A Judaeo-Arabic Biblical Glossary as a Source for Arabic Historical Dialectology

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Abstract
MS T-S Ar.5.58 is a translation glossary from the Cairo Geniza that contains a list of Judaeo-Arabic glosses for Hebrew words from the biblical book of Samuel. These Arabic words are fully vocalised with the Tiberian Hebrew pointing system, providing more precise phonetic information about the scribe’s native Arabic dialect than could be expressed with standard Arabic vowel signs. This pointing reveals linguistic features known from modern varieties of vernacular Arabic, including a conditional tendency to raise /a/ to /e/ and a reflex of ǧīm as /g/. The manuscript can be dated between the tenth and twelfth centuries, making it an important source for the history of spoken medieval Arabic and Middle Arabic writing.

Keywords: Middle Arabic, Judaeo-Arabic, Arabic dialects, vocalisation, lexicography, Cairo Geniza

Introduction
A perennial problem of Arabic historical dialectology is the relative paucity of manuscripts that clearly record non-Classical forms. This problem is compounded by the fact that extant texts which do contain colloquial features are either unvocalised or vocalised with just a few Arabic vowel signs. Only a fraction of these texts are fully vocalised, but even with those we are limited by the Arabic writing system itself: the three Arabic vowel signs (fatḥa, kasra, damma) are insufficient to record all of the vowel qualities in dialectal Arabic. A vocalisation system with more than three signs could, in theory, record additional allophones more precisely, but no such system was common in the medieval Arabic written tradition. Likewise, the Arabic script has no way to explicitly indicate stress patterns, nor can it easily mark dialectal reflexes of Classical consonants.

However, the Tiberian Hebrew writing system has signs for seven discrete vowel qualities, a sign for marking unstressed syllables, and a dot that distinguishes between stop and fricative consonants. A few early medieval Judaeo-Arabic texts make use of these signs

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1 Green dots do occasionally occur in early Qurʾān manuscripts to indicate the raising of a-vowels via ḍimāla, but this system is rare and unattested in non-Qurʾānic manuscripts. See DUTTON, “Red Dots, Green Dots (Part I),” 116.
to transcribe fully vocalised medieval Arabic, and this practice enables a near complete re-
construction of their dialectal phonology. One such manuscript is T-S Ar.5.58, a fragment
from the Cairo Geniza that contains a Judaeo-Arabic translation glossary for the book of
Samuel.

MS Cambridge University Library, Taylor-Schechter Arabic 5.58

T-S Ar.5.58 is part of a glossary that contains Arabic translations of Hebrew nouns, verbs,
and phrases from 1 Samuel 17:7 to 19:10. It is a single parchment folio, measuring 17.4 ×
16.6 cm, and is relatively well preserved. It has a few holes, some ink has faded, and there
are multiple dark stains, but in general the text is still legible. It was once part of a bifolium,
but the second leaf remains only as a stub, and there are eight small holes that indicate it
was once sewn into a quire. Presumably, this quire was part of a larger translation glossary
for the whole book of Samuel.

The text is arranged into four columns on each page. The first and third columns give
lists of Hebrew words from Samuel, while the second and fourth columns give Arabic
glosses for those words. Each column has 20 rows, except for the third and fourth columns
on the recto, which only have 19. In total, there are 79 lexical entries. These glosses contain
a mixture of Classical, pseudo-Classical, and vernacular Arabic forms, reflecting a type of
literary Middle Arabic.

The Arabic glosses are written in Hebrew script, making them a specific type of non-
Classical Arabic known as ‘Judaeo-Arabic.’ Broadly speaking, ‘Judaeo-Arabic’ refers to
the varieties of colloquial Arabic spoken in Jewish communities from the eighth century
onwards. These dialects of Jewish ʿāmmiyya were often similar to those of Christian and
Muslim Arabic-speakers in the same regions, although they also (unsurprisingly) incor-
porated a fair amount of Hebrew and Aramaic vocabulary. In writing, ‘Judaeo-Arabic’
refers to Arabic transcribed in Hebrew script.

Biblical translation glossaries are a dime a dozen in the Cairo Geniza collections, but
T-S Ar.5.58 is exceptional in that it is fully vocalised Judaeo-Arabic written on parchment.
When papermaking arrived in Cairo in the ninth century, it began supplanting papyrus and
parchment as the most common writing support, and by the tenth or eleventh century, paper
dominated as a comparatively cheap material. Parchment remained in use, but to a much
lesser extent, and consequently most parchment fragments in the Geniza were produced

2 MS Cambridge University Library, Taylor-Schechter Arabic 5.58. See BAKER & POLLIAK, Arabic
and Judeo-Arabic Manuscripts, 31.
Judaeo-Arabic.
4 Just in the folder that contains T-S Ar.5.58, there are eight other biblical glossaries (T-S Ar.5.6, T-S
Ar.5.31, T-S Ar.5.35, T-S Ar.5.37, T-S Ar.5.51, T-S Ar.5.52, T-S Ar.5.59, T-S Ar.5.61) and three
Mishnaic glossaries (T-S Ar.5.7, T-S Ar.5.13, T-S Ar.5.21). For introductions to the Cairo Geniza
collections and their history, see Reif, A Jewish Archive from Old Cairo; HOFFMAN and COLE, Sacred
Trash; JEFFERSON, “Deconstructing ‘the Cairo Genizah.’”
5 GACEK, Arabic Manuscripts, 186; DÉROCHE et al., Islamic Codicology, 51–52.
between the tenth and twelfth centuries. It is thus most likely that T-S Ar.5.58 was written between 900 and 1200. This range places it among the earliest known Judaeo-Arabic texts with complete vocalisation.

The Writing System of T-S Ar.5.58

T-S Ar.5.58 records Arabic glosses with ‘classical’ Judaeo-Arabic orthography. This orthography is the most common type of Judaeo-Arabic writing, and mimics Classical Arabic by transcribing each Arabic character with a single Hebrew character. It was used between the tenth and fifteenth centuries, and contrasts the rarer ‘phonetic’ orthography, which recorded the phonetic realisation of Judaeo-Arabic rather than imitating Classical Arabic.

The phonetic system also reflects a greater tendency to use plene spellings for short vowels in Arabic. Conversely, the classical orthography conceals much of its internal vowel phonology, resulting in a relatively standardised Judaeo-Arabic writing system that could be read by Jews in communities that spoke different varieties of Arabic.

The scribe of T-S Ar.5.58, however, wanted a more precise record for their glossary of Samuel, so they transcribed all of the Arabic vowels using Tiberian Masoretic vocalisation signs.

During the early medieval period, groups of Hebrew scribes and scholars known as ‘Masoretes’ created vowel signs to vocalise the text of the Hebrew Bible. Their primary goal was preserving Hebrew recitation traditions in the midst of an Arabicising linguistic landscape, and they developed three different vocalisation systems in service of that goal. These included the Palestinian and Babylonian systems, which saw use respectively in Palestine and Iraq, as well as the Tiberian system, named after the Masoretes of Tiberias on the Sea of Galilee. The Tiberian Masoretic tradition proved the most authoritative of the Hebrew systems, and the Tiberian vowel signs supplanted almost all other Hebrew vocalisation systems in the Middle East and Europe. The majority of vocalised Judaeo-Arabic manuscripts contain Tiberian pointing.

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7 BLAU and HOPKINS, “On Early Judaeo-Arabic Orthography”; KHAN, “Vocalized Judaeo-Arabic,” 201–2; KHAN, “Judaeo-Arabic,” 150–51. One telling sign of the phonetic orthography is the transcription of the definite article (al-) before a dental or alveolar consonant by omitting the lām, whereas classical orthography transcribes the lām even when it elides into the following sun letter.
8 BLAU, Handbook, 29.
10 From the Aramaic root msr, ‘transmitting, passing on;’ JASTROW, A Dictionary of the Targumim, the Talmud Babli and Yerushalmi, and the Midrashic Literature, 1:811. The Masoretes are so named for their role in creating the ‘Masora,’ a textual tradition and apparatus related to the proper recitation of the Hebrew Bible.
12 The Tiberian pronunciation tradition died out around the eleventh century, but most Jewish communities still adopted the Tiberian signs, which remain standard in Modern Hebrew. See DOTAN, 633, 646; KHAN, The Tiberian Pronunciation Tradition, I:§1.0.9.
13 KHAN, “Vocalized Judaeo-Arabic,” 206–7. Some manuscripts instead contain Arabic vowel signs, for
This system has nine graphemes that originally represented seven vowel qualities. These signs included the holem /ø/ (8), qames /ɔ/ (8), patah /a/ (8), segol /e/ (8), sere /e/ (8), hireq (8), and gibbus /u/ (8). Another sign, shureq, also represented /a/ when written with a mater lectionis letter vav (98). Lastly, the šewa sign (8) represented silence at a syllable break, or /a/, equivalent to patah. This latter šewa is known as ‘vocalic’ šewa, and it occurs where the Masoretes pronounced an epenthetic vowel in place of a historic lexical vowel, predominantly in unstressed, open syllables. Qames (/ɔ/) and segol (/e/) do not appear in the Arabic of T-S Ar.5.58, but the other seven signs do. They all seem to retain their original Tiberian functions, which allowed the scribe to record allophonic features like imāla and to use šewa as a marker of Arabic stress patterns.

Vocalisation in Middle Arabic

Consistently vocalised Middle Arabic texts are about as rare as hens’ teeth, so much of the evidence for non-Classical medieval vowel phonology comes from somewhat roundabout sources. Joshua Blau describes four in particular: a late ninth- or early tenth-century Greek transcription of Arabic,17 several ‘phonetic’ Judaeo-Arabic transcriptions with plene short vowels,18 a thirteenth-century Coptic transcription of Egyptian Arabic,19 and a twelfth- or thirteenth-century ‘classical’ Judaeo-Arabic letter with full Hebrew vowel signs.20 He deems this last text ‘comparatively late’ for his analysis of early Middle Arabic features,21 but he includes it nonetheless, as it is uncommon for a classical Judaeo-Arabic text to contain more than a smattering of vowel points.

Geoffrey Khan has likewise shown that a number of vocalised Judaeo-Arabic manuscripts reflect features of medieval colloquial Arabic,22 but like Blau’s late letter, most of his sources cannot be easily dated before the twelfth century. He does refer to three parchment Geniza manuscripts which may be earlier, including a copy of the siddur (‘prayer book’) of Sa’adiya Gaon,23 a translation of Ecclesiastes,24 and a commentary on a example: T-S Ar.5.12, T-S Ar.5.17, T-S Ar.54.31, and T-S NS 301.25. See Vidro, “Arabic Vocalisation in Judaeo-Arabic Grammars,” 341–51.

14 None of the signs indicated quantity. Instead, vowel length in Tiberian Hebrew was determined by stress position and cantillation.


16 Khan, The Tiberian Pronunciation Tradition, I:§1.2.5.3.

17 Blau, Handbook, 29, 68–71; Violet, “Ein zwei- sprachiges Psalmfragment aus Damaskus.” Blau and Violet date this manuscript to the eighth century, but more recent palaeographic analysis suggests that it is later. See Khan, “Orthography and Reading,” 396; Mavroudi, “Arabic Words in Greek Letters.”


22 Khan, “Vocalized Judaeo-Arabic.”

23 T-S Ar.8.3; 21 folios, though only 14 folios contain significant vocalisation, and several of those are severely damaged. Baker & Polliack, Arabic and Judeo-Arabic Manuscripts, 38. This is likely the
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liturgical poem. Along with this small parchment corpus, we may now add the translation glossary of T-S Ar.5.58 as another source of vocalised Middle Arabic.

These four manuscripts follow roughly the same vocalisation practices, but they also show significant variation. For example, the scribe of the Ecclesiastes translation used šere (/e/) only sparingly, while the siddur scribe applied it with reckless abandon. These differences reveal that the scribes who pointed these manuscripts did not all follow the same rules for vocalising Judaeo-Arabic, and their work likely reflects slightly different varieties of spoken Arabic. As such, the pointing system of each manuscript must be evaluated on its own, and any patterns must be derived first on internal evidence before comparing with other texts. The following sections examine T-S Ar.5.58 through this lens.

Edition of the Text

Methodology

This section contains an edition of T-S Ar.5.58, with the hope of making its linguistic data available to Arabic scholars who may not read Judaeo-Arabic. It is split into four sections, each containing two columns of lexemes from the manuscript. These columns are arranged along with their line and verse numbers, a transcription of the Judaeo-Arabic in Latin characters, and an English translation of the Arabic form. The transcriptions are as specific as possible according to the vocalisation in the manuscript, and I have generally avoided giving additional details that the scribe could not have conveyed with the system of signs available to them. Some of the Arabic glosses are not literal renderings of the Hebrew

largest extant sample of vocalised Judaeo-Arabic in Geniza collections, and Khan cites it more than any other manuscript in his analyses of vocalised Judaeo-Arabic. See KHAN, "The Function of the Sheva Sign," 105, 107–8; KHAN, "Vocalized Judaeo-Arabic," 202–6, 208, 210; KHAN, "Orthography and Reading," 296–402. Saʿādiya’s siddur is one of the oldest extant collections of liturgical material arranged for use in medieval synagogue services. Saʿādiya completed it sometime between 922 and his death in 942. See MALTER, Saadia Gaon, 146–50; and edition of Davidson, Assaf, and Joel, Siddur R. Saadia Gaon.

24 T-S Ar.27.55, Ar.53.12, and Lewis-Gibson (L-G) Ar.I.150; 6 folios; BAKER & POLLICK, Arabic and Judaeo-Arabic Manuscripts, 158, 535. Khan cites Ar.53.12 several times; see KHAN, "Vocalized Judaeo-Arabic," 204–5, 208–9; and edition of POSEGAY & ARRANT, "Three Fragments of a Judaeo-Arabic Translation of Ecclesiastes."


26 Paper manuscripts with substantial vocalisation are more common, and among those that have been studied are: T-S Ar.3.1, Ar.18(1).113, Ar.30.313, Ar.39.107, Ar.54.11, and Ar.54.63; T-S New Series (NS) 89.36, NS 91.12, NS 163.97, NS 261.101 (belongs with NS 261.125 and NS 261.126), and NS 301.25; T-S Additional Series (AS) 170.176; Lewis-Gibson (L-G) Ar.II.3 (belongs with L-G Ar.II.4, L-G Ar.II.10, and L-G Ar.II.142), L-G Ar.II.73; and Jewish Theological Seminary ENA 2752.26. See BLAU and HOPKINS, "A Vocalized Judaeo-Arabic Letter"; KHAN, "The Function of the Sheva Sign"; KHAN, "Vocalized Judaeo-Arabic"; VIDRO, "Arabic Vocalisation in Judaeo-Arabic Grammars."
words, but it is beyond the scope of this paper to analyse the lexical and theological implications of these differences.

In some cases, I have reconstructed a vowel or part of a word where the text or vowel points were omitted or damaged. These reconstructions are indicated by [square brackets]. A few letters have (curved brackets), which indicate that they were most likely quiescent in speech. It must be noted that the vocalisation in the manuscript appears to reflect the scribe’s aural perception of each word while reading aloud from a translation of Samuel. This context may have influenced their perception of vowel length and stress positions, but we cannot access this layer of information without the full translation of 1 Samuel that the glossary belongs to.

In addition to the folio’s main columns, there are several notes in the margins of the recto. They are in a different hand from the primary text and relate to the lexical items. I have included these annotations as footnotes when it is possible to decipher them.

Line citations take the form R1.1 (recto column 1, line 1) or V1.1 (verso column 1, line 1).

A Note on Šewa

In Hebrew recitation, the šewa sign (§) does not inherently represent any one vowel quality. Instead, it marks either silence (like sukān) or an epenthetic short vowel, usually in an unstressed, open syllable. The quality of this ‘vocalic’ šewa can range between several different vowels (e.g. /a/, /e/, and /ə/) depending on its phonetic context and the particular reading tradition. In the majority of Tiberian Hebrew contexts, it was pronounced with a neutral open quality /a/.²⁷

Vocalic šewa in the Arabic of this text also predominantly denotes a short vowel in an unstressed, open syllable. Following the standard Tiberian usage, this sign likely represented epenthetic /a/ in most places, and it corresponds to positions where Classical Arabic has fatḥa. This epenthesis may correspond to broader Middle Arabic trends of reducing short vowels in unstressed, open syllables.²⁸ I have transcribed these instances of vocalic šewa (as well as the composite šewa sign, hateph patah §) as a, which should be interpreted as representing an open or open-mid short vowel. Some of these vowels could be greatly reduced in quantity, almost to zero, but the šewa sign does not specify their exact length. There are also three instances where vocalic šewa likely indicates /i/ due to a correspondence with the vowels of Classical Arabic particles. I have transcribed these with i, which represents a short, front vowel in an open syllable, the precise quality of which can only be assumed from context.

²⁷ KHAH, The Tiberian Pronunciation Tradition, I:§1.2.5.2; KHAH, “The Function of the Shewa Sign.”
²⁸ BLAU, Handbook, 30.
<table>
<thead>
<tr>
<th>Verse</th>
<th>Translation</th>
<th>Transcription</th>
<th>Column 2</th>
<th>Column 1</th>
<th>Line</th>
</tr>
</thead>
<tbody>
<tr>
<td>17:7</td>
<td>and a bearer of shields</td>
<td>wa-hēmīl 'aḍrā`</td>
<td>[ואַמְל הָעֲנָה]</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>17:8</td>
<td>battlefields</td>
<td>ma‘rakāt</td>
<td>[медицин שָׁם]</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>17:9</td>
<td>I will withstand him</td>
<td>`āṭīqah</td>
<td>[אַתיָקָה]</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>17:10</td>
<td>I condemned</td>
<td>'anā ‘ayyarat</td>
<td>[אֶנא אַיַרַת]</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>17:11</td>
<td>and let us all fight</td>
<td>wa-nuqātil gamīʿ</td>
<td>[נֻקָתִיל גָּמִיע]</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>17:12</td>
<td>and they grieved</td>
<td>wa-gizi‘ā wa-haṣiyū</td>
<td>[וָגהֶזֵיָא וּוּהַטֶּיִיָּא]</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>17:13</td>
<td>and his second</td>
<td>wa-šēnīh</td>
<td>[וּשֶׁנִיָּה]</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>17:16</td>
<td>he would go day after day</td>
<td>yaqaddā wa-yamsī</td>
<td>[יָקָדָא וּיָמְסָי]</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>17:17</td>
<td>a measure of fried grain</td>
<td>kīlgeh māqūlī</td>
<td>[קִילֶגֶה מַקּוּלִי]</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>and he supplied the troops</td>
<td>wa-ʾal dir ʾal-askar</td>
<td>[וָאֶל דֵּר אֶל-אָסָּקָר]</td>
<td>11</td>
<td>11</td>
</tr>
<tr>
<td>17:18</td>
<td>wheels of cheese</td>
<td>ʾaqrīṣa al-gubun</td>
<td>[אַקרֶּישָא אל-עָבּוּן]</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>their responsibility</td>
<td>d[a]mānhum</td>
<td>[דָאָמֶנְהָם]</td>
<td>13</td>
<td>13</td>
</tr>
</tbody>
</table>

29 The second gloss may be a later addition. Both form-VIII imperatives here are marked with initial /a/, in contrast to Classical Arabic /i/. The same phenomenon occurs in the perfect of form-VIII (`azdarā`; ‘he berated him’; R.4.18), as well as form-VII (wa-`antaba`[a]r; ‘and it was imprinted’; V.2.5; `ar`aqalat; ‘it was knit together’; V.2.12) and possibly form-X (wa-[a]st[aq][a]d; ‘and it was proper’; V.4.7). Khan interprets this feature as a pseudo-Classical hypercorrection that would not have been pronounced in vernacular Arabic, but Blau takes it as more natural development based on comparison with Violet’s Greek transcription. See Khan, “Vocalized Judeo-Arabic,” 205–6; BLAU, Handbook, 39.

30 The 3ms object and possessive suffixes are consistently written as qibus before ha’ (i.e. -uh). This form is probably an imitation of Arabic orthography, and was pronounced -u or -ū.

31 Conjunctive wāw is almost always transcribed as vav with šewa, imitating the Hebrew orthography.

32 Tā’ marbūta is usually represented by ha’ (ḥ), imitating Classical Arabic orthography. This ha’ was not pronounced as a consonant.

33 There is a note between columns 1 and 2 that corresponds to this gloss. It reads: [...]al-bāb (qawālīb al-jībin qaddīr al-bāb) (kāhribīm), ‘the chunks of cheese, the measure of the [...] is their largeness(?)’. It is mostly unvocalised, but in contrast to the vowel points on al-gubun (‘cheese’) in the main text, this later hand writes it with two hāreqq: al-jībin (or al-gibin). There are not enough marginal notes to say whether this second writer also meant to record a stop-plosive reflex of gūn. Compare modern Egyptian gibna, pl. gibn; HINDS & BADAWI, A Dictionary of Egyptian Arabic, 148.
<table>
<thead>
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</thead>
<tbody>
<tr>
<td>17:20</td>
<td>and he left behind and left the side the battlefield in order to condemn he will enrich him he will be made a noble the Philistine</td>
<td>wa-wəḏar wa-tar[ə]k or wa-tark 'al-ʾatf [ə]l-maʾrak(ə)bi ʾan li-yəʾayyir34 y[u]qənîh yūsna hîr35 'al-filastinî</td>
<td>14</td>
<td>15</td>
<td>16</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>Verse</th>
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<th>Transcription</th>
<th>Column 4</th>
<th>Column 3</th>
<th>Line</th>
</tr>
</thead>
<tbody>
<tr>
<td>17:26</td>
<td>this you abandoned : you left your insolence other foreigners let no heart sink and I would seize it by its beard his armour and he became girded</td>
<td>hāḏā rafid : tərakə ḍhatak [ə]l-ʾanənib ʾəhər lā yasqūt qalab wa-ḍabbətati ʾəhər wa-ḍabbətti ʾəhər qəbāh wa-ʿathallāz39</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

34 The particles 'an and li- here mimic the Hebrew syntax.
35 Loss of gemination and likely compensatory lengthening from /ū/ to /ū/ in comparison with Classical Arabic ḥurr (‘a noble’).
36 The scribe apparently heard an epenthetic vowel in positions where  kāf closes a syllable. Compare yakim[ə]lū (יָכְמוּ; ‘they become complete;’ V4.15).
37 There is a note between columns 3 and 4 that corresponds to this gloss. It reads: lā yarʿūb qalab (לא ירטיב קלב; ‘Let no heart be frightened’).
38 The marked final /i/ on this word is unexpected.
39 Apparently form V with a prothetic aleph, which is observed in other Middle Arabic texts. See BLAU, Handbook, 30.
<table>
<thead>
<tr>
<th>Verse</th>
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<tbody>
<tr>
<td>17:40</td>
<td>he has [not] tested</td>
<td>yūgarrib</td>
<td>יותגרב</td>
<td>נща</td>
<td>9</td>
</tr>
<tr>
<td>17:41</td>
<td>I have [not] tested</td>
<td>'āgarrib</td>
<td>אוגריב</td>
<td>נשייה</td>
<td>10</td>
</tr>
<tr>
<td>17:42</td>
<td>and he removed them</td>
<td>wa-nazā'hum</td>
<td>ו.nzā'hum</td>
<td>לזרים</td>
<td>11</td>
</tr>
<tr>
<td>17:43</td>
<td>his staff</td>
<td>ʿāsātuh</td>
<td>ēazaqā</td>
<td>כظل</td>
<td>12</td>
</tr>
<tr>
<td>17:44</td>
<td>a smooth (lit. hairless) stone</td>
<td>hīgārah mālīṭih</td>
<td>חוגארהMALIITH</td>
<td>כחלום</td>
<td>13</td>
</tr>
<tr>
<td>17:45</td>
<td>from the wadi</td>
<td>min [a]l-wādī</td>
<td>מ Здесь</td>
<td>על תuyền</td>
<td>14</td>
</tr>
<tr>
<td>17:46</td>
<td>in the bag</td>
<td>bil-miḫlēth</td>
<td>ב MiΧליא</td>
<td>כלקול</td>
<td>15</td>
</tr>
<tr>
<td>17:47</td>
<td>and his sling</td>
<td>ā-miqlā'āh</td>
<td>ĀMIKLIAH</td>
<td>כלקלא</td>
<td>16</td>
</tr>
<tr>
<td>17:48</td>
<td>and he turned towards</td>
<td>wa-[t]laḥfat or wi-lḥafat</td>
<td>CLAFLAHT or LFLALT</td>
<td>לצלל</td>
<td>17</td>
</tr>
<tr>
<td>17:50</td>
<td>and he scolded him</td>
<td>wa-ʿazdarāḥi or wa-ʿazdarāḥ</td>
<td>וАЗדרא</td>
<td>כלקלא</td>
<td>18</td>
</tr>
<tr>
<td>17:51</td>
<td>with staves</td>
<td>bil-ʿaṣā</td>
<td>בלת</td>
<td>짝לה</td>
<td>19</td>
</tr>
</tbody>
</table>

T-S Ar.5.58 Verso, Column 1-2

<table>
<thead>
<tr>
<th>Verse</th>
<th>Translation</th>
<th>Transcription</th>
<th>Column 2</th>
<th>Column 1</th>
<th>Line</th>
</tr>
</thead>
<tbody>
<tr>
<td>17:45</td>
<td>and with the spear</td>
<td>ū-biʿ-al-qānēh</td>
<td>ū-biʿ-al-qanēh</td>
<td>בצלעה</td>
<td>1</td>
</tr>
<tr>
<td>17:46</td>
<td>he will deliver you</td>
<td>yūsallimāk</td>
<td>יוסלם</td>
<td>מספר</td>
<td>2</td>
</tr>
</tbody>
</table>

---

40 Both this and the following gloss translate negated verbs in 1 Samuel, and presumably they were preceded by 'alam in whatever Arabic source text this glossary belongs to.
41 There is probably a dageš in the gimel of this word, but a stain on the parchment obscures it.
42 The vav in this word is almost rubbed off. Only one dot remains below it, but the original sign was likely šere.
43 The expected Classical Arabic orthography has alif (المخلاة; miḫlā), but the Judaeo-Arabic spelling is defective.
44 In contrast to most of the conjunctive wāws, this vav is marked with šēreq rather than šewa. This notation imitates the Hebrew orthography, which marks conjunctive vav with šēreq before labial consonants. Note the same phenomenon on ū-biʿ-al-qānēh (V2.1).
45 The lack of elision of the aleph here may be a pseudo-Classical correction, not representative of speech. Compare KHAN, “Vocalized Judaeo-Arabic,” 213–14.
Nick Posegay

<table>
<thead>
<tr>
<th>Verse</th>
<th>Translation</th>
<th>Transcription</th>
<th>Column 2</th>
<th>Column 1</th>
<th>Line</th>
</tr>
</thead>
<tbody>
<tr>
<td>17:49</td>
<td>to his forehead</td>
<td>ʾilā gabḥatuh</td>
<td>ʾilā gabḥatuh$^{47}$</td>
<td>ʾilā gabḥatuh</td>
<td>3</td>
</tr>
<tr>
<td>17:51</td>
<td>and it was imprinted</td>
<td>ṭaʿantaḥa[a]ṭ</td>
<td>ṭaʿantaḥa[a]ṭ</td>
<td>ṭaʿantaḥa[a]ṭ</td>
<td>4</td>
</tr>
<tr>
<td>17:52</td>
<td>from its sheath</td>
<td>min ġimdhā or min ġimdhā</td>
<td>min ġimdhā</td>
<td>min ġimdhā</td>
<td>5</td>
</tr>
<tr>
<td>17:55</td>
<td>whose son is that</td>
<td>bin man ḏā</td>
<td>bin man ḏā</td>
<td>bin man ḏā</td>
<td>6</td>
</tr>
<tr>
<td>18:1</td>
<td>it (f.) was knit together</td>
<td>'anʾaqadat</td>
<td>'anʾaqadat</td>
<td>ʾanʾaqadat</td>
<td>7</td>
</tr>
<tr>
<td>18:4</td>
<td>and he disentangled</td>
<td>wa-salak</td>
<td>wa-salak</td>
<td>wa-salak</td>
<td>8</td>
</tr>
<tr>
<td>18:5</td>
<td>he was brilliant</td>
<td>yaʾqīl</td>
<td>yaʾqīl</td>
<td>yaʾqīl</td>
<td>9</td>
</tr>
<tr>
<td>18:6</td>
<td>to sing and drum</td>
<td>li-yuğannī wa-yathul</td>
<td>li-yuğannī wa-yathul</td>
<td>li-yuğannī wa-yathul</td>
<td>10</td>
</tr>
<tr>
<td>18:7</td>
<td>the playing women</td>
<td>ʾ[a][e]ʾibār</td>
<td>ʾ[a][e]ʾibār</td>
<td>ʾ[a][e]ʾibār</td>
<td>11</td>
</tr>
<tr>
<td>18:9</td>
<td>he saw David</td>
<td>[rēv] d[awud]</td>
<td>[rēv] d[awud]</td>
<td>[rēv] d[awud]</td>
<td>12</td>
</tr>
</tbody>
</table>

47 The pataḥ on the ha’ suggests that the second syllable is closed.
48 Compare modern Egyptian zinnār, ‘girdle;’ HINDS & BADAWI, A Dictionary of Egyptian Arabic, 382. The nūn of zinnārīh here is apparently ungeminated, and the initial vowel has undergone compensatory lengthening. Note the same phenomenon in hār above (R2.19).
49 The Hebrew לֹא (‘his belt’) repeats here, and לֹא is a second gloss for it. It is most likely a transcription of מַנְתַּאצְתָע (mantaqatuh), with the scribe interchanging ʾāl for ʾāl.
50 This conjunctive wāw is marked with both šewa and šūreq (/u/). One of these signs is probably a mistake, but they could represent wu- or u-.
51 This orthography is unexpected, as the lamed of the definite article is omitted.
52 Only the sere and dalet are visible here. I have extrapolated the gloss based on the Hebrew.
## T-S Ar.5.58 Verso, Column 3-4

<table>
<thead>
<tr>
<th>Verse</th>
<th>Translation</th>
<th>Transcription</th>
<th>Column 4</th>
<th>Column 3</th>
<th>Line</th>
</tr>
</thead>
<tbody>
<tr>
<td>18:11</td>
<td>and he threw</td>
<td>wa-‘alqā</td>
<td>ینَجَر</td>
<td>ینَجَر</td>
<td>2</td>
</tr>
<tr>
<td>18:18</td>
<td>I will become a son-in-law</td>
<td>[a]kīn hātān</td>
<td>أفونَ حتماً</td>
<td>أفونَ حتماً</td>
<td>4</td>
</tr>
<tr>
<td>18:20</td>
<td>and it was proper</td>
<td>wa-[a]staqāxām</td>
<td>لأَمُّتْها</td>
<td>لأَمُّتْها</td>
<td>6</td>
</tr>
<tr>
<td>18:21</td>
<td>as a snare</td>
<td>li-[a]ṭrāh</td>
<td>دخُن</td>
<td>دخُن</td>
<td>8</td>
</tr>
<tr>
<td>18:22</td>
<td>softly</td>
<td>bi-luf</td>
<td>يلَف</td>
<td>يلَف</td>
<td>10</td>
</tr>
<tr>
<td>18:23</td>
<td>[...] the unimportant</td>
<td>halka[...] [a]-hayyīn</td>
<td>كَفْنُوْنَةُ</td>
<td>كَفْنُوْنَةُ</td>
<td>12</td>
</tr>
<tr>
<td>18:25</td>
<td>as a dower</td>
<td>binhar or bi-mahar</td>
<td>بعثر</td>
<td>بعثر</td>
<td>14</td>
</tr>
<tr>
<td>18:26</td>
<td>they become complete</td>
<td>yakima[l]u</td>
<td>يكَمْلُوْنِ</td>
<td>يكَمْلُوْنِ</td>
<td>15</td>
</tr>
<tr>
<td>18:27</td>
<td>and they completed</td>
<td>wa-‘akmālā</td>
<td>أكَمِلُوا</td>
<td>أكَمِلُوا</td>
<td>16</td>
</tr>
<tr>
<td>18:29</td>
<td>to fear</td>
<td>li-yah[f]ā</td>
<td>لَيْيَحُمُ</td>
<td>لَيْيَحُمُ</td>
<td>17</td>
</tr>
<tr>
<td>18:30</td>
<td>he succeeded while surpassing</td>
<td>naqah wa-‘āqil</td>
<td>قدَّمَ وَأَقْيلَ</td>
<td>قدَّمَ وَأَقْيلَ</td>
<td>18</td>
</tr>
<tr>
<td>19:10</td>
<td>and he turned</td>
<td>w[a-dāˈ]r</td>
<td>دْرُ وَ</td>
<td>دْرُ وَ</td>
<td>19</td>
</tr>
<tr>
<td>18:19</td>
<td>time of giving</td>
<td>waqt ṣā‘ā</td>
<td>بشك تت</td>
<td>بشك تت</td>
<td>5</td>
</tr>
<tr>
<td>18:21</td>
<td>as a snare</td>
<td>li-[a]ṭrāh</td>
<td>دخُن</td>
<td>دخُن</td>
<td>8</td>
</tr>
<tr>
<td>18:23</td>
<td>[...] the unimportant</td>
<td>halka[...] [a]-hayyīn</td>
<td>كَفْنُوْنَةُ</td>
<td>كَفْنُوْنَةُ</td>
<td>12</td>
</tr>
</tbody>
</table>

---

53. From Classical Arabic halumma (ٍالْحَلَّمَةُ; ‘onwards’), with apparent loss of gemination and compensatory lengthening with a shift from /a/ to /ā/. Compare the de-gemination and lengthening in hūr (ٍهَوُرُ; ‘a noble’; R2.19) and zūnārūh (زَنَارَحُ; ‘his belt’; V2.14).

54. The gloss is unvocalised, and appears to be a direct borrowing of the Hebrew without changing it to an Arabic form (e.g. mahuliyya).

55. This word appears to have epenthetic /i/, with the expected form being yakmalā.

56. The scribe must have meant something like yahīf or yahīf (‘he fears’) here, but the remaining text looks more like yahfā (‘he is hidden’).
Observations and Analysis

Almost every vowel sign and diacritic dot conforms to its expected usage in Tiberian Hebrew, and it is clear the scribe was well-versed in the details of Tiberian pointing. This regularity allows for a confident reconstruction of the intended Middle Arabic vowel phonology in many of the glosses. Additionally, when viewed through a standard Tiberian lens, the use of dagesh dots appears both regular and systematic. This consistency reveals the scribe’s pronunciation of certain Arabic consonants as either stops (e.g. ح) or fricatives (e.g. ذ and ث).

Medieval Arabic Vowels in the Tiberian Writing System

Seven of the nine Tiberian vowel signs appear in the Arabic of T-S Ar.5.58, Patah (/a/) and hiroq (/i/) occur regularly in places where fatha (/a/) or kasra (/i/) would be expected in Arabic-script writing. Qibbus (/u/) and shureq (/u/) both occur for damma (/a/), with an apparent preference for qibbus for short vowels and shureq for long vowels. Qameṣ (/ɔ/) and segol (/e/) are absent, but šere (/e/) appears conditionally in places where Classical Arabic would have /a/ or /i/. Ḥolem (/o/) occurs only once.57

While the scribe conforms to the ‘classical’ Judaeo-Arabic orthography in the consonants of nearly every gloss, they do not transcribe Arabic vowels in the same one-to-one way. Moreover, the scribe records dialectal allophones that could not otherwise be represented with Arabic vowel signs. This type of transcription occurs in places where Classical Arabic has either tāʾ marbūṭa or /a/ in an open syllable, and represents a trend of raising and fronting a-vowels in specific phonetic contexts. This phenomenon is known as imāla in the Arabic grammatical tradition.58

In imitation of Classical Arabic orthography, the scribe represents tāʾ marbūṭa with the letter heʾ (ה), but they mark its vocalisation variously as /i/, /e/, and /a/. Three times, the vowel before tāʾ marbūṭa is raised to šere (/e/): kilgeh (킬ג'; ‘a measure’; R2.10), bil-mihle(hi) (בִּיל-מִלֶה; ‘in the bag’; R4.15), and bi-al-qanēḥ (בִּי-אָל-קנָה; ‘with the spear’; V2.1). The transcribed heʾ (ה) in these words is only an orthographic representation of tāʾ marbūṭa, and likely would not have been pronounced. Despite this, the scribe also added a hiroq (/i/) dot below the letter at the end of mihle(hi), reinforcing that the final vowel is fronted. Similar notation occurs with [a]-maʾraki(hi) (מַרְאָקִי; ‘the battlefield’; R2.16), although this time the vowel before the tāʾ marbūṭa is also /i/. The final instance of vowel raising with tāʾ marbūṭa is the word mālīṭih (מָלִיתָה; ‘smooth, shaven’; R4.13), which is also marked as /i/. In each of these cases, the syllable before the expected final /a/ is either closed with

57 V4.1: וָחַלֹם (wa-halôm; ‘and onwards’).
59 Except in V2.3, where the construct form gātah (גָּתָה; ‘the corpse of’) is spelled phonetically with tav. This spelling for the construct form of nouns ending in tāʾ marbūṭa is common in ‘phonetic’ Judaeo-Arabic orthography, in contrast to ‘classical’ Judeo-Arabic; KHAN, “Judeo-Arabic,” 150.
60 Although see LEVIN, “The Imāla,” XIX, as he finds that imāla of the vowel represented by ʾi- is rare in modern Arabic dialects.
\( /i/ \), or open with vocalic \( \text{šewa} \).\(^{61}\) It seems that in this scribe’s Arabic dialect, such a syllable structure could induce a final /\(a/\) to be raised and fronted, resulting in a high vowel somewhere between /\(e/\) and /\(i/\). This vowel raising correlates with the \( \text{imāla} \) of final /\(a/\) known from both medieval and modern varieties of Arabic,\(^{62}\) and is also recorded with \( \text{plene} \) spellings of \( \text{yod} \) in other medieval Judaeo-Arabic texts.\(^{63}\)

Similar raising occurs in words where Classical Arabic would have /\(a/\) in an open syllable. When such a vowel precedes a syllable with /\(i/\), then the /\(a/\) is raised to /\(e/\): \( \text{wa-ḥēmil} (\text{וַחֶמִל}); ‘and a bearer;’ R2.1), \( \text{wa-ṭīnīh} (\text{וַתִּינִיה}); ‘and his second;’ R2.8), \( \text{ā-[a]} \text{ḥēmil} (\text{אַחֶמִל}; ‘foreigners;’ R4.4), \( \text{mīn} \text{[a]} \text{ḥūdī} (\text{מִן חֻדִי}; ‘from the wadi;’ R4.14), and probably \( \text{[rēy} \text{d}[\text{awud}] (\text{הַרְּעֵד} [\text{אַוּד}); ‘he saw David;’ V2.20). This type of contextual \( \text{imāla} \) of medial /\(a/\) occurs in a number of medieval and modern Arabic dialects.\(^{64}\)

Applying these rules to damaged areas of the manuscript, it is possible to extrapolate some missing vocalisation. The first vowel points on the word \( \text{אַחֶמִל} \) are too badly rubbed to read, but given that the Classical Arabic form of this word would have /\(a/\) in an open syllable preceding a syllable with /\(i/\), the original vocalisation was probably with \( \text{ṣere}: [\text{a}] \text{ḥēmil} (\text{אחֶמִל}; ‘the playing women;’ V2.19).

However, there are exceptions to this rule, and it seems some consonants prevented this vowel raising when they occurred before or after /\(a/\), including: \( \text{ḥāʼ} \text{ṭ} \text{iḥātīn} (\text{חָהʼ תִּיחַתִין}; ‘you will become a son-in-law;’ V4.9) and \( \text{qāf} \text{ī} \text{a[gu]} (\text{קָאֶרֶב}; ‘surpassing;’ V4.18). This phenomenon corresponds to the effect that pharyngeal and emphatic \( \text{musta’liya} \) letters have, preventing \( \text{imāla} \) of nearby /\(a/\)-vowels.\(^{65}\)

There is also one gloss that contains a \( \text{ḥolem} \) sign, indicating an Arabic word with the vowel /\(v/\): \( \text{wa-ḥālōm} (\text{וַחָלֹם}; ‘and onwards;’ V4.1), analogous with the Classical Arabic \( \text{ḥalumma} (\text{חָלוֹמָה}; ‘onwards’). The \( \text{ḥolem} \) is written with a \( \text{plene} \) letter \( \text{waw} \), even though no \( \text{waw} \) appears in the Classical Arabic orthography, suggesting that this vowel was pronounced long (\( /ə/\)). There is also no indication of gemination on the final \( \text{mem} \).

The signs \( \text{ṣegol} (\text{י}) \) or \( \text{gemes} (\text{ע}) \) do not appear in the Arabic columns, and indeed there is little reason for them to, as neither represents a cardinal Arabic vowel. By contrast, they both occur often in the Hebrew columns, closely matching the expected forms from 1 Samuel 17-19. These Hebrew forms do, however, differ in a few small details.\(^{66}\) In particular, there are two instances where the scribe used a \( \text{ṣegol} \) in a position where the standard Masoretic text has \( \text{pataḥ} \). They write \( \text{ḥa-}\text{ṣe}s (\text{חַהַסְּר}; ‘the boy;’ V1.11) when the expected form is \( \text{ḥa-na\text{ṣer} (חַהַנְסֵר}; ‘he behaved;’ V3.18) instead of the expected \( \text{ṣeḥāl} (\text{שְׁחַל}). These interchanges of \( \text{ṣegol} \) for \( \text{pataḥ} \) suggest that the scribe per-

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61 \( \text{šewa} \) in these cases may represent unstressed short /\(e/\), but there is no way to know for sure from the signs in the manuscript.


64 LEVIN, “Imāla.”

65 al-NASSIR, Sibawayh the Phonologist, 97–99; LEVIN, “Imāla.”

66 The scribe adopts \( \text{plene} \) spellings of several Hebrew words that have defective orthography in the Masoretic text. Compare R3.2, R3.3, R3.5, R3.11, and V1.14 with the corresponding verses in the Westminster edition of the Leningrad codex (<http://www.tanach.us/Tanach.xml>).
ceived /a/ and /e/ as allophonic in Hebrew, a situation likely conditioned by the comparatively small vowel inventory of their native Arabic. As such, there was certainly no reason for them to use segol to transcribe allophones of /a/ in the Arabic glosses, since all of its phonetic functions could be covered by pataḥ. This usage contrasts the scribe’s marking of /e/, which they perceived as distinct enough from /a/ to warrant the use of the šere sign in Arabic.

On the other hand, there are no clear Hebrew interchanges related to qames (/ɔ/), and the scribe had no trouble differentiating it from pataḥ (/a/) in the Hebrew words. This phonological understanding implies that they distinguished between /ɔ/ and /a/ in their Hebrew pronunciation. If so, then they still maintained a key element of the Tiberian pronunciation tradition, in contrast to the more common Palestinian and later Sephardi Hebrew traditions, where pataḥ and qames were both realised as /a/. This detail suggests that the text was vocalised prior to the extinction of the Tiberian pronunciation system, no later than the eleventh century.

Silent šewa conforms to its Tiberian usage in the Arabic glosses, consistently marking the close of a syllable (like Arabic sukān). Meanwhile, vocalic šewa occurs frequently and consistently to indicate an open or near-open vowel, predominantly in unstressed, open syllables. These syllables seem to be places where the scribe pronounced a short lexical vowel or a short epenthetic vowel that corresponds to a lexical vowel in Classical Arabic (usually ḫathā). Most of these vocalic šewas were probably realised as /a/, the same quality as Tiberian šewa and equivalent to pataḥ. However, it does seem that the scribe used šewa deliberately in contrast to pataḥ to highlight that a syllable was unstressed and open. Šewa also indicates /ǔ/ several times, corresponding to the vowel in the Classical Arabic particles bi- and li-: li-yuğannī (‘to sing’; V2.17); bi-lahiyuh (‘by its beard;’ R4.6); li-yuğannī (‘to sing;’ V2.17).

The scribe also uses the combination sign of šewa and pataḥ (i.e. ḫateph pataḥ), but this usage is solely an orthographic convention to avoid marking a gutteral letter with vocalic šewa. This practice matches the standard Tiberian rule for ḫateph vowel signs, and implies that ḫateph pataḥ is phonetically equivalent to šewa in the Arabic glosses.

Besides the expected usage in unstressed, open syllables, there are a few instances where it seems vocalic šewa must be in a closed or stressed syllable. This notation differs from the šewa in Tiberian Hebrew, where it cannot indicate a stressed vowel and only rarely appears in closed syllables. For example, the first syllable of ʿanā ʿayarat (אנה עארת; ‘I condemned;’ R2.5) is marked with ḫateph pataḥ, unexpectedly suggesting that the first vowel is unstressed (i.e. ʿanā). Similarly, for mantạqatuh (מאנטקה; ‘his belt;’ V2.15),

67 Dotan, “Masorah,” 644; Khan, The Tiberian Pronunciation Tradition, I:§I.0.12. It is worth noting that the Babylonian Hebrew tradition also distinguished /ɔ/ and /a/ phonemically, and there was an active Babylonian synagogue in Cairo during the medieval period. See Khan, I:§I.2.1.4; Jefferson, Deconstructing ‘the Cairo Genizah,’’ 425.


70 No guttural letter (ב.נ.ק) in the manuscript occurs with regular vocalic šewa.

the most likely reading is with stress on the second syllable (*mantâqatuh*), and yet the *tav* has *šewa*. The phrase *wa-naza’hum* (*זָנָא’הַמִּי*; ‘and he removed them;’ R4.11) is even more difficult to interpret, as the vowel after the *zayin* is marked by *šewa*, even though it seems that that syllable is both stressed and closed (*nazâ’hum*). These potentially irregular stress patterns do not match the expected stress patterns of modern Egyptian colloquial Arabic, despite the likely Egyptian provenance of this manuscript.

There are two other places where a vocalic *šewa* appears in a closed syllable. Both mark the vowel before the *kaphe* of a 2ms suffix: *qhatak* (*חָטָאֲק*; ‘your insolence;’ R4.3) and *yūsallimah* (*יוּסֹלֹמֹה*; ‘he will deliver you;’ V2.2). If the scribe pronounced this suffix as *-ak* – the same as modern Egyptian and Levantine dialects – then one would expect *patah* (*/a/*) in these closed syllables. If these *šewas* do represent */a/*, then the scribe may have had an orthographic policy specific to this suffix that permitted *šewa* in a closed syllable. Such a practice would approximate the graphic appearance of the equivalent Tiberian Hebrew suffix יָסֹלֹמֹךְ (*-ahɔ*).

Without more evidence, it is difficult to determine the exact functions of *šewa* in every instance. The scribe may simply have conflated *šewa* and *patah* due to their equivalent qualities, or they may have recorded *šewa* occasionally for what they heard as ambiguous vowels in closed or stressed syllables. At any rate, it is clear that they predominantly used vocalic *šewa* to record short vowels in unstressed, open syllables.

**Dageš as a Marker of Arabic Stops and Fricatives**

The twenty-two letters of the Hebrew alphabet are insufficient to transcribe the twenty-nine Arabic letters on a one-to-one basis, so in Judaeo-Arabic a few Hebrew characters each represent two different Arabic consonants.

Judeo-Arabic scribes often addressed this consonantal ambiguity by placing a diacritical dot or stroke above a Hebrew character to indicate that it represented an Arabic letter that had no Hebrew equivalent. Historically, the first letters to receive this treatment were Hebrew *sade* (*ס*), *teit* (*ת*), and *gimel* (*ג*), which took dots to indicate Arabic *dād* (*ד*), *ẓāʾ* (*צ*), and *gīm* (*ג* or *ג*). This system eventually expanded with diacritic dots on other Hebrew letters, but at first the new dots were a last resort, used only for Arabic phonemes (*i.e.* *ḏ*, *š*, and *ḡ*) that did not exist in Hebrew phonetics. For other letters, instead of adding diacritics, early Judeo-Arabic scribes preferred to use the Hebrew writing system to the fullest extent possible to indicate Arabic phonemes. This preference led to the application of the Hebrew *dagesh* dot to Judeo-Arabic to differentiate between stops and fricatives.

72 MITCHELL, An Introduction to Egyptian Colloquial Arabic, 110–11.

73 This notation also occurs in the Sa‘adiya *siddur* from T-S Ar.8.3; see KHAN, “Vocalized Judeo-Arabic,” 210. By contrast, the 2ms ending is always written with *patah* in the Ecclesiastes translation from T-S Ar.27.55, T-S Ar.53.12, and L-G Ar.1.150.

74 The diacritic dot for *dād* (*ד*) is the most common in classical Judeo-Arabic texts, although the dot for *ẓāʾ* (*צ*) may only be less so because *ẓāʾ* is relatively infrequent in Arabic phonology. Medieval texts with a dot for *gīm* (*ג*) practically always also contain the dots for *dād* and *ẓāʾ*. Diacritic dots usually do not occur on other letters (*e.g.* *ז* *ח* *ט* unless a manuscript also has dots for *dād*, *ẓāʾ*, and *gīm*.

75 In ‘phonetic’ Judeo-Arabic orthography, a *dalet* with a supralinear dot (’) could also indicate *dād*. See KHAN, “Judeo-Arabic,” 150.
Besides the vowel points, dageš is the only Tiberian diacritic mark that appears regularly in T-S Ar.5.58. The Masoretes originally placed this dot inside of a Hebrew letter to represent either gemination or the realisation of a fricative consonant with a stop-plosive allophone. This notation meant that a bet (ה) was pronounced as a fricative /v/, but with dageš it was a stop /b/ (ה). Similarly, gimel /ג/ (ג) with dageš was /g/ (ג), dalet /ד/ (ד) was /d/ (ד), kaph /ך/ (ך) was /k/ (ך), pe’/פ/ (פ) was /p/ (פ), and tav /ט/ (ט) was /t/ (ט).

The scribe of T-S Ar.5.58 uses dageš in exactly this way, and it allows them to transcribe eight Arabic consonants /g/ (ג), /ḏ/ (ד), /ḏ/ (ך), /ḏ/ (ך), /h/ (ח), /h/ (ט), /t/ (ט), and /ṭ/ (ט) using just four Hebrew letters (ג ד ח ט). In fact, they apply dageš with a remarkable degree of regularity and consistency, nearly always specifying a stop or fricative quality when given the chance. The distribution of these dageš dots suggests that the scribe maintained interdental pronunciations of ṭāʾ (/ṭ/) and ḏāl (/ḏ/), as well as a velar stop-plosive realisation of ǧīm (/g/, rather than /ǧ/).

Based on the unambiguous readings in the manuscript, the distribution of dageš is as follows:

- **dageš** marks gemination 10 times
- **bet** occurs 11 times with dageš, and 6 times without; it always represents /b/ (ב)
- **pe’** occurs 6 times, never with dageš; it always represents /p/ (פ)
- **gimel** occurs 8 times with dageš, every time representing /g/ (ג)
- **gimel** occurs 5 times without dageš, every time representing /ḏ/ (ך)
- **dalet** occurs 7 times with dageš, every time representing /d/ (ד)
- **dalet** occurs 4 times without dageš, 3 times representing /ḏ/ (ך) and once representing /d/ (ד)
- **kaph** occurs 11 times with dageš, every time representing /k/ (ק)
- **kaph** occurs 8 times without dageš, 7 times representing /k/ (ק) and once representing /ḏ/ (ך)
- **tav** occurs 21 times with dageš, every time representing /t/ (ט)
- **tav** occurs 11 times without dageš, 6 times representing /ṭ/ (ט) and 5 times representing /ṭ/ (ט)

Altogether, the scribe marks Arabic stops with dageš 58 times, while fricatives always occur without dageš (27 times total). There are only 13 instances where the scribe does not mark a stop with dageš. Six of these are bet,77 which only ever represents a bilabial stop in Juadeo-Arabic, so pointing it with dageš at all is a redundant practice that the scribe retained from Hebrew. The other seven include one medial kaph,78 one medial dalet,79 and five tavv in final position. Two of these tavv are in feminine plural endings,80 two are

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76 There are three cases where there is a gimel in the text, but the manuscript is damaged and ambiguous as to whether they had dageš or not. See תָּהָא (al-gubah; ‘the cheese;’ R2.12); וַיִּרָשֶׁה (‘I have [not] tested;’ R4.10); and [מ] (ma[gab]; ‘he succeeded;’ V4.18).
77 R4.4, R4.5, R4.9, R4.10, V2.4, and V2.7 twice.
78 תָּק (‘akân; ‘I will become;’ V4.4).
79 יָמָּאָב (‘an’aqdat; ‘it was knit together;’ V2.12).
80 נָאָפָרֵב (ma’rakâr; ‘battlegrounds;’ R2.2) and נָאָפָרֵב� (‘the playing women;’ V2.19).
endings of perfect verbs, and the last is in the word waqt (וָקָט; ‘time’; V4.5). The omissions of dageš in the kaph and dalat were likely oversights, but the tavs are all in positions where a reader would know that the grapheme necessarily represented /ḏ/.

This phenomenon of dageš as a marker of Arabic phonology makes T-S Ar.5.58 a particularly valuable source for determining the realisation of vernacular Arabic consonants. The scribe who pointed this text used both the Judaeo-Arabic supralinear diacritic dot and the intralinear dageš dot to specify Arabic letters. However, they only used the diacritic dot on sade, indicating the Arabic dalet (ד), and not on any other letter. This usage suggests that /ḏ/ was the only Arabic phoneme that the scribe could not record using the Tiberian writing system alone. This conclusion is then relevant to the Arabic letter ǧīm.

The most common way to indicate ǧīm in Judaeo-Arabic texts is like ǧādā, using a diacritic dot either above or below the letter Gimel (ג). This dot clarified that a Gimel represented a phoneme that did not exist in Biblical Hebrew phonetics; that is, the affricate /g/. However, the scribe of T-S Ar.5.58 transcribed Arabic ǧīm using Gimel with dageš, even though the supralinear diacritic dot was known to them. This practice suggests that they pronounced ǧīm not as a non-Hebrew affricate, but rather as a stop that had an equivalent Hebrew consonant. That consonant was Gimel, usually realised with dageš in the Tiberian tradition as a voiced velar stop /g/ and apparently equivalent to this scribe’s vernacular reflex of Classical Arabic ǧīm. This ǧīm /g/ reflex is well-known from Egyptian Arabic in both medieval and modern times, and its manifestation here is perhaps unsurprising, given the discovery of this manuscript in the Cairo Geniza.

This consistent delineation between Arabic stops and fricatives has further implications for the scribe’s realisation of dāl (ד) and ǧāʾ (ג). While many Arabic dialects, including those of urban Egypt, eventually lost the interdental pronunciation of Classical Arabic ǧāʾ (ג) and ǧāʾ (ג), the scribe of T-S Ar.5.58 was careful to record them either with or without dageš. For example, the glossary includes hāḏā (חָדַּא; ‘this’; R4.1), without dageš in the dalat (ד); and bin man ḏāʾ (בֵּין מַנְּ חוֹדֵא; ‘whose son is that’; V2.10), again with no dageš. By contrast, in yagḥṭādī (יָגֶחַטַּדֵי; ‘he would go daily’; R2.9), the dalat (ד) and tav (ת) both have dageš, though the gimel (ג) does not; and in wēḏī (וֶדֵי; ‘wadi’; R4.14) the dalat is likewise marked as a stop. Similarly, the text has wa-fēnīh (וַא-פְּנֵיָה; ‘and his

81 תַּמָּר (’ayyarat, ‘I condemned;’ R2.5) and תַּמָּר (tarakat; ‘you left;’ R4.2).
82 R2.11, R2.13, R4.2, and R4.6.
83 None of the Arabic glosses contain ǧāʾ, but if they did, it would likely have been transcribed as Hebrewtet with a diacritic dot (ג).
84 Connolly, “Revisiting the Question of ǧīm,” 156–57, 165–69. I suspect that that the supralinear diacritic dot came into use with gimel first on analogy with dāl (ד) and ǧāʾ (ג), prior to the introduction of the sublinear dot. Connolly argues that the sublinear dot was placed below gimel on analogy with the dot position in Arabic ܙ.
85 For another example of this phenomenon, see Possegay & Arrant, “Three Fragments of a Judaeo-Arabic Translation of Ecclesiastes.”
86 Khan, The Tiberian Pronunciation Tradition, 1:1.1.3.
second;’ R2.8), without dageš in the tav (/ṭ/); and gūṯat (／גֻּתָה), ‘the corpse of;’ V2.3), with dageš in the gimel (/ɡ/) and final tav (/t/), but not in the first tav (/ṭ/). This consistent notation suggests that the scribe consciously distinguished these interdental consonants from their alveolar counterparts, definitely in writing, and probably in speech.

Conclusion

T-S Ar.5.58 is a parchment folio from the Cairo Geniza that contains part of a Judaeo-Arabic translation glossary for the Hebrew book of Samuel. It was most likely produced between 900 and 1200, and probably before the end of the eleventh century. The Arabic words in this glossary are fully vocalised with Tiberian Hebrew vowel signs, and this pointing system allowed the scribe to record vocalic allophones – most notably /e/ – from their native Arabic dialect. They also used the Tiberian šewa to indicate stress patterns in Arabic words, and their distribution of the dageš dot suggests that they realised Arabic ġīm as a voiced velar stop /ɡ/. These details would not be evident if the text were written in Arabic script, which makes this manuscript a unique source for the phonetic features of medieval vernacular speech.

More research is required to fully understand the linguistic features of this text, particularly with respect to its lexical inventory and verbal morphology. Further comparative study is also needed to determine the relationship between this manuscript, other vocalised Judaeo-Arabic manuscripts, and Middle Arabic texts more broadly. Such work is for the future, but it is hoped that the present edition makes these rare data points more accessible to all scholars of Arabic.

Works Cited


AL-JALLAD, Ahmad (ed.). 2017. Arabic in Context: Celebrating 400 Years of Arabic at Leiden University. Leiden; Boston: Brill. (Studies in Semitic Languages and Linguistics.)


A Judaeo-Arabic Biblical Glossary as a Source for Arabic Historical Dialectology


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