The Origin of the Graph <b> in the Thai Script

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It is now a well accepted fact that the Thai script originated from a type of ancient Khmer script. This borrowing took place by the XIIIth century, at the latest, because the script used in the most ancient text known in a Thai language, the famous Ramgamhæng stele engraved around 1300 AD, is considered as an innovation on the basis of a previous script.
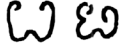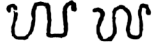
The Khmer writing system was adapted to Thai in a very simple way. When the phonetic unit was the same in the both languages, the Khmer graph was taken without any modification to transcribe the same sound in Thai. For example, the graph transliterated by k and pronounced [k] in Khmer was taken to transcribe Thai /k/ (today spelled ก). In the same way, the Khmer graph transliterated kh was taken to transcribe Thai /k^h/ (today spelled ข). The Khmer graph transliterated g and pronounced [g] (today [k]) was taken to transcribe Thai /g/ (today pronounced [k^h] and spelled ค). But when a phonetic unit in Thai was not represented in Khmer, the graph of a similar sound was taken and modified. The Khmer graph kh was modified to Kh to transcribe the ancient Thai non-voiced d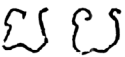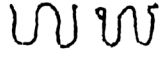orsal fricative /χ/ (today pronounced [k^h] and spelled ฃ in the alphabet chart). In the same way the Khmer graph g was modified to G to transcribe the ancient Thai voiced dorsal fricative /ɣ/ (today pronounced [k^h] and spelled ฅ in the alphabet chart). The graphs Kh (ฃ) and G (ฅ) are now obsolete and have been replaced by kh (ข) and g (ค) in text orthography.

Khmer		Thai (regular graphs)		Thai (modified graphs)		
k	k	k	ก k			
kh	k^h	kh	ข k^h	Kh	ฃ	χ > k^h
g	g > k	g	ค g > k^h	G	ฅ	ɣ > k^h

In spite of some modifications in the forms of letters over the centuries, the relation between the regular graphs and their derived forms has been preserved until today and is quite clear in the modern Thai script.

On the basis of such examples, it has been somewhat hastily concluded that every graph of the Thai script derived from a homologous one in the Khmer script. That is true for almost all of the alphabet, but for the graph b, the so-called p^{h}ɔː p^{h}aːn (พ), the relation with its supposed model in ancient Khmer script seems to me spurious. For the purpose of my demonstration I shall compare the ancient Thai graphs for ph (ผ) and b (พ) in Sukhothai style (Songvitaya, 1981) and Fakkham style (Vimonkasem, 1983)

with those in Pallava script and in ancient Khmer scripts, Preangkorian (Grawengkij, 1981) and Angkorian (Phirunsarn, 1981).

	ph	*b*
Pallava	౿	▢
Khmer		
Preangkorian	౿	౿
Angkorian	౿ ౿	౿ ౿ ౿ ౿
Thai		
Sukhothai	౿ ౿	౿ ౿
Fakkham	౿ ౿	౿ ౿
Modern	ผ	พ

A simple examination of the both graphs *ph* and *b* shows us that for *ph* the Thai graph is clearly derived from the Khmer prototype, while for *b* the forms of the Khmer and Thai graphs are too dissimilar to be considered as related. In ancient Khmer, the graph *b* was rarely used (Jacob, 1960) because, in general, the graph *v* was used to transcribe the ancient phoneme /b/ as well as /v/ (Ferlus, 1993). This is due to the fact that the Indians who introduced Sanskrit culture to ancient Cambodia pronounced Sanskrit /v/ as [b] but kept the two distinct in Sanskrit texts. When the Pallava script was adapted to ancient Khmer the graph *v* was taken to transcribe the two Khmer phonemes /v/ and /b/, which led to ambiguity, as the graph *b* was rarely used. Until the XIth century the graph *b*, mostly used in Sanskrit, is unquestionably of Pallava type, but from this period a new form of *b*, presumably borrowed from Mon script, was introduced.

Before XIth c.	౿ ౿ ౿
From XIth c.	౿ ౿

Where does the Thai graph *b* come from? Before any answer one must remember a peculiar consonantal shift in ancient Khmer. At an unknown date, the labial and apical

non-voiced initial plosives were glottalized, that is p > ɓ and t > ɗ, while the graphs remained unchanged. As a result, in the Thai script the graphs *p* and *t* represent the ancient preglottalized initials /ɓ/ and /ɗ/ (today บ and ด), while the initials /p/ and /t/ are transcribed by modified forms of the same graphs (today ป and ต). When the ancient Thai people borrowed the Khmer script and, with a remarkable precision, adapted it to their own language, they used the graph *v* for the sound [w], approximately restoring its original value in Sanskrit. They then needed to create a new graph to transcribe the sound [b], for which no letter was available in the ancient Khmer system. My hypothesis is that this *b* was made by doubling the graph *p*, the sound [b] being phonetically sufficiently close to [ɓ] (written *p*) to suggest such a derivation.

p   บ ɓ

b   บ+ บ > บบ

Later, this new graph *b* was modified to *B* to transcribe /v/ (today pronounced [f] and spelled ฟ) while *ph* was modified to *Ph* to transcribe /f/ (today spelled ผ).

In the following chart I show and make explicit the evolution of the graphs *ph p b v* and their derived forms from Pallava script to modern Thai:

	Pallava	Ancient Khmer		Ancient Thai			Modern Thai	
ph	౮	ಐ	pʰ	*ph*	౮	pʰ	ผ	pʰ
	---	---		*Ph*	౮	f	ผ	f
p	౮	౮	p > ɓ	*p*	౮	ɓ	บ	b
	---	---		*P*	౮	p	ป	p
b	◻	♡ ౮	b		---		---	
	---	---		*b*	౮	b	พ	
	---	---		*B*	౮	v	ฟ	f
v	౮	౮ ౮	v/b	*v*	౮	w	ว	

One could note that it would be more accurate to transliterate *b* as $\overline{pp}$, but to avoid useless complications the traditional transliteration is preserved.

Finally, I believe that this study is another illustration of the importance of using both epigraphic and linguistic evidence, in particular historical phonetics, in the study of the evolution of writing systems.

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