

The Consonant Sounds of 17th Century Siamese

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1. Introduction

Europeans probably first came to Siam in the 15th century.¹ By the end of the 17th century several early European visitors had written valuable reports on the land, the people, their customs, their trade, and their wars. One of the most important European works on Siam during this period was Simon de la Loubère's *A New Historical Relation of the Kingdom of Siam*.^{*} The work consists of two volumes which were published in French in 1691, and in English translation two years later.

La Loubère was both a man of letters and a diplomat. He had earlier served as secretary to Baron de Saint-Romain who was the French ambassador to the Swiss Confederation from 1672 to 1676. In 1687 La Loubère was chosen by the French government to go to Ayuthaya, then the capital of Siam, to help conclude a treaty. Another member of that mission was the Jesuit priest Guy Tachard, who had previously been a member of the first official French Embassy sent to Siam by King Louis XIV in 1685. Soon after Tachard's return to France in 1686 he published his *Voyage de Siam des Pères Jésuites*, which appeared in 1688 in an English translation under the title *A Relation of the Voyage to Siam Performed by Six Jesuits*.

Unlike Tachard, however, La Loubère was not trying to influence either public or official government opinion in France. La Loubère's concern was in rendering an exact account of all the things Siamese which he had seen or learned of in that country. Although La Loubère remained in Siam for only a very short time, the accuracy and depth of his observations concerning Siam and things Siamese show an extensive knowledge of the works on Siam and other Asian countries written prior to, and immediately after, his visit to that kingdom.

The second volume of La Loubère's work is perhaps the earliest detailed description, in a European language, of the sounds of Siamese. La Loubère's romanization system for transcribing Siamese sounds has many similarities with the romanization system used by Tachard (1688). Tachard's examples of Siamese in Roman letters, however, are limited to only about twenty utterances, most of which are titles and place names. We, consequently, cannot actually reconstruct Tachard's whole romanization system. La Loubère, on the other hand, has several hundred examples both in his romanization system and in the Siamese orthography of that period (see Plate 1). The whole of his romanization system can therefore be reconstructed.

¹ Marco Polo probably visited southern Siam in the late 13th century, and Niccolo dei Conti may have visited Siam in 1430. It is safe to say, however, that Siam did not have extensive contact with Europeans until after Vasco da Gama's discovery of the city of Calicut, India, in 1498.

* *Du Royaume de Siam*. Paris: Jean Baptiste Coignard, 1691, 2 vols. [Editor's Note]

p. 174 *Three Siamese Alphabets* ~ *Plate-I.*
 1 Kò Khò Kho' Khò Khoo Khoo-ngo // cho cho' chò Sò choo yo // do to tho' thò
 ๑ ๒ ๓ ๔ ๕ ๖ ๗ ๘ ๙ ๑๐ ๑๑ ๑๒ ๑๓ ๑๔ ๑๕
 thoo no // bo po ppo' fo ppo fo // ppo mo no ro lo so // So Sò
 ๑๖ ๑๗ ๑๘ ๑๙ ๒๐ ๒๑ ๒๒ ๒๓ ๒๔ ๒๕ ๒๖ ๒๗ ๒๘ ๒๙ ๓๐
 Sò hò lo
 ๓๑ ๓๒ ๓๓ ๓๔

The chart is divided by slash marks // into six classes of letters. The first four classes are based on the original articulatory classes of the Indic writing system: velars, palatals, dentals, and labials. The last two classes of consonants were perhaps meant to represent a class of sonorants and a miscellaneous class of consonants consisting primarily of fricatives.

	<i>Kò Khò Kho' Khò Khoo Khoo-ngo //</i>
Velars	๑ ๒ ๓ ๔ ๕ ๖ ๗
	<i>cho cho' chò Sò choo yo //</i>
Pre-Palatals	๘ ๙ ๑๐ ๑๑ ๑๒ ๑๓
	<i>do to tho' thò thoo no //</i>
Dentals	๑๔ ๑๕ ๑๖ ๑๗ ๑๘
	<i>bo po ppo' fo ppo fo //</i>
Labials	๑๙ ๒๐ ๒๑ ๒๒ ๒๓ ๒๔
<hr style="border-top: 1px dashed black;"/>	
	<i>// ppo mo no ro lo so //</i>
Sonorants	๒๕ ๒๖ ๒๗ ๒๘ ๒๙
	<i>Sò Sò' Sò' hò lo</i>
Miscellaneous	๓๐ ๓๑ ๓๒ ๓๓ ๓๔ ๓๕

There appears to be a printing error among the sonorants where n instead of y is written above the Siamese letter u. Also since y is written above the Siamese palatal letter u we can assume that there was no palatal nasal sound [ɲ] in 17th century Siamese. Besides, 17th century French had a palatal nasal written gn, and if it had occurred in Siamese La Loubère should have heard it.

Plate 1: La Loubère's chart of the 17th century Siamese letters

This 17th century Siamese alphabet lumped *ṅ* together with the sonorants, thus supporting the hypothesis that the sounds represented by this letter (*ṅ*) were originally voiced sounds (**bh* or **b*).

Both Tachard's and La Loubère's romanization systems have similarities with other orthographies devised by Jesuit missionaries in the 16th and 17th centuries. Contrastive aspirated stops were usually identified with the Ancient Greek aspirated stops Φ , θ , and χ . Aspirated stops were sometimes transcribed *ph*, *th* and *kh* using the *h* to represent the aspiration (Bertoni 1603, De Rhodes 1651). Unaspirated stops were usually identified with Latin *p*, *t*, and *c* (*qu*, *k*) and were represented as such. Obviously the Jesuit priests were not only familiar with Romance languages, which were usually their mother tongues, but were also very familiar with the orthographies and sounds of classical Latin, Greek and Hebrew. In this paper I shall give an overview of the romanized consonant system used by La Loubère and as much detailed phonetic information as possible concerning each individual letter and the sounds each letter may represent.

2. The Consonant Sounds

The consonants of the roman orthography used by La Loubère in describing this 17th century dialect of Siamese spoken in Ayuthaya were the following:

p	t	ch [ki-, ke-, ti-, tch-, qui-]	k [c, g]	: [?]
pp	th	ch [ci-, sch-, tch-, qui-]	kh	
b	d			
m	n		ng	
f	s [ç-, sch-]			
v	l	y [j, gi-, tgi-]		h
	r			

This orthography has an almost perfect one-to-one relationship with the phonological consonant system of present day Siamese:

p	t	c	k	?
ph	th	ch	kh	
b	d			
m	n		ŋ	
f	s			
w	l	j		h
	r			

In order to better appreciate the usefulness of La Loubère's orthography as a whole, we must first understand the phonetic value of each individual symbol in the system. In the rest of this study we will attempt to compare phonetically the consonants of the La Loubère orthography with the consonants of the present day Siamese phonological system. My own studies of the sounds of contemporary Siamese will form the basis of this comparison.

/p/ represents a voiceless unaspirated bilabial stop [p], which in initial position is accompanied by a simultaneous loosely closed glottis in which the true vocal folds are adducted and the ventricular (false) vocal folds are adducted as in Fig. 1.

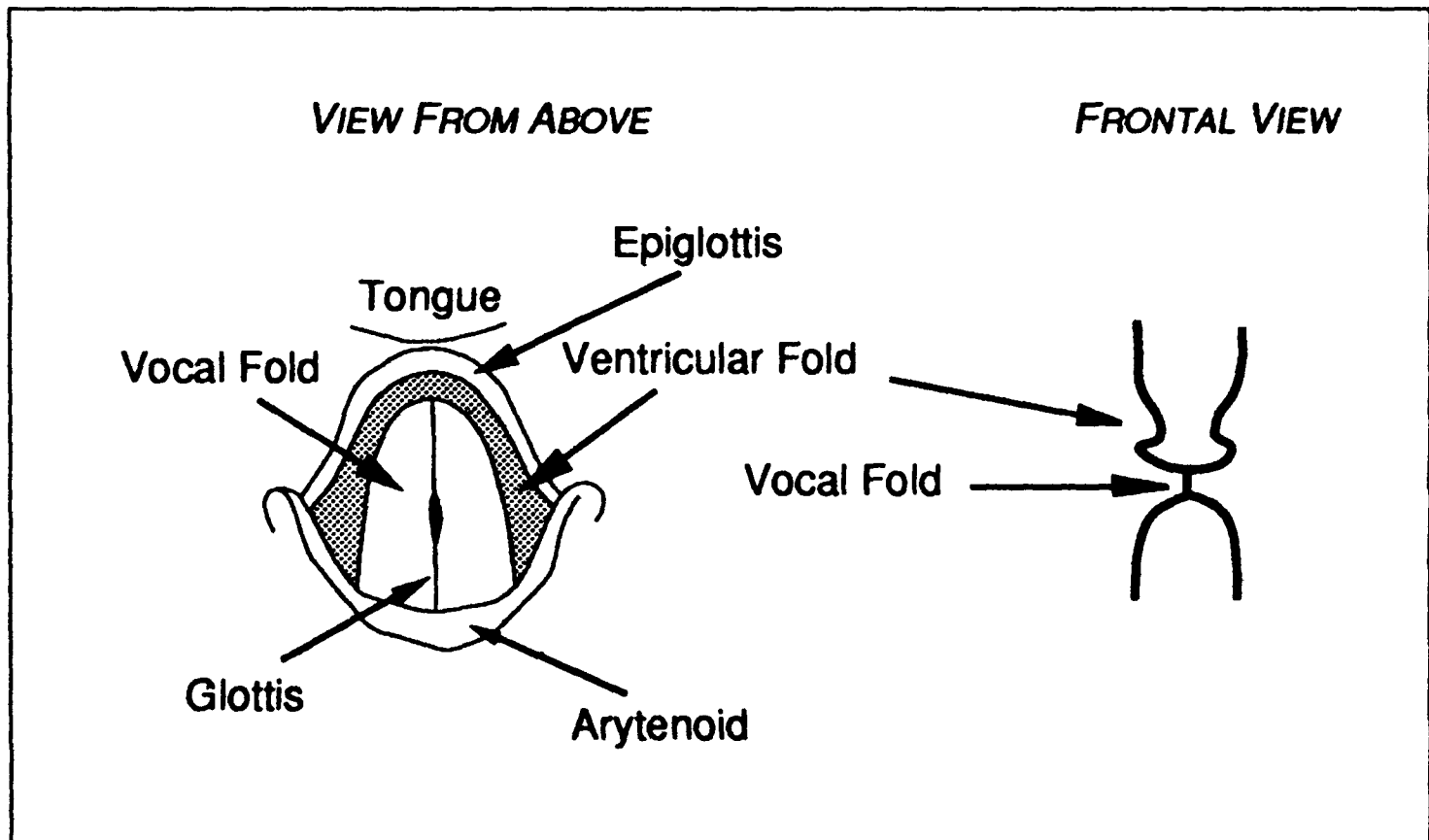


Figure 1: Loose glottal closure

In syllable final position */p/* represents a voiceless unaspirated bilabial glottalized stop [ʔp]. This syllable final sound is accompanied by a simultaneous reinforced tightly closed glottis in which both the true vocal folds and the ventricular (false) vocal folds are adducted as in Fig. 2.²

² If we were to consider both a loose glottal closure and a reinforced tight glottal closure merely as different types of glottal stops, then a glottal stop could simply be defined as a closed glottis. In my definition, however, only a reinforced tight glottal closure is a glottal stop.

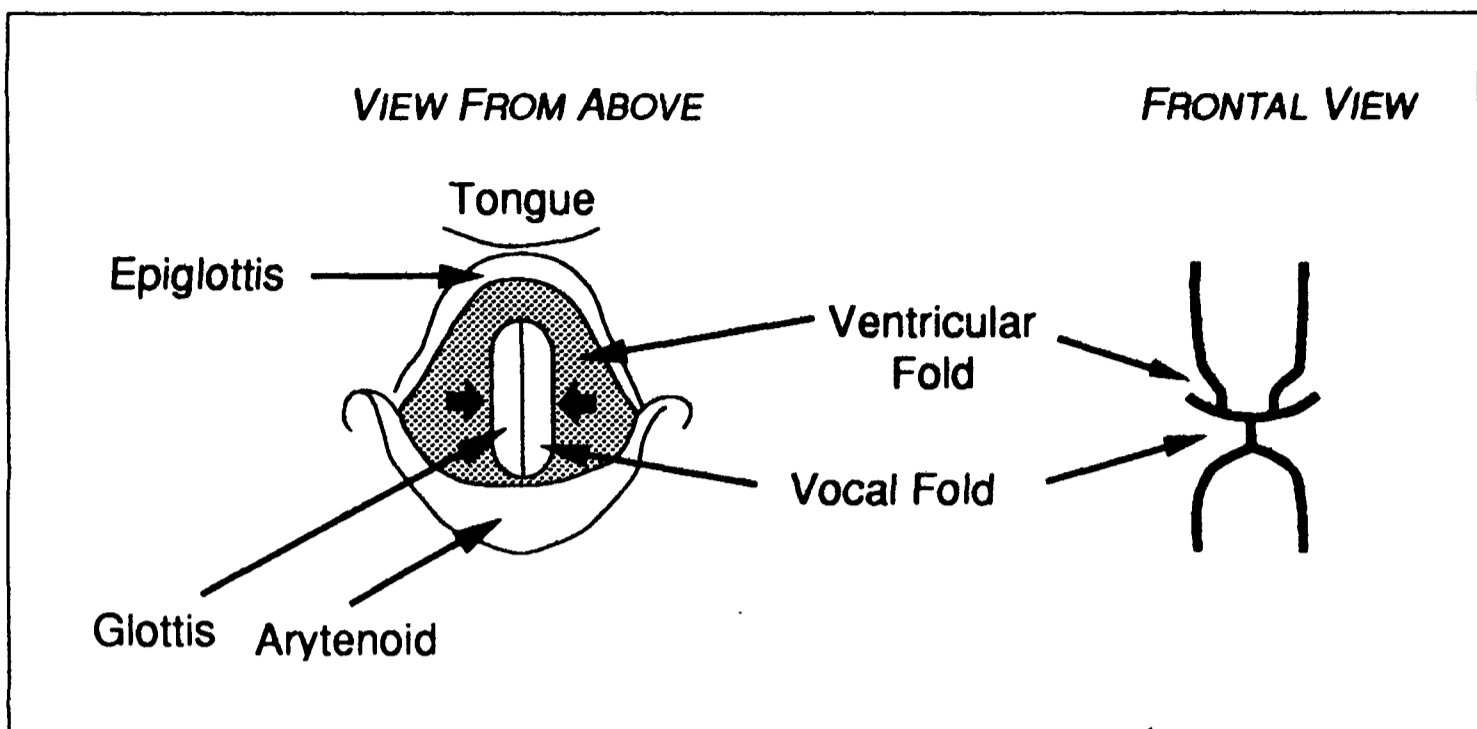


Figure 2: Reinforced tight glottal closure

La Loubère's use of the letter *p* was, however, not consistent. He sometimes used it correctly for initial or final /p/ and at other times he used it incorrectly for initial /ph/. In final position he sometimes used a simple transliteration of the Siamese orthographic *u* and wrote a *-b* instead of a *-p*. Note the following quote however: "*It is true that they pronounce the do [dɔ:] like a to [tɔ:] and the bo [bɔ:] like a po [pɔ:] at the end of some syllables and words.*"³ He also states that in production of the final *-b*, "they opened not their lips again to finish after our manner the pronunciation of the *b*." This is perhaps because French final voiced stops have voiced off-glides, e.g. [b^ə, d^ə, g^ə]. Obviously Siamese syllable final /p/ was nothing like French final *b* to La Loubère's ears.

³ Phonetic brackets [] with phonetic transcription between them are my own in all the quotes in this article.

/ph/ represents a voiceless aspirated bilabial stop [ph], in which the state of the glottis is wide open for breath as in Fig. 3.

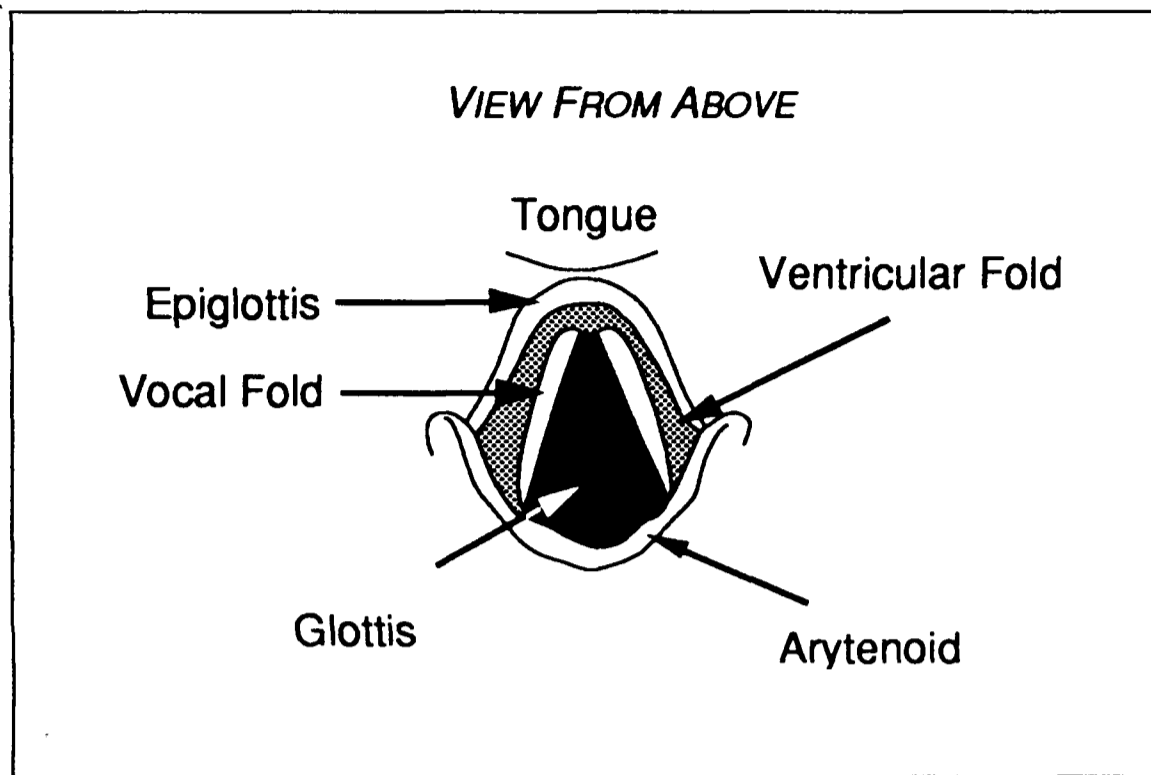


Figure 3: A breath state of the glottis

Voiceless stops have traditionally been considered hard, and voiced stops have traditionally been considered soft. La Loubère states: *“Where I have put two pp, it is to denote a p harder than ours.”* Aspirated stops do not occur finally in Siamese. As he says *“They cannot pronounce an aspirate at the end of a syllable, was it in the middle of a word.”*

La Loubère was inconsistent in his use of *ph*. Initial *p* was frequently substituted for *ph*. Of course, as a native speaker of French, La Loubère would have had a difficult time hearing the difference between Siamese aspirated and unaspirated syllable initial voiceless stops.

/b/ represents a voiced bilabial stop [b] which is fully voiced and occurs only syllable initially.

Although La Loubère frequently uses a direct transliteration of the Siamese orthographic *u* and writes a final *-b*, he states in several places that final *-b* is pronounced like a *-p* as in *“[...] sib, which they pronounce sip, signifies ten.”* It is also my contention that as a native French speaker he would not be able to easily distinguish between voiced unreleased plosives and voiceless unreleased plosives. I contend that final Siamese orthographic *u* was, in La Loubère’s time, as it is today, pronounced as a voiceless unreleased plosive.

In reference to the softness and tessitura (*cf.* Abercrombie, 1967:99ff.) of Siamese speech La Loubère makes the following comment: *“They have our aspiration [h], which yet they pronounce very softly, and when they put the character [ʋ] thereof before a consonant (which the French tongue never permits) they do it only to weaken the pronunciation of the consonant; and in general they speak so softly, that it is not known often whether they pronounce an m or a b, tio or tchio.”* There is absolutely

no evidence in La Loubère's work to assume that he actually means that the sounds *m* and *b* alternate. One must assume that he was simply referring to the difficulty in hearing which sound was being produced because of the soft manner in which the Siamese spoke. Evidence from my own studies of present day Siamese supports La Loubère's remark that the Siamese seem to speak softly. In present day Siamese this appears to be a socially conditioned feature of the voice dynamics of the language. The Chinese, for example, seem to speak more loudly than the Siamese. There is also no evidence to show what was meant by "*they do it [sc. put a ๓ 'h' in front of a consonant] only to weaken the pronunciation of the consonant.*" We can only assume that he was referring to tone and not to Ancient Tai voiceless nasals such as **hm*, **hn*, or **hŋ*. Voiceless breathed consonants would have been heard as "hard" not "soft" just as /*ph*, *th*, *kh*/ were considered hard by La Loubère. Long before the 17th century ๓ in front of the sonorants (๓๒, ๓๓, ๓๔, ๓๕, ๓๖, ๓๗, ๓๘), which is called /*hǎw nam*/ or "leading ๓", had become simply a tone indicator.

/*m*/ represents a voiced bilabial nasal [m] which occurs both syllable initially and syllable finally.

La Loubère states that final *-m* "*is pronounced without opening the lips.*" I think what is meant is that final *-m* represents a nasal and not nasalization of the preceding vowel as it does, for example, in Portuguese.

/*f*/ represents a voiceless labio–dental fricative [f] which occurs only syllable initially.

Although usually consistent in his use of *f* for /*f*/, La Loubère did, in at least one instance, use *ph* for *f*.

/*w*/ represents a voiced labio-velar approximant [w] which occurs only syllable initially.

La Loubère used the letter *v* for this consonant. His description of the sounds the letter represents was excellent: "*The vo [vɔ:] is pronounced indifferently like our v consonant, or like the w of the High–Germans, which is a b pronounced softly, or without closing the lips [β], or in fine like the w of the English, that is to say, like our ou in the word oui.*[⁴] *The vo is likewise put after vowels to form certain diphthongs, in which case it is pronounced like our ou.*" In present day Tai dialects the following sounds are the most common syllable initial variants of this phonological unit: (1) a labio–velar approximant [w]; (2) a labio-dental approximant [v]; and only rarely (3) a bilabial fricative [β]. Devoiced variants can occur immediately after voiceless aspirated stops. The common variants of /*w*/, everywhere except syllable initially, are the close back rounded vowels [u] and [ø] which La Loubère transcribed as *ou*. The contemporary Siamese /*w*/ of the initial consonant clusters /*kw*/ and /*khw*/ is usually realized phonetically as a short close back rounded vowel, and the initial velar stops are slightly labialized, e.g. [kǔ-, khǔ-]. In the contemporary Lao dialects of north-eastern Thailand the labialization of the velar stop is frequently lost.

⁴ This type of "b" was well described earlier in the 17th century by Oudin (1660) as a kind of bilabial fricative.

/t/ represents a voiceless denti–alveolar unaspirated stop [t] in which the primary places of articulation are similar to the palatogram in Fig. 4.

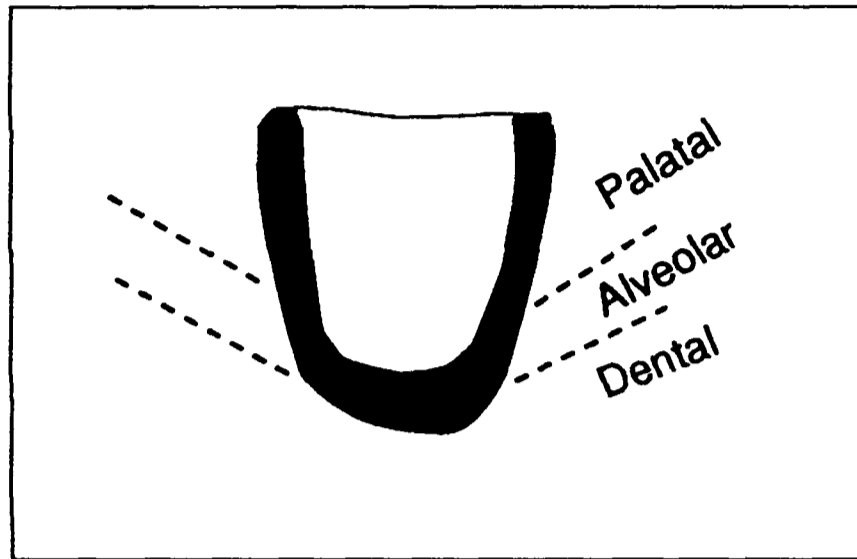


Figure 4: Siamese initial [t]

In initial position [t] is accompanied by a simultaneous loosely closed glottis in which the true vocal folds are adducted and the false vocal folds are abducted. In syllable final position /t/ represents a voiceless apico–alveolar glottalized stop [ʔt] in which the primary place of articulation is similar to the palatogram in Fig. 5. This syllable–final sound is accompanied by a simultaneous reinforced tightly closed glottis in which both the true vocal folds and the ventricular (false) vocal folds are adducted.

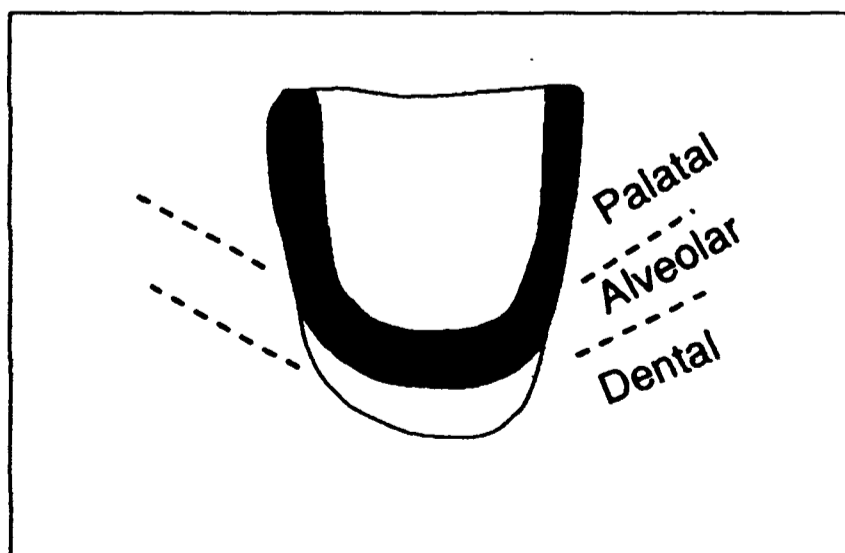


Figure 5: Siamese final [ʔt]

La Loubère's use of the letter *t* was, like that of *p*, inconsistent. He sometimes used it incorrectly for initial /th/. In syllable final position he frequently used a simple transliteration of the Siamese orthographic **๓** and wrote a *-d* instead of a *-t*. Note however the following quote: "*The do [dɔ:] which is in the third division (dentals), is pronounced like a to [tɔ:] at the end of words, and they have no other to final.*" By this statement I feel it is safe to say that although La Loubère sometimes wrote final *-d*, he always interpreted it as a final *-t* sound.

/th/ represents a voiceless denti-alveolar aspirated stop [th], in which the state of the glottis is wide open as for breath. This sound occurs only syllable initially in Siamese.

La Loubère was inconsistent in his use of both *th* and *t*. Being a native speaker of French he obviously had a hard time hearing the three-way distinction between the voiceless aspirated, voiceless unaspirated, and voiced stops of Siamese.

In syllable initial position the places of articulation of both Siamese /t/ and /th/ are similar to the diagram in Fig. 6.

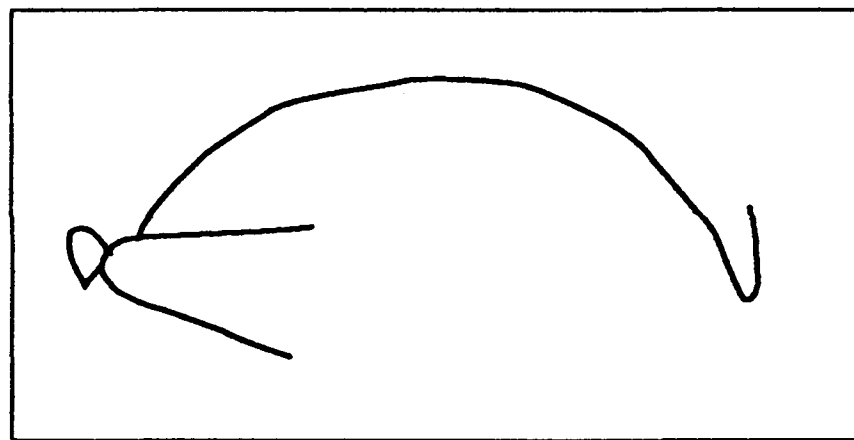


Figure 6: Denti–alveolar [t] and [th]
(apico–dental and lamino–alveolar)

/d/ represents a voiced apico-alveolar stop [d] which is fully voiced and occurs only syllable initially.

La Loubère was consistent in his use of *d* initially but tended to transliterate final Siamese orthographic **๓** into a *d* or *t*, while stating that final *-d* was pronounced *-t*.

/n/ represents a voiced apico-alveolar nasal [n] which occurs both syllable initially and syllable finally.

La Loubère makes it quite clear that it is the same *n* that occurs both syllable initially and finally in present day Siamese. He also makes it clear in the following quote that after a vowel, *-n* does not represent simple nasalization as it sometimes does in French. "*The no [nɔ:] which is the last letter of the third division is not pronounced at the end of words like our n, but like the n of the Gascons and Spaniards.*"

/s/ represents a voiceless lamino–alveolar fricative [s], which has a narrow grooved channel and normally does not occur syllable finally.

La Loubère used another letter ç for a variant of this sound that still occurs in Siamese. From the following quote it is clear that he was referring to the voiceless dental fricative [θ] of present day Castilian Spanish: “*The ç is pronounced after the Castilian manner of lisping.*” In Siamese this variant of /s/ is a voiceless lamino-dental flat fricative [θ] that appears to occur in the speech of some contemporary socio-economic classes of Bangkok.

/l/ represents a voiced apico-alveolar lateral approximant [l]. This sound normally occurs only syllable initially in Siamese.

Due to La Loubère’s consistent use of both the letters *l* and *r* we can assume that these two sounds were kept distinctively apart in 17th century Siamese. A partially devoiced apico–alveolar lateral approximant [l̥] is a common variant as the second member of a cluster after voiceless aspirated stops.

/r/ usually represents a voiced apico–alveolar flap (tap) [ɾ]

In contemporary Standard Siamese there are two common variants of this consonant: (1) a voiced apico–alveolar flap [ɾ]; and (2) a voiced apico-alveolar trill [r]. The first variant is the most common, and the second variant tends to occur primarily in the speech of national radio and T.V. announcers and in the classroom teaching of the national language. Although in sociolinguistic terms the trill may be regarded more prestigious than the flap, it is definitely less common than the flap in ordinary conversational speech. Speakers of Southern Thai dialects and some speakers of Standard Siamese who are fluent speakers of English may have a third, much rarer variant, a voiced retroflex approximant “r” [ɻ]. Devoiced *r*-sounds are the common variants which occur as the second member of consonant clusters which begin with initial voiceless aspirated stops.

La Loubère only states that Siamese has an *r* but Chinese does not. The most common *r*-sounds of 17th century French were, however, the same as the common variants of Standard Siamese *r* today: a voiced apical trill [r], and a voiced apical flap [ɾ] (Passy, 1914).

It appears that all native speakers of contemporary Standard Siamese are in the process of merging /l/ and /r/ into /l/ only. There are very few clues in La Loubère’s work that this was already happening in 17th century Siamese, but there are clear indications from late 18th century Siamese (Garnault, 1796) that this merger was by then already underway.

/c/ represents a voiceless unaspirated lamino–(fronto–) alveolopalatal affricate which has a slight narrow grooved fricative release [cç]. This sound can only occur syllable initially in Siamese.

La Loubère does not really understand the nature of this sound but he comes surprisingly close in the following quote: “*Tis the same as to the word kiai, which signifies, heart. It is known whether they rather say, kiai [kʲai] than ciai [tʲai],*

⁵ I am not really sure whether 17th century Italian *kiai* was actually pronounced [kʲai] or [kai].

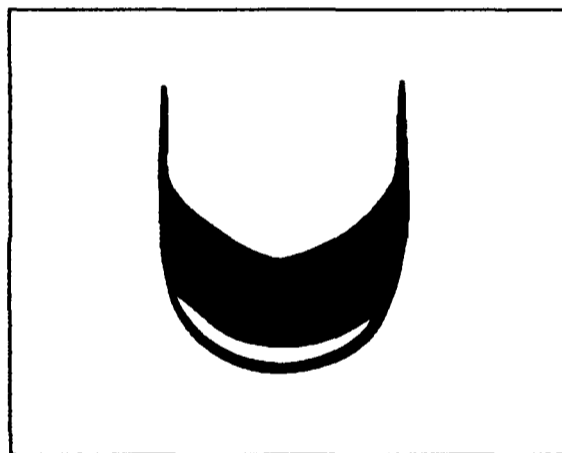
pronounced after the Italian manner, because that indeed they do not exactly speak either one or the other, but something that partakes of the one and the other.”⁵

In Italian *kiai* is unaspirated and *ciai* is slightly aspirated. This definitely points to serious confusion between unaspirated /c/ and aspirated /ch/. It is interesting to note however that although La Loubère used *ch*, *tch* and *qui* for both /c/ and /ch/, he never used *ti*, *ki* or *ke* for the voiceless aspirated affricate /ch/.

/ch/ represents a voiceless aspirated lamino-(fronto-) alveolopalatal affricate which has a narrow grooved fricative release [cçh]. This sound can only occur syllable initially in Siamese.

Linguagrams for both [cç] and [cçh] in contemporary Siamese resemble that shown in Fig 7.

Palatograms of both Siamese [cç] and [cçh] show an alveolar-prepalatal wipe-off. The places of articulation are usually the posterior part of the gumridge and the foremost part of the prepalatal area just behind the gumridge. The articulators are the lamina (blade) and the anterior part of the front of the tongue. The sides of the tongue are slightly contracted and do not extend to between the molars. The jaws are closely approximated and the tongue muscles are slightly tense. *



[cç] and [cçh]

Figure 7: Tongue surface articulations

The diagram in Fig. 8 shows the contact area for both [cç] and [cçh] in contemporary Siamese:

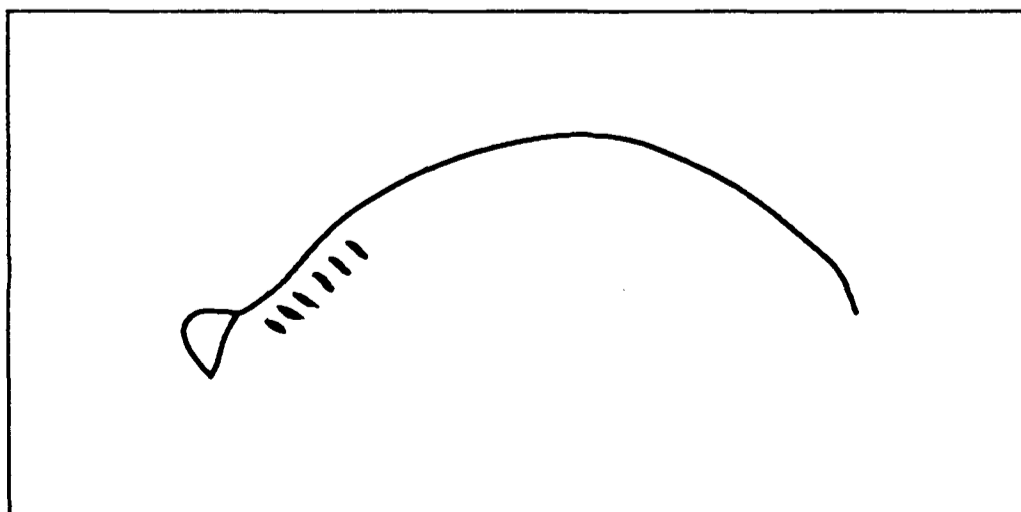


Figure 8: Contact area of [cç] and [cçh]

In using *sch* from German as an alternate transcription of /ch/ it may be that 17th century Siamese had a voiceless lamino–(fronto–)alveolopalatal narrow grooved fricative [ç] as a rare possible variant of /ch/ as it does in the speech of some contemporary Siamese speakers.

/j/ represents a voiced fronto–palatal approximant [j].

This sound occurs only syllable initially in Siamese. Other common variants of /j/ are: (1) [j] a voiced fronto–palatal fricative; and (2) [jʃ] a voiced lamino–(fronto–)alveolopalatal affricate. The latter variant, [jʃ], occurs in the emphatic speech of some contemporary Siamese speakers. The common syllable final variant of /j/ in diphthongs and triphthongs is a close front unrounded vowel [i] which La Loubère transcribed as *i*, *y*, or *ee*.

The following quote from La Loubère shows that at least one of the syllable initial variants of /j/ was perhaps the same as it is today. “*They have a middle pronunciation between our two pronunciations of yo [jɔ:] and jo [ʒɔ:] [...]*” This is probably referring to a voiced fronto–palatal fricative [j].⁶

/k/ represents a voiceless unaspirated dorso–velar stop [k] which, in initial position, is accompanied by a simultaneous loosely closed glottis in which the true vocal folds are adducted and the ventricular (false) vocal folds are abducted. In syllable final position the voiceless unaspirated dorsovelar stop is accompanied by a simultaneous reinforced tightly closed glottis (glottal stop) [ʔk] in which both the true vocal folds and ventricular (false) vocal folds are adducted.

In syllable final position La Loubère used *-k*, *-c*, and in at least one instance *-g* as alternate ways of transcribing final /k/.

/kh/ represents a voiceless aspirated dorso–velar stop [kh] in which the state of the glottis is wide open as for breath.

Another common variant of this sound in present day Siamese is a voiceless aspirated dorso–velar affricate [kxh] which also has a breathed state of the glottis. This sound can occur only syllable initially in Siamese.

La Loubère gives an excellent description of this consonant in the following quote: “*I have put an h after k, 'tis to show that the k must be pronounced with an aspiration after the German way, and not so simply as our c hard [...]*”

/ŋ/ represents a voiced dorso–velar nasal [ŋ] which can occur both syllable initially and finally in Siamese.

La Loubère’s description of this sound is the following: “*The ngo [ŋɔ:] is pronounced before all the vowels, like our g before the a, the o and u; with this difference, that it is pronounced a great deal more carelessly, and altogether from the nose, which gives it something of n at the beginning of its pronunciation. At the end of*

⁶ We can assume that two variants of 17th century /j/ were [j] and [j].

words, it is produced without loosing the tongue from the roof of the mouth; they will say tong and not tongue.” Here I assume he is saying that final *ng* is [ŋ] not [ŋə].

/ʔ/ represents a glottal stop [ʔ]. A glottal stop is a reinforced tight glottal closure in which both the true vocal folds and the ventricular (false) vocal folds are adducted.

La Loubère stated that “:”, which he used to represent glottal stop, only occurred at the end of a word. Note the following quote: “*They have an a extremely short, which they write with two points, thus :, and which they pronounce clearly at the end of the words, as in this Bali word pra, which they give to whatever they honour most; but when this a is found in the middle of a word, it passes so quick that it is not discerned, and that it answers to our e mute [sc. silent ‘e’].*” He also states that no other sound can occur after glottal stop in the same syllable. “*This a marked with two points suffers no other letter after it in the same syllable.*”

Some scholars have proposed an initial glottal stop before vowels in Siamese based on the fact that in South Asian writing systems, on which ultimately Siamese orthography is based, each basic symbol represents a consonant + vowel syllabic unit. The alphabet is a consonant type in which no syllable can begin with a vowel. **๑**, for example, is supposed to be [ʔa:] where **๑** represents the mute glottal stop and **-๑** represents the vowel [a:].

It is my conviction that a syllable initial glottal stop before a vowel does not normally occur in non-emphatic speech in contemporary Siamese. Glottal stop and glottalized stops (stop + simultaneous glottal stop) [ʔ, ʔp, ʔt, ʔk] can only occur syllable finally in Siamese.⁷

Preglottalized approximants and nasals such as *ʔa, *ʔi, *ʔj, *ʔw, *ʔm, etc. may have occurred in Ancient Tai but the preglottalization was lost in Siamese long before the 17th century. The orthographic symbol **๑** before a consonant or vowel (e.g. **๑๒** or **๑๓**) has become simply a tone indicator for the following syllable.

When I was a beginning student of phonetics, I was taught to write a glottal stop before all initial vowels in English without ever having been trained to hear the difference between an initial glottal stop followed by a vowel and an initial vowel without a preceding glottal stop. Word initial reinforced tight glottal closures (glottal stops) are, in fact, not very common. They do occur contrastively in initial position before a vowel in few languages I have studied like Nga’da and Rennellese, but initial glottal stops do not normally occur in either Siamese or English. In Siamese, this myth of initial vowels being phonetically preceded by glottal stop has been kept alive by reference to the orthography. Vowels followed by glottal stop, however, are a regular feature of Siamese.⁸

⁷ In other words, Siamese has words like [ùʔ] (**๑**) and [ùʔk] (**๑๓**) but it does not have words like [ʔùʔ] or [ʔùʔk].

⁸ Siamese phonological rules governing glottal stops can be quite complex, especially if both syllable initial and syllable final glottal stops /ʔ/ are part of the phonological system. The phonetic realization of some of these glottal stops will then have to be zero [∅] unless, of course, we define glottal stops as simply a closed glottis. Then our reinforced tight glottal closure would have to be redefined as a ventricularized glottal stop.

/h/ represents a voiceless oral approximant [a, i, e, etc.] or a voiceless glottal fricative [h]. In contemporary Siamese a voiceless nasalized oral approximant is also a common variant of /h/ in words like [ã̃:] (ห่า) “five”.

La Loubère correctly associated *h* with aspiration, but any modern description of an [h] is perhaps best made in terms of the phonetic characteristics of abutting or juxtapositional approximants (consonants or vowels). Sweet (1877), who claimed to have gotten this information orally from A.M. Bell several years earlier, was the first scholar to define [h] as the voiceless counterpart of the consonant or vowel it immediately precedes or follows.

Although La Loubère does not actually discuss the patterns of initial consonant clusters, they appear to have been the same as they are today. It also appears that the change of initial consonant clusters to single consonants by dropping the second element (*l* or *r*) of the cluster, which is very common in contemporary Siamese, had already begun by the 17th century. A change of *kr-* to *k-* was clearly indicated by La Loubère’s transcription of /kradai/ (กระได) “ladder of the house” as *gadai*.

Secondary articulations such as velarization, labialization, glottalization and nasalization, all occur in contemporary Siamese.⁹ Velarization is a more or less simultaneous raising of the back of the tongue towards the soft palate. It is mostly used paralinguistically in contemporary Siamese as a feature of voiceless initial nonvelar stops, affricates, and fricatives. In the Surat Thani dialects of Southern Thai, however, it is a common linguistic feature of voiceless initial unaspirated stops and affricates.

Labialization is a more or less simultaneous rounding of the lips. It occurs primarily with velar stops in Siamese. In Northern Thai dialects, however, labialization can occur with many other consonant sounds. Glottalization is a simultaneous reinforced tight glottal closure (glottal stop). It occurs with Siamese final voiceless unaspirated stops [-ʔp, ʔt, -ʔk].

Glottalization was indirectly implied by La Loubère’s description of the unreleased nature of Siamese final consonants, especially the final unreleased plosives: “This is a thing very singular that syllables which end with a consonant, they pronounce it not after our manner: but their tongue remains fixed either to the palate of the mouth, or to the teeth, according to the nature of the consonant: or rather their lips remain shut: and it is thus that they terminate these sorts of pronunciations, I mean without unloosing the tongue, and opening the lips again. They cannot pronounce an aspirate at the end of a syllable, was it in the middle of a word.”

Nasalization is a simultaneous lowering of the soft palate with air passing out through the nasal cavity. It occurs with some voiceless oral approximant variants of the contemporary Siamese initial /h/.

Even though all of the above secondary articulations were probably present in 17th century Siamese they were not mentioned directly by La Loubère as modifying Siamese consonant sounds.

⁹ Laryngealization could be included, but it is more properly a type of phonation. Following Pike (1943) secondary articulations are considered of lower rank, in terms of both types of stricture and stricture locations, than primary articulations.

3. Conclusion

Although La Loubère's romanization of Siamese may lack the excellent consistency and systematic representation of the De Rhodes (1651) orthography for North Vietnamese, especially in terms of vowels and tones, it is, nevertheless, a good representation of the consonant sounds of 17th century Siamese. It should also be evident from this important work that the consonant sounds of educated Siamese speakers were in La Loubère's time very much the same as they are today.

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