

Table 2.2: Consonant Romanization

Manner	Labial	Alveolar	Retroflex	Palatal	Velar	Uvular	Glottal
voiceless stop	p	t	ʈ		k	q	ʔ
voiced stop	b	d	ɖ		g	ɢ	
nasal	m	n	ɳ				
voiceless fricative	f	s	ʂ				h
voiced fricative		z	ʐ				
rhotic		r	ɻ				
approximant	w			y			
lateral		l					

used to represent /v/ and /j/ to keep a convention familiar to English speakers. Finally, the glottal stop is represented by <'>. For an analysis of the decisions that went into this orthography, see Corley [2016].

2.1.1 Allophony and Morphophonology

In this section, I outline phonological changes that affect consonants. A number of these rules are historical and have limited productivity, but still show up in morphophonology due to interactions between rules. The following sections are organized in order to present common rule interactions: beginning with stops and nasals (which pattern together in some cases), then liquids, and finally the glottals.

Stops and nasals

Final devoicing. Voiced oral stops become devoiced at the end of a word. This rule is visible when morphology allows the historical voiced consonant to surface. Such surfacing can occur with dual number marking on nouns, as seen in

- (2.1) (a) *ni'it* 'lake' *ni'idla* '(two) lakes'
 (b) *pinük* 'crow' *pinügla* '(two) crows'

Spirantization. The voiced stops /b d g ɠ/ become fricatives between vowels, as presented in (2.2). Spirantized /d/ > [z] merges with the phoneme /z/, which arose from a historical intervocalic voicing rule, thus the alternation between [d z] primarily presents itself in a morphological context.

- (2.2) (a) *'aba* /ʔaba/ > [ʔaβa] 'rag'
 (b) *dagaap* /daga:p/ > [daɣa:p] 'to clean'

(c) *bağam* /bagam/ > [baɣam] 'truth'

Stop gemination. Any cluster of stops and nasals undergoes regressive gemination. This rule crosses morpheme boundaries and is commonly seen in derivations and compounds, as in (2.3). Preceding this rule is a progressive nasal assimilation rule, which will cause a nasal to assimilate to the place of a preceding bilabial or retroflex stop, leading to an interesting coalescence of features that will result in a geminate nasal of the same place as the underlying stop.

(2.3) (a) 'un 'see' + *-tak* > 'uttak 'sight'

(b) *hop* 'day' + *tili* 'middle' > *hottili* 'midday, noon'

(c) *kub(in)* 'clan' + *dik(ü)* 'grandfather' > *kuddik* 'clan patriarch'

(d) *kub(in)* 'clan' + *puuk* 'old woman' > *kuppuuk* 'clan matriarch'

(e) *luk-* + *byinɛɛp* 'to write sth' > *lubbyinɛɛp* 'to write (intrans)'

Nasal deletion. When a nasal appears before a consonant within the same coda, it is deleted and the preceding vowel is lengthened and nasalized. This rule applies after stop gemination, resulting in a bleeding relationship that has led to a number of alternations in verb forms where some forms will have geminate stops while others will have a nasalized vowel. However, outside of these morphological rule, the underlying forms are generally opaque, and the resultant long nasalized vowels may be taken as phonemic.

(2.4) (a) *kant-* 'tell' *kattɛp* 'to tell' *dakqatsuhok* 'I told (perfective) it.'

(b) *puzind-* 'boat (v)' *puziddip* 'to boat' *puzɛɛtta* 'I boat'

Liquids

Liquid deletion. The liquids /l r ɹ/ are deleted in the coda of a syllable, leaving compensatory lengthening in the vowel. This rule is visible in those scenarios where the liquid may resurface due to morphological rules and interactions with the liquid gemination rule and the glottal deletion rule.

Liquid gemination. When the /l r ɹ/ come into contact across a syllable boundary, a progressive assimilation applies creating a geminate liquid. When /r/ is geminate, it becomes the trill [r], and in dialects where the retroflex is realized as a tap [ɾ] it also becomes a trill. This rule bleeds the liquid deletion rule with geminate liquids being no longer subject to deletion.

- (2.5) (a) *gar-* 'prone to, -happy' + *luttwakëp* 'to throw things' >
garruttwakëp
- (2.6) (a) *qaap* (root: *qar-*) 'to bite' > *muqarrat* 'She bit it(animate)'
 (b) *pamaap* (root: *pamal-*) 'to smash' > *mupamallat* 'She smashed it(animate)'
- (2.7) (a) *dagaap* (root: *dagal-*) 'to be clean' > *dagallat* 'It (animate) was clean'
 (b) *paqaap* (root: *paqar-*) 'to be fat or thick' > *paqarrap* 'It (animate) was fat'

Glottals

Glottal deletion rules. Both /h/ and /ʔ/ are deleted when following a consonant. Due to historical developments, this deletion occurs at different stages. This is most notable in cases where nasal deletion and stop gemination are possible. /ʔ/ is deleted early, altering syllable structure and bleeding nasal deletion to allow stop gemination. /h/ is deleted after vowel nasalization, so the nasalization may occur before the /h/ is deleted if the syllable structure requirements are met.

- (2.8) *trint-* 'understand'
 +hok > *datrinthok* > *datrëthok* > *datrëtök* 'I understand it.'
 +'aaş > *datrint'aaş* > *datrintaaş* > *datrittaaş* 'I am understood.'

This is shown in (2.8), where the addition of the /h/-initial suffix *-hok* (inanimate agreement), triggers nasal deletion before the /h/ is deleted¹, while the addition of the /ʔ/-initial *-'aaş* (inverse/passive) causes the /ʔ/ to be deleted early in the derivation, thus removing the syllabic structure environment for nasal deletion and favoring stop gemination.

This contrasts with this rule's relationship with liquid deletion, which occurs after both /h/-deletion and /ʔ/-deletion, thus leading to the surfacing of underlying liquids in both circumstances.

- (2.9) *lupil-* 'request'
 +p > *lupup* 'to request' (infinitive)
 +hok > *dalupilhok* > *dalupilok* 'I request it.'
 +'aaş > *daupil'aaş* > *dalupilaaş* 'I am requested'

2.2 Vowels

İstatikii has nine monophthongs as seen in Table 2.3. All vowels appear in both short (Table ??) and long (Table ??) variants. In addition, all non-high vowels can be nasalized (Table 2.3b).

¹Vowel harmony also applies to the final form, hence *-hök*. See section 2.2.1.