

OC onsets in the Baxter-Sagart 1.01 system: examples with corresponding forms in Proto-Min, Vietnamese, and Hmong-Mien.¹

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Abbreviations

CL: classifier

E: eastern

GSR: Karlgren's Grammata Serica Recensa

HM: Hmong-Mien

MC: Middle Chinese

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MR: Martha Ratliff

MSC: Modern Standard Chinese

OC: Old Chinese

pH: Proto-Hmongic

pHM: Proto-Hmong-Mien

pLakkia: Proto-Lakkia

pM: Proto-Mienic

PM: Proto-Min (Norman)

PP: Pittayawat Pittayaporn

PT: Proto-Tai

pY: Proto-Yao

VN: Vietnamese

W: western

ZH: Hanyu Fangyin Zihui

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OC > MC > MSC	PM	VN	HM	Notes
邊 *p ^f e[n] > pen > biān 'side' 0224c	p	bên 'side; party; team; area, place'		
別 *pret > pjet > bié 'separate (tr.)' 0292a		biết 'to know, to realize'		
斧 *p(r)a? > pjuX > fǔ 'axe' 0102h	pio B	búa 'axe'	MR pM *pou B 'axe'	
弗 *put > pjut > fú 'writing brush' 0500a				Pron. in Yān 燕, ap. Shuōwén, E. Hán
真 *ti[n] > tsyin > zhēn 'true, real' 0375a	tšin A			
氐 *t ^f ij? > tejX > dǐ 'bottom' 0590a		đáy 'bottom'		
點 *t ^f em? > temX > diǎn 'black spot' 0618n	t	đốm 'spot'		
隻 *tek > tsyek > zhī 'single' 1260c		chiếc 'CL for vehicles'	MR pM *tsiɛk D 'classifier for birds'	
摘 *t ^f rek > treak > zhāi 'pluck (v.)' 0877p	t			A variant with m- or mə- prefix was borrowed by Hmong-Mien : MR pH *ndruei C 'strip leaves for pig feed'

織 *tək > tsyik > zhī ‘weave (v.)’ 0920f	ts / tš		MR pM *tsiɛk D	
得 *t'ək > tok > dé ‘obtain’ 0905d	t		MR pHM *təuk 'get'	
炙 *tAk > tsyek > zhì ‘roast, broil’ 0791a			MR pHM *ci C	Jiànyáng /tsio 7/, compatible with pMin *ts and *tš
著 *t<r>ak > trjak > zhuó ‘to place’ 0045n’			MR pH *trɔ C 'put on, wear' (shoes)	
桌 *t'rawk (no pre-Qin exx.) > traewk > zhuō ‘table’ 1126	t			
燭 *tok > tsyowk > zhú ‘torch’ 1224e		đuốc ‘candle’		
斗 *t'o? > tuwX > dǒu ‘bushel; ladle’ 0116a	t	đầu ‘bushel’		
節 *ts'ik > tset > jié ‘joint of bamboo’ 0923a:0399c	ts	tết 'New Year festival'		(< Proto-Vietic *ts-)
酒 *tsu? > tsjuwX > jiǔ ‘wine’ 1096k	ts		pH *cow B	

蚤 *ts ^č u? > tsawX > zǎo 'flea' 1112d	ts			Jiàn'ōu /ke 3 tse 3/ 'flea', not softened: ke 3 狗 'dog'. The prefix has been reinterpreted as 'dog' in certain modern dialects.
蟲 *srik > srit > shī 'louse' 0506a	š	chét 'flea, aphid'		cp. Proto-Tibeto-Burman *s-r(y)ik 'louse' (Matisoff 2003:153)
生 *sreŋ (or *s.reŋ?) > srjaeng > shēng 'bear, be born; live' 0812a	š			
生 *sreŋ > sraeng > shēng 'fresh, raw' 0812a	tsh			MC is irregular (tsh- expected). MC could have generalized the prefixless form 生 *sreŋ > sraeng > shēng 'bear, be born; live'
心 *səm > sim > xīn 'heart' 0663a	s		MR pM *sim 'heart'	
疏 *sra > srjo > shū 'wide apart' 0090b	š			
彫 *s(č)ram > sraem > shān 'long hair' 1154a			MR pM *suam A 'beard'	
沙 *s ^č raj > srae > shā 'sand' 0016a	s			Yong'an dialect argues against pMin *š-
支 / 枝 *ke > tsye > zhī 'branch (of tree)' 0864a	ki A			

繭 *k ^č [e][n]? > kenX > jiǎn 'cocoon' 1250a	k	kén 'cocoon'		
芥 *k ^č r[e][t]-s > keajH > jiè 'mustard plant' 0327j	k	cài 'cabbage'		PP PT *ka:t D 'mustard greens'
解 *k ^č re? > keaX > jiě 'cut up; unloose' 0861a	k	cǎi 'to untie'		PP PT *ke: C 'to untie'
金 *k(r)[ə]m > kim > jīn 'metal, bronze' 0652a	k	kim 'metal, needle'	MR pHM kjeəm 'gold'	
力 *k.rək > lik > lì 'strength' 0928a		sức '		Rực /khrík7/
故 *k ^č a?-s > kuH > gù 'old (not new)' 0049i			MR pHM *quoH 'old'	
柬 *k ^č r[a]n? > keanX > jiǎn 'select, distinguish' 0185a		kén 'to choose, select'		
貴 *kuj-s > kjuw+jH > guì 'precious; expensive' 0540b	k	cùi 'high price'		
鼈 *q ^w re > 'wea, 'wae > wā 'frog' 0879y				PP PT *krwe A 'small frog'
腰 *?ew > 'jiew > yāo 'waist' 1142b				PP PT *?je:w A 'waist'
燕 *?e[n]-s > 'enH > yàn 'swallow (n.)' 0243a				PP PT *?e:n B 'swallow'

饜 *?<r>em-s > 'jemH > yàn 'satiated' 0616d				PP PT *?i:m B 'satiated'
衣 *(r)əj > 'j+j > yī 'clothes' 0550a	?		Theraphan pY *?rui A 'upper garment'	
臆 *(r)ək > 'ik > yì 'bosom' 0957i				PP PT *?ək D 'chest'
瓮 *?əŋ-s > 'angH > àng 'basin; (tublike:) swollen' 0718j				PP PT *?a:ŋ B 'basin'
溫 *?ən > 'won > wēn 'warm; gentle' 0426c				PP PT *?ən B 'warm'
媼 *?u? > 'awX > ǎo 'old woman' 1244e			MR pHM *?əuX 'elder sister/wife'	
對 *[t]ə[u]p-s > twojH > duì 'respond' 0511a	t		MR pHM *tau A 'answer'	
接 *[ts][a]p > tsjep > jiē 'connect' 0635e			MR pHM *tsep 'receive/borrow'	
箭 *[ts]ən-s > tsjenH > jiàn 'arrow' 0245h		tēn 'arrow'		
粢 *[ts]ij > tsij > zī 'Setaria italica' 0555g			MR pM *tjəi A 'millet'	
捉 *[ts](r)ok > tsraewk > zhuō 'grasp (v.)' 1219e			MR pM *tjək D 'to take'	

斬 *[ts]ram? > tsreamX > zhǎn ‘cut off’ 0611a		chéṁ 'to cut, chop, slash; behead		
走 *[ts] ^f o? > tsuwX > zǒu ‘run’ 0119a	ts			
細 *[s] ^f e(k)-s > sejH > xì ‘small, minute’ 12411	s		MR pM *sæi C 'small/fine'	
酸 *[s] ^f or > swan > suān ‘sour’ 0468e	s		MR pHM *suj A 'sour'	Proto-Chǔ-Qú *soi 1 (Akitani 2003)
送 *[s] ^f oŋ-s > suwngH > sòng ‘escort (v.), send’ 1179a			MR pHM *sunj H 'send/deliver'	
想 *[s]aŋ? > sjangX > xiǎng ‘think’ 0731d	s			
雪 *[s]ot > sjwet > xuě ‘snow’ 0297a	s			
絲 *[s]ə > si > sī ‘silk’ 0974a	s	to̥ 'silk'		Shíbēi /çɪ 53/, Jiànyáng /soi 55/
漱 *[s]rok-s > srjuwH > shù ‘wash’ 1222t			MR pHM *ntshuH 'launder'	
雙 *[s]roŋ > sraewng > shuāng ‘a pair’ 1200a	š		MR pM *sunj A 'pair'	
刷 *[s]r[o]t > srwaet > shuā ‘brush (v.)’ 0298a	š		MR pM *sot 'wipe'	

膠 *[k] ^h riw > kaew > jiāo 'glue' 1069s	k	keo 'glue'		
卦 *[k] ^w re-s > kweaH > guà 'prognosticate with Achillea' 0879s		què 'lots'		
腳 *[k]ak > kjak > jiǎo 'leg, foot' 0776gs		gốc 'stump, foot, root'		proto-Pong (Ferlus) *tko:k ⁸
印 *[?]inj-s > 'jinH > yìn 'seal' 1251f		in 'to print; to strike off'		

Table 1: examples of OC singleton voiceless unaspirated obstruents.

OC > MC > MSC	PM	VN	HM	Notes
騙 *p ^h en(?)-s > phjenH > piàn 'to fool, to cheat' 0246		phỉnh 'coax'		
片 *p ^h e[n]-s > phenH > piàn 'half; partial; one-sided' 0218a			MR pHM *phəan A 'classifier for quilts'	
拂 *p ^h [u]t > phjut > fú 'to brush, shake' 0500h			MR pM *phuət D 'to sweep'	
覆 *p ^h (r)uk > phjuwk > fù 'turn over' 1034m	ph			
蜂 *p ^h (r)oŋ > phjowng > fēng 'bee' 1197s	ph			

奉 *p ^h (r)oŋ? > phjowngX > fēng 'hold with both hands; to present; receive' 1197z			MR pH *phueŋ B 'to carry in two hands'	
尺 *t ^h Ak > tsyhek > chǐ 'foot (measure)' 0794a	tšhiok D	thu᷑c 'meter'		Xiàmén /tshioŋ? 7/, Fúzhōu /tshuoŋ? 7/
春 *t ^h un > tsyhwin > chūn 'springtime' 0463a	tšhiun A			
吹 *t ^h o[r] > tsyhwe > chuī 'blow (v.)' 0030a	tšhye A			pLakkia *tshoi A 'breezy' (Theraphan)
穿 *t ^h o[n] > tsyhwen > chuān 'bore through' 0232a			MR pHM *chuen A 'to thread'	
秋 *ts ^h iw > tshjuw > qiū 'autumn; crop' 1092a	tsh			
溪 *k ^h ɔe > khej > xi 'valley with stream in it' 0876q	kh	khe 'ravine'		
苦 *k ^h a? > khuX > kǔ 'bitter' 0049u	kh	khó 'hard, bitter'		
客 *k ^h rak > khaek > kè 'guest' 0766d'	kh		MR pHM *Khæk 'guest'	
空 *k ^h oŋ? > khuwngX > kǒng 'hollow, empty; hole' 1172h			MR pH *qʰəŋ B 'hole'	

脅 *q ^h <r>ep > xjaep > xié 'flank, side of the body' 0639e	kh			Jiànyáng, Shíbēi /khe 7/; Shàowǔ, Héping, Chóng'ān /khie 7/, all 'wing'
飲 *q ^h [ə]p > xop > hē 'sip, drink' 0675-		hóp		pLakkia *ho:p D 'to drink'
吸 *q ^h (r)əp > xip > xī 'inhale' 0681j	kh			
豨 *q ^h əj? > xj+jX > xǐ 'pig' 0549e	kh			Northern Min kh-
香 *q ^h aŋ > xjang > xiāng 'fragrance' 0717a			WM pHM *qeŋ A fragrant'	
許 *q ^h (r)a? > xjoX > xǔ 'allow' 0060i:0086	x			Xiàmén and Jiànyáng have kh-
虎 *q ^h ra? > xuX > hǔ 'tiger' 0057b:0069:0078 (W dial)	kh			Northern Min kh-
華 / 花 *q ^{wh} ra > xwae > huā 'flower (n.)' 0044	x			
化 *q ^{wh} <r>aj-s > xwaeH > huà 'transform' 0019a	x			
薅 *q ^h u > xaw > hāo 'weed (v.)' 1244d	kh			Northern min kh-

好 *q ^h u? > xawX > hǎo 'good' 1044a			MR pM *khuw B 'good/tasty'	pM < *qh. No qh in pM.
蠢 *q ^h <r>oŋ > trhaewng > chōng 'stupid' 1192d				cp. 愚 *q ^h oŋ-s > xuwngH > zhuàng 'stupid' 1015e
漆 *[ts ^h]i[t] > tshit > qī 'varnish' 0401a			MR pHM *thjet 'lacquer'	
初 *[ts] ^h ra > tsrhjo > chū 'beginning' 0087a	tsh	VN xưa 'in the early times' (Alves)		
瘡 *[ts ^h]raŋ > tsrhjang > chuāng 'boil, tumor' 0703n			MR pHM *tshaŋ A 'sore/blister/boil'	
察 *[ts ^h]ret > tsrheat > chá 'examine' 0337j		xét hỏi 'interrogate, question'		
草 *[ts ^h]u? > tshawX > cǎo 'grass, plants' 1049b	tsh	tháu 'scrawling'		Bái /chu 1/
巧 *[k ^h]ru? > khaewX > qiǎo 'artful' 10411		khéo 'clever, skilful'		
牽 *[k] ^h i[n] > khen > qiān 'pull, lead, drag' 0366k	kh		MR pM *khien A 'to lead'	
掘 *[k ^h]ut > khwot > kū 'hole' 0496p			MR pM *khot 'hole'	

開 *[k] ^h əj > khoj > kāi ‘to open (v.t.)’ 0541a	kh		MR pM *kh <u>ə</u> iA (< *kh-) 'to open' (v.t.)	pLakkia *ha:i A
誇 *[k ^w h] ^g ra > khwae > kuā ‘boast’ 0043b:0044:0097		khoe 'brag, boast, show off'		
去 *[k] ^h (r)ap-s > khjoH > qù ‘depart’ 0642a	kh			Dialect : -p > -k
屎 *[q ^h]ij? > syijX > shǐ ‘excrement’ 0561d	š			

Table 2: Examples of OC singleton voiceless aspirated stops.

OC > MC > MSC	PM	VN	HM	Notes
平 *breŋ > bjaeng > píng ‘even (adj.)’ 0825a	b A	bằng 'even, level'	MR pM *ben̩ A 'level'	Xiàmén /pĩ 2/ ‘level, even, smooth’
縛 *bak > bjak > fù ‘bind (v.)’ 0771m		buộc 'to tie, bind'		
白 *b ^r ak > baek > bái ‘white’ 0782a	b	bạc 'silver'	MR pM *bæk D 'white'	
石 *dAk > dzyek > shí ‘stone’ 0795a	džiok D			
上 *daŋ?-s > dzyangH > shàng ‘top, above (n.)’ 0726a	džion̩ C			Xiàmén /tsi 6/, Jiēyáng /tsiõ 6/, Jiàn'ōu /tsioŋ 6/

住 *dro(?)s > drjuH > zhù 'stop (v.)' 0129g	diu C	đỗ 'to stop'		
餳 *dzij > dzij > cí 'rice or millet cake' 0555j	dz			
叢 *dz ^w oŋ > duwng > cóng 'collect; thicket' 1178a	dz			
畫 *g ^w rek > hweak > huà 'draw (v.)' 0847a	fiuak D = Ø			
下 *g ^w ra? > haeX > xià 'down' 0035a	fia B = Ø		MR pHM *GaX 'low/short'	Xiàmén /e 6/ 'below' Jiàngyáng /a 5/ ~ /ha 5/
紅 *g ^w oŋ > huwng > hóng 'pink' 1172i	fi = Ø			
翼 *G ^w rəp > yik > yì 'wing' 0954d	zit D			Dialect: *-p > *-k
羊 *gaŋ > yang > yáng 'sheep' 0732a	ioŋ A		MR pHM *jun A 'sheep/goat'	Kabeo /qa-jun/ 3/ 'sheep' : Solnceva (1993)
院 *G ^w ra[n]-s > hjwenH > yuàn 'wall round a courtyard' 0257u:0111:0160	Ø			
煩 *[b]a[n] > bjon > fán 'troubled' 0264a		buồn 'sad'		

耙 *[b]⁊ra > bae > pá 'rake (n.)' 0039e	b		MR pM *ba A 'to rake'	
是 *[d]e? > dzyeX > shì 'this' 0866a	ž		MR pM *dzej B 'be'	The Min form is the verb 'is, are'.
成 *[d]eŋ > dzyeng > chéng 'to become (v.i.)' 0818a	ž			
孰 *[d]uk > dzyuwk > shú 'cooked, ripe' 1026a			MR pM *djuok 'cooked/ripe'	
廚 *[d]ro > drju > chú 'kitchen' 0127m	d			
箸 *[d]<r>ak-s > drjoH > zhù 'chopsticks' 0045j		đũa 'chopsticks'	MR pHM *drouH 'chopsticks'	
慙 *[dz]⁊am > dzam > cán 'ashamed' 0611c			MR pH *dzaŋ A 'ashamed'	
助 *[dz]ra-s > dzrjoH > zhù 'help (v.)' 0046z	-dz			
罪 *[dz]⁊uj? > dzwojX > zuì 'crime, offense' 0513a	-dz			
造 *[dz⁊]u? > dzawX > zào 'make; achieve' 1051a	-dz		MR pH *dzo C 'reach/arrive at' T!	
跪 *[g](r)oŋ? > gjweX > guì 'kneel; foot' 0029f	-g		MR pHM *ɟwəiH 'knee' T!	

鞋 *[g]ˤre (no pre-Qín exx.) > hea > xié 'shoe' 0879	f = ∅			
極 *[g](r)ək > gik > jí 'extreme' 0910e	g			
葫 *[g]ˤa > hu > hú 'gourd' 0049k'			MR pH *ga A 'garlic'	Pulleyblank gives the meaning 'garlic'. Not attested in pre-Han texts in that meaning.
舅 *[g](r)u? > gjuwX > jiù 'Mother's brother' 1067b	g	cậu 'uncle, mother's brother'		
求 *[g](r)u > gjuw > qiú 'seek' 1066a		cầu 'demand'		
橋 *[g](r)aw > gjew > qiáo 'bridge' 1138g	g	cầu 'bridge'	MR pHM *jow A 'bridge'	
裙 *[g]u[r] > gjun > qún 'skirt' 0459f	g		MR pM *gjun A 'skirt'	
櫃 *[g]ruj-s > gwijH > guì 'box' 0540h	g	cũi 'cage; dog-house'		
臣 *[g]i[ŋ] > dzyin > chén 'slave, subject' 0377a:0368				cp. 賢 *gˤin > hen > xián 'worthy' 0377a:0368e
夜 *[G]Ak-s > yaeH > yè 'night' 0800j	ia C			

養 *[G]aŋ? > yangX > yǎng 'nourish, raise' 0732j	∅		MR pM *juŋ B id.	
芋 *[G] ^w (r)a-s > hjuH > yù 'taro (Colocasia antiquorum?)' 0097o	∅		pHM *wouH	
禾 *[G] ^f oj > hwa > hé 'growing grain' 0008a:0357	∅			
寅 *[G](r)ər > yin > yín '3rd earthly branch' 0450a				Buyang ɳi11 (either B or C2) ; Lü ji ² , Dioi ngien ² , Pu-yi ɳan ² . Pittayaporn cites Saek /runA2/ from Hudak.
鹽 *[Gr][o]m > yem > yán 'salt (n.)' 0609n	z			
有 *[G] ^w ə? > hjuwX > yǒu 'have, exist' 0995o	iu B			

Table 3: Examples of OC singleton voiced stops.

OC > MC > MSC	PM	VN	HM	Notes
磨 *m ^f aj > ma > mó 'rub, grind' 0017f	muai A	mài 'to file, sharpen, whet'		
望 *maŋ-s > mjangH > wàng 'look at from a distance' 0742m			MR pHM *maŋH 'look at'	

馬 *m ^r a? > maeX > mǎ 'horse' 0040a	m		MR pH *mjæn B 'horse'	
買 *m ^r aj? > meaX > mǎi 'buy' 0006:0026:1240c	m		MR pHM *mɛj X 'buy'	
懼 *n ^r [i]p > nep > zhé 'afraid, to fear' 0696a:0685h				Second (dial.) reading 懼 *t-nip > tsyip > zhí 'id.' 0696a:0685h.
二 *ni[j]-s > nyijH > èr 'two' 0564a	ń			
醣 *n ^r er > nej > ní 'pickled meat with bones in it' 0152l				Also read OC *ner > MC nye
南 *n ^r [ə]m > nom > nán 'south' 0650a	n			
鬚 *nam > nyem > rán 'whiskers' 0622k			MR pH *jan A 'beard'	
難 *n ^r ar > nan > nán 'difficult' 0152d	n	nàn 'difficulty'		pLakkia *na:n A 'difficult' (Theraphan)
銀 *ŋrə[n] > ngin > yín 'silver' 0416k	ŋ		MR pHM *ŋʷjən A 'silver'	
鵝 *ŋ ^r a[r] > nga > é 'goose' 0002p	ŋ			

逆 *ŋrak > ngjaek > nì 'go against' 0788c	ŋ	ngược 'go against'		
條 *l ^f iw > dew > tiáo 'branch (n.), shoot (n.)' 1077f				Xiàmén /liau 2/ 'a long strip'
田 *l ^f inj > den > tián 'field; to hunt' 0362a			MR pHM *ljinj 'field'	Gǔzhàng /lɛ 13/
易 *lek-s > yeH > yì 'easy' 0850a	∅			
夷 *ləj > yij > yí 'level, peaceful' 0551a				Written in early texts as 尸 *ləj (> syij > shī) 'corpse'
遲 *l<r>ə[j] > drij > chí 'slow' 0595d				Gǔzhàng /li 13/
大 *l ^f at-s (MC F!) > daH > dà 'big' 0317a	d			Sometimes written in received texts as 世 *lap-s (> *lat-s > syejH) 'generation' (Gāo Hēng 1989:633–634) Gǔzhàng /lu 22/
楊 *laŋ > yang > yáng 'poplar' 0720q			MR pH *jianŋ A 'poplar'	Later loan
澤 *l ^f rak > draek > zé 'marsh; moisture' 0790o				Xiàmén /la? 8/ 'moist'

腸 *lraŋ > drjang > cháng 'intestines' 0720y	d		MR pM *Gljaŋ A 'intestines'	
蛻 *lot > ywet > yuè 'exuviae of insects or reptiles ' 0324e		löt 'to skin; to throw off'		
筒 *l ^f oŋ > duwng > tǒng 'tube' 1176g	d		MR pH *droŋ A 'tube/flute'	Later loan
簾 *rem > ljem > lián 'bamboo curtain' 0627-		rém 'door curtain, bamboo curtain'		
淋 *r[ə]m > lim > lín 'to water' 0655e	l		MR pM *rəm A 'to water'	Gǔzhàng /ze 13/
離 *raj-s > ljeH > lì 'reject' 0023f		rāy repudiate (one's wife)		
梁 *raj > ljang > liáng 'beam; bridge' 0738a		rường 'beam, girder'		
鹵 *r ^f a? > luX > lǔ 'salty (sc. land)' 0071a	l			
流 *ru > ljuw > liú 'flow (v.)' 1104a	l A		MR pM *rjəu C 'to flow'	
牛 *[ŋ] ^w ə (< uvular?) > ngjuw > niú 'ox' 0998a	ŋ		MR pHM *ŋjuŋ A 'water buffalo/cow'	

地 *[l] ^f ej-s > dijH > dì ‘earth, ground’ 0004b'			MR pM *dej C 'non-irrigated field'	Later loan to HM Gǔzhàng /li 22/
達 *[l] ^f at > dat > dá ‘arrive at’ 0271b	-d			
場 *[l]raŋ > drjang > cháng ‘arena’ 0720x	-d			
鹵 *[r] ^f aʔ > luX > lǚ ‘salty (sc. land)’ 0071a	l			Méixiàn /lu 1/
闌 *[r] ^f an > lan > lán ‘railing’ 0185f		ràn 'fence, enclosure'; 'stable, pen' T!		

Table 4: Examples of OC singleton plain resonants.

OC > MC > MSC	PM	VN	HM	Notes
黑 *m̥ ^f ək (dial. *m̥ ^f - > x-) > xok > hēi ‘black’ 0904a	x			
海 *m̥ ^f əʔ (dial. *m̥ ^f - > x-) > xojX > hǎi ‘sea’ 0947x	x			

芴 *m ^ʳ ut > xwot > hū ‘careless; confused’ 0503j				cp. 勿 *mut > mjut > wù ‘don’t’
昏 *m ^ʳ u[n] (> *x ^ʳ un) > xwon > hūn ‘dusk, dark’ 0457j				Ancient phonetic component of 聞 *mu[n] > mjun > wén ‘hear (v.)’
身 *ni[ŋ] > syin > shēn ‘body; self’ 0386a	š			Used in excavated documents as a phonetic element to write 仁 (rén < nyin < *niŋ) Is the Min form literary ?
灘 *n ^ʳ ar > than > tān ‘foreshore’ 0152m				cp. 難 *n ^ʳ ar > nan > nán ‘difficult’
饂 *nanj > syang > xiǎng ‘bring food to’ 0730c				cp. 壤 *naŋ? > nyangX > rǎng ‘cultivated soil’
餉 *nanj(?)s > syangH > shàng ‘give food; food’ 0715e			MR pHM *hnrəaŋ H 'rice, cooked'	
手 *nu? > syuwX > shǒu ‘hand’ 1101a	tšiu B		MR PM *?ŋau B claw, talon'	
退 *n ^ʳ [u]p-s > thwojH > tuì ‘withdraw (= advance)’ 0512a	th			Written in Mǎwángduī silk manuscripts (Western Hán) with the phonetic 內 *n ^ʳ [u]p-s (> nwojH > nèi) ‘inside’

犧 *ŋ(r)a[j] > xje > xī ‘sacrificial animal’ 0002z				cp. 我 *ŋ'aj? > ngaX > wǒ ‘we, I’
舔 *l̥[i]m? > themX > tiǎn ‘to lick, to lap’ [not in GSR]		liέm		High-register tone in VN
天 *l̥i[n] > then ~ xen > tiān ‘heaven’ 0361a				Phonetic in 吞 *l̥ən (> thon > tūn) ‘to swallow’ and 舔 *l̥[i]m? (> themX > tiǎn) ‘to lick, to lap’ “Shì tiān 穩 天” chapter of the Shì míng 《釋名》 (c. 200 ce) by Liú Xī 劉熙 gives sound glosses for two different pronunciations for 天 tiān: 顯 xiǎn < xenX ‘display, manifest’ and 坦 tǎn < thanX ‘level, at ease’ Bai /xě 55/
尸 *[l̥ə]j > syij > shī ‘corpse’ 0561c		thây 'corpse, body'		Used in oracle-bone and bronze inscriptions as a loan graph for 夷 *ləj > yij > yí ‘foreigner (especially to the east)’
梯 *l̥[ə]j > thej > tī ‘stairs’ 05911	th		MR pHM *hlæ A 'bridge'	Zhuang /lai 1/ (cited by Yakhontov 1976:79)

試 *lək-s > syiH > shì ‘test, try’ 0918n	tšh	thǔ 'to test, try, attempt to'		Xiàmén /ts ^h i 5/
賒 *l ^h A > syae > shē ‘trade on credit’ 0082s	tšh			Cháozhōu /ts ^h ia 1/
舒 *la > syo > shū ‘slow, easy’ 0083k	tšh			
太 *l ^h a[t]-s > thajH > tài ‘great’ 0317d			MR pHM *hljo A 'big'	
湯 *l ^h aŋ > thang > tāng ‘hot liquid’ 0720z			MR pH *hlaj A 'to scald'	Bai xă 55 'soup' cp. 易 *laŋ > yang > yáng ‘bright’
首 *lu? > syuwX > shǒu ‘head’ 1102a:1048	tšh			
抽 *lru > trhjuw > chōu ‘take out, pull out’ 1079f	th		MR pH *thro C 'pull out'	
偷 *l ^h o > thuw > tōu ‘steal’ 0125u	th			
蛻 *l ^h ot-s > thwajH > tuì ‘exuviae of insects or reptiles’ 0324e		lôt 'exuviae'		High-register tone in VN
喙 *lo[r?]-s > xjwojH > huì ‘snout; to pant’ 0171i				W dialect: *l- > MC x-

隋 *l ^o js > xjwieH > huì ‘shred sacrificial meat’ 0011b				W dialect
隋 *l ^o oj? > thwaX > tuǒ ‘shred sacrificial meat’ 0011b				E dialect
瘳 *riw > trhjuw > chōu ‘recover’ 1069k				E dialect
體 *r ^o ij? > thejX > tǐ ‘body; limbs’ 0597i				E dialect
鑠 *rewk > syak > shuò ‘melt, infuse’ 1125o		thuốc 'medicine' (< 'infusion')		W dialect: *r ^o - > *x-, palatalizing
擴 *ra > trhjo > shū ‘extend’ 0069x				E dialect
獺 *r ^o at > that > tǎ ‘otter’ 0272i	th			E dialect
虺 *ru[j]? > xjw+jX > huǐ ‘sound of thunder’ 0572a				Cognate with 雷 *C.r ^o uj > lwoj > léi ‘thunder’
寵 *ron? > trhjowngX > chǒng ‘favor, grace’ 1193p				cp. 龍 *[mə]-ron > ljowng > lóng ‘dragon’
燒 *[ŋ]ew > syew > shāo ‘burn’ 1164t	tš			

舍 *[l]Ak-s > syaeH > shè 'lodging-house' 0048a:0082				cp. 夜 *N.rak-s > yaeH > yè 'night' 0800j:0779:0793 W dialect: *l- > *x-, palatalizing.
虺 *[r]u[j]? > xjw+jX > huǐ 'snake-brood' 0572a				Vowel-conditioned reflex: x- preceding u; th- or sy- elsewhere. W dialect: *r- > MC x-

Table 5: Examples of OC singleton voiceless resonants.

OC > MC > MSC	PM	VN	HM	Notes
庳 *N-pe? > bjeX > bì 'low, short' 0874m		bé 'small, little, tiny'		Early loan to VN (high-register tone)
別 *N-pret > bjet > bié 'be separated (intr.)' 0292a	b D			Min *b in 'other' (Norman 1996:29). cp. 別 *pret > pjet > bié 'separate (tr.)' 0292a.
敗 *N-p ^r a[t]-s > baejH > bài 'suffer defeat' 0320f				cp. 敗 *p ^r at-s > paejH > bài 'defeat (v.t.)' 0320f
折 *N-tet > dzyet > shé 'bend (v.i.)' 0287a	dž			cp. 折 *tet > tsyet > zhé 'bend; break (v.t.)' 0287a
定 *N-t ^r eŋ- s > dengH > dìng 'become fixed (v.i.)' 0833z	d			Jiàn'ōu /tiā 6/ 'tranquil, quiet', Xiàmén /tiā 6/ 'steady, motionless'

直 *N-t<r>ək > drik > zhí 'straight' 0919a	d		MR pH *ndzræw C 'vertical/upright'	Borrowed after voicing in Chinese
仲 *N-truŋ-s > drjuwngH > zhòng 'middle (of brothers)' 1007f			MR pHM *ntrɔŋ 'center, middle'; WM PHM *ŋtʃŋ A/C 'middle'.	Early loan to HM. Also Bái (Jianchuan) 'middle' 中 /tsõ 42/ with tone 42 (Lower Level) pointing to a voiced initial
斷 *N-t ^f o[n]? > dwanX > duàn 'be cut in two' 0170a	d			Cantonese /t ^h y:n 4/, Hakka (McIver) /thon 1/
重 *N-t<r>oŋ? > drjowngX > zhòng 'heavy' 1188a:1175	d			Cantonese /ts ^h uŋ 4/ 'heavy'; Hakka (Méixiàn) /tshuŋ 1/ cp. 肿 *toŋ? > tsyowngX > zhǒng 'swell, swollen; tumor'
淨 *N-tseŋ-s > dzjengH > jìng 'clean (adj.)' 0811d	dz		MR pM *ndzəŋ C 'clean'	Late loan to HM. cp. 晶 *tseŋ > tsjeng > jīng 'bright, limpid' 0820a
峽 *N-k ^f rep > heap > xiá 'mountain pass' 0630-			MR pH *glow D 'mountain pass'	pH reflects post-Old Chinese *g ^f -
狹 *N-k ^f <r>ep > heap > xiá 'narrow' 0630e	fi = Ø		MR pHM *NGep 'narrow'	Later loan to HM
間 *N-k ^f re[n] > hean > xián 'idle' 0191b	fi = Ø			
解 *N-k ^f re? > heaX > xiè 'understand' 0861a	fi = Ø			

憾 *N-k ^ə [ə]m?-s > homH > hèn 'dissatisfied' 0671p				cp. 憾 *k ^ə m? > komX > gǎn 'to move (emotionally) (v.t.)' 06711
近 *N-kər? (> *Ngər? > *gər?)> gj+nX > jìn 'near' 0443g	g			cp. the derived transitive form 近 *s-N-kər?-s (> *s-Ngər?-s > *s-gər?-s) > gj+nH > jìn 'be near to (v.t.)'
舊 *N-k ^w əʔ?-s > gjuwH > jiù 'old' 1067c	g	cū 'old'		cp. 久 *k ^w əʔ? > kjuwX > jiǔ 'a long time' 0993a. MR pHM *qoH 'old' (= former) unexplained. Late loan to VN (low-register tone)
黃 *N-k ^w aj (> *ŋg ^w aj > *g ^w aj) > hwang > huáng 'yellow' 0707a	h = Ø		MR pM *?g ^w iəŋ A 'bright' MR pH *G ^w aj A 'bright/light/yellow'	From 光 *k ^w aj > kwang > guāng 'light, brightness' pM implies pHM *ŋk ^w j-; later loan to pH
拳 *N-kro[n] > gjw en > quán 'fist (< rolled-up hand)' 0226g	g			cp. 卷 *[k](r)o[n]? > kjwenX > juǎn 'roll (v.)'
共 *N-k(r)oŋ?-s > gjowngH > gòng 'together, all' 1182c	g			cp. 𠀤 *koŋ > kjowngX > gǒng 'join the hands; embrace, hold' 1182a
豆 *[N.t] ^f o-s > duwH > dòu 'bean' 0118a	d	đõ 'bean'		pTai (Li) *thue B 'beans', but Po-ai (northern Tai) tuu B2. North-east Yunnan Miao ntao 6 < *nd-
鹹 *N-[ts] ^f aj > dza > cuó 'salt, salty' 0005m			MR PM salty *ndzaiA	

濁 *[N-t ^f]rok > draewk > zhuó 'muddy' 1224p		đục 'turbid'	WM PHM ntʃo C	Late loan to VN.
粃 *[N]-k(r)a? > gjoX > jù 'cakes' 0095n			MR PHM rice cake *ŋkjuəX	Early loan to HM Could be also *m-

Table 6: Examples of OC voiceless unaspirated stops and s with preinitial N.

OC > MC > MSC	PM	VN	HM	Notes
晴 *N-ts ^h ej > dzjeng > qíng 'clear (weather)' 0812-	dz		MR pHM *ntshj̥ej 'clear'	cp. 清 *tshenj > tshjeng > qīng 'clear (adj.)'
局 *N-k ^h (r)ok > gjowk > jú 'bent, curved' 1214a	g			cp. 曲 *k ^h ok > khjowk > qū 'to bend' 1213a
懼 *N-q ^h ak > ngak > è 'scared' 0788h				cp. 嘻 *q ^h <r>ak > xaek > hè 'to frighten' 0779b:0793:0800
華 *N-q ^{wh} ra > huae > huá 'flower (v.); flowery (adj.)' 0044a				cp. 華 *q ^{wh} ra > xwae > huā 'flower (n.)'
魏 *N-q ^h uj-s (> *N-q ^h wəj-s > *Nχwəj-s > *ŋwəj-s) > ngjw+jH > wèi 'high' 0569k				cp. 阿 魏 'asafoetida', a loan from Tocharian B <i>ajkwāś</i> into Chinese (Bailey 1946:786, cited in Pulleyblank 1962– 1963:99). Our Old Chinese reconstruction for the second character is a good match for the second part of Tocharian <i>ajkwāś</i> .

Table 7: Examples of OC voiceless aspirated stops with preinitial N.

OC > MC > MSC	PM	VN	HM	Notes
雅 *N- ^G ra? > ngaeX > yǎ ‘proper, refined’ 0037g				In pre-Qín documents, written the same as, and probably derived from, 夏 *[G] ^G ra? (> haeX > xià) ‘great’
偽 *N- ^G w(r)aj-s > ngjweH > wěi ‘false’ 0027k				cp. 為 *G ^w aj > hjwe > wéi ‘make, do, act as’ 0027a. The Mandarin Chinese tone of 偽 is irregular.

Table 8: Examples of OC voiced stops with preinitial N.

OC > MC > MSC	PM	VN	HM	Notes
淫 *N.r[ə]m (> *Nləm > *ləm) > yim > yín ‘excess; licentious’ 0657b				cp. 妾 *[r] ^G [ə]m > lom > lán ‘to covet’
墮 *N-r ^G uj > dwoj > tuí ‘exhausted’ 0544a; 0540				cp. 僥 *r ^G uj-s > lwojH > lèi ‘exhausted’ 0577p
酉 *N-ru? (> *lu?) > yuwX > yǒu ‘10th earthly branch’ 1096a:1089	dâu			Tai /rau/, Dioi /ru/
唐 *[N-]r ^G aŋ > dang > táng ‘great’ 0746a:0700a				庚 *k ^G raŋ > kaeng > gēng is phonetic.
游 *[N-]ru > yuw > yóu ‘float, swim’ 1080f	z			cp. 流 *ru > ljuw > liú ‘flow (v.)’ 1104a
旛 *[N.]ru (> *Nlu > *lu) > yuw > yóu ‘pendants of a banner’ 1080a				cp. 旒 *[r]u > ljuw > liú ‘pendants of a banner or cap’

Table 9: Examples of OC plain sonorants with preinitial N.

OC > MC > MSC	PM	VN	HM	Notes
髀 *m-p ^f e? > bejX > bì 'femur' 0874f				cp. 髀 *pe? > p ^f ieX > bì 'femur, haunch'
暴 *m-p ^f awk > buwk > pù 'expose to sun' 1136a	bh			
辯 *m-p ^f e[r]? > benX > biàn 'braid (v.) (Shuōwén)' 0219-		bên 'to plait; to entangle'	MR pHM *mbjinX 'to braid'	If a popular form, Shíbēi /biŋ 5/ 'braid' (Norman 2000:274), implies pMin *-b, however this word may refer to the noun 'braid'.
杓 *m-tewk > dzyak > sháo 'ladle (n.)' 1120b	džh / dzh			
定 *m-t ^f eŋ-s > dengH > dìng 'make fixed, settle (v.t.)' 0833z	dh	dụng 'to erect; to raise; to set up; to put up'		<p>Muong Khênh /təŋ'/ (upper shang). Jiàn'ōu /tʰianŋ 6/ 'fix (a date or time) in advance', Xiàmén /tʰiāŋ 6/ 'to take a little food or medicine so as to make one's self feel somewhat more comfortable'</p> <p>cp. 丁, 钉 *t^feŋ > teng > dīng 'nail (n.)'</p> <p>Later loan to VN</p>

肚 *m-t ^g a? > duX > dù 'belly' 0062	d !	də 'stomach'		Xiàmén /tɔ 6/, Cháozhōu /tou 4/, Fúzhōu /tou 6/, Jiàn'ōu /tu 6/ cp. 肚 *t ^g a? > tuX > dǔ 'belly, stomach' pMin *d- unexplained (maybe not part of the indigenous layer of pMin)
樹 *m-to? ^g -s > dzyuH > shù 'tree' 0127j	džh		MR PHM *ntj <u>əŋ</u> H	Earlier loan to HM The root is probably the same as in 柱 *t<r>o? > trjuX > zhǔ 'prop up, support (v.)' Wǎxiāng /tsa C/
傳 *m-tron > drjen > chuán 'transmit' 0231f	dh			Sothern Min forms (Xiamen /tʰŋ 2/, Chaozhou /thueŋ 2/) support pMin *dh-. Softening in Jianyang (W. Min) /lyeŋ 2/ suggests *-d, but tone 9 would be expected if this form reflected pMin *-d: perhaps this is a borrowed form.
柱 *m-t<r>o? > drjuX > zhù 'pillar' 0129h	dh		MR pHM *ŋjæu 'pillar'	Later loan to HM Ostapirat 1999 Proto-Kra *m-tṣu A 'pillar' Note: both HM and Kra reflect a Chinese form without a glottal stop.

盡 *m-tsi[n]? > dzinX > jìn 'exhaust (v.)' 0381a	-dz			
淨 *m-tseŋ-s > dzjengH > jìng 'clean, cleanse (v.t.)' 0811d			MR pM *ndzəŋ C 'clean' cp. 晶 *tseŋ > tsjeng > jīng 'bright, limpid' 0820a	
挾 *m-k ^r ep (?) > hep > xié 'grasp' 06301	gap D !	găp 'to pick up with chopsticks, pull out (bullet from wound)'	WM *ntçap 'to pick food with chopsticks' (Wang and Mao 1995: 273) pM *?jəp D (< *nc-) 'to pick up food with chopsticks'	Min g- unexplained (maybe not part of the indigenous layer of pMin)
蟹 *m-k ^r re? (> *mg ^r re? > *g ^r re?) > heaX > xiè 'crab' 0861d	γ	cáy 'kind of brackish water crab, fiddler crab'		VN apparently reflects an unprefixed form OC *k ^r re?
忌 *m-k(r)ək-s (> *mg(r)ək-s > *g(r)ək-s) > giH > jì 'warn; avoid' (volitional) 0953s	gh			Xiàmén /khi 6/, Cháozhōu /khi 6/ 諫 *k ^r ək-s > keajH > jiè 'warn'
競 *m-kraŋ?-s > gjaengH > jìng 'strive; compete' 0754a		ganh 'emulate'		

合 *m-k ^f op > hop > hé ‘unite’ 0675a	γ	góp ‘to contribute; to pay jointly with others’ gôp 'unite'		cp. 合 *k ^f op > kop > gě ‘together; put together; combined’ VN góp may be an earlier loan, and gôp a later one
虹 *m-k ^f oŋ > huwng > hóng ‘rainbow’ 1172j	gh			
鼴 *m-q ^w re > hwea > wā ‘frog’ 0879y				cp. 鼴 *q ^w re > 'wea > wā 'frog' 0879y. Pittayaporn 2009 PT *krwe A 'small frog'
與 *m-q(r)a? > yoX > yǔ ‘give; for; and’ 0089b	yo B			Xiàmén /hɔ 6/ ‘give’ cp. 舉 *C.q(r)a? > kjoX > jǔ ‘lift, raise’
尹 *m-qur? (> *Gur?) > ywinX > yǐn ‘govern; governor’ 1251l				Often interchanged with OC 君 *C.qur in early documents (see GG 2.29)
鷺 *m-q ^f ruk > haewk > xué ‘spec. of bird’ 1038h				cp. 鷺 *q ^f ruk > 'aewk > xué 'a kind of bird' 1038h
頭 *[m-t] ^f o > duw > tóu ‘head’ 0118e	dh			cp. 兜 *t ^f o > tuw > dōu ‘helmet, hood’

扶 *m-[p](r)a > bju > fú ‘assist’ 0101f	bh			
皮 *m-[p](r)aj > bje > pí ‘skin’ 0025a	bh A			
抱 *[m-p]⁻u? > bawX > bào ‘carry in the arms’ 1113j	bh			
鰥 *[m.s]⁻aw > saw > sāo ‘putrid smell’ 1134f			Mien /dziaau 1/ < nts(h)	Early loan to HM
韵 *[m-qʷ]<r>i[n]-s (no pre-Qín ex.) > hwinH > yùn ‘rhyme’ 0391:0392				cp. 均 *C.qʷin > kjwin > jūn ‘even, equal’ 0391c:0392; 鈞 *C.qʷin > kjwin > jūn ‘potter’s wheel’ 0391e:0392

Table 10: Examples of OC voiceless unaspirated stops with preinitial m.

OC > MC > MSC	PM	VN	HM	Notes
畔 *m-pʰan-s > banH > pà̄n ‘bank between fields’ 0181k				cp. 判 *phʰan-s > phanH > pà̄n ‘divide’
被 *m-pʰ(r)aj? > bjeX > bēi ‘coverlet’ 0025e	bh B			

奉 *m-p ^h (r)oŋ? > bjowngX > fēng 'present (v.) with both hands' 1197z	(bh)		Fúzhōu /p'uŋ 2/ (ZH; unclear whether colloquial or literary) cp. 奉 *p ^h (r)oŋ? > phjowngX > fēng 'hold with both hands; to present; receive' 1197z
撤 *m-t ^h ret > drjet > chè 'remove, take away' 0286b			cp. 撤 *t ^h ret > trhjet > chè 'remove, take away' 0286b
社 *m-t ^h A? > dzyaeX > shè 'sacrifice to the spirit of the soil' 0062j			cp. 土 *t ^h a? > thuX > tǔ 'earth' 0062a
藏 *m-ts ^h ŋaj > dzang > cáng 'store (v.)' 0727g'			cp. 倉 *ts ^h ŋaj > tshang > cāng 'granary' 0703a
胫 *m-k ^h eŋ-s > hengH > jìng 'leg, shank' 0831k		cǎng 'leg'	PP PT *ye:ŋ B 'shin'
胫 *m-k ^h <r>eŋ > heang > kēng 'shank bone' 0831q			cp. *k ^h <r>eŋ > kheang > kēng 'shank bone'
午 *m-q ^h a? (> *ŋ ^h a?) > nguX > wǔ 'resist; crosswise' 0060a			The character is a pictogram that originally represented 杵 *t.q ^h a? 'pestle'
蛾 *m-q ^h (r)aj? > ngjeX > yǐ 'ant' 0002q	ŋh		Hailu Hakka upper register (tone 5).
圉 ~圄 *m-q ^h <r>a? > ngjoX > yǔ 'prison' 0058p		MR pHM *ŋgluə A 'cattle pen, prison' T!	圉 is a late graph (reflects the late merger of original *m.qh- and *ŋ-)

Table 11: Examples of voiceless aspirated stops with preinitial m.

OC > MC > MSC	PM	VN	HM	Notes
鼻 *m-bi[t]-s > bjijH > bí ‘nose’ 0521c	bh		MR pHM *mbruiH 'nose'	cp. 鼻 *Cə-bi[t]-s > bjijH > bí ‘smell (v.t.)’, pMǐn *-b- The phonetic is 畏 *pi[t]-s > pjijH > bì ‘give’ Xiàmén /phǐ 6/, Fúzhōu /phei 5/, Jiànyáng /phoi 6/
浮 *m.b(r)u > bjuw > fú ‘float (v.)’12331	bh		MR PM *mbjəuA 'to float'	
平 *m-breŋ > bjaeng > píng 'make even' 0825a	bh			Xiàmén /phǐ 2/ cp. 平 *breŋ > bjaeng > píng ‘even (adj.)’ 0825a, PM *b-
上 *m-daj? > dzyangX > shàng 'to put up' 0726a	džhiong B			Xiàmén /tsʰiǔ 6/ ‘to cause to ascend, to bring up’ (Douglas 1899:88), Fúzhōu /tshuoŋ 6/ cp. 上 *Cə.daj? > dzyangX > shàng ‘ascend’, pMǐn *-dž-
下 *m-g̊ra?-s > haeH > xià 'descend' 0035a	ya C		MR pH *NGA B 'to descend'	Xiàmén /he 6/ 'descend' cp. 下 *g̊ra? > haeX > xià ‘down’

牙 *m- ^g <r>a > ngae > yá 'tooth' 0037a:0047:0075:0089	ŋ	ngà 'ivory'		牙 is phonetic in the early graph for 與 yǔ < yoX < *m-q(r)a? 'give; for; and'
成 *m-[d]ej > dzyeng > chéng 'to complete (tr. v)' 0818a	dzh /džh			cp. 成 *dej > dzyeng > chéng 'to become (v.i.)' 0818a, PM *ž-
毒 *m-[d] ^g uk-s > dowk > dú 'to poison (v.)' 1016a	dħəu C			Only in Min in this meaning. cp. 毒 *[d] ^g uk > dowk > dú 'poison (n.)', pMěn *d-
坐 *m-[dz] ^g o[j]? > dzwaX > zuò 'to set' 0012a	dzh			Xiàmén /tshai 6/, /tshe 6/ 'to set; to place; to place firmly'
窮 *m-[g](r)uŋ > gjuwng > qióng 'exhaust' 1006h	gh			Xiàmén /khieng 2/ 'to investigate'

Table 12: Examples of OC voiced stops with preinitial m.

*see 'Notes' column.

OC > MC > MSC	PM	VN	HM	Notes
彌 *m-nə[r] > mjie > mí 'to complete' 0359m				cp. 爾 *n[ə][r]? > nyeX > ěr 'you(r)'
麐 /麐 *m-ŋ ^g e > mej >ní 'fawn' 0873o				JDSW 16/22.1 一音五今反 [nguX + hej = ngej] cp. 倪 *ŋ ^g e > ngej >ní 'young and weak'

塍 *m.ləŋ > zying > chéng ‘raised path between fields’ 0893n				cp. 勝 *ləŋ-s > syingH > shèng ‘overcome; surpass’
秫 *m.lut > zywit > shú ‘glutinous millet’ 0497c	džh		MR pHM *mblut ‘glutinous/sticky’	
墜 *m.lru[t]-s > drwijH > zhuì ‘fall down’ 0526g			MR pH *mblueiC 'shed leaves/drop'	
埋 *m.r ^f ə > meaj > mái ‘bury’ 09781	-d			The pMin form reflects a variant 埋 *mə.r ^f ə
命 *m-rij-s (dialect: *m-r- > *mr-, *-ij > *-ej) > mjaengH > mìng ‘command’ 0762a				In excavated texts, marked with double stroke indicating disyllabic pronunciation. cp. 令 *rinj > ljeng > líng ‘send (a person)’
眾 / 還 *m-r ^f əp > dop > tà ‘reach to; and’ 0678a				Character appears to be the early graph for 淚 *rəp-s > lwijH > lèi ‘a tear’ 0532c
麥 *m-r ^f ək > *mr ^f ək > meak > mài ‘wheat’ 32a				The phonetic is來 *mə.r ^f ək > *mə.r ^f ə > loj > lái ‘come’
蠅 *m.rəŋ (> *ləŋ) > ying > yíng ‘fly (n.)’ 0892a	z			Pittayaporn *m.le:ŋ A 'insect'; Rục məlaŋ 'big fly' (Nguyen et al. p. 20) = late loans. cp. 蝰 *m ^f rəŋ? > meangX > měng ‘toad’

Table 13: Examples of OC plain sonorants with preinitial m.

OC > MC > MSC	PM	VN	HM	Notes
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獺 *[m- ^r] ^f at > trhaet > tǎ ‘otter’ 0272i		MR pH *ntshjuaA 'otter'	cp. 獺 *r ^f at > that > tǎ ‘otter’ 0272i The phonetic is 刺 *mə.r ^f at > lat > là ‘wicked; spicy’
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Table 14: Examples of OC voiceless sonorants with preinitial m.

OC > MC > MSC	PM	VN	HM	Notes
室 *s.ti[t] > syit > shì ‘chamber’ 0413j	tš			
識 *s-tək > syik > shí ‘know’ 0920k			MR PM *tsjek D 'know/recognize'	Not a colloquial word in S. Min
水 *s.tur? (E dialect *-r > *-j) > sywijX > shuǐ ‘water; river’ 0576a	tšyi B			
書 *s-ta > syo > shū ‘write’ 0045t	tšy A			
商 *s-taŋ > syang > shāng ‘to estimate’ 0734a				cp. 當 *t ^f aŋ > tang > dāng ‘match (v.); have the value of, rank with’
升 *s-təŋ > sying > shēng ‘to rise’ 0897a	tš			cp. 烏 *təŋ > tsying > zhēng ‘to rise (of steam)’
曾 / 增 *s-t ^f əŋ > tsong > zēng 'increase (v.)' 0884a				cp. 登 *t ^f aŋ > tong > dēng ‘ascend’ 0883e

甑 *S-təŋ-s > tsingH > zèng 'boiler for steaming rice' 0884k				cp. 烫 *təŋ > tsying > zhēng 'to steam (v.t.)'
責 *s-t ^f rek(> *ts ^f rek) > tsreak > zé 'blame' 0868m	ts	dǔc 'reprove'		cp. 谴 *t ^f rek > treak > zhé 'blame (v.)' 0877r
債 *s-t ^f rek-s > tsreaH > zhài 'debt' 0868-	ts			
膝 *s-tsik > sit > xī 'knee' 0401c				cp. 節 *ts ^f ik > tset > jié 'joint of bamboo' 0923a:0399c
守 *s-tu? > syuwX > shǒu 'keep, guard' 1099a	tš			Xiàmén /tsiu 3/ 'to guard; to keep carefully' (Douglas 1899:56)
收 *s-kiw > syuw > shōu 'collect; harvest' 1064a:1103a	s (Lit)		MR pH *sjuw A 'receive/gather'	The phonetic is ㄐ *kiw > kjiw > jiū 'to twist' 1064a
劍 *s.kr[a]m-s > kjaemH > jiàn 'sword' 0613i	k (Lit)	gươm 'sabre, sword'		Rục /təkiəm/ 'sword' (Nguyen, Tran and Ferlus 1988)
肝 *s.k ^f a[r] > kan > gān 'liver' 01391	k/x	gan 'liver'		Rục /təkan ¹ L/ Jiànyáng, Jiàn'ōu /xueŋ 1/ Héping /hon 1/, Yǒng'ān /hum 1/
嫁 *s-k ^f ra-s > kaeH > jià 'marry' 0032e	k/x	gá 'to give (one's daughter) in marriage'.	MR pM *quaC 'marry' (a woman)	Jiàn'ōu /xa 5/, Héping /ha 5/

教 *s.k ^f raw-s > kaewH > jiào ‘teaching, instruction’ 1167i	k/x			cp. 效 *m-k ^f raw-s > haewH > xiào ‘imitate, follow’ 1166r
宣 *s-q ^w ar > sjwen > xuān ‘spread (v.)’ 0164t				cp. 垣 *[G] ^w ar > hjwon > yuán ‘wall’
筍 *s-q ^w i[n]? > swinX > sǔn ‘bamboo sprouts’ 0392n:0391	s			cp. 紦 *q ^{wh?} i[n]-s > xwenH > xuàn ‘ornate, decorated’
札 *s-q ^f rət > tsreat > zhá ‘strip (n.), tablet’ 0280b:0505				cp. 乙 *qrət (> *?rət) > ít > yǐ ‘second heavenly stem’
少 *[s.t]ew? > syewX > shǎo ‘few’ 1149e	tš			
教 *s.[k] ^f raw > kaew > jiāo ‘teach’ 1167i				Jiànyáng, Liándūncūn, Jiàn’ōu /xau 1/
裹 *s.[k] ^f o[r]? > kwaX > guǒ ‘to wrap’ 0351d	k/x	gói 'to pack; packet'		
損 *[s-q] ^w ə[n]? > swonX > sǔn ‘diminish, damage’ 0435a:0227				cp. 隘 *G ^w rən? > hwinX > yǔn ‘fall down’ 0227g:0435

Table 15: Examples of OC voiceless unaspirated stops with preinitial s.

OC > MC > MSC	PM	VN	HM	Notes
黍 *s-tʰa? > syoX > shǔ ‘Panicum miliaceum (glutinous)’ 0093a	s !			Aspirated initial in Héféi and Yángzhōu Mandarin : Héféi /tʂu 3/, Yángzhōu /tshu 3/
暑 *s-tʰa? > syoX > shǔ ‘heat’ 0045x	tʂh		MR pHM *sjiouX 'warm '	Héféi /tshu 3/, Yángzhōu /tshu 3/ The expected pMǐn *tʂh- is preserved in the Zhāngpíng 漳平 dialect in the expression /tshi 3 tshi 3/ for 處暑 chǔshǔ ‘end of heat’ (Zhāng Zhènxīng 1992:38)
奢 *s.tʰA > syae > shē ‘extravagant’ 0045e	tʂhia A			Xiàmén /tsʰia 1/ ‘lavish’ cp. 者 *tA? > tsyaeX > zhě ‘(nominalizing particle)’
揣 *s-tʰ<r>or? > tsrhjweX > chuǎi ‘to measure; to estimate’ 0168q				Also read as 揣 *tʰor? > tsyhwenX id.
獸 *s.tʰu(?)s > syuwH > shòu ‘(wild) animal’ 1100a				/tsʰiu 5/ ‘wild animal’ in several Hakka dialects (Wēngyuán 翁源, Lùchuān 陸川, Gànxiàn 贛縣, Chángtīng 長汀, etc.; from Lǐ Rúlóng and Zhāng Shuāngqìng 1992:249)
催 *s-tʰ <u>ŋ</u> uj > tshwoj > cuī ‘urge, repress’ 0575j’				cp. 推 *tʰ <u>ŋ</u> uj > thwoj > tuī ‘push away’

新 *s.ts ^h i[n] > sin > xīn ‘new’ 0382k	s	MR pHM *tshj̥iəŋ A 'new'	
星 *s-ts ^h eŋ > seng > xīng ‘star’ 0812x	tshaŋ A		Xiàmén /tshī 1/ Used as a loangraph for 晴 *N-tsheŋ > dzjeng > qíng ‘clear (weather)’
翅 *s-k ^h e-s > syeH > chì ‘wing’ 0864e	tsh		Perhaps there was also a reading *k ^h e-s > *tʂ ^h e-s (which would give MC “tsyheH”) > chì, Mandarin /tsʰɿ᷑ 5/, Guǎngzhōu /tʃʰi 5/ cp. 支 *ke > tsye > zhī ‘branch (of tree), limb’ 0864a
寫 *s-q ^h A? > sjaeX > xiě ‘depict’ 0799f	s (Lit?)	MR pM *xja B 'to write'	舄 *s.q ^h Ak > sjek > xì ‘slipper, shoe’, also read MC tshja; cp. 卸 *s-q ^h A(?)s > *sA-s > sjaeH > ‘to unload’ A qùshēng reading of 寫 must have existed in Rǔnán (the character 卸 xiè is said in the <i>Shuōwén jiězì</i> to be pronounced “like the people in Rǔnán 汝 南 pronounce 寫 in 寫書)
諭 *s.q ^h [a]m > sjem > xiān ‘insincere, ingratiating’ 0613c			Second reading s-: 諭 *s-q ^h am > tshjem > qiān ‘insincere, ingratiating’ 0613c

所 *s-q ^h <r>a? > srjoX > suǒ 'place (n.); that which' 0053:0091a			cp. 處 *t.q ^h a? > tsyhoX > chǔ 'be at' cp. 許 *q ^h (r)a? > xjoX > xǔ 'place (n.)' The Shuōwén glosses 所 suǒ not as 'place' but as 'sound of hewing wood'; 所 can replace 許 (written in some versions of the JDSW as 漢) in Ode 165.3 of the Shījīng ; according to the Shuōwén, the phonetic is 戸 *m-q ^h a? > huX > hù 'door'
碎 *[s-ts ^h]u[t]-s > swojH > suì 'break' 0490n	tsh		tsh- in some Gan and Hakka dialects, Li and Zhang 1992:44.
溼 *[s-[q ^h][i]p > syip > shī 'low wet ground' 0693a	tsh		cp. 涼 *qip > 'ip > yì 'moist' 0683h

Table 16: Examples of OC voiceless aspirated stops with preinitial s.

*See 'Notes' field.

OC > MC > MSC	PM	VN	HM	Notes
匠 *s.baŋ-s > dzjangH > jiàng 'craftsman' 0729a	dzh		MR pHM *dzjɔŋ 'craftsman'	匚 *panj > pjang > fāng 'box' 0741a appears to be phonetic (probably connected to 方 *C-panj > pjang > fāng 'square')
示 *s-gij?-s > zyijH > shì 'show (v.)' 0553a				Causative of 視 *gij?-s > dzyijH > shì 'look, see' 0553h

旋 / 還 *s-Gʷen > zjwen > xuán 'turn round; return' 0236a				cp. 圓, 圓 *Gʷ<r>en > hjwen > yuán 'round'
祥 *s-Gaŋ > (*zGaŋ >) zjang > xiáng 'auspicious' 0732n				cp. 羊 *Gaŋ > yang > yáng 'sheep'
自 *s.[b]i[t]-s > dzijH > zì 'self (adv.)' 1237m	dz!			Identical with 鼻 *m-bit-s > bjijH > bí 'nose' 0521c in OBI. pMin *dz unexpected
象 *s.[d]aŋ? > zjangX > xiàng 'elephant' 0728a		pMien *ɣjioŋ B		Xiàmén /tshiū 6/ Proto-Tai *ja:ŋ C (Pittayaporn 2009:327)

Table 17: Examples of OC voiced stops with preinitial s.

OC > MC > MSC	PM	VN	HM	Notes
喪 *s-mˤaŋ > sang > sāng 'mourning, burial' 0705a				cp. 亡 *maŋ > mjang > wáng 'flee; disappear' 0742a
戌 *s.mi[t] > swit > xū '11th earthly branch' 1257h				Ahom /mit/ 'year of the dog' cp. 戌 *met > xwiet > xuè 'extinguish, destroy'
西 *s-nˤər > sez > xī 'west' 0594a				cf. Sagart 2004.
襄 *s-naŋ > sjang > xiāng 'remove' 0730a				cp. 攘 *naŋ > nyang > ráng 'steal; expel' 0730e
信 *s-ni[ŋ]-s > sinH > xìn 'truthful' 0384a				cp. 仁 *niŋ > nyin > rén 'kind, good' 0388f (share the same set of phonetics)

羞 *s-nu > sjuw > xiū 'shame' 1076h	tsh		Xiàmén /ts ^h iu 1/, Fúzhōu /ts ^h ieu 1/ Same phonetic element as in 紐 *n<r>u? > nrjuwX > niǔ 'fastener'
山 *s-ŋrar > srean > shān 'mountain, hill' 0193a	š		cp. 嶠 252h *hŋar? > xjonX, hŋrar? > xjenX 'hill top' (毛傳: "小山別与大山也".)
朔 *s-ŋrak > sraewk > shuò '1st day of month' 0788a:0769a			cp. 𠩎 *ŋrak > ngjaek > nì 'go against, reverse'
蘇 *s-ŋ ^f a > su > sū 'revive' 0079:0067c			Probably a causative from the same root as 悟 *ŋ ^f a-s > nguH > wù 'awake, realize' 0058j
懇 *s-ŋ ^f ak-s > suH > sù 'complain, accuse' 0769b			cp. 講 *ŋ ^f ak > ngak > è 'speak frankly'
襄 *s-naŋ > sjang > xiāng 'remove' 0730a			The root is 攘 *naŋ > nyang > ráng 'steal; expel'
泄 *s-lat > sjet > xiè 'leak, ooze' 0339h	tsh		Xiàmén /ts ^h ua? 7/ 'have diarrhea' The phonetic is 世*lap-s > *lat-s > syejH > shì 'generation'
錫 *s.l ^f ek > sek > xī 'tin' 0850n			The phonetic is 易 *lek > yek > yì 'change; exchange', also read 易 *lek-s > yeH > yì 'easy'
使 *s-rə? > sriX > shǐ 'send; cause' 0975n	səi B 'use'		cp. 使 *s-rə?-s > sriH > shǐ 'envoy'; from a root *rə? 'serve', also found in 吏 *[r]ə?-s > liH > lì 'officer'

叟 / 窃 / 偻 *s.ru? (dial. > *sru?> srjuwX > sruwX) > suwX > sǒu 'old man' 1097a				cp. 老 *C-r <u>u</u> ? > lawX > lǎo 'old' 1055a
孿 *[s.r]on-s > srwaenH > luán 'twins' 0178q				Mandarin luán
鋤 *s-[l]<r>a > dzrjo > chú 'to hoe' 0046p'	dhy A			cp. 除 *l<r>a > drjo > chú 'remove' 0082m:0048 Fúzhōu /tʰy 2/, Xiàmén /tʰi 2/, Jiànyáng /hy 2/

Table 18: Examples of OC OC plain sonorants with preinitial s.

OC > MC > MSC	PM	VN	HM	Notes
千 *s.n̥i[ŋ] > tshen > qiān 'thousand' 0365a	tsh			The phonetic is 人 *ni[ŋ] > nyin > rén '(other) person'
帨 *s.lot-s > tshjwejH > shuì 'kerchief' 0324g				The phonetic is 衤 *sra > srjo > shū 'foot'
窓/窗 *s-l̥<r>oŋ (> *s-t̥h̥<r>oŋ > *ts-h̥ronj) > tsrhaewng > chuāng 'window' 11991	θəŋ A			cp. 通 *l̥oŋ > thuwng > tōng 'penetrate' Xiàmén /tʰanŋ 1/
採 *s.r̥əʔ > tshojX > cǎi 'gather, pluck' 0942d	tsh			cp. 蒔 *s.rək > srik > sè 'reap'; Parallel are 彩 *s.r̥əʔ > tshojX > cǎi 'colorful' and 色 *s.rək > srik > sè 'color; countenance'

Table 19: Examples of OC voiceless sonorants with preinitial s.

OC > MC > MSC	PM	VN	HM	Notes
紙 *k.te? > tsyeX > zhǐ ‘paper’ 0867	tš	giấy 'paper'	MR pM tsjej B 'paper'	Lakkia /khjei 3/ 'paper'; Rục kəcáy 'paper'
種 *k.toŋ? > (*toŋ? >) tsyowngX > zhǒng ‘seed’ 1188d:1175	tš	giống 'species, breed, strain, race'		Rục /kco:nj 3/ 'seed' Chứt /kəco:nj3/
登 *k-t'əŋ > tong > dēng ‘a kind of sacrificial vessel; lamp’ 0883a	t			Sách /kə ten/ 'lamp' (Chéon 1907)
鬼 *k-?uj? > kjw+jX > guǐ ‘ghost’ 0569a				cp. 威 *?uj > 'jw+j > wēi ‘awe-inspiring’ 0574a
鬻/ 粥 *t-quk > tsyuwk > zhōu ‘rice gruel’ 1024b			MR pM *tjuok D 'porridge'	Cháozhōu /kiok 7/ cp. 魷 *m-quk > yuwk > yù ‘nourish’
箴 *t.[k]əm > tsyim > zhēn ‘needle’ 0671n	tš	gǎm ‘point, prick’	MR PH *kjəŋ A 'needle'	Lakkia /them 1/ 'needle' belongs to the xiéshēng series of 咸 *[g]r[ə]m > heam > xián ‘all; everywhere’, which includes both velar and uvular material

肘 *t-[k]<r>u? > trjuwX > zhǒu 'elbow' 1073a:0992	t			Shàowǔ /tou 3/
帚 *[t.p]ə? > tsyuwX > zhǒu 'broom' 1087a:1001			MR pM *?jæuC 'to sweep' (< pHM *nc-)	Xiàmén ts'iu3 and FZ ts'ieu 3 imply pMin *tsh-, with unexplained aspiration. Thai /phe:w C1/ (Pittayaporn) 'to sweep' 婦 *mə.bə? (> *bu?) > bjuwX > fù 'woman, wife'
冠 *[k.?]or > kwan > guān 'cap (n.)' 0160a:0111:0257	koi C		MR pHM *?wiən crest/comb'	Xiàmén /ke 5/ 'cock's comb; headdress' (unex- pected qùshēng; Norman 2006:137)

Table 20: Examples of OC voiceless stops with preinitials p., t. and k.

OC > MC > MSC	PM	VN	HM	Notes
輕 *t-k ^h reŋ (> *threŋ) > trhjeng > chēng 'red' 0831x				cp. 輕 *[kh]eŋ > khjieng > qīng 'light (=□ heavy)' possibly connected to Proto-Tai *?dl/rieŋ A (Li 1977:129, 274)

出 *t-k ^h ut > tsyhwit > chū ‘go or come out’ 0496a	tsh			cp. 挖 *[g]ut > gjut > jué ‘dig out (earth)’ , 揪 *[g] ^h ut > hwot > hú ‘dig out’
處 *t.q ^h a?-s > tsyhoH > chù ‘place (n.)’ 0085a			MR pHM *chouH 'bed, place'	
杵 *t.q ^h a? (> *tha?) > tsyhoX > chǔ ‘pestle ’ 0086a:0060				Shibei /k ^h y 3/; Jiànyáng /khy 3/ cp. 午 *[m].q ^h a? > nguX > wǔ ‘seventh earthly branch’
臭 *t-q ^h u(?) -s > tsyhuwH > chòu ‘odor, to stink?’				cp. 腐 *q ^h (r)u? > xjuwX > xiǔ ‘rot, decay’
匡 *k-p ^h aŋ > khjwang > kuāng ‘square basket’ 0739m				The phonetic is □ *paŋ > pjang > fāng ‘container, box (Shuōwén)’; cf. 方 *C-paŋ > pjang > fāng ‘square’. The aspiration is unexplained.
烹 *[p.q ^h]raŋ > phaeng > pēng ‘boil (v.)’ 0716a:0751a				cp. 烹 hēng < xaeng < *q ^h raŋ ‘penetrate
齒 *t-[k] ^h ə(ŋ)? (or *t.ŋə?) > tsyhiX > chǐ ‘front teeth’ 09611	tsh / kh			Fúzhōu (etc.) /khi 3/. Norman 1996:22. the phonetic is 止 *tə? > tsyiX > zhǐ ‘foot; stop’ (from the Warring States period)

車 *[t.q ^h](r)A > tsyhae > chē 'chariot' 0074a	xa 'spinning wheel; carriage'	pH *tshjua A 'spinning wheel'	cp. 車 *C.q(r)a > kjo > jū 'chariot', 輿 *m-q(r)a > yo > yú 'vehicle, carriage; carry on shoulders'
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Table 21: Examples of OC voiceless aspirated stops with preinitial p., t. or k.

OC > MC > MSC	PM	VN	HM	Notes
椎 *k.druj > drwij > chuí 'hammer' 0575r	dh	dùi 'stick; awl'		Pong /ktu:j/ 'mallet'
氐 *k.de? > dzyeX > shì 'clan' 0867a	tš			Used to write 兮 in a dialect where *k.de? went to *ge?.
牀 *k.dzraŋ > dzrjang > chuáng 'bed' 0727r	dzh	giường 'bed'		Rục /kəciŋ/
賊 *k.dz ^f ək > dzok > zéi 'injure; murderer, bandit' 0907a:0906	dzh	giặc 'pirate, invader'		Rục /kəcʌk/ 'bandit, rebel'; Lakkia /kjak 8/ (< *gdz-) 'bandit'
祇 *[k.d]e > gjie I! > qí 'earth spirit' 0867i				Dialect: *k.d- > *g.d- > *g-, no palatalization
十 *t.[g]əp > dzyip > shí 'ten' 0686a	dž		pHM *gjuəp	In OBI written with the same char. as 'needle' 簾 *t.kəm > tsyim > zhēn Proto-Lakkia *dzep D (L-Thongkum 1992:64)
甚 *[t.G][ə]m?-s > dzyimH > shèn 'excessive' 0658a				cp. 淫 *gəm > yim > yín 'excess' 0657b

Table 22: Examples of OC voiced stops with preinitial p., t. or k.

OC > MC > MSC	PM	VN	HM	Notes
露 *p.r ^f ak-s > luH > lù ‘dew; let appear’ 0766t'	lh			PP PT *p.ra:k D 'to be exposed' Lùfēng Hakka /lu 5/.
兩 *p.raŋ? > ljangX > liǎng ‘a pair’ 0736a	lh			Early graph consists of two 丙 *pranŋ? side by side.
凌 *p.rəŋ > ling > líng ‘ice’ 0898f				cp. 𠂇 *p.rəŋ (dial. > *prəŋ) > ping > bīng ‘ice’ 0899a
稟 *p.rim? > limX > lǐn ‘rations’ 0668a				cp. 稟 *p.rim? (dial. > *prim?) > pimX > bǐng ‘rations’ 0668a
輒 *t-n ^f ep > tep > zhé ‘paralysed, unable to move’ 0632b				cp. 蹤 *n<r>ep > nrjep > niè ‘unable to walk’ 0632c
質 *t-lit > tsyit > zhì ‘substance, solid part’ 0493a				cp. 實 *mə.li[t] > zyit > shí ‘fruit; full’
舞 *k.m(r)a? > mjuX > wǔ ‘dance (v.)’ 0103g	mh	múa ‘to dance ritually, with fan or sword or veil’		Rục /kumu'a/ ' to dance'. Xiàmén /bu 3/ (Lit. ?)
囂 *k-mraŋ? > kjwaengX > jiǒng ‘bright window’ 0763a				cp. 明 *mraŋ > mjaeng > míng ‘bright’

袂 *k.met-s > mjiejH > mèi 'sleeve' 0312d				Second (dial.) reading 袢 *k.m ^f et > kwet > mèi 'sleeve' 0312d Mandarin mèi is based on this reading
肉 *k.nuk > nyuwk > ròu 'meat, flesh' 1033a	nh			Vietic evidence for prefixed k-. Pong /knuk 7/ Cháozhōu /něk 8/
亢 *k-ŋ ^f aŋ > kang > gāng 'lift high' 0698a				Lakkia /khǎŋ 3/ cp. 印 *ŋ ^f aŋ > ngang > áng 'high, lift high'
經 *k-l ^f eŋ > keng > jīng 'regulate; norm' 0831c	k			The phonetic is 壬; for the root, cp. 程 *l<r>eŋ > drjeng > chéng 'rule, norm' 0835t.
力 *k.rək > lik > lì 'strength' 0928a	lhət D	súc < *kr- 'strength'	MR pHM -rək 'strength'	
鬲 *k.r ^f ek > lek > lì 'tripod with hollow legs' 0855a				Lakkia (LQY) khje:k 7 'kind of frying wok'
蓮 *k.[r] ^f e[n] > len > lián 'lotus fruit' 0213d	lh	sen < kr- 'lotus'		cp 蘭 jiān < kean < *k ^f re[n] (dial. *k.r ^f - > k ^f r-)
籠 *k.r ^f oŋ > luwng > lóng 'cage, coop' 1193l	lh	chuòng 'cage, shed, shelter, coop, stable, sty'		Méixiàn Hakka /luŋ 1/ P-Tai (Li: 11.2) *krong A 'cage'

朗 *k.r ^f aŋ? > langX > lǎng 'bright' 0735h		sáng < *kr- 'bright, clear'		Rục /pləj kàraŋ/ 'sunny weather'
籃 *k.r ^f am > lam > lán 'basket' 0609	lham A			Méixiàn Hakka /lam 1/ 'basket' *k. based on phonetic series.
六 *k.ruk > ljuwk > liù 'six' 1032a	lh		Theraphan pMienic *kluk D pHM *kruk	
螺 *k.r ^f oj > lwa > luó 'spiral' 0577	lhoi A		MR pM *kluei A/B	
笠 *k.rəp > lip > lì 'bamboo- splint hat' 0694e	lh		MR pM *kuw D 'bamboo hat'	PP PT *kləp D 'bamboo hat' Méixiàn Hakka /lip 7/ 'bamboo hat'
卵 *k.r ^f or? > lwanX > luǎn 'egg' 0179a	lhon B		MR pM *kləu C 'egg', pH *qæw C 'egg'	Méixiàn Hakka /lon 3/
健 *k.r[a]n-s (no pre-Qín exx.) > ljenH > liàn 'chick' 0213-	lh		WM PHM *kla:n C 'young hen'.	
多 *[t.l] ^f aj > ta > duō 'many' 0003a	t			Proto-Tai *hlai A 'much, many' (Li 1977) or *hlai:j A (Pittayaporn 2009) Proto-Hlai *hlə:y (Norquest 2007:464)
蹇 *[t-l]ri[t]-s > trijH > zhì 'slip (v.)' 0415a				cp. 跌 *l ^f it > det > diē 'stumble' 0402j

卬 *[k.ŋ]́aŋ > ngang > áng 'high; lift high' 0699a.				cp. the doublet 廿 *k.ŋ́aŋ > kang > gāng 'lift high' 0698a. Lakkia (LQY) khǎ:ŋ3 'lift' implies earlier *k + nasal cluster.
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Table 23: Examples of OC plain sonorants with preinitial p., t. or k.

OC > MC > MSC 魯 *r.ŋ́a? (dialect > *rŋ́- > *r̥-) > luX > lǔ (place name) 0070a cp. 魚 * [r.ŋ]a > ngjo > yú 'fish (n.)'	PM ŋh	VN	HM	Notes cp. 魚 * [r.ŋ]a > ngjo > yú 'fish (n.)' Norman 1991 *ŋh-, correcting Norman 1973 (*ŋ). cp. pBai (Yuan Mingjun) *hŋ
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Table 24: Examples of OC plain sonorants with preinitial r.

OC > MC > MSC 喙 *t-ɿo[r?]s > tsyhwejH > huì 'snout; to pant' 0171i	PM ? tshyi C 'mouth'	VN	HM	Notes XM /ts'ui 5/, CZ /ts'ui 5/, FZ /ts'uei 5/, JO /ts'y 5/ (HYFYZH). Norman's early data indicated *tsh-, because Yǒng'ān uses /tse 3/ 嘴 instead of this etymon. But Gàizhú (Deng Xiangzhang 2007:363) has /tʃ̥yi 5/ for 'mouthful', the measure word. So pMin should be *tshyi C. HOWEVER, this may not match 喙
康 *k-ɿaŋ > khang > kāng 'tranquil; at ease' 0746h				The phonetic is 庚 *ḱraŋ, also phonetic in 唐; both 唐 and 康 are used to write the name of the Shang founder, usually written in received texts as 湧.

泣 *k-rəp > khip > qì 'weep' 0694h				The phonetic is 立 *k.rəp (> *rəp) > lip > lì 'stand (v.)' cp. 淚 *rəp-s > lwijH > lèi 'tear (n.)' 0532c
謙 *k-r̥em (dial. > khem) > khem > qiān 'modest' 0627f				cp. 廉 *rem > ljem > lián 'frugal' 0627l
考 *k-r̥u? > khawX > kǎo 'old; deceased father' 1041d				cp. 老 *C-r̥u? > lawX > lǎo 'old' 1055a
娉 *p.[r]eŋ-s > phjiengH > pīng 'inquire about (marriage)' 0839c:0817				Xiéshēng contact to 騍 *lren? > trhjengX > chěng 'gallop' 0817a:0839. Shuo Wen notes that the character is "read like" 聲, our *leŋ.
曠 *[k-m̥]aŋ-s > khwangH > kuàng 'desolate, waste' 0707o				cp. 荒 *m̥aŋ > xwang > huāng 'weed-covered' 0742e'.
闊 *[k-m̥]ik (*-ik > *-ek dialect) > khwek > qù 'quiet' 0860d				洫 *m̥ik > xwik > xù 'still, quiet' 0930b

Table 25: Examples of OC voiceless sonorants with preinitial p., t. or k.

OC > MC > MSC	PM	VN	HM	Notes
本 *C.p̥ə[n]? > pwonX > běn 'tree trunk' 0440a	p	vốn 'capital, principal; origin'		
壁 *C.p̥ek > pek > bì 'house wall' 08531	p	vách 'partition, wall'		
板 *C.p̥ran? > paenX > bǎn 'plank, board' 0262j	p	ván 'plank, board'		PP PT *pe:n C 'board'

比 *C.pij? > pijjX > bǐ ‘compare’ 0566g		ví ‘to compare’		
方 *C-paŋ > pjang > fāng ‘square’ 0740a		vuông 'square'		
刀 *C.t ^f aw > taw > dāo ‘knife’ 1131a	t	dao ‘knife’		
正 *C.teŋ > tsyeng > zhēng ‘1st (month)’ 0833j	tš	giêng 'the first month'		
謫 *C.t ^f rek > treak > zhé ‘blame, punish’ 0877r	t	dứt ‘reprove’		
張 *C.trŋ > trjang > zhāng ‘draw a bow’ 0721h		giương 'to spread; to stretch, esp. the bow'	MR pH *trŋ A	
井 *C.tseŋ? > tsjengX > jǐng ‘well (n.)’ 0819a:0808	ts	giêng well		
謔 *C.s ^f aw-s > sawH > zào ‘shout’ 1134c		rao 'shout'		
燥 *C.s ^f aw? > sawX > zào ‘dry’ 1134d		ráo 'dry'		Cantonese /chou 5/
棟 *C.k ^f <r>ep > kaep > jiā ‘chopsticks’ 0630f				Also read *k ^f ep > kep ‘chopsticks’ Maleng Kha Pong (Ferlus) /təkap7/

鋼 *C.k ^f aŋ > kang > gāng ‘cast iron; steel’ 0697h	k	gang ‘cast iron’		Vietic evidence for prefixed t-. cp. 剛 *k ^f aŋ > kang > gāng ‘strong; hard’ 0697b
鏡 *C.qraŋ?-s > kjaengH > jìng ‘mirror’ 0752c	k	guoŋ ‘mirror’		cp. 影 *qraŋ? > jaengX > yǐng ‘shadow (n.)’
君 *C.qur (> *kur) > kjun > jūn ‘lord; ruler’ 0459a				Often interchanged with OC 尸 *m-qur? in early documents (see GG 2.29)
舉 *C.q(r)a? > kjoX > jǔ ‘lift, raise’ 0075a:0037:0047:0089				與 *m-q(r)a? > yoX > yǔ ‘give; for; and’
筋 *C.[k]ə[n] > kj+n > jīn ‘sinew’ 0445a	k	gân ‘nerve; tendon; sinew; vein’	MR pM *k ^w jan A 'sinew'	
箱 *C.[s]aŋ > sjang > xiāng ‘box (of a carriage)’ 0731f		ruong ‘box, trunk’		

Table 26: Examples of OC voiceless stops with unidentified preinitials.

OC > MC > MSC	PM	VN	HM	Notes
乞 *C.q ^h ət > khj+t > qǐ ‘beg, ask’ 0517f	kh			cp. 氣 *q ^h ət-s > xj+jH > xì ‘to present food’

气 *C.q ^h əp-s > khj + jH > qì '(inhaled thing:) breath, air, vapors' 0517a	kh			
愆 *C.q ^h ra[n] > khjen > qiān 'exceed, err' 0197b				cp. 衍 *N-q(r)an? > yenX > yǎn 'over ow'
勸 *C.q ^{w^h} ar-s > khjwonH > quàn 'encourage' 0158s	kh			The phonetic element is said to be 喊 (= 詺, 嘵) *q ^{w^h} ar > xjwon > xuān 'clamor, shout'

Table 27: Examples of OC voiceless aspirated stops with unidentified preinitials.

OC > MC > MSC	PM	VN	HM	Notes
騎 *C.g(r)aj (~ *[Cə.g](r)aj) > gje > qí 'straddle; ride' 0001u	gh		MR pHM *jej 'to ride'	Note à rajouter (min)
畫 *C-g ^{w^s} rek-s > hweaH > huà 'drawing (n.)' 0847a	yua C			
橫 *C.g ^{w^r} raŋ > hwaeng > héng 'crosswise; horizontal' 0707m	y			
擒 *C.G(r)[ə]m > gim > qín 'catch' 0651n	gh			
環 *C.G ^{w^r} <r>en > hwaen > huán 'ring (n.)' 0256n:0829	gh			

園 *C.G ^w a[n] > hwon > yuán ‘garden’ 0256b	y		MR pH *waŋ A 'garden', pM *hwun A ‘id.’	
遠 *C.G ^w an? > hwonX > yuǎn ‘far’ 0256f	y			
雨 *C.G ^w (r)a? > hjuX > yǔ ‘rain’ 0100a	yo B			
縫 *C.[b](r)oŋ-s > bjowngH > fēng ‘seam’ 1197x	bh			
稗 *[b]ʳe-s > beah > bài ‘weed resembling grain’ 0874s	bh			
伴 *[C.b]ʳan? > banX > bàn ‘comrade’ 0181c	bh	bạn 'friend' i!		
雹 *C.[b]ʳuk > baewk > báo ‘hail’ 1113n	bh			
團 *C.[d]ʳon > dwan > tuán ‘round, plenty’ 0231n	dh			
市 *[d]ə? > dzyiX > shì ‘market (n.)’ 0963a	džh			PTai *z.jw:C 'buy' (Pittayaporn 2009)
蠶 *[dz]ʳ[ə]m > dzom > cán ‘silkworm’ 0660i	dzh			
柴 *[C.dz]ʳe(j) > dzrea > chái ‘firewood’ 0358v	dzh			

巷 *[g]ˤronj-s > haewngH > xiàng 'lane, street' 1182s	ɣ			
河 *[C.g]ˤaj > ha > hé 'river' 0001g	(y)			Fúzhoū /xaj 2/ "the milky way"
鉗 *[C.[g]<r>[e]m*C.g<r>em > gjem > qián 'pincers, tongs' 0606i	gh			
臼 **C.[g]ʷə? > gjuwX > jiù 'mortar' 1067a	gh		MR pH *jo B 'mortar'	
芹 *[C.[G]ər > gj+n > qín 'cress' 0443f	gh			Xiàmén /khun 2/

Table 28: Examples of OC voiced stops with unidentified preinitials.

OC > MC > MSC	PM	VN	HM	Notes
墓 *C.mˤak-s > muH > mù 'grave (n.)' 0802f		mǎ 'grave'		Hailu Hakka /mu 5/
梅 *C.mˤə > mwoj > méi 'plum tree' 0947l		mə' 'apricot'.		See Norman 1991
蚊, 蟊 *C.mə[r] > mjun > wén 'mosquito' 0475l, 0475k	mh			Vietic evidence for t.m (Ferlus)
萬 *C.ma[n]-s > mjonH > wàn '10,000' 0267a				Tai /hmu:n B1/

蔓 *C.ma[n]-s > mjonH > wàn ‘creep; creeping plant’ 0266d			MR pHM *hmein A 'vine'	
巫 *C.m(r)[o] > mju > wū ‘magician’ 0105a		mo 'shaman'		Pittayaporn 2009 PT * ^h mo:A 'shaman'. Siamese /mɔɔ A1/
貓 *C.m ^r aw > maew > māo ‘cat’ 1159c	mh			Cant. /mau 1/, MSC mao1, Lùfēng Hakka /mau 5/, all upper register.
面 *C.me[n]-s > mjienH > miàn ‘face’ 0223a	mh		MR pM *hmienA 'face'	Lùfēng Hakka /mian 5/
目 *C.m(r)[u]k > mjuwk > mù ‘eye’ 1036a	mh			Méixiàn Hakka /muk 7/
糜 *C.m(r)aj > mje > mí ‘rice gruel; destroy, crush’ 0017g	mh			
媒 *C.m ^r ə > mwoj > méi ‘match-maker, go-between’ 0948c	mh			
木 *C.m ^r ok > muwk > mù ‘tree, wood’ 1212a	mh			Méixiàn Hakka /muk 7/
脈 *C.m ^r <r>[i]k > meak > mài ‘vein’ 0848a	mh			Méixiàn Hakka /mak 7/

夢 *C.məŋ-s > mjuwngH > mèng ‘dream’ 0902a	mh			
毛 *C.m ^f aw > maw > mó ‘hair’ 1137a	mh			Cantonese /mou 1/, Méixiàn Hakka /mo 1/
妹 *C.m ^f ə[t]-s > mwojH > mèi ‘younger sister’ 0531k	mhye C			Lùfēng Hakka /moi 5/
麻 *C.m ^f raj > mae > má ‘hemp’ 0017a	mhuai A			Lùfēng Hakka /mun 5/ Xiàmén /muā 2/, Cháozhōu /muā 2/
問 *C.mu[n]-s > mjunH > wèn ‘ask’ 0441g	mh			
襪 *C.m[a]t > mjot > wà ‘stockings’ 03111	mh			Kabeo /qa-mat/ 'stockings' : Solnceva (1993) 'The words with presyllables in Kabeo'. 26th ICSTLL, Osaka.
染 *C.n[a]m? > nyemX > rǎn ‘to dye’ 0623a	n(h)	nhuóm 'tint'		Méixiàn Hakka /niam 3/
年 *C.n ^f i[ŋ] > nen > nián ‘harvest; year’ 0364a	nh		MR pHM *hɲuəŋH 'year'	Méixiàn Hakka /nian 1/
弩 *C.n ^f a? > nuX > nǔ ‘crossbow’ 0094z	nh		MR pH *hnæn B 'crossbow'	

耳 *C.nə? > nyiX > ěr 'ear' 0981a	nh			Méixiàn Hakka /i 3/
艾 *C.ŋ ^f a[t]-s > ngajH > ài 'Artemisia; moxa' 0347c	ŋh	ngǎi 'sagebrush=Artemisia'		Cháozhōu /hiā 6/, Xiàmén /hiā 6/
五 *C.ŋ ^f a? > nguX > wǔ 'five' 0058a	ŋh			Méixiàn Hakka /ŋ 3/. PTai (Pittayaporn) *ha: C PLakkia *ŋɔ: C 'five' (Theraphan) cp. 吾 *ŋ ^f a > ngu > wú 'I, my'
瓦 *C.ŋ ^w ra[j]? > ngwaeX > wǎ 'roof tile' 0020a	ŋh	ngói 'tile'	pHM *ŋ ^w æX 'tile'	Méixiàn Hakka /ŋa 3/
顏 *C.ŋ ^f rar > ngaen > yán 'face, forehead' 0199c:0145:0186:0194			MR pH *hpen A 'forehead'	
藕 *C.ŋ ^f (r)o? > nguwX > ōu 'lotus root' 0124-	ŋhəu B	ngó		Méixiàn Hakka /ŋeu 3/ Tai /ŋau B2/ ~ /hŋau C1/ (Norman 1991:210)
嚦 *C.l ^f e > dej > tí 'cry; weep' 0870d	dh			Now written 啜
蟲 *C.lruŋ > drjuwng > chóng 'insect' 1009a	dh			Gǔzhàng /liaɔ 13/

治 *C.lrə > dri > chí 'regulate, arrange' 0976z	dh			
餳 *C.l ^f aŋ (no pre-Qín exx) > dang > táng 'sweets' 0720c'	dh			
讀 *C.l ^f ok > duwk > dú 'read (v.)' 1023m	dh			Gǔzhàng /lu? 53/
桃 *C.l ^f aw > daw > táo 'peach' 1145u	dh		MR pHM *Glæw A 'peach'	Gǔzhàng /laɔ 13/
糖 *C.l ^f aŋ > dang > táng 'sugar' 0700-				Gǔzhàng /loŋ 13/ Bái /ta 7/
冽 *C.r[a]t > ljet > liè 'cold, raw' 0291b		rét 'cold' (Bodman 1980:85)		
郎 *C.r ^f aŋ > lang > láng 'young gentleman' 0735r	lh	chàng 'young man'		
老 *C.r ^f u? > lawX > lǎo 'old' 1055a	lh			Méixiàn Hakka /lau 3/ 'old' Jiàn'ōu /se 6/, Jiànyáng /seu 5/, Shàowǔ /sa 7/
李 *C.rə? > liX > lǐ 'plum' 0980a	lh		MR pHM *hljəŋX 'plum'	

梨 *C.r[ə][j] > lij > lí ‘pear tree, pear’ 0519i, h				Gǔzhàng /za 13/
利 *C.ri[t]-s > lijh > lì ‘sharp; profit’ 0519a	lh		MR pHM *-rajH 'sharp'	
鱗 *C.r[ə][n] > lin > lín ‘fish scale’ 0387k	lh A			Méixiàn Hakka /lin 1/ ‘fish scale’
聾 *C.r ^f oŋ > luwng > lóng ‘deaf’ 1193m	lh A			Méixiàn Hakka /luŋ 1/ ‘deaf’
米 *(C.)m ^ʳ [e]j? > mejX > mǐ ‘rice grains, dehusked and polished’ 0598a	mh		MR pM *hmei B 'rice, dehusked'	Méixiàn Hakka /mi 3/

Table 29: Examples of OC plain sonorants with unidentified preinitials.

OC > MC > MSC	PM	VN	HM	Notes
沸 *Nə.p[u][t]-s > pj + jH > fèi ‘boil (v.)’ 0500q	-p		MR pHM *mpuæiH 'boil (v.i.)' Yao /bwei 5/	
早 *Nə.ts ^f u? > tsawX > zǎo ‘early’ 1049a	-ts		MR pHM *ntsiouX 'early' Yao /dzyou 3/	

Table 30: Examples of OC voiceless stops with preinitial *Nə-.

OC > MC > MSC	PM	VN	HM	Notes
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坼 *Nə-q ^{h̥} <r>ak (W dialect: *q ^{h̥} r- > *ṛ ^{h̥} - > trh-) > trhaek > chè ‘split (v.i.)’ 0788a:0792d		Mien dzε? 7 (< *ntsh-) 'cracked, as earth' (Downer)	cp. 拆 *q ^{h̥} <r>ak > trhaek > chāi ‘take apart, dismantle’ cp. Mien /tshe? 7/ (< *tsh-) = 拆 (v.t.)
開 *Nə-[k] ^{h̥} əj > khoj > kāi ‘to open (v.i.)’ 0541a		Mien /goi 1/ (< *ŋkh-) 'to open, as a flower, the heart'	cp. 開 *[k] ^{h̥} əj > khoj > kāi ‘to open (v.t.)’ cp. Mien /khoi 1/ < *kh- 'to open' (v.t.)
缺 *Nə-[k] ^w et > khwet > quē ‘break; defective’ 0312h		MR pHM *NK ^w et 'have a gap'	
渴 *Nə-[k] ^{h̥} at > khat > kě ‘thirsty’ 0313j		MR pHM *NKhat 'thirsty'	

Table 31: Examples of OC aspirated stops with preinitial *Nə-.

OC > MC > MSC	PM	VN	HM	Notes
滑 *Nə-g ^{h̥} rut > hweat > huá ‘slippery’ 0486e	-g		MR pHM n̄guat 'smooth/slippery'	

Table 32: Examples of OC voiced stops with preinitial *Nə-.

OC > MC > MSC	PM	VN	HM	Notes

漏 *[Nə-r]⁹ok-s > luwH > lòu 'leak (v.)' 0120a			MR pH *ŋgro C 'leak'	Ratliff's PHM has no *ŋr-
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Table 33: Examples of OC plain sonorants with preinitial *Nə-.

OC > MC > MSC	PM	VN	HM	Notes
粉 *mə.pən? > pjunX > fěn 'flour' 0471d			WM PHM *mpwə:n B	
轉 *mə-tron? > trjwenX > zhuǎn 'turn around' 0231e	-t		Yao /dzwon 5/ < *nts 'return'	
賭 *mə.t⁹a? > tuX > dǔ 'wager' 0045	-t		Yao /dou 3/ < *nt 'bet, wager' (Lombard & Purnell 1968 ap. Norman 1986:382).	
擔 *mə-t⁹am > tam > dān 'carry on the shoulder' 0619k	-tam A		MR pHM ntam A 'carry on the shoulder' Yao /daam 1/	
散 *mə-s⁹a[n]?-s > sanH > sàn 'scatter (v.t.)' 0156a	s	rân 'to propagate'	pMien *dzhan C < (pHM *ntsh-) 'to disperse'	
繢 *mə-ts⁹aw? > tsawX > zǎo 'to wash' 1134i			MR pHM *ntsæwX 'wash'	PP PT za:w A 'to wash'
指 *mə.kij? > tsyijX > zhǐ 'finger; point' 0552f	-tš			Jiàn'ōu /ki 6/ 'finger'
菇 *mə.k⁹a > ku > gū 'mushroom' 0049	-k		MR pHM *ŋkjæu 'mushroom'	
蔭 *mə-q<r>[u]m-s > ímH > yìn 'shade' 0651b'			pMien (L-Thongkum 1993) *ʔglom C (< *ŋkl-) 'shade'	

眨 *mə-[ts]ʳr[a]p (< *mə-S.pʳrap ?) > tsreap > zhǎ ‘blink’ 0641			MR pHM *ntsrep 'to wink'	
鉸 *mə-[k]ʳr[a]w? > kaewX > jiǎo ‘shear; scissors’ 1166-	-k		MR pM *?gljieu B 'scissors' (< PHM *ŋk)	

Table 34: Examples of OC voiceless stops with preinitial *mə.

OC > MC > MSC	PM	VN	HM	Notes
被 *mə-pʰ(r)aj > phje > pī ‘cover oneself with’ 0025e			WM pHM *mpai C 'put on clothes'	Note lack of aspiration in HM.
拍 *mə-pʰrak > phaek > pāi ‘to strike’ 0782m			WM pHM *mpjæk 'clap'	Note lack of aspiration in HM.
唱 *mə-tʰaŋ-s > tsyhangH > chàng ‘to lead (in singing)’ 0724d			WM pHM *ŋtʃwjaŋ A 'to sing'	Note lack of aspiration in HM.
稱 *mə-tʰəŋ-s > tsyhingH > chèng ‘steelyard’ 0894g			MR pHM *nthjuŋH 'balance'	Máonán (Kam-Tai, Jianzhi: 102) /ndaŋ 5/ 'to weigh'

Table 35: Examples of OC aspirated stops with preinitial *mə.

OC > MC > MSC	PM	VN	HM	Notes
婦 *mə.bə? (or *tsə.-? see Min) > bjuwX > fù ‘woman, wife’ 1001a:1087	-b	vợ ‘wife’	MR pM *mbuŋ B Yao /bwaŋ 4/	Cantonese /phou 4/

步 *mə-b ^g a-s > buH > bù 'step' 0073a	-b	vã 'go on foot, walk'	Yao /bia 6/ < *mb- 'step, stride' (Lombard & Purnell 1968 ap. Norman 1986:382).	
紵 *mə-dra? > drjoX > zhù 'flax' 0084e	-d		MR pHM *nduH 'ramie/hemp'	Ratliff adds "The labial initial in Pa-Hng suggests an ancient prefix or disyllabic form.". The Pa-hng form she cites is /mjo 6/.
字 *mə-dzə(?)s > dziH > zì 'breed, love (v.); character' 0964n	-dz		MR pM *ndzaŋ C 'word, character' Yao /dzaŋ 6/	
猴 *mə-g ^g (r)o > huw > hóu 'monkey' 0113g	-g			Cantonese /ma 4 lǎu 1/ 'monkey'

Table 36: Examples of OC voiced stops with preinitial *mə.

OC > MC > MSC	PM	VN	HM	Notes
無念 *mə-n ^g im-s > nemH > niàn 'make oneself think of' 0670a				Ode 235.5: 無念爾祖“think of your ancestors !” (volitional)
鯉 *mə-rə? > liX > lǐ 'carp (n.)' 0978j	-d			
蠺 *mə-rat-s > ljejH > lì 'stinging insect' 0340f	-d			

來 *mə.r ^f ək (> mə.r ^f ə > *r ^f ə) > loj > lái ‘come’ 0944a				Gǔzhàng /zə 13/
鹿 *mə-r ^f ok > luwk > lù ‘deer’ 1209a	-d			Buyang /ma 0 lok 8/ (Li Jinfang 1999: 199) ‘deer’
舌 *mə.lat > zyet > shé ‘tongue’ 0288a	-dž		MR pHM *mblet ‘tongue’ Yao /byet 6/	
食 *mə-lək > zyik > shí ‘eat’ 0921a	-dž		MR pH *mbljæ C ‘to have food w/rice’	
實 *mə.li[t] > zyit > shí ‘fruit; full’ 0398a	-dž			PP PT *m.lec D ‘grain’

Table 37: Examples of OC plain sonorants with preinitial *mə.

OC > MC > MSC	PM	VN	HM	Notes
蠻 *mə-r ^f a[t]-s > trhaejH > chài ‘scorpion’ 0267.0326a.0340	-d !			pMin *-d to explain Fúzhōu /tie 6/ ‘stinging insect’. We assume the Fúzhōu form comes from *mə-r ^f at-s and MC from *mə-r ^f at-s.
脫 / 脱 *mə-l ^f ot > thwat > tuō ‘peel off’ 0324m	th		MR pM *?dut (< *nt-) ‘to peel off/escape’	Note lack of aspiration in HM.

Table 38: Examples of OC voiceless sonorants with preinitial *mə.

OC > MC > MSC	PM	VN	HM	Notes

脣 *sə.dur > zywin > chún ‘lip’ 0455u	-dž			Fúzhōu /suŋ 2/, Jiàn’ōu /œyŋ 3/ The phonetic is 辰 *[d]ər > dzyin > chén ‘fifth earthly branch’
邪 *sə.GA > zjae > xié ‘awry’ 0047a:0037:0075:0089	-dz		P-Hmong (Wang 1979) *Gei A '邪, 歪' askew, slanted'	Shui /qa:i 2/ < G- Used in a place name: 琅邪 *[r]‘aŋ-G(r)A > lang-yae > Lángyá (name of a mountain in Shāndōng)
松 *sə.goŋ > zjowng > sōng ‘pine (n.)’ 1173a:1190a	-dz			公 *C.q‘oŋ > kuwng > gōng ‘impartial, just; public’

Table 39: Examples of OC voiced stops with preinitial *sə.

OC > MC > MSC	PM	VN	HM	Notes
隨 *sə.loj > zjwe > suí ‘follow’ 0011g				cp. 墮 *l‘oj? > dwaX > duò ‘to fall’
徐 *sə.la > zjo > xú ‘walk slowly’ 0082p:0048				cp. 余 *la > yo > yú ‘1sg., prob. a polite form’
鉤 *sə.lə? > ziX > yí ‘handle of plow or sickle’ (< ‘instrument of holding’) 0976c’				cp. 以 *lə? > yiX > yǐ ‘take, use’

似 *sə.lə? > ziX > sì ‘resemble’ 0976h			以 *lə? > yiX > yǐ ‘take, use’ Cantonese /ts ^{hi} 4/
馴 *sə.lu[n] > zwin > xún ‘docile; gradually’ 0462f:0422			cp. 順 *Cə.lu[n]-s > zywinH > shùn ‘follow; obey’; 訓 *lu[n]-s (dial. > *xun-s) > xjunH > xùn ‘instruct’
謝 *sə-lAk-s > zjaeH > xiè ‘decline, renounce’ 0807g	-dzia C	giā 'say goodbye'	Jiànyáng /lia 6/

Table 40: Examples of OC plain sonorants with preinitial *sə.

OC > MC > MSC	PM	VN	HM	Notes
脰 *kə.d ^o ok-s > duwH > dòu ‘neck’ 0118d	-d	dọc 'pétiole charnu des feuilles de certaines plantes, dos (d'un couteau), tuyau, tige (d'une balance)' etc.		Rục /kadɔ'k/ ‘nape’ (Nguyen et al. 1998)

*kə.dz- 'cockroach'	-dzat D		Northern Mǐn: Jiàn'ōu /tsue 4/, Zhènghé /tsuai 5/, Chóng'ān /luai 8/; also Shàowǔ /tshai 6/ (Norman 1982:548), Hépíng /thai 4/ (Norman 1995:122), Zhènqián /tsua 5/; Jiànyáng /loi 8/, Wǔfū /luai 8/ (Norman 1996:37), Liándūncūn /lue 8/ (Norman 2002:357); cp. Fú'ān /sat 8/ ~ /ka 1 sat 8/, Fúzhōu /ka 6 sak 8/, Xiàmén /ka 1 tsua? 8/; cp. Cantonese /ka-tsat 8, kat-tsat 8/
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Table 41: Examples of OC voiced stops with preinitial kə.

OC > MC > MSC	PM	VN	HM	Notes
霧 *kə.m(r)[o]k-s > mjuH > wù 'fog, mist' 1109t				Lùfēng Hakka /mu 5/. Vietic evidence for prefixed k-.
溺 *kə.n ^r ewk-s > newH > niào 'urine' 1123d	n			PLakkia *kl-Niu B 'urine' (Theraphan) Lakkia /kīu B1/ (L-Thongkum 1992)
落 *kə.r ^r ak > lak > luò 'fall (v.)' 0766q'	l			Cháozhōu /ka-lau? 8/ 'fall'; Pingyao (Shanxi) /kΛ? lΛ?/ 'to fall in small quantities'

道 *[kə.l]⁻u? > dawX > dào ‘way’ 1048a:1102	-dau B ‘far’		MR pHM kləuX 'road/way'	
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Table 42: Examples of OC plain sonorants with preinitial kə.

OC > MC > MSC 攝 *kə.ɳep > syep > shè ‘catch, grasp’ 0638e	PM	VN	HM	Notes Lakkia /khjɛ:p 7/; Shui /?njap7/ 'id'. Rục /kǎnáp/ 'close (the eyes)' (Nguyen et al. 1998:75).
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Table 43: Examples of OC voiceless sonorants with preinitial kə

OC > MC > MSC	PM	VN	HM	Notes
發 *Cə.pat > pjot > fā ‘y forth, send forth’ 0275c	-p			Shíbēi /buai 3/
搬 *Cə.p¹an > pan > bān ‘move’ 0182-	-p			Jiànyáng /voiŋ 9/
反 *Cə.pan? > pjonX > fān ‘reverse (v.)’ 0262a	-p			
飛 *Cə.pə[r] (dialect: *-r > *-j) > pj+j > fēi ‘fly (v.)’ 0580a	-p A			Jiànyáng /ye 9/
崩 *Cə.p¹əŋ > pong > bēng ‘collapse (v., of a mountain)’ 0886m	-p A		MR pH *pəŋ A 'to fall'	Jiànyáng /vaiŋ 9/

戴 *Cə.t ^f ək-s > tojH > dài ‘carry on the head’ 0943e'	-t			Jiànyáng /lue 9/
單 *Cə.t ^f ar > tan > dān ‘single, simple’ 0147a	-tuan A			Jiànyáng /lueŋ 9/
斲 *Cə.t ^f rok > traewk > zhuó ‘chop, cleave’ 1235b	-t			Jiànyáng /lo 3/
簪 *Cə.ts ^f [ə]m > tsom > zān ‘hairpin’ 0660g	-ts			Jiànyáng /laŋ 9/
薦 *Cə.ts ^f ə[r]-s > tsenH > jiàn ‘grass, fodder’ 0477a	-tsun C ‘straw mattress’			Jiànyáng /luŋ 9/
醉 *Cə.tsu[t]-s > tswijH > zuì ‘drunk (adj.)’ 0490h	-ts			Jiànyáng /ly 9/
灑 *Cə.s<r>ər? > srjeX,H > sreah > xǐ ‘sprinkle’ 0878i		rǎy 'sprinkle'		
釀 *Cə.sre > srje > shāi ‘to strain off wine’ 0878h		rây ‘sieve; to sieve’		
膏 *Cə.k ^f aw > kaw > gāo ‘lard (n.)’ 1129i	-k			Jiànyáng /au 9/
錦 *Cə.k(r)[ə]m? > kimX > jǐn ‘brocade’ 0652e		gǎm 'brocade, embroidered silk, damask'		Xiàmén /gim 3/ '俗' 'brocade'.

狗 *Cə.k ^r o? > kuwX > gǒu 'dog' 0108d	-k		MR pHM *qluwX 'dog'	Jiàn'ōu /e 3/
蕨 *Cə.kot > kjwot > jué 'bracken (a kind of edible fern)' 0301d	-k		MR PM k ^w jət D 'fern'	Jiànyáng /ue 9/
牯 *Cə.k ^w a? > kuX > gǔ 'male (bovine)' 0049-	-k			Jiànyáng /o 3/
飢 *Cə.k<r>ə[j] > kij > jī 'hungry' 0602f	-k			Jiànyáng /ue 9/
假 *Cə.k ^r a? > kaeX > jiǎ 'borrow; false' 0033c	-k	gá tiéng 'use someone else's name'		
倚 *Cə.q(r)aj? > 'jeX > yǐ 'lean on' 0001f	?	ghé 'aborder; accoster; approcher; s'approcher'		
補 *[Cə]-p ^r a? > puX > bǔ 'to patch' 0102c'	-p	vá	MR pHM *mpjaX 'repair/mend' I!	Rục /təpa: ³ / 'to patch'

Table 44: Examples of OC voiceless stops with unidentified loose preinitials

OC > MC > MSC	PM	VN	HM	Notes
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鼻 *Cə̃-bi[t]-s > bjijH > bí ‘smell (v.t.)’ 0521c	-b			Shíbēi /bi 6/
吠 *Cə̃.bo[t]-s > bjojH > fèi ‘bark (v.)’ 0348a	-b			Shíbēi /by 6/
彈 *Cə̃.d'ar > dan > tán ‘pellet’ 0147n	-d			Shíbēi /duaiŋ 2/ ‘pluck a stringed instrument’
嘗 *Cə̃.danj > dzyang > cháng ‘taste (v.)’ 0725f	-dž			Jiàn'ōu /ioŋ 3/, Jiānyáng /ioŋ 9/ ‘taste’
上 *Cə̃-danj? > dzyangX > shàng ‘ascend’ 0726a	-džionŋ B			Xiàmén /tsiū 6/ ‘above, upon, upper, superior, former . . .’ (Douglas 1899:58), Jiēyáng /tsiõ 4/, Fúzhōu /suonŋ 6/, Jiàn'ōu /ioŋ 4/, Jiānyáng /ioŋ 5/ ‘ascend’
癢 *Cə̃.ganj? > yangX > yǎng ‘itch’ 0732r	-dž			Xiàmén /tsi 6/, Fúzhōu /suonŋ 6/, Jiānyáng /ioŋ 6/ Wǎxiāng /dzonŋ 3/ ‘itch’ cp. 羊 *Ganj > yang > yáng ‘sheep’
檐 *Cə̃.gam > yem > yán ‘eaves’ 0619g	-dž			Lóngyán /giam 2/ Xiàmén /tsi 2/, Fúzhōu /sieŋ 2/
腎 *Cə̃.[g]i[n]? > dzyinX > shèn ‘kidney’ 0368h	-gin B 'gizzard' ,			Fúzhōu /keiŋ 6/, Jiānyáng /iŋ 5/ (Norman 2006:138)

汗 *Cə.[g]ʷa[r]-s > hanH > hèn 'sweat (n.)' 0139t	-g			
厚*Cə.[g]ʷ(r)o? > huwX > hòu 'thick' 0114a	-g		MR pM *fiou B 'thick'	Cantonese /hǎu 4/
鹹 *Cə.[g]ʷr[o]m > heam > xián 'salty' 0671f	-g			

Table 45: Examples of OC voiced stops with unidentified loose preinitials.

OC > MC > MSC	PM	VN	HM	Notes
狃 *Cə.n<r>u? > nrjuwX > niǔ 'animal tracks; claws' 1076f			pM *ʔpauB 'claw, talon'	Western Hakka /n̩iau 1/ 'claw' (Lǐ Rúlóng et al. 1999:124)
袋 *Cə.l̥ek-s > dojH > dài 'bag' 0918	-d		MR pM *di C 'bag'	Jiànyáng /lui 6/
奪 *Cə.l̥ot > dwat > duó 'seize' 0274a	-d			Jiànyáng /lue 8/
池 *Cə.lraj > drje > chí 'pool (n.)' 0004t	-d			Shíbēi /di 2/
蛇 *Cə.lAj > zyaε > shé 'snake' 0004l	-dž	xà 'snake'		Xiàmén /tsua 2/, Fúzhōu /sie 2/
船 *Cə.lo[n] > zywen > chuán 'boat' 0229e	-dž			Shíbēi /yijŋ 2/

射 *Cə.lAk > zyek > shè ‘hit with bow and arrow’ 0807a	-džiok D			Jiànyáng /ia 8/
繩 *Cə.ləŋ > zying > shéng ‘string, cord’ 0892b			MR pH *hljaŋ A 'cord/sash/belt'	Jiànyáng /siŋ 9/ < *-dž
路 *Cə.r ^f ak-s > luH > lù ‘road’ 0766l'	-d			Jiànyáng /lio 6/, Shàowǔ /thio 6/ Lùfēng Hakka /lu 6/ 'road'

Table 46: Examples of OC plain sonorants with unidentified loose preinitials

OC > MC > MSC	PM	VN	HM	Notes
緒 *s-m-ta? > zjoX > xù ‘arrange in order’ 0045s	ž			
席 *s-m-tAk > zjek > xí ‘mat’ 0797a	dzh (Norman džh)			cp. 著 *t<r>ak > trjak > zhuó ‘to place’
食 *s-m-lək-s > ziH > sì ‘feed (v.)’ 0921a	dzh			
羨 *s-N-qɑ[r]-s > zjenH > xiàn ‘covet, desire’ 0207a		ghen 'jealous, envious'		
近 *s-N-kər?-s > gj + nH > jìn ‘be near to (v.t.)’ 0443g		gân		Rục /tʃkɛŋ/ (Gérard Diffloth, personal communication)
旬 *s-N-q ^w i[n] > zwin > xún ‘ten-day cycle’ 0392q				cp. 鈞 *C.q ^w i[n] > kjwin > jūn ‘potter’s wheel’, 韻 *[m-q ^w]<r>i[n]-s > hwinH > yùn ‘harmony; rhyme’

泅 *[s-N].ru > zjuw > qiú ‘swim’ 1094c	z			
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Table 47: Examples of OC complex onsets beginning with s-

OC > MC > MSC	PM	VN	HM	Notes
粗 *Nə-s.r̥a > tshu > cū ‘coarse, thick (as hair)’ 0046h’	tsh		MR pH *ntsha A 'coarse'	
藍 *[N-k.]r̥am > lam > lán ‘indigo’ 0609k	l	chàm 'indigo'	MR PHM *ŋglam 'indigo'	Pittayaporn (2009) proto-Tai *gra:m A
懶 *[N-kə.]r̥an? > lanX > lǎn ‘lazy’ 0272-	d		pH *ŋglæn B	

Table 48: Examples of OC Examples of OC complex onsets beginning with N-

OC > MC > MSC	PM	VN	HM	Notes
層 *m-s-t̥əŋ > dzong > céng ‘additional floor or field’ 0884i	dzh			Displaced 田 *l̥iŋ > den > tián as ‘eld’ (Norman 1996:31)
莖 *m-k-l̥⟨r>eŋ > heang > jǐng ‘stalk (n.)’ 0831u				cp. 筏 *l̥eŋ > deng > tíng ‘stalk, stem’ 0835k

事 *[m-s-]rəʔ-s > dzriH >	d			
shì 'serve; service, affair'				
0971a				

Table 49: Examples of OC complex onsets beginning with m-

OC > MC > MSC	PM	VN	HM	Notes
含 *Cə-m-k ^f [ə]m > hom > hán 'hold in the mouth' 0651l'	-g		MR pM *?gjəm A (< *ŋk) 'hold in mouth' pHM *ŋkjɔ:m A 'hold in the mouth' (Wáng and Máo 1995)	Máonán (Kam-Tai, Jianzhi: 100) /ŋgam1/ 'hold in mouth'
長 *Cə-[N]-traŋ > drjang > cháng 'long (adj.)' 0721a	-d		MR pH *ndaŋ A 'long sword'	
動 *[Cə-m-]t ^f oŋ? *Cə-m-t ^f oŋ? > duwngX > dòng 'move' 1188m:1175	-d			Méixiàn Hakka /θuŋ 1/
房 *[Cə-N-]paŋ > bjang > fǎng 'side-room' 0740y	-b	buòng 'room' I!		

Table 50: Examples of OC complex onsets with Cə- plus nasal prefix.

OC > MC > MSC	PM	VN	HM	Notes

懶 *[N-kə.]r ^{r̥} an? > lanX > län ‘lazy’ 0272	-d		MR pH *ŋglæn B 'lazy'	Siamese /gra:n 2/
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