



1) Transliterating biblical Hebrew: a scholarly system

The biblical Hebrew transliteration system we present here is meant for scholarly use. It is based loosely on the *Encyclopaedia Judaica* 'scientific' transliteration rules.

In the table below, the dotted circle ◌ stands for any letter: it is used as a carrier for vowel signs in the 'Hebrew' column. Many transliteration characters in the 'translit.' column carry diacritics, either above or below. Until recently, common computer operating systems had few fonts which supported all of them: Times New Roman, for instance, lacked some until it was updated with the introduction of MS Windows Vista. Brill has had a font family developed called 'Brill' with very extensive coverage of the Latin script (it supports Greek and Cyrillic as well), which can be freely downloaded from [the Brill website](#).

The 'Unicode' column lists the hexadecimal values of all transliteration characters which cannot be keyed directly on an ordinary 'western' keyboard like a US keyboard. A method to use these values for input is described in Section 2, the Input section of this document.

| Hebrew | translit. | Unicode | Hebrew | translit. | Unicode | Hebrew | translit. | Unicode |
|--------|-----------|---------|--------|-----------|------------|--------|-----------|-----------|
| א | ʾ | 02BE | מ, מ | m | | ◌ | ę | 0119 |
| ב | b | | נ, נ | n | | ה◌ | ĕ | 0119+0304 |
| ב | ḅ | 1E07 | ס | s | | ◌ | e, ē | 0113 |
| ג | g | | ע | ʿ | 02BF | י◌ | ê | 00EA |
| ג | ḡ | 1E21 | פ | p | | ◌ | i, ī | 012B |
| ד | d | | פ, פ | p̄ | p+0304 | י◌ | î | 00EE |
| ד | ḏ | 1E0F | צ, צ | ṣ | 1E63 | ◌ | o, ō | 014D |
| ה | h | | ק | q | | י◌ | ô | 00F4 |
| ו | w | 1E0F | ר | r | | ◌ | u, ū | 016B |
| ז | z | | ש | ś | 015B | י◌ | û | 00FB |
| ח | ḥ | 1E25 | ש | š | 0161 | ◌ | —, e | |
| ט | ṭ | 1E6D | ת | t | | ◌ | a | |
| י | y | | ת | t̄ | 1E6F | ◌ | ε | |
| כ | k | | ◌ | ā, ǎ | 0101, 014F | ◌ | o | |
| ך, כ | k̄ | 1E35 | ה◌ | â | 00E2 | | | |
| ל | l | | ◌ | a | | | | |

Unicode hexadecimal values of uppercase transliteration characters

| | | | | | | | | | | | | | |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Ā | Â | Ḃ | Ḍ | Ė | Ē | Ê | Ĝ | Ḥ | Ī | Î | Ḳ | Ö | Õ |
| 0100 | 00C2 | 1E06 | 1E0E | 0118 | 0112 | 00CA | 1E20 | 1E24 | 012A | 00CE | 1E34 | 014E | 014C |
| Ô | Ş | Ś | Š | Ṭ | Ṫ | Ū | Û | ◌ | | | | | |
| 00D4 | 1E62 | 015A | 0160 | 1E6C | 1E6E | 016A | 00DB | 0304 | | | | | |

2) Input

You can input characters carrying diacritics in several ways:

2.1) Users of MS Office Word (**Windows**) may choose the 'Insert Symbol' command and pick the character in the Symbol palette, but this is a cumbersome method.

Mac OS X provides the similar Character Palette (called Character Viewer in the latest versions of OS X), which works in all text applications; this Character Palette can be switched on via **System Preferences...** → (Mac OS X v. 10.7-10.8:) **Language & Text**; (OS X v. 10.9-10.10:) **Keyboard** → **Input Sources**. If it was not active before, a keyboard menu appears in the menu bar towards the right.

2.2) In the MS Office suite of programs (**Windows** versions 2003, 2007, 2010, 2013), the Unicode hexadecimal value can be used for input. To get, *e.g.*, 'ḥ', one types '1e25' (without the quotes; it does not matter whether you use a lowercase or an uppercase 'e') and then immediately Alt X: the code is replaced by the character. Typing Alt X again will toggle it back to the code.

Mac OS X allows you to input hexadecimal values directly with the Unicode Hex keyboard layout. It can be activated in the same way as the Character Palette mentioned above. To use it, first choose the Unicode Hex keyboard from the keyboard menu in the menu bar, near the right; then press down the 'Option' key (sometimes called 'Alt') and key the four-character hexadecimal code, and let go of the 'Option' key: the character appears.

2.3) The easiest way to key the transliteration characters is to use a dedicated keyboard for transliteration. One of the best, and available for both MS Windows and Mac OS X at no cost, is **Alt-Latin**. It can be downloaded from the site of [The University of Chicago's Middle East Documentation Center](#), [Mamluk Studies Resources](#), where you can also find clear documentation.



1) A general-purpose system of transliterating Arabic for scholars

The Arabic transliteration system we present here is meant as a system for general scholarly use. It does not pretend to represent all orthographic details of the original script: for instance, initial *hamza* is not transliterated, and no distinction is made between *ā* from *alif*, from *alif maqṣūra*, or from *tā' marbūṭa*. It is also simple in the sense that one Arabic letter (consonant) is transliterated with one roman letter, and in this it follows the *Deutsche Morgenländische Gesellschaft* rules.

In the table below, many transliteration characters in the 'sAts' column carry diacritics, either above or below. Until recently, common computer operating systems had few fonts which supported all of them: Times New Roman, for instance, lacked some until it was updated with the introduction of MS Windows Vista. In such cases, the [Gentium](#) and [Charis SIL](#) families have proved useful: as before, you are free to use those if you prefer, or any other Unicode font.

The 'Unicode' column lists the hexadecimal values of all characters which cannot be keyed directly on an ordinary 'western' keyboard like a US keyboard. A method to use these values for input is described in Section 2, the Input section of this document.

| Arabic | sAts | Unicode | Arabic | sAts | Unicode | Arabic | sAts | Unicode |
|--------|------|---------|--------|------|---------|--------|-------------------|---------|
| ا | a, ā | 0101 | ط | ṭ | 1E6D | ى | ā | 0101 |
| ب | b | | ظ | ẓ | 1E93 | ي | ī | 012B |
| ت | t | | ع | ʿ | 02BF | و | ū | 016B |
| ث | ṯ | 1E6F | غ | ġ | 0121 | َ | a | |
| ج | ġ | 01E7 | ف | f | | ِ | i | |
| ح | ḥ | 1E25 | ق | q | | ُ | u | |
| خ | ḫ | 1E2B | ك | k | | يَا | ai | |
| د | d | | ل | l | | وَا | au | |
| ذ | ḏ | 1E0F | م | m | | يَا | īy | 012B |
| ر | r | | ن | n | | وَا | ūw | 016B |
| ز | z | | ه | h | | ة | a, ah, āh, at, āt | 0101 |
| س | s | | و | w, ū | 016B | | | |
| ش | š | 0161 | ي | y, ī | 012B | | | |
| ص | ṣ | 1E63 | ء | ʾ | 02BE | | | |
| ض | ḏ | 1E0D | | | | | | |

Unicode hexadecimal values of uppercase transliteration characters

| Ā | Ḑ | Ḍ | Ĝ | Ġ | Ḥ | Ḧ | Ī | Š | Ṣ | Ṭ | Ṭ | Ū | Ẓ |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 0100 | 1E0E | 1E0C | 01E6 | 0120 | 1E24 | 1E2A | 012A | 0160 | 1E62 | 1E6E | 1E6C | 016A | 1E92 |

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2.2) In the MS Office suite of programs (**Windows**, versions 2003, 2007, 2010), the Unicode hexadecimal value can be used for input. To get, e.g., 'ḥ', one types '1e25' (without the quotes; it does not matter whether you use a lowercase or an uppercase 'e') and then immediately Alt X: the code is replaced by the character. Typing Alt X again will toggle it back to the code.

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