוֹם + ordinal when יוֹם is preceded by ב- or ל-, it stands to reason that BH at one time knew structures of the type בְּיוֹם*+הַשִּׁשִׁי, in accord with the type יוֹם הַשִּׁשִׁי. If so, at least some portion of the extant cases of the type בַּיּוֹם הַשִּׁשִׁי must be due to secondary reinterpretation, which has led to the current dissonance between the vocalisation implied by the consonantal tradition and the Tiberian vocalisation.

As already noted, the recognition of dissonance is not new (Lambert 1895; GKC §126h; Sperber 1966, 603; Barr 1989, 310–12, 325–33; Borg 2000, 31, 33; JM §138b). It is commonly hypothesised that the consistent double-article syntax of expressions of the type בַּיּוֹם הַשִּׁשִׁי is due to secondary recasting in line with both standard BH noun-adjective concord and post-exilic consonantal evidence of the double-article structure יוֹם + ordinal. Borg (2000, 33) goes so far as to speculate that *all* biblical and

DSS יוֹם + ordinal expressions with cliticised prepositions were originally single-article constructions. This seems extreme, given the occurrence of consonantally unambiguous double-article constructions in LBH and the DSS. A plausible hypothesis in light of the evidence is that Second Temple Hebrew was characterised by genuine cases of the type ביום הששי as well as persistence of the type *ביום הששי.

Barr's (1989, 330) comments on early poetry have broader application:

> [A]lthough we cannot assume that every 'article' marked upon a preposition *b, k,* or *l* in early poetry was 'really' there, it is unwise scepticism to suppose that none of them were really there or that only those marked with the consonantal *h* can be taken as actual.... Though the reading tradition was not always 'right', this is not an adequate reason for supposing that in this respect it was always wrong....
>
> The use of the article was in a process of change during—perhaps one should even say 'throughout'—the biblical period; and I have said nothing of the post-biblical usage, which certainly deserves to be taken into consideration here as well. This could mean that some of the reconstitution of patterns in the later reading tradition was in continuity with processes that were taking place during biblical times; it could even mean that some of this reconstitution was already under way within the formation of the Bible.

The Second Temple consonantal evidence adduced above for היום הששי gives a latest possible date for the development of the syntax reflected in masoretic vocalisations of the type בַּיּוֹם הַשִּׁשִּׁי. Significantly, however, establishing an earliest possible

date is precluded by a frustrating lack of evidence. One might speculate that, with a larger sample size of CBH cases without clitic prepositions, sporadic CBH cases of the type היום הששי might conceivably have occurred. Irrespective of this eventuality, a scenario can be imagined in which doubly-determined בַּיּוֹם הַשִּׁשִּׁי structures developed without double-article היום הששי ever having enjoyed widespread currency. Indeed, this is the most straightforward reading of the evidence, since double-article היום הששי is very rarely attested in any phase of ancient Hebrew. Indeed, it is not beyond the realm of possibility that doubly-determined expressions with clitic prepositions, like בַּיּוֹם הַשִּׁשִּׁי, preceded and influenced the development of doubly-determined cases without clitic prepositions, like היום הששי. If suppletive syntax could take hold in the Tiberian reading tradition, why not earlier? One cannot discount the possibility that the double-article structure ביום הששי developed in Iron Age Hebrew, coexisting with single-article יום הששי, and that the Tiberian reading tradition merely standardised the double marking where possible.

In sum, while single-article constructions without prepositions of the type יוֹם הַשִּׁשִּׁי likely predate double-article הַיּוֹם הַשִּׁשִּׁי alternatives, the Tiberian vocalisation of double-article expressions with prepositions, as in בַּיּוֹם הַשִּׁשִּׁי, are likely secondary in some CBH contexts, but are in line with unequivocal LBH and DSS Hebrew consonantal evidence. A dearth of evidence precludes determining when the double-article formulation was coined. It was certainly established by Second Temple times; it may well have arisen earlier.

## 3.4. The 3MPL Gentilic: ‎ים‎- versus ‎יים‎-[11]

The typical Tiberian BH MPL gentilic ending is generally the same as that characteristic of MPL substantives, i.e., ‎ים‎- -*īm*. It seems clear in the case of 3MPL gentilics that this is due to secondary syncope of an earlier phonetic realisation with consonantal *y*, e.g., *-iy(y)im/-i:im/-iʾim/-īm < -iyyim*.[12] In view of the consistently defective spelling of plural *-im* in Iron Age Hebrew inscriptional sources (Gogel 1998, 61–73), the *yod* in such forms as the Arad letters' ‎כתים‎ 'Kittites' is almost certainly consonantal, i.e., *kittiy(y)im*. A similar picture emerges from cognate inscriptions, with spellings like Phoenician ‎דננים‎ *danuniy(y)im* and Ugaritic /ʾugrtym/ *ʾugaritiy(y)im* 'Ugarites'.

Turning to Second Temple sources, the DSS present orthographic evidence consistent with both the continued consonantal realisation of *y* (or some reflex thereof) and contraction to simple *-im*. Forms spelled with double *yod* outnumber those with a single *yod* by counts of 23:18 in the BDSS and 11:3 in the NBDSS (for details, see Hornkohl 2018a, 89, fn. 51). While the phonetic values of the relevant spellings cannot be determined with certainty, it is reasonable to assume that they reflect a variety of pronunciations, presumably a continuum from geminated or singleton consonantal realisation, through hiatus, glottal epenthesis, and/or extended *i*-vowel, to complete contraction to *-im* (Reymond 2014, 120–22; cf. Qimron 1986, 24; 2018, 95–97). Codex

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[11] Hornkohl (2018, 86–91).

[12] The gemination of *y* in such cases may itself be secondary, though early (Suchard 2019, 59 and fn. 8).

Kaufmann of the Mishna, material from BS, and the Samaritan reading tradition, in all of which contracted MPL gentilic  dominates, furnish confirmatory evidence of the late proliferation of syncope.

Coming to the relevant form in the Tiberian reading tradition, we find that it is with very few exceptions syncopated to -*īm*, corresponding to the standard MPL suffix on non-gentilic substantives, -*īm*. Given the evident incidence of syncopated realisations of MPL gentilic ים- in the DSS, BS, the Samaritan biblical reading tradition, and RH, it is clear that the Tiberian reading tradition presents a phonetic realisation in line with late Second Temple practices.

But might such a syncopated realisation date to even earlier? There is evidence, albeit ambiguous and/or limited, suggesting that it might. The Tiberian consonantal tradition presents a single potential case of contracted 3MPL gentilic ending. Consider example (3):

(3)    וְיָקְשָׁן יָלַד אֶת־שְׁבָא וְאֶת־דְּדָן וּבְנֵי דְדָן הָיוּ **אַשּׁוּרִם** וּלְטוּשִׁים וּלְאֻמִּים:
    'And Jokshan fathered Sheba and Dedan. And the sons of Dedan were **Asshurim** and Letushim and Leummim. (Gen. 25.3)

While identification of the form אַשּׁוּרִם as a gentilic with syncopated -*īm* ending arguably suits the genealogical context, it may be otherwise explained (Kiel 2000, 204).

More promising, but still questionable evidence for syncope comes from Iron Age Hebrew epigraphy. In contrast to the routine consonantal *y* in the Arad Letters' כתים *kittiy(y)im* 'Kittites' comes potential evidence of contraction -*iy(y)im* > -*im* in the

form אדמם, presumably *ʾadomim* 'Edomites' (Arad 3.12). Though the context is broken, mention of Edom elsewhere in the corpus, most explicitly in Arad 24.20 (see also 21.5; 40.10, 15) lends support to this interpretation. Intriguingly, the main argument raised in objection to the reading of a MPL gentilic here is the otherwise unattested contracted realisation of the MPL gentilic ending in the ancient Hebrew epigraphic corpus (see Gogel 1998, 182, fn. 217, and the works cited there).

The most secure supporting evidence for the early contraction of the MPL gentilic ending is found in the relatively frequent Phoenician reference to צדנם 'Sidonians', which goes as far back as the 8th century BCE.[13]

In its consistent presentation of a syncopated MPL gentilic ending, the Tiberian reading tradition reflects standardisation of a secondary development. Though secondary, the development in question is not only well represented in Second Temple consonantal sources, but apparently sporadically evidenced in even earlier written material. The contraction *-im < -iy(y)im* is presumably an early vernacular phenomenon, only sporadically preserved in early sources, that came to dominate in certain Second Temple traditions, including the Tiberian reading tradition.

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[13] *KAI* 31.1 (8th cent BCE); 13.1–2 (5th cent BCE); 14.1–2, 13–15, 18, 20 (5th cent BCE); Gibson 1971–1982, no. 29 (3x) (400 BCE).

## 3.5. The 3MS Possessive Suffix on Singulars and Similar: ה- versus וֹ-[14]

In all traditions of BH, the dominant 3MS possessive (nominal) suffix for singular nouns and similar is וֹ-. In the Tiberian tradition, the written and reading components agree on this morphology in 7710 of 7765 cases (Andersen and Forbes 1986, 183, 323). In the 55 exceptions, the written tradition presents ה-. Sometimes this is the *ketiv* and the accompanying *qere* calls for וֹ-. On other occasions, the standard vocalisation is simply imposed upon the anomalous orthography in the form of הֹ-. Either way, these appear to be instances of phonological dissonance between the written and reading components of the Tiberian biblical tradition.

The spelling ה- dominates for the 3MS possessive suffix in ancient Hebrew epigraphy (Gogel 1993, 155–56). It is generally thought to have developed to reflect realisations of the type *-ahū*, *-ihū*, or *-uhū*. Yet, given the propensity for marking final long vowels in ancient Hebrew inscriptions, it is not impossible that *-ahū* had already shifted to *-ō* (via elision of *heh* and monophthongisation of *-aw*) (Zevit 1980, 17, no. 23). Another possibility is that ה- in the inscriptions and the Bible was meant to reflect something along the lines of *-ēh*, which is the standard Aramaic parallel (Young 1993, 105–6, 126).

Assuming BH 3MS ה- reflected some realisation other than standard *-ō*, there is strong evidence that the dissonance on this point between the Tiberian tradition's written and reading components is early. In other words, though ה- is clearly archaic and

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[14] See Hornkohl (2012, 67–69).

was probably not originally meant to represent -ō, there are strong indications that 3MS -ō is itself quite ancient. Not only is it the dominant form throughout the combined Tiberian written-reading tradition;[15] it is also attested as a minority form in Iron Age Hebrew epigraphy (ושלחו 'and send [MS] it!' Arad 13.4 [verbal]; בו 'in him' Ketef Ḥinnom 1.11). Moreover, Tiberian 3ms ה- is sometimes paralleled in the BDSS by ו- (e.g., ), while in SH, it is consistently paralleled by ו- -u. Ancient transcriptional evidence also reflects -o—the Secunda has -ω (Brønno 1943, 362) and Jerome has -o.[16]

   While the difference between the majority Iron Age epigraphic orthography ה- and the majority biblical spelling ו- must

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[15] The orthography ה- pointed with *ḥolam* is common in the Tiberian biblical tradition in other categories as well, especially proper nouns, like שְׁלֹמֹה 'Solomon', פַּרְעֹה 'Pharaoh', שִׁלֹה 'Shiloh', שׂוֹכֹה 'Socoh', and גִּלֹה 'Gilo', and the III-*y qal* infinitive absolute forms. In contrast to the spelling of 3MS ה-, which largely gave way to ו-, the spelling of such proper names and toponyms with ◌ֹה- persists throughout all chronolects of Hebrew.

[16] I am grateful to my friend and colleague, Benjamin Kantor (f.c.), for supplying the following data from his forthcoming book: *brucho* || BHS בְּרוּחוֹ 'in his spirit' (Ps. 32.2); *dercho* || BHS דְּרְכּוֹ 'his way' (Prov. 8.22); *baaphpho* || BHS בְּאַפּוֹ 'in his nose/nostrils' (Isa. 2.22); *mnuatho* || BHS מְנֻחָתוֹ 'his residence/resting place' (Isa. 11.10); *cadeso* || BHS קָדְשׁוֹ 'his holiness' (Isa. 63.10); *chullo* || BHS כֻּלֹּה 'all of it [MS]' (Ezek. 11.15); *aphpho* || BHS אַפּוֹ 'his anger' (Amos. 1.11); *masio* || BHS מַה־שֵּׂחוֹ 'what his meditation [is]' (Amos. 4.13); *messio* || comments on מְשִׁיחוֹ 'his Messiah' (Amos. 4.13); *baemunatho* || BHS בֶּאֱמוּנָתוֹ 'by his faith' (Hab. 2.4); *iado* || BHS מִיָּדוֹ 'from his hand' (Hab. 3.4). Note that the Tiberian form in Ezek. 11.15 ends in *heh*: כֻּלֹּה.

be explained (by a Second Temple orthographic revision?) and while there is no certainty that First and Second Temple spellings with ו- were necessarily read with an *o*-vowel, the combination of the unanimous testimony of the ancient transcriptions and the Masoretic Tiberian and Babylonian reading traditions makes an *o*-vowel the most likely candidate (against Samaritan *-u* < *-hu*). In this case, then, the antiquity of the Tiberian reading tradition's *-ō* where the written tradition has ה- seems to be vouchsafed by robust Second Temple evidence. Assuming that the minority epigraphic and dominant Masoretic spellings ו- also represent *-ō*, the phonology in question can be traced all the way back to First Temple times. Alternatively, the realisation was *-aw*, for which *-ō* is a later reflex.

### 3.6. The 3MS Possessive Suffix on Plurals and Similar: ו- versus יוֹ-[17]

In the Tiberian biblical tradition, the standard 3MS possessive suffix on plural nouns is written יו-, but realised as *-ā̊w* [ɔːv]. Such a written-reading corelation is counterintuitive, but sufficiently established that a number of words without the 3ms suffix that end in *-ā̊w* [ɔːv], have also acquired spellings with יו-, e.g., MT *ketiv* and *qere* יַחְדָּיו 'together', MT *qere* סְתָיו 'winter/autumn, rainy season', MT *qere* עָנָיו 'humble', DSS עישיו 'Esau', DSS תיו 'hook', RH עכשיו 'now'.

Two general explanations have been offered for the unexpected presence of a *yod* in a suffix pronounced *-ā̊w* [ɔːv]. One is that it was added secondarily as a grammatical *mater lectionis* to

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[17] See Hornkohl (2020, 257–73).

indicate plurality. The other is that it is not secondary, but reflects an oral realisation different from the one preserved in the Tiberian pronunciation tradition. Specifically, it is thought that it represented triphthongal *-ayu* or *-eyu* in contrast to the diphthongal Tiberian pronunciation *-ā̊w* [ɔːv]. Given the not-infrequent occurrence in the Tiberian written tradition of וֹ- without *yod* in cases where the combination of a plural with 3MS suffix is expected, along with the dominant use of וֹ- alone in such cases in Iron Age Hebrew epigraphic sources, the view that attributes the dissonance between the written and reading components to diversity in pronunciations of the 3MS suffix is arguably the more compelling of the two.

Crucially, however, no matter which explanation is adopted, both presuppose the relative antiquity of the form preserved in the reading tradition vis-à-vis the standard orthography. For whether the orthography יו- is due to secondary addition of a grammatical *mater* or reflects genuine phonology with consonantal *yod*, the extant historical evidence points to the antiquity of the spelling וֹ- and of a realisation consistent therewith, whether *-aw* (> -o?) or *-ew*, with inscriptional evidence from Gezer (ninth-tenth century BCE), Yavne Yam (= Meṣad Ḥashavyahu; late seventh century BCE), and Lachish (early sixth century BCE). If so, this constitutes a rather rare situation in which the reading component of the Tiberian biblical tradition may preserve a feature older than that reflected in the corresponding written component.

But there is more to the story. The spelling יו- is also known form ancient Hebrew epigraphy, specifically from the mid-sev-

enth-century BCE Ketef Ḥinnom silver inscriptions. If so, then the spelling יו-, apparently representative of a triphthongal realisation, might constitute an ancient minority feature, which was standardised in the Tiberian written tradition. By contrast, an apparently majority ancient spelling-pronunciation tradition underlies the dominant Tiberian pronunciation, which is also preserved in a minority of spellings in the MT. Later, the co-occurrence of the spelling יו- and the realisation -*aw/-av* led to the extension of the use of written יו- to other instance of realisations of -*aw/-av*, even where there was no 3MS suffix.

If the above discussion is correct, the dominant 3MS traditions of both the written and reading components of the Tiberian biblical tradition are authentically old, but the normal situation, according to which the reading tradition reflects the standardisation of an ancient minority feature in line with Second Temple conventions, has been reversed. For in this case, it is the written form יו- that is the minority form in unambiguously dated early material, becoming common only in Second Temple sources. Against this, apparently diphthongal ו- is the majority Iron Age form and is preserved in the Tiberian reading tradition.

## 3.7. Attenuation of *a* to *i*

Narrowly interpreted, the Tiberian Hebrew *a* > *i* vowel shift traditionally termed 'attenuation' is a case of dissimilation operative when there are two consecutive closed syllables with /a/ vowels, the second of which is stressed: $C_1aC_2C_3\acute{a}C_4 > C_1iC_2C_3\acute{a}C_4$. Well-known examples include מִגְדָּל 'tower' (< *magdal*), מִרְיָם 'Miriam' (< *maryam*), and שִׁבְעָה 'seven (M)' (< *šabʿat*). The process is said

to be blocked if $C_2 = C_3$ (i.e., if the syllable is closed by gemina-tion), e.g., מַתָּנָה 'gift', מַסַּע 'journey'; if $C_1 = C_3$ or $C_2 = C_4$ (i.e., in the case of reduplication), e.g., גַּלְגַּל 'wheel' (but cf. גִּלְגָּל 'Gil-gal'); and by the presence of a guttural or, sometimes, /r/ or /l/, e.g., מַעְגָּל 'circle', מַרְבַד* 'carpet, tapestry', מַלְמָד* 'prod, ox goad'. Once these cases are accounted for, there are very few exceptions (Koller 2013; see also Sivan and Qimron 1995, 20–26). Broader interpretations of attenuation that lump together various other sorts of shifts $a > i$ under the same heading are today largely rejected (Blake 1950; Lambdin 1985; Koller 2013).

Because attenuation seems to be largely absent from the Greek and Latin transcriptions, as well as from SH, and because it is far less extensive in the Babylonian biblical pronunciation tradition than in Tiberian Hebrew, its extensiveness in the Tibe-rian biblical tradition is widely regarded as a very late develop-ment (Blau 2010, 132, §3.5.7.6.13; Koller 2013; Hendel 2016, 32). Indeed, since Jerome still has *Magdal* in his Latin translation of the Bible (c. 400 CE), Rendsburg (2013, 108) dates the shift to sometime between 400 and 850 CE. The frequent exceptions to attenuation are also taken by some as evidence that the shift was late and never completed (Blau 2010, 132, §3.5.7.6.13).

There seems little doubt that from the perspective of the extent of attenuation *a* to *i*, the Tiberian biblical pronunciation tradition reflects greater innovation than what is seen in the pro-nunciation evidence of the LXX, Origen's Hexapla, Jerome, and the Samaritan and Babylonian reading traditions (see Khan 2020, I:66–67). But does this necessarily entail the view that the sound shift began post-400 CE, i.e., that it was unknown in earlier He-

brew? In light of the historical precedence seen in other linguistic features that became standard in the Tiberian reading tradition, it seems worth entertaining the possibility that in the case of attenuation, too, a relatively early feature of limited extension was eventually regularised in Tiberian pronunciation.

Indeed, there are sporadic signs of $a > i$ attenuation in pre-Tiberian Hebrew sources. In his discussion of the Second Column of Origen's Hexapla (i.e., the Secunda, c. 250 CE[18]), Brønno (1943, 284–85) lists the forms μισγαβ || MT מִשְׂגָּב־ 'stronghold' (Ps. 46.8, 12) and μισχνωθαμ || MT מִשְׁכְּנֹתָם 'their dwellings' (Ps. 49.12). Consider also the burial epitaph שלום ע]ל מישכבך [peace] upon your resting' (*CIJ* 1414), dated by Tal (2008, 162, no. 23) to the third century CE. In all of the above cases, however, it is possible that the preceding sibilant triggered the shift $a > i$.

Conversely, no such conditioning factor applies in the case of the Greek Φυλῆς Μιγδαληνων 'tribe of the Migdalenes' from the Hellenistic–Roman Periods of what is modern day Syria (Waddington 1870, no. 2483; Burke 2007, 34, 52).[19] Whatever the language of the people group in question—presumably, a Hebrew or Aramaic dialect—Trombley (2014, 359–61) dates the arrival of the Migdalenoi to no later than the third century CE, to which period he also dates the relevant inscription.

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[18] Kantor (2017, 9–17) argues for a late Roman date, i.e., 150–225 CE ("mid-to-late second or early third century CE") for the compilation of the pre-Secunda, on which source Origen is thought to have based the Second Column of the Hexapla.

[19] I owe this citation to Jan Joosten.

Consider also the spelling מירים 'Miriam' in a burial inscription from Beth Shearim that Mazar (1973, 54, 197–98) dates to the third-century CE (Tal 2012, 187, no. 5, fn. 13, dates it more generally to "Pre-352," because "This is the year in which Beth She'arim was destroyed"; see also Tal 2012, 38, §7.5.1). The *plene* form representing an *i*-vowel in the first syllable is especially striking in contrast to the Greek form Μαριαμένη with *a*-vowel in another inscription in the same chamber, evidently referring to the same person (Mazar 1973, 197).

Though admittedly meagre, the foregoing come as indisputable evidence of a pre-400 CE *a* > *i* shift consistent with Tiberian attenuation representing various times and locales in pre-Tiberian Hebrew. Though they do not prove the antiquity of attenuation's extensiveness as reflected in the Tiberian tradition, they at least show that Tiberian pronunciation standardised a feature sporadically documented in late antiquity. What is more, given the limited, fragmentary, and equivocal state of the extant relevant data from the period, it is likely that the historical picture remains somewhat obfuscated. One should bear in mind, among other considerations, that though *plene* spellings with *yod* unambiguously represent an *i*-vowel, defective spellings do not unequivocally reflect *a*. It is thus not unreasonable to speculate that results of the *a* > *i* shift in question were more common in various types of Hebrew and Aramaic far earlier than the Masoretic tradition crystallised and, therefore, that the apparent innovation that Tiberian Hebrew exhibits might rather be a case of the preservation and standardisation of a relatively early second-

ary development, perhaps especially characteristic of specific types of Hebrew or Aramaic.

## 4.0. Structure of the Monograph

Like the seven cases summarised above, the vocalic realisations treated in the body of this monograph must be regarded as departures from the pronunciation tradition reconstructable on the basis of the consonantal text. In this sense, the extant Tiberian vocalisations are secondary and relatively late. This, however, is only part of the picture. In all cases, the realisations attested in the pronunciation tradition are themselves characterised by substantial historical depth. Their innovation in no case postdates the Second Temple Period, as is clear from their attestation in the combined Tiberian LBH written and reading tradition, DSS Hebrew, SH, the Hebrew of BS, Tannaitic RH, and forms of Second Temple Aramaic. What is more, in several instances, CBH and/or Iron Age epigraphic material shows that the relevant secondary feature had already developed as a minority alternative prior to Second Temple times. In such cases, the Tiberian reading tradition engages in what may be characterised as the late extension of an otherwise early peripheral feature. This is consonant with the reading tradition's profile as one that crystallised during Second Temple times, simultaneously absorbing late features and preserving genuine Iron Age traits.

The monograph is divided into two parts. The shorter Part I focuses on what may be considered conscious, theologically motivated developments. In such cases, certain phenomena the oral realisation of which had come for various reasons to be deemed

problematic were substituted in the pronunciation tradition, though not in the consonantal text, with more acceptable alternatives. Such examples serve as a useful introduction into the conceptual domain of written-reading dissonance in the Tiberian biblical tradition. They differ in kind, however, from many of the features discussed in Part II. These seem to reflect written-reading dissonance that resulted from developments within Hebrew that had greater effect on the pronunciation tradition than on the orthographic tradition. Crucially, whatever the character of the development—whether motivated by concerns of propriety or driven by unconscious linguistic evolution—all the features listed below are similarly characterised by a degree of mismatch between their written representation and their oral realisation. This is most often due to secondary development—again, either deliberate or unconscious—in the Hebrew preserved in the reading tradition. In a few cases, conversely, it seems that the written and reading components of the Tiberian biblical tradition present alternatives of more or less equal antiquity that became fused in the combined written-reading tradition.

The structure of the monograph is as follows:

Part I: Conscious Replacement

- ▪ ch. 1: The Tetragrammaton
- ▪ ch. 2: לֵרְאוֹת אֶת־פְּנֵי יְהוָה and Similar
- ▪ ch. 3: *Ketiv-Qere* Euphemisms

Part II: Linguistic Development

- • phonology
  - ▪ ch. 4: The Proper Name Issachar

- ch. 5: לקר(א)ת *liqra(ʾ)ṯ*
- pronominal morphology
  - ch. 6: The 2MS Endings
  - ch. 7: The 2FS Endings
  - ch. 8: The *Qere Perpetuum* הוא
  - ch. 9: The 2/3FPL Endings
- verbal stem morphology
  - ch. 10: Nifalisation
  - ch. 11: Hifilisation
  - ch. 12: Pielisation
  - ch. 13: Hitpaelisation
- verbal morphosyntax
  - ch. 14: *Ṭɛrɛm Qaṭal*
  - ch. 15: *Ha-qaṭal*
  - ch. 16: *Wayyiqṭol*
  - ch. 17: 1st-person *Wayyiqṭol*
  - ch. 18: I-y *We-yiqṭol* for *Weqaṭal*

In some of the cases discussed, the notion of divergent pro-
nunciation traditions—one embodied in the Tiberian vocalisa-
tion, the other underlying the Tiberian written text—is uncon-
troversial or, at the very least, represents a commonly suggested
scholarly option, e.g., those discussed in chs 1–3 and 10–13. In
other cases, such an explanation has been only rarely proposed
and alternative accounts are far more frequently suggested in the
literature.

For example, according to a common approach to the Tibe-
rian 2MS endings תָ- and ךָ- in ch. 6, there is no written-reading

dissonance. Rather, both components of the tradition are thought to reflect vowel-final endings, with the routine lack of a final *mater* attributed to an anomalous (though now standard) orthographic convention. Likewise, explanations for the *qere perpetuum* הוּא in the Tiberian Pentateuch in ch. 8 typically hang on the move from defective to *plene* orthography and similarity in letter shape. Though the rather implausible prospect of an epicene 3CS form has also been raised, the possibility that the spelling and vocalisation might both correctly reflect divergent realisations of the 3FS independent subject pronoun has been rarely entertained.

Notwithstanding the existence of plausible and accepted alternative explanations in the case of some of the phenomena discussed in the studies below, the approach here is intentionally programmatic. That is, a conscious effort is made to explore the suitability and ramifications of the view that phonetic dissonance plays a determinative role in all of the relevant features and, as such, is a reality that should routinely be taken into consideration in biblical studies, whether linguistic, exegetical, textual, or literary.

The study closes with a conclusion that summarises results, highlights meaningful trends, and discusses ramifications and potential avenues of future study.