Graphemes representing homorganic consonants are at times used interchangeably: for example, *'a-al-tú-bi*: *'a-al-du-bi*; *su-du-qu-ú-bi*: *su-ṭu-qu-bi*.

CVC signs are used, though much less frequently than in Assyrian. Signs for five vowels are attested: *a*, *e*, *i*, *u*, *ú*. Variant spellings suggest that *u* and *ú* render one vocalic phoneme only, whereas – despite some interchangeability – *e* and *i* refer to different vowel phonemes. Only a few homophonous signs are used, namely *tu* and *tú*, *ar* and *ár*; there are sufficient variant spellings to show that these do not represent different vowel phonemes.

Plene-spelling of vowels is common, though the function of such full representation is not straightforward. There are three possibilities, and each probably actually occurs: (i) a plene-spelling may mark a long vowel; (ii) it may define the quality of the vowel of the preceding CV sign; and (iii) it may simply serve aesthetic purposes in filling a line. In addition, there seems to be ambivalent plene-spelling of vowels. Thus, the final vowel of an *i*-stem is reduced to *ə* in word-final position; its graphemic representation is the vowel inherent in a *Ce/Ci*-sign, to which the vowel sign *e* may be added: for example, *pi*-LI (LI has the values [le] and [li]) or *pi*-LI-*e* (both transcribed as *pilə*, "canal," absolutive). The same grapheme sequence *-Ce/i-e*, however, can also be used as a variant of the normal spelling *-Ce/i-i-e*: for example, *Ḫal-di-i-e* or *Ḫal-di-e* (both transcribed as *Ḫaldi=ə*, "to (the god) Ḫaldi," dative).

In letters, a word-divider is used, though not always and not systematically.

2.2 Hieroglyphic script

There are few short inscriptions written in pictographic symbols which have not yet been deciphered. Only two "hieroglyphs" often carved into the neck or body of large storage vessels have been identified, as units of capacity.

3. PHONOLOGY

3.1 Consonants

The cuneiform script distinguishes the following consonants, though not in all positions, and there is uncertainty regarding the value of some (see below). The evidence for the glides *w* and *y* is indirect (suggested by spellings such as *-ni-i-e*, *a-i-u-*, *a-ú-i*):

(1) Urartian consonants

p	t		k	ʔ
b	d		g	
	ṭ		q	
	s	š		ḫ
	z			
	ṣ			
m	n			
	l	r		
w		y		

It is unclear to what extent consonantal phonemes may exist which are not distinguished by the script; nor is there agreement concerning the phonetic interpretation of some of the graphic renderings of phonemes.

It is safe to assume a tripartite phonemic opposition between voiced, voiceless, and some third set of stops and postdental fricatives. The third set is represented by the cuneiform signs for the so-called emphatic consonants of Akkadian (*ṭ*, *q*, *ṣ*). In Urartian these perhaps represent voiceless glottalized or aspirated consonants. It is also possible that the labial stops form such a triad with a consonant /ṗ/ graphemically not distinguished from /p/ and /b/. It cannot be determined whether *g* can represent a voiced fricative in every position or only intervocalically. The *ḫ* syllabograms might represent both a voiced and a voiceless phoneme. The comparison of place names written in Urartian cuneiform and in Greek or Armenian script does not yield unambiguous results, as, especially in the case of Greek, it can hardly be ascertained through what intermediate phonemic systems these names passed.

The "sibilant" system is particularly difficult to reconstruct since even in Akkadian, and in particular Neo-Assyrian, the phonetic value of the cuneiform characters is uncertain. On the basis of Greek and Armenian renderings of Urartian place names I. M. Diakonoff has suggested interpreting *š*, *s*, *z*, *ṣ* as /s/, /š/ or /č/, /dz/ and /tṣ/ or /tṣ'/ respectively.

Consonants are (with very few exceptions) not geminated, even when the syllabary allows that possibility. It has been suggested that Urartian lost its geminate consonants (which do exist in Hurrian) before it reached the state of the language preserved in the inscriptions.

Transliterations (marked by single bars) and transcriptions (marked by double bars) in this chapter use the conventional values for the transliteration of the cuneiform signs.

3.2 Vowels

The script seems to distinguish four vowel qualities: /a/, /e/, /i/, /u/. It is uncertain whether the interchangeable signs *u* and *ú* represent not only /u/ but also /o/. Vowel length seems to be indicated by *scriptio plena* (see §2.1), and presumably it was phonemic (see also §3.5.3; in the following morphemic transcriptions vowel length is not represented because of the high degree of graphemic variation). The opposition between /e/ and /i/ seems to be neutralized in final position (realized as [ə]), as can be seen (among other places) among variants using *be* and *bi* indiscriminately (*nu-na-bi*, *nu-na-be* "he came," in morphemic transcription both rendered as *nun=a=bə*). Schwa may be represented by a plene-spelling of the vowel *e*, e.g., *pi*-LI-*e* for [pilə].

Spellings like *-ka-i*, *ba-ú-še*, *Te-i-še-ba*, *e-ú-ri*, *ú-ru-li-ia-ni*, *qi-ú-ra-i-e-di*, *ḫa-ú-li-i-e*, *si-lu-a-di*, *a-ú-e-ra-*, *ṣu-e*, *Iš-pu-i-ni* suggest the existence of the diphthongs /ai/, /au/, /ei/, /eu/, /ia/, /ie/, /iə/, /ua/, /ue/, /uə/, /ui/. It is not always clear, however, whether two adjoining graphemic vowels represent a monosyllabic diphthong; in some cases it can be shown by variant spellings that they do not: thus, *te-ra-a-i-* with variant *te-ra-y*$[i_x]$. Some of the diphthongs seem to be historical spellings, because there are variants with monophthongs: for example, *qi-(i-)ú-ra-*: *qi-ra-* "earth"; *al-su-i-ši-*: *al-su-ši-* "greatness"; *ka-i-ú-ke*: *ka-ú-ke* "before me."

3.3 Phonotaxis

The writing system hides many consonant clusters. Any occurring in initial and final position could not be represented orthographically; it is likely, however, that they did not in fact exist. In medial position most consonantal clusters contain a non-stop as the first consonant: [-ld-], [-lg-], [-lḫ-], [-lm-], [-ls-], [-lṣ/z-]; [-rb-], [-rd-], [-rg-], [-rḫ-], [-rm-], [-rn-], [-rq-], [-rṣ-], [-rš-], [-rt-], [-rz-]; [-mn-]; [-šd-], [-šg-], [-šḫ-], [-šm-], [-šp-], [-št-], [-šz-]. There are also clusters with initial dental and bilabial stops: for example, [-Tḫ], [-Tg-], [-Tq-]; [-Pḫ-], [-Pq-], [-Pr-], [-Pš-], [-Pt-]. There are no Urartian words with initial [r-]; the royal name *Rusa* probably was pronounced Ursa.