CHAPTER I: LIST OF TABLES

Table 1.1.[1]

Formal Traits	MA	I	LI	M	Z	X	CMH	PMS	DATE[2]
Glyph Block Sequences	+	+	+	+	+	+			
Top-Bottom Direction	+	+	+	+	+	+			
Signs									
Main	+	+	+	+	+	+	+		
Affixes	-	+	+	+	-	-	-		
Cartouches	+,-	+,-	+	+	+	+	+		
Bar-and-Dot Numerals									
Form 1	+ (LP)								
Form 1A				+ (LC)					
Form 2		+	+	+					
	+	+							LP
			+	+	+				EC
				+		+	+		LC
									EP

[1] The presentation of data has been simplified somewhat with respect to Prem's (1973) more detailed tables. MA = Monte Alban, I = Intermediate, LI = Late Isthmian, M = Mayan, Z = Zapotec, X = Xochicalco, CMH = Central Mexican Horizon, and PMS = Postclassic Manuscript Style.

[2] LP = Late Preclassic, EC = Early Classic, LC = Late Classic, and EP = Early Postclassic.

Table 1.2.

DATE	TRAIT	TEXT
8.12.14.8.15 (A.D. 292)	Numeral+Cycle.Sign	Tikal Stela 29
	ISIG with Month.Patron	
8.14.3.1.12 (A.D. 320)	Month.Sign	Leyden Plate
	G5 of Supplementary Series	
8.16.0.0.0 (A.D. 357)	Lunar Glyphs	Uaxactun Stela 18
8.18.0.0.0 (A.D. 406)	Period Ending Date	Balakbal Stela 5
	Numeral+Month.Sign	
End of fifth century	"Comb" signs on ISIG	
9.3.0.0.0 (A.D. 501)	Distance numbers	
End of sixth century	Fully evolved system	

Table 1.3.

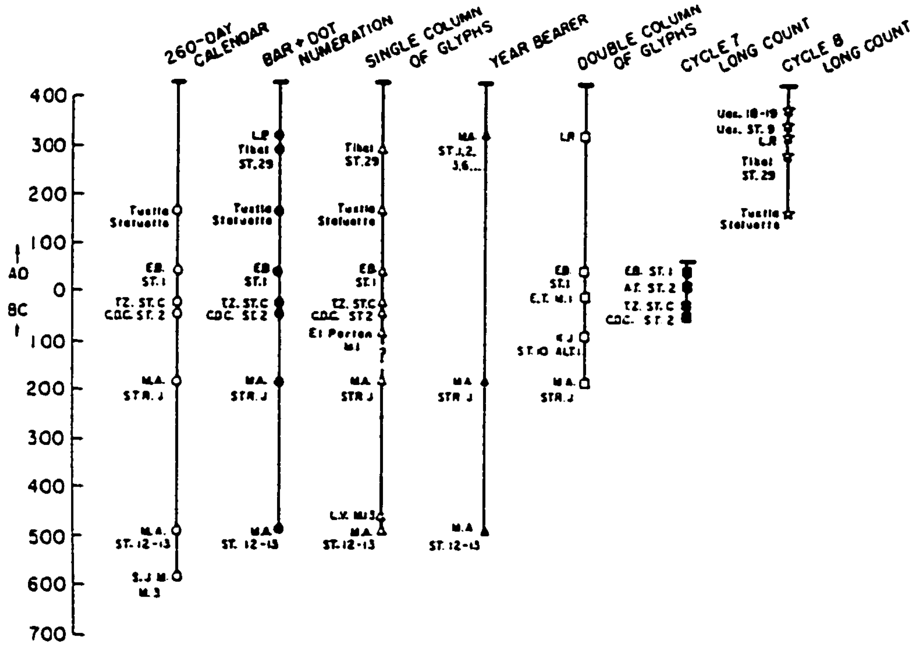

Figure 14 Chart indicating the initial and subsequent appearances of the 260-day calendar, bar + dot numeration, single column of glyphs, year bearer, double column of glyphs, Cycle 7 Long Count, and Cycle 8 Long Count in Mesoamerica. The abbreviations used in the chart are as follows: S.J.M. = San José Mogote; M.A. = Monte Albán; L.V. = La Venta; K.J. = Kaminaljuyú; C.D.C. = Chiapa de Corzo; T.Z. = Tres Zapotes; A.T. = Abaj Takalik; E.T. = El Trapiche; E.B. = El Baúl; Uax. = Uaxactún; L.P. = Leyden Plaque; M. = Monument; ST. = Stela(e); STR. = Structure; and Alt. = Altar.

Table 1.4.

FORMAL FEATURES OF THE SOUTHEASTERN MESOAMERICAN SCRIPT GROUP

	LOWLAND MAYAN	GREATER IZAPAN			WEST ISTHMIAN			INSUFFICIENT DATA				
		Kaminaljuyu	Abaj Takalik	El Baul	Cerro de las Mesas	Tuxtla Statuette	Tres Zapotes	La Venta	Chiapa de Corzo	Izapa	El Portón	El Trapiche
1. Double-column format	+	+		+	–	–	–					+
2. Degree of variation in vertical size of glyph block	L	L/M	L	L	M	H	H	M			L	L
3. Pedestal below some day signs	+	+	+	–	–	–?	–			+		
4. Enlarged calendrical statements	+	+	–	+	–	–	–					
5. Long count dates	+		+	+	+	+	+		+			
6. Long count initial in its column(s)	+		+	–	–		–					
7. Day coefficient to left in long count	+		+	–	–	+	+		+			
INDEX OF AGREEMENT WITH LOWLAND MAYAN		94%	83%	71%	21%	33%	29%					

NOTE: Two subgroups emerge from this comparison: an Izapan-Mayan subgroup, characterized by most of the innovations listed, and a West Isthmian subgroup that appears to be more conservative. El Baul may represent a transitional era in the Izapan/Mayan sphere of script innovations. Except for La Venta, all sites for which there are data on less than half of the formal features listed agree with the Izapan/Mayan subgroup; Chiapa de Corzo agrees equally fully with the West Isthmian subgroup. The index of agreement with Lowland Mayan is calculated as a proportion in which the denominator is the number of features concerning which there is information for the script being compared, and the numerator is the number of features showing agreement (with M being assigned agreement of .5 in the L[ow]/M[edium]/H[igh] values for feature 2).

Table 1.5.

MONUMENT	SITE	DATE	SCRIPT
Monument 13	La Venta	600-500 B.C.	Olmec
Monument 1	El Porton	400 B.C.	Mayan(?)
Sherd	Chiapa de Corzo	300 B.C.	Epi-Olmec
Stela 27	Izapa	300-50 B.C.	?
Chicanel Sherd	El Mirador	200-100 B.C.	Mayan
Stela 2	El Mirador	A.D. 1-100	Mayan
Stela 2	Abaj Takalik	236-19 B.C.	Mayan
Stela 10	Kaminaljuyu	300-100 B.C.	Mayan(?)
Misc. Mon. 60	Izapa	200 B.C.	?
Altar 1	El Polol	176 B.C.-A.D. 35(?)	Mayan
Stela 2	Chiapa de Corzo	36 B.C.	Epi-Olmec
Stela C	Tres Zapotes	32 B.C.	Epi-Olmec
Altar 1	Kaminaljuyu	Late Preclassic	Mayan(?)
Monument 65	Kaminaljuyu	Late Preclassic	Mayan(?)
Stela 1	El Baul	A.D. 36	Mayan(?)
Bas-relief	Loltun Cave	Protoclassic	Mayan
DO Celt	Unprovenanced	A.D. 120	Mayan
Stela 5	Abaj Takalik	A.D. 126	Mayan
Stela 1	La Mojarra	A.D. 157	Epi-Olmec
Tuxtla Statuette	Veracruz	A.D. 162	Epi-Olmec
Hauberg Stela	Unprovenanced	A.D. 197	Mayan
Stela 21	Kaminaljuyu	A.D. 200	Mayan(?)
Monument 1	Chalchuapa	A.D. 200	Mayan(?)
Carving	San Diego Cliff	Protoclassic	Mayan
Altar 2	Kaminaljuyu	A.D. 200	Mayan(?)
Monument 11	Abaj Takalik	Protoclassic	Mayan
Bone stylus	Kichpanha	A.D. 150	Mayan
Diorite axe	Hatzcap Ceel	Protoclassic	Mayan

Table 1.5. (Continued)

MONUMENT	SITE	DATE	SCRIPT
Jade axe	Kendal	Protoclassic	Mayan
Jade bivalve effigy	Kendal	Protoclassic	Mayan
Stela	Alvarado	Late Preclassic(?)	Epi-Olmec(?)
DO Pectoral	Unprovenanced	Late Preclassic	Mayan
PMY jaguar	Unprovenanced	Late Preclassic	Mayan
Jade Clamshell	Unprovenanced	Late Preclassic	Mayan
Jade Spoon	Unprovenanced	Late Preclassic	Mayan
Brooklyn Museum	Unprovenanced	Late Preclassic	Mayan

CHAPTER II: LIST OF TABLES

Table 2.1.

BRANCH	LANGUAGES	BRANCH	LANGUAGES
Wastekan		Western Mayan	
	Wastek		Ch'ol
	Chicomuseltek		Chontal/Yokot'an
			Ch'olti'
Yukatekan			Ch'orti'
	Yukatek		Tzotzil
	Lakantun		Tzeltal
	Itzaj		Tojolob'al
	Mopan		Chuj
			Q'anjob'al
Eastern Mayan			Akatek
	Teko[3]		Jakaltek
	Mam		Mocho'[4]
	Awakatek		Muchu'[5]
	Ixil		
	Uspantek		
	Sipakapa		
	Sakapulteko		
	K'iche'		
	Tz'utujil		
	Kaqchikel		
	Poqomam		
	Poqomchi'		
	Q'eqchi'		

[3] Also known as Tektiteko.
[4] Also known as Motosintlek.
[5] Also known as Tusantek.

Table 2.2.

ORDER OF SEPARATION		MAJOR SUBGROUPS, TIME DEPTH, REGION	LANGUAGE LEFT MAYAN HOMELAND
I		Wastekan (9c) - Lowland	Late proto-Mayan
		Wastek	
		Chicomuseltek	
II		Yukatekan (10c) - Lowland	Central Mayan
		Yukatek	
		Lakandon	
		Itzaj	
		Mopan	
III		Eastern Mayan (34c) - Highland	Western Mayan
	IIIA	Greater Mamean (26c)	
		Mamean Proper (15c)	
		Teko = Tektiteko	
		Mam	
		Ixilan (14c)	
		Awakatek	
		Ixil	
	IIIB	Greater K'iche'an (26c)	
		Uspantek	
		K'iche'an Proper (10c)	
		Sipakapa	
		Sakapulteko	
		K'iche'	
		Tz'utujil	
		Kaqchikel	

Table 2.2. (Continued)

ORDER OF SEPARATION		MAJOR SUBGROUPS, TIME DEPTH, REGION				LANGUAGE LEFT MAYAN HOMELAND
IIIC		Poqom (10c)				
				Poqomam		
				Poqomchi’		
	IIID			Q’eqchi’		
IV		Western Mayan (30c)				
	IVA	Ch’olan-Tzeltalan (19c)				
			Ch’olan (14c) - Lowland			
				Western Ch’olan		
					Ch’ol	
					Chontal/Yokot’an	
				Eastern Ch’olan		
					Ch’olti’	
					Ch’orti’	
			Tzeltalan (14c) - Highland			
				Tzotzil		
				Tzeltal		
	IVB	Greater Kanjobalan (21c)				
			Chujean (16c)			
				Tojolob’al - Lowland		
				Chuj - Highland		
			Q’anjob’alan Proper (15c)			
				Q’anjob’al Complex (7c) - Highland		
					Q’anjob’al	
					Akatek	
					Jakaltek	
				Kotoke Complex (6c)		
					Motosintlek = Mocho’ - Highland	
					Tusantek = Muchu’ - Lowland	

Table 2.3.[6]

pM

FORMS	Yu	CT	C	Tz
*CVC	CVC	CVC	CVC	CVC
*CVV_1C	CVV_1C	CVV_1C	CVC	CVC
*CVhC	CVhC	CVhC	CVhC	CVhC
*CVjC	CVhC	CVhC	CVhC	CVhC
*CV7C	CV7C	CVV_1C	CVC	CVC
*$CV7V_1C$	CV7C	$CV7V_1C$	$CV7V_1C$	$CV7V_1C$

SOUNDS	Yu	CT	C	Tz
*q, *q'	k, k'	k, k'	k, k'	k, k'
*j	j	j	j	j
*h	h	h	h (>j)	h
*N	n	n	n	n
*r	y	y	y	y
*VV_1	VV_1	VV_1	VV_1	VV_1
*b'	b'/p'	b'/p'	b'/p'	b'/p'
*tz	tz, ch	tz	tz	tz
*t, *ty	t > t,ch	t	t	t
*ty'	?	ch'	ch'	ch'
*k, *k'	k, k'	ch, ch'	ch, ch'	ch, ch'
	some ch, ch'	k, k'	k, k'	k, k'

[6] Based on Kaufman and Norman (1984).

Table 2.4.

pCT FORM	(pre-C >) pC
*VV	V
*aa	a
*a	ä
*...hCC	...ØCC (e.g. *k'äk'=nahb' 'sea' from *k'ahk 'fire')
*CVCVC+VC	CVCC+VC (i.e. *7eb't-el 'work' from *7eb'et 'messenger' + *-Vl 'abstractive')
*j	j
*h	j in initial and final positions
*h	h in medial position before a vowel or a consonant
*e(e)	e
*o(o)	o
some *ee	ii > i (e.g. pC *chij 'deer', *wich' 'wing')
some *oo	uu > u (e.g. pC *tun 'stone', *7uk' 'to weep')

Table 2.5.[7]

FEATURE	CH'OL	CHONTAL	CH'OLTI'	CH'ORTI'
1s				
ERG	k-	ka/k-	in-/inw-	ni-/niw-/inw-
ABS	-on	-on	-en	-en
2p				
ERG	la7-	a-... la	i-	i-
ABS	-etla	-etla	-ox	-ox
passive of DTV	-nt	-nt	-na	-na
thematic suff.	no	no	yes	yes
-es causatives	no	no	yes	yes
inchoative suff.	-7an	?	-l	-r
plain/CMP of RTV	$-V_1$	-i	$-V_1$	-i/-e
preposition	ti	ta/ti	ti	ta

[7] Based on Kaufman (1989) and Kaufman and Norman (1984).

Table 2.6.

(1) *t > ch before i and e (e.g. Yukatek chi7 'to bite' < pM *ti7) and at the end of polysyllabic words (e.g. Yukatek 7otoch 'house' < pM *atyooty) and some monosyllables (e.g. Yukatek pàach 'back' < pM *paaty);

(2) *k' > ch' before i and e (the conditions varied somewhat);

(3) *k(') > ch(') before /a/ and following "a reflex of [proto-Mayan] *q(') which must still have been phonetically distinct from *k and *k'";

(4) *V7C > ´V7C (high tone); *VhC and *VxC change to ´VVC (high tone); and VVC > `VVC (low tone); and

(5) *aCi > *iCi and *iCa > aCa (vowel harmony) in which cases the first vowel is short and the consonant not h (e.g. proto-Mayan *tiqaw > pre-Yukatekan *chikaw > proto-Yukatekan *chakaw Ôhot,' also illustrating the chronological precedence of sound change (1) over the vowel harmony change in sound change (5)).

Table 2.7.

ITEM	GLOSS	ITEM	GLOSS
*ahk'ot	'dance'	*pak'	'toad'
*(a)mo:ch	'toad'	*pehts'	'deadfall'
*b'ahk'	'400'	*pech	'to make tortillas'
*b'et	'debt'	*pik	'to dig'
*b'u(h)b'	'tadpole'	*pik	'8000'
*b'uluk^y	'eleven'	*puj	'soaproot'
*cha7am	'fang'	*p'ehl	'generic classifier'
*chik	'visible'	*p'ol	'to abound'
*chu7	'woman's breast'	*p'u:s	'hunchback'
*chuk	'to seize'	*sa:k'	'itchy'
*e:k'	'star'	*xukul	'purslane'
*ehk' ~ *ihk'	'black'	*tak'	'to attach'
*kanan	'to take care of'	*tahn	'chest'
*kohk	'deaf'	*til	'to untie'
*ko(h)m	'short'	*t'el	'on its side'
*kuket	'torso'	*t'os	'to divide'
*kyta:m	'peccary'	*t'uch	'perched'
*k'a:y	'song'	*t'uhl	'rabbit'
*laj	'completely'	*jalal	'reed'
*lap'	'sticky'	*jaw	'face up'
*lih-li	'to shake'	*joch	'to pour out'
*luhb'	'to get tired'	*jok'	'to dip out'
*lup	'to dip out'	*yal	'to throw'
*mak'	'to eat soft things'	*yahl	'to fall'
*nap'	'to attach'	*ya:n	'different'

Table 2.8.

PHONOLOGICAL

INNOVATION

b', p' contrast, from proto-Mayan *b'

GRAMMATICAL

INNOVATIONS

-t 'transitivizer'

-s 'causative'

Table 2.9.

ITEM	GLOSS	ITEM	GLOSS
*b'es	'stutterer'	*pan	'toucan'
*b'o7laay	'spotted'	*peht-el	'all'
*b'uuts'	'smoke'	*piik	'skirt'
*b'u7ul	'beans'	*pihx	'knee'
*tsik	'to count'	*puts'	'to flee'
*tsol	'to line up'	*pu(k)sik'al	'heart'
*ts'am	'to get wet'	*pujuy	'roadrunner'
*chol	'milpa'	*p'el	'to saw, to slice'
*ehm	'to descend'	*p'en	'to fornicate'
*hets'	'to calm'	*p'ich	'to stuff'
*huuj	'iguana'	*pix	'to wake up'
*kaaj	'to begin'	*p'ul	'piled up'
*kil	'to thunder'	*sa7	'dough, atole'
*kox	'pheasant'	*saku7n	'older sibling'
*k'aab'aa	'name'	*sahm-i	'earlier today'
*k'ak'=nahb'	'sea'	*sik'ab'	'cane'
*k'aht-i	'to ask'	*sop'	'frothy'
*k'uhts	'tobacco'	*sus	'to scrape'
*lahchi ~	'to scratch,	*xab'	'to mix'
*la7ch	to scrape'	*xan-b'aal	'face up'
*loch	'twisted'	*xuhch'	'thief'
*lom	'to perforate'	*taa7	'excrement'
*loot	'twin(s), pair'	*tep'	'to wrap'
*lu7	'catfish'	*top'	'to break'
*luch	'to attach'	*tuch'	'to point'
*mo7	'macaw'	*tuhl	'numeral classifier
*much'	'piled up'		(people, animals)'
*mux	'to mash'	*tum	'to point'
*na7	'mother'	*t'aan	'word'
*nats'	'neighbor'	*t'el	'crest, comb'
*nak'	'belly'	*uhs-ta	'to blow'
*na7at	'wisdom'	*ja7an	'man'sbrother-in-law'

Table 2.9.

ITEM	GLOSS	ITEM	GLOSS
*nuk ~ *nok	'upside down'	*jab'	'to open'
*num	'to pass'	*jats'	'to hit'
*nut'	'to join'	*jay	'to spread out'
*pak'	'to plant'	*job'	'to knock down'
*yuum	'owner'	*loch'	'to grasp'

Table 2.10.

pC SOURCE	YUKATEKAN FORM	EXPECTED pYu FORM
*chan 'sky'	<lahun chan> 'ten sky (god)'	*ká7n 'sky' (< pM *ka7ŋ)
*chan 'snake'	<chicchan>, <chijchan> '5th day name'	*kàan 'snake' (< pM *kaan)
*chahuk	cháak, <chac> 'rain god'	*kawak '19th day name' (< pM *kahoq)
*tun 'stone'	tùun- 'stone, year (ending)'	*tòon 'stone' (< pM *tuuŋ)
*kuts 'turkey'	kùuts 'turkey'	*kòots (< pM *kuuts)
*b'uluch 'eleven'	<buluchcan> 'bálsamo o liquidámbar'	Yukatek b'uluk 'eleven' (GLM)

Table 2.11.

CH'OLAN ITEM	K'ICHE'AN
chak-al 'red' + te7 'tree'	chakalte7 'cedar' (expected: kaq-al-che7)
	k'oste7 'madre de cacao' (not: che7)
	k'ante7 'tree the roots of which make a yellow dye' (not: che7)
k'an 'yellow' + ti7 'mouth'	k'anti7 'poisonous snake' (expected: q'an + chi7)
nah 'house'	sohot jaxna 'a tree used to make houses' (expected: xah for 'house')
chan 'snake'	kelchan 'a viper'
	sak'alchan 'a kind of worm' (expected: kaan)

Table 2.12

GRAMMATICAL FEATURE	DONOR LANGUAGE
split ergativity	Yukatekan (< Poqom?)
*-Vl 'incompletive of intransitive'	
verbal nouns	
*-na suffix to affect verbs	
*-tal 'incompletive of positionals'	Yukatekan
*-l-aj(-i) 'completive of positionals	Yukatekan
*yuwa:l for the progressive aspect	
vowel levelling of singular absolutive agreement markers (e.g., *-iin > -en, *-at > *-ech)	Yukatekan

Table 2.13.

FEATURE	SOURCE	DESCRIBED BY:
Restructuring of Second Person Plural	Poqom	Martha Macri (1987)[8]
Split of pM *b' into /b'/ and /p'/	Poqom	Martha Macri (1987)
Split ergativity	Poqom(?) Yukatekan(?)	Kaufman (1989)

[8] As pointed out by Kaufman (1989:92).

Table 2.14.

(G)LM	MZ
*kuket 'trunk of body' [GLM]	Chiapas Zoque kuhk- 'in the middle of', kukpak 'chest'
*kakaw 'cacao' [GLM]	*kakawa 'cacao' [pMZ]
*ko(h)m 'short' [GLM]	*kono 'short' [pMZ]
*uma7 'dumb, stutterer'[CT]	*7uuma 'dumb' [pMZ]
*pata(h) 'guava' [GLM]	Sierra Popoluca pataN
*weet, *wa7x 'fox' [GLM]	*wetu 'fox' [pZo], *waax 'fox' [pMi]
*ja7an 'man's brother-in-law' [LM]	*hʌyʌ 'man's brother-in-law' [pMi]
*chi7ik 'coatimundi' [Yu, Ch'olti']	*tziku 'coatimundi' [pMZ]
*sahp 'fathom' [Yu, EC]	*sah 'wing' [pZo], xahpak 'fathom' [Sayula Popoluca]
*mach 'to take, grasp' [Yu]	*matz 'to grasp' [pMi]
xaak-t 'to examine' [Mopan]	xaak 'to guard' [Totontepec Mixe]
su7uk 'grass' [Mopan]	*so7k 'grass' [pZo] (but cf. Totonac saqat)
sum 'rope' [Mopan]	*tzum 'to tie' [pMi]
tutz 'corozo' [Mopan]	*tuuhtz 'palm' [Sayula Popoluca]
make7ch 'escarabajo, camaleón' [Yukatek]	mage7ch 'cockroach' [Sayula Popoluca]
mok 'gata de mar' [Yukatek]	múguy 'topote' [Sayula Popoluca]
-pach 'male iguana' [Yukatek]	*patzi 'lizard' [pMZ], *pach 'lizard' [pMi]
sok 'snail' [Yukatek]	*soki 'snail' [pZo]; cf. Papantla Totonac xoqe 'concha de mar'
tzuk 'mouse' [Ch'ol, Chontal]	*tuuk 'mouse' [pMZ]
me7 'deer' [Ch'ol]	*mʌ7a 'deer' [pZo]
koya7 'tomato' [Ch'ol]	koya 'tomato' [Chiapas Zoque]

Table 2.15.

TERM	LANGUAGE	SOURCE
		Western Mayan
'market, patio'	Xincan kii7wi	pT ch'iwich 'market' <
	Huave kiap 'patio'	WM *k'iwik 'market, patio'
'to buy'	Xincan kunu	pC *chon < WM *koo•
'witch (brujo)'	Jumaytepeque Xinca wɪɪyɪ	pT *way-ijel 'nagual' <
		WM *7aaj way 'witch'
		Ch'olan-Tzeltalan
'avocado'	Jicaque sit	pCT *tzitz
'coatimundi'	Jicaque tsotson, tz'ol	Ch'ol tz'utz'ub', cf.
	Honduran Lenca xuxumi,	pT *tz'u(h)tz'um-chab'
	Paya tus 'anteater'	
'opossum'	Jicaque hutz	pC *7uch < pCT *7uch <
		pM *huhtʸ'
'wall'	Xinca pak'-ah, pak(')i	pC *pahk' < pCT *pahk(')
		Ch'olan
'atol'	Jicaque hul	pC *7ul < pM *7uul
	Salvadoran Lencan ola	
'cotton'	Jicaque tɪnɪm	pC *tinäm < pM *tʸiiN(am)
'hummingbird'	Jicaque t'unun	pC *tz'unun < pM *tz'uunu7n
'pozol'	Jicaque matz'	pC *matz' < pM *maatz'
	Paya musu	
	Matagalpa muso	
	Tarascan mas-	
'tapir'	Jicaque til	pC *tihl < pM *tijl
'crab'	Jicaque hop	Ch'orti' hopop < pC *hop-
		'to move like crabs, ants, bugs'
'bee, honey'	Honduran Lenca xapu	pC *chab' < pM *kaab'

Table 2.15. (Continued)

TERM	LANGUAGE	SOURCE
		Tzeltalan
'bean'	Xinca xin'ak, Jicaque $tz^{h}in$(-ak) Honduran Lencan sinak Misquito sinak Sumu sinak	pT *chenek' < pM *kiinaq'

Table 2.16.

LANGUAGE	BWO[9]
Huastec	VOA/VAO
Chicomuceltec	
Teco	fVAO
Mam	fVAO
Aguacatec	fVAO
Ixil	VOA/(f)VAO
Sacapultec	VOA
Quiche	VOA/VAO
Tzutujil	VOA/VAO
Cakchiquel	VOA/VAO
Pocomam	VOA
Pocomchi	VOA
Kekchi	VOA
Yucatec	VOA
Lacandon	VOA
Itzaj	VOA
Mopan	VOA
Chol	VOA
Chontal	VOA
Cholti	VOA?
Chorti	VOA[10]
Tzotzil	VOA
Tzeltal	VOA
Tojolobal	VOA
Chuj	VOA/(f)VAO
Kanjobal	fVAO
Acatec	VOA/VAO
Jacaltec	fVAO

[9] BWO stands for 'basic word order'. The letter "f" stands for 'fixed (word order)'.
[10] I briefly discuss the basis for the VOA analysis of Ch'orti' in the paper.

Table 2.17.

STAGE	OVERT ASPECT	COVERT ASPECT
pM	*ASP+ABS+VI-ST	*VI-ST+ABS
pCT	*ASP+ABS+VI-ST	*VI-ST+ABS
pT	*ASP+ABS+VI	*VI-ST-ABS
pYu	*ASP+VI-CMP-ABS	*VI-CMP-ABS
	*ASP+ERG-VI-INC	*ERG-VI-INC
pC	*ASP+VI-CMP-ABS	*VI-CMP-ABS
	*ASP+ERG-VI-INC	*ERG-VI-INC

Table 2.18.

STAGE	OVERT ASPECT	COVERT ASPECT
pM	*ASP+ABS+ERG-VT-ST	*ERG-VT-ST+ABS
pCT	*ASP+ABS+ERG-VT-ST	*ERG-VT-ST+ABS
pT	*ASP+ABS+ERG-VT	*ERG-VT-ST+ABS
pYu	*ASP+ERG-VT-ST+ABS	*ERG-VT-ST+ABS
pC	*ASP+ERG-VT-ST+ABS	*ERG-VT-ST+ABS

Table 2.19.

STAGE	PRED N/A	PRED STATIVE
pM	*PRED+ABS	*STAT+ABS
pCT	*PRED-ABS	*STAT-ABS
pT	*PRED-ABS	*STAT-ABS
pYu	*PRED-ABS	*STAT-ABS
pC	*PRED-ABS	*STAT-ABS

Table 2.20.

		vtR	vtD	vi
incompletive participle		-o-al	-al	-e-al
plain status		[-o(w)]	[-V]	[-i-k ~ -i-h]
imperative status		-a(w)	-Vnh(*)	-e-Vn
dependent status		-a-7	-Vnh(*)	-oq
perfect status		-o-7m	-7m	-i-naq
perfect participle	act:	-o-ej(*)	-ej(*)	
	pass:	-b'il	-b'il	-e-7m
agent noun		-oom	-oom	-oom
absolute antipassive		-o-an	-an	
agentive antipassive		-ow(*)	##	
reflexive		-a-ox	-ox	
agentless mediopassive		-h-	-aj	
bounded passive		-o-t	-t	
unbounded passive		-a-(a)b'	-(a)b' ?	
causative		-i-sa		
stative		-V_1l ~ -a7n		

Table 2.21.

		vtR	vtD	viR
incompletive status		-ik	-ik	-Vl
				-Ø (antipassives)
completive status		-aj	-aj	-i
				-aj (antipassives)
imperative status		-e	-Ø	-en
dependent status		-e7	-Ø	-ak
perfect participle	act:	-m-aj		
	pass:	-a7n		-a7n
passive		-b'-	-a-b'	
passive gerund		-b'il		
absolute/incorporating				
antipassive		-n ~ -Ø[11]	-n ~ -Ø	
mediopassive		-H-[12]		
(agentless)				
causative		-(e)s[13]		
stative?		$-V_1l$[14]		

[11] The -: form is used in the incompletive status. Also, the vowel of root transitive verbs lengthens.

[12] Kaufman (1989:Part C, 16) explains that this marker is used only with root transitives.

[13] Kaufman (1989:Part C, 30) argues this form constitutes a change from proto-Mayan *-i-sa.

[14] Kaufman (1989:Part C, 24, 30) argues that *-a7n 'allomorph of stative', still retained in proto-Western Mayan times, was lost in Ch'olan-Tzeltalan.

Table 2.22.

		vtR	vtD	viR
incompletive participle		?	?	-e-l
plain status		[-a][15]	-Ø	[-ih]
imperative status		-a	-Vn	-een
dependent status		-e7	-Vn	-oq
perfect participle	act:	-ooj	-ej	-eem
	pass:	-b'il	-b'il	-em
agent noun		-oom	-oom	-oom
(frozen)				
absolute antipassive		-oon	-an	
alternate antipassive		-aw(-an)	-w-an	
ÒintransitivizerÓ			-aj[16]	
mediopassive		-h-	##	
(agentless)				
passive		-o-t	-t	
causative		-es[17]		
stative		-V_1l[18]		

[15] Kaufman (1989:Part C, 23, 30) argues that the w from proto-Mayan *[-o(w)] was eliminated from both the plain and imperative status markers in this stage, but that it was still retained in proto-Western Mayan as *[-a(w)].

[16] Kaufman (1989:Part C, 30) argues this morpheme descends from proto-Mayan *-aj 'mediopassive of derived transitives' with a changed function ('intransitivizer') in Ch'olan-Tzeltalan.

[17] Kaufman (1989:Part C, 30) argues this form constitutes a change from proto-Mayan *-i-sa.

[18] Kaufman (1989:Part C, 24, 30) argues that *-a7n 'allomorph of stative', still retained in proto-Western Mayan times, was lost in Ch'olan-Tzeltalan.

Table 2.23.

		vtR	vtD	viR
incompletive participle		?	?	-e-l
completive status[19]		$-V_1$ ~ -i[20]	-Ø	-i
imperative status		$-V_1$	-:n	-en
dependent status		-e7	-:n	-ik
incompletive status		-e7	-:n	-e-l
perfect status	act:	-?	-?	-em
	pass:	-b'il	-b'il	-em
agent noun		-om	-om	-om?
(frozen)				
absolute antipassive		-on (frozen)		
ÒintransitivizerÓ			-aj	
$passive_1$		-h-	-n-t (WC)	
			-n-a(h) (EC)	
$passive_2$			-l	
causative		-es(ä)		
stative		$-V_1l$		

[19] Kaufman (1989:Part C, 35) explains that the plain status was renamed 'completive' status.
[20] Kaufman (1989:Part C, 36) explains that $\underline{*\text{-}V_1}$ ~ $\underline{*\text{-}i}$ may have been in complementary distribution, with $\underline{*\text{-}i}$ perhaps occurring phrase-finally, and $\underline{*\text{-}V_1}$ perhaps occurring phrase-medially.

Table 2.24.

		vtR	vtD	vi
incompletive participle				-el
plain status		-Ø	-Ø	-Ø
imperative status		-ä	-ä	-an
dependent status		-Ø	-Ø	-uk
perfect status	act:	-oj	-ej	-em
	pass:	-b'il	-b'il	-em
agent noun		-oom	-oom	-oom
absolute antipassive		-aw-an -w(an)		
agentive antipassive		-on (Tzo only)		
mediopassive (agentless)		-h-	##	
passive		-ot	-ot	
$passive_2$		-ey (Tzo:Zi)		
		= frozen intransitivizer $-V_1y$ (Tze)		
causative		-es		
stative		$-V_1l$		

Table 2.25.

(1) LpM: Starting Template

VI:	[PROGR+ABS(S)	(tya)	[VI-NOM:GER]]
VT:	[PROGR+ABS(A)	(tya)	[ERG(O)-VT-PASS-NOM:POSS]]

(2) PoqA: Reanalysis of Passive-as-Active through Active Nominalization

VI:	[PROGR+ABS(S)	[VI-NOM:GER]]
VT:	[PROGR+**ABS(O)**	**[ERG(A)**-VT-**ACT:NOM:POSS**]]

(3) PoqB: Reanalysis of Intransitive-as-Active through analogy with VT

VI:	[PROGR	[**ERG(S)**-VI-**ACT:NOM:POSS**]]
VT:	[PROGR+ABS(O)	[ERG(A)-VT-ACT:NOM:POSS]]

(4) YuB: Adoption of Poqoman A-B Reanalyses
Previous/Subsequent Rearrangement of ABS to poststem position

VI:	[PROGR	[ERG(S)-VI-ACT:NOM:POSS]]
VT:	[PROGR	[ERG(A)-VT-ACT:NOM-**ABS(O)**]]

(5) YuC: Reanalysis of Nominalizers as INC Status Markers
Extension of Applicability from PROGR to All INC aspects

VI:	**PROGR/INC**	ERG(S)-VI-**INC**
VT:	**PROGR/INC**	ERG(A)-VT-**INC**-ABS(O)

(6) Ch'A: Adoption of Yukatekan patterns (B>)C except for VT nominalization
Former (Finite) Dependent Status Marker Becomes INC Status of VT

VI:	PROGR/INC	ERG(S)-VI-INC
VT:	PROGR/INC	ERG(A)-VT-(DEP>)**INC**-ABS(O)

Table 2.26.[21]

LANGUAGE	ABSOLUTIVES		INCORPORATIVES		AGENTIVES	
	RTV	DTV	RTV	DTV	RTV	DTV
GM						
Mam	-n	-n	-n	-n	-n	
Awakatek	-oon	-Vn	?	-oon	-Vn	
Ixil	-on	-n	none?	-on	-n	
GK'						
K'iche'	-(V)n	-n	-(V)w	-n	-ow	-(V)n
Tz'utujil	-oon	-Vn	-o	-n	-ow	-Vn
Kaqchikel	-on	-n			-(o/u)n	-n
	-Vn	-n	-o/-u	-on	-o/-u	-n
Poqomchi'	-w	-Vn	?	?	-w	-Vn
Poqomam	-w	-in	?	?	-w	-in
Uspantek	-o-:n	-:n	?	?	-Vw	-n
Q'eqchi'	-o	-(a)n	-o		-o	-(a)n
T						
Tzotzil	-wan		?	?	-on	
Tzeltal	-awan/-(V)wej		?	?		
C						
Ch'olti'	?	?	?	?	-an	
Ch'orti'	-on/-o	-(w)an	?	?		

[21] The data for Mam comes from England (1983); for Awakatek from Dayley (1981); for Ixil from Kaufman (1989) and Dayley (1981); for Q'eqchi' from Kaufman (1989), for Uspantek from Kaufman (1989), for K'iche' from Mondloch (1981) and Kaufman (1989), for Kaqchikel and Uspantek from Kaufman (1989) and (García Matzar and Rodríguez Guaján 1997), for Tz'utujil from Dayley (1981, 1985), for Poqomchi' from Kaufman (1989), for Poqomam from Kaufman (1989), for Tzotzil from Aissen (1999), Dayley (1981), and Kaufman (1989); for Tzeltal from Kaufman (1971, 1989) and Dayley (1981); for Ch'olti' comes from Moran (1695); for Ch'orti' from Fought (1982) and Pérez Martínez (1994); for Chontal from Knowles (1984) and Quizar and Knowles-Berry (1994); for Ch'ol from Kaufman (1989); for Jakaltek comes from Craig (1978, 1979), Datz (1980), Dayley (1981), and Zavala (1992); for Q'anjob'al and Akatek from Zavala (1997); for Yukatekan from Bricker (1986), Dayley (1981), and Kaufman (1989); and for Wastek from Kaufman (1989) and Dayley (1981),.

Table 2.26. (Continued)

LANGUAGE	ABSOLUTIVES		INCORPORATIVES		AGENTIVES	
	RTV	DTV	RTV	DTV	RTV	DTV
Chontal	-n		?	?		
Ch'ol	-on		?	?		
GQ'						
Jakaltek	-w(-a)	-w(-i)	-ni			
			-o7			
Q'anjob'al	-w(-an)(-i)		-w(-an)(-i)		-on/-en	
	-w(-a)		-o			
Akatek	-w(-i)		-w		-on	
	-w(-a)		-o7			
Chuj	-waj		-w		-an	
Tojolob'al	-wan/-wun		?	?	-wan	
Yu						
Yukatek	-n/-Ø		-n/-Ø		?	
Itzaj	-n/-Ø		-n/-Ø		?	
Mopan	-n/-Ø					
Lakantun	-n/-Ø					
Wa						
Wastek[22]	-l ~ -om					
	-n 'mediopassive'					

[22] Kaufman (1989:Part D, 166, 169) points out that the absolutive antipassive in Wastek is -l ~ -om, and that Wastek lacks an agentive antipassive, having instead an active transitive construction marked with -b that allows the agent NP to be fronted.

Table 2.27.

LANGUAGE	ABSOLUTIVES		INCORPORATIVES		AGENTIVES	
	RTV	DTV	RTV	DTV	RTV	DTV
GM						
Mam	-n	-n	-n	-n	-n	
Awakatek	-oon	-Vn	?	-oon	-Vn	
Ixil	-on	-n	none?	-on	-n	
GK'						
K'iche'	-(V)n	-n		-n		-(V)n
Tz'utujil	-oon	-Vn	-o	-n		-Vn
Kaqchikel	-on	-n			-(o/u)n	-n
	-Vn	-n	-o/-u	-on	-o/-u	-n
Poqomchi'		-Vn	?	?		-Vn
Poqomam		-in	?	?		-in
Uspantek	-o-:n	-:n	?	?		-n
Q'eqchi'	-o	-(a)n	-o		-o	-(a)n
T						
Tzotzil	-wan		?	?	-on	
Tzeltal	-awan		?	?		
C						
Ch'olti'					-an	
Ch'orti'	-on/-o	-(w)an				
Chontal	-n					
Ch'ol	-on					
GQ'						
Jakaltek			-ni			
Q'anjob'al	-w(-an)(-i)		-w(-an)(-i)		-on/-en	
Akatek					-on	
Chuj					-an	
Tojolob'al	-w-an/-w-un		?	?	-wan	
Yu						

Table 2.27. (Continued)

LANGUAGE	ABSOLUTIVES		INCORPORATIVES		AGENTIVES	
	RTV	DTV	RTV	DTV	RTV	DTV
Yukatek	-n/-Ø		-n/-Ø		?	
Itzaj	-n/-Ø		-n/-Ø		?	
Mopan	-n/-Ø					
Lakantun	-n/-Ø					
Wa						
Wastek	-n 'mediopassive'					

Table 2.28.

LANGUAGE	ABSOLUTIVES		INCORPORATIVES		AGENTIVES	
	RTV	DTV	RTV	DTV	RTV	DTV
GK'						
K'iche'			-(V)w		-ow	
Tz'utujil			-o		-ow	
Kaqchikel			-o/-u		-o/-u	
Poqomchi'	-w				-w	
Poqomam	-w				-w	
Uspantek					-Vw	
Q'eqchi'	-o		-o		-o	
Tz						
Tzotzil	-wan					
Tzeltal	-awan/-(V)wej					
C						
Ch'olti'						
Ch'orti'	-on	-(w)an				
Chontal						
Ch'ol						
GQ'						
Jakaltek	-w(-a)	-w(-i)				
			-o7			
Q'anjob'al	-w(-an)(-i)		-w(-an)(-i)			
	-w(-a)					
Akatek	-w(-i)		-w			
	-w(-a)		-o7			
Chuj	-waj		-w			
Tojolob'al	-wan/-wun		?	?	-wan	

Table 2.29.

AUTHOR	ABSOLUTIVE	AGENTIVE	INCORPORATIVE	
Dayley (1981)	*-(V)w	*-(V)n	*-(V)w	
Smith-Stark (1978)				
Kaufman (1989)	*-o-an	*-o-w ~ *-a-w	*-o-an	RTV
	*-an	*-w	*-an	DTV

Table 2.30.

AUTHOR	ABSOLUTIVE	AGENTIVE	INCORPOR.	STAGE
Dayley (1981)	A > S	A fronted	A > S	pM
	(Craig (1979))	O > OBL/Ø	O > S	O >
INCORP				
Kaufman (1989)	A > S	A > S ~ O > S (NH)	A > S	LpM, CM
	O > OBL/Ø	O unchanged	O > INCORP	
Smith-Stark (1978)	A > S	A > S	A > S	pM
	O > OBL/Ø	O unchanged	O > INCORP	

Table 2.31.

STAGE	AG. AP. (K1989)	ABS. AP. (K1989)	PLUS	MINUS
pM		*-o-an ~ *-an	Wa, Yu, EM, C	GQ', T
	??	—	—	
LpM		*-o-an ~ *-an	EM, Yu	WM
	*-o-w ~ *-a-w ~ *-w		GK', Toj	GM, CT, Q'C, Chu
EM		*-o-an ~ *-an	GM, GK'	Poq, Q'eq'
	*-ow		GK'	GM
WM		*-o-an ~ *-an	C	T, GQ'
	(*-a-w ~ *-w 'alt. apass.')		Toj	CT, Q'C, Chu

Table 2.32.

TAM CATEGORY	ASPECT	STATUS	STAGE
completive/punctual	-	plain	pM
incompletive/habitual	*ti/a ~ *ka	plain	CM
potential/future	*ti/a ~ *ka	dependent	CM
	*qah	dependent	pM
optative	-	dependent	LpM
imperative	-	imperative	LpM
perfect	-	perfect	pM
progressive	-	nominalized	LpM

Table 2.33.

	C	CT	CT	Yu	CM	pM
ASPECT						
habitual						wa
habitual				k ~ t	ti/a	
					~ ka	
progressive	(i)wäl					
progressive				taHn		tah=na[23]
plain status		ta				
progressive			ta			
already	a					
		(i)x	(i)x			
future	x					
future-optative				ka7h		qaH
future					la	
ENCLITICS						
already	+ix		+ix			
already						+ik
still	+to					+to(j)[24]
the very same	+äch					

[23] Kaufman (1989:Part C, 3) considers this marker to be Late proto-Mayan.
[24] Kaufman (1989:Part C, 3) considers this enclitic to be Late proto-Mayan.

Table 2.34.

PRECONSONANTAL

	C	CT	CT	Yu	pM
1s	n-	n-	n-	in-	nu-
2s	a-	a-	aa-	a-	aa-
3s	u-	s-	u-	u-	u-
1p	kä-	j- ~ k-	ka-	k(a)-	qa-
2p	i-	a-...+ex	ii-	a-...-e7x	ee-
		a-...+ox			
3p	u-...+ob'	s-...+ik	u-...+eb'	u-...+o7b'	ki-

PREVOCALIC

	C	T	CT	Yu	pM
1s	nw-	nw-	nw-	(in)w-	w-
2s	aw-	aw-	aaw-	aw-	aaw-
3s	(u)y-	y-	y-	(u)y-	r-
1p	k-	k-	k-	k-	q-
2p	iw-	aw-...+ex	iiw-	aw-...-e7x	eer-
		aw-...+ox			
3p	(u)y-...ob'	y-...+ik	y-...+eb'	(u)y-...+o7b'	k-

Table 2.35.

	C	T	CT	Yu	pM
1s	-en	in	in	-en	iin
2s	-et	at	at	-ech	at
3s	-Ø	-	-	-Ø	-
1p	-on	on	on	-o7n	o7nh
2p	-ix	ex ~ ox	ex	+e7x	ex
3p	-ob'	+ik	+eb'	+o7b'	eb'

Table 2.36.

TYPE	FORM	MEANING
n1	POSS-Noun-Ø	alienable
n2	Noun-ABSOLUTE (possessed as n1)	generic(?)
n3	POSS-CV:C,	
	POSS-CVCV:C,	
	POSS-CV:CV:C	
n4	POSS-Noun-il/al/Vl	alienable,
		personal,
		intimate
n5	POSS-Noun-e(:)l/V(:)l	inalienable,
		abstractive
n6	(POSS-)Noun-il/al	associative
n7	POSS-[Noun=Noun]	
n8	(POSS-)Noun(POSSD)=Noun(POSSR)	part:whole
n9	(3sPOSS-)Noun=Noun,	
	(3sPOSS-)Noun + POSS-Noun	part:whole
n10	V/A=Noun, V/A + POSS-Noun	agentives
n11	POSS-Noun + POSS-Noun	collocations
n12	Always possessed	kinterms
n13	Suppletive pairs	food, house
n14	Never possessed	natural forces

Table 2.37.

	Wa	Yu	GM	GK'	GQ'	GTz	pM >	LpM >	CM >	EM	WM
n2a			-b'aj	-aaj	-e					*-(b')aaj	
n2b			(-j)	(-eej)							
n2c			(-j)	(-iij)							
n2d											
n2e											
n2f											
n2g											
n2h											
n3a		V:C	V:C	V:C		V:C		*CV:C			
n3b		V:CVC	V:CV:C	V:CV:C				*V:CV:C			
n3c											
n4a	-il	-il		-iil	-iil	-il	*-iil				*-iil
n4b	-al	-al		-aal	-aal	-al	*-aal				*-aal
n4c				-eel		-el			*-eel		
n4d				-ul		-ul			*-ul		
n4e											
n5a	-al		-al	-aal		-al	*-aal				
n5b		-e(e)l	-eel	-eel	-eel	-el		*-eel	*-eel	*-eel	*-eel
n5c			-iil	-iil							
n5d											
n6a		-il				-il		*-il			
n6b	-al	-al				-al	*-al				

Table 2.38.

	Wa	Yu	GM	GK'	GQ'	GT'z	pM	LpM	CM	WM	EM
n1	x	x	x	x	x	x	x				
n2	x		x	x	x	?	x				
n3	x	x	x	x		x	x				
n4	x	x	x	x	x	x	x				
n5	x	x	x	x	x	x	x				
n6		x				x		x			
n7		x	x	x				x			
n8		x	x	x		x		x			
n9		x	x	x				x			
n10		x	x	x				x			
n11			x	x							x
n12	x	x	x	x	x	x	x				
n13	x			x		x	x				
n14	x	x	x	x	x	x	x				

Table 2.39.

	pM
1s	ha7-iin
2s	ha7-at
3s	ha7
1p	ha7-o7N
2p	ha7-ex
3p	ha7-eb'

Table 2.40.

	CH'OL[25]	C. CHONTAL[26]	CHONTAL[27]	CH'OLTI'	CH'ORTI'[28]
1s	jo-n-on	<nadzon>	ka-nde	<natz-en>	ne7en
			käne		
			no7on[29]		
2s	ja-t-et	?	7a-nde	<natz-et>	ne7et
			7ane		
3s	jin-i	<hain>	7u-nde	<haine>[30]	ja7ax
			7une	<ne>	
			hin-i[31]	<e>[32]	
			hinda[33]		
1pi	jo-n-on la	?	ka-nde-la	<natz-on>	no7on
			no7on-la[34]		
1px	jo-n-on l(oj)-on	?	ka-nde-t'ok-op'		
2p	ja-t-et la	?	7a-nde-la	<natz-ox>	no7ox
3p	jin-ob'	<hainob>	7u-nde-lop'	<natz-ob>	ja7(a)x-op'

---

[25] Bricker (1986:25) shows 1s as ho–on, 1pi as ho–on-la, 1px as ho–on-lohon, 2s as hatYet, 2p as hatYet-la, and 3p as hino7.

[26] These data are taken from Bricker (1986:25).

[27] Bricker (1986:25) shows initial glottal stops and no morpheme breaks, while Kaufman (1989:Part D, 76) does not show initial glottal stops and does show the morphemic break up of the pronouns.

[28] Bricker (1986:25) shows CV_17V_1C as the shape of these pronouns; Kaufman (1989:Part D, 76) shows them as CV7C.

[29] This datum is from Schumann (1978:97).

[30] This datum is based on Moran' (1695:4) vocabulary section.

[31] This datum is from Knowles (1984:166-167, 208) and Schumann (1978:97).

[32] This datum is based on Moran's (1695:4) vocabulary section.

[33] The form hinda means 'this one', while hini ~ une mean 'that one' according to Schumann (1978:97).

[34] This datum is from Schumann (1978:97).

Table 2.41.

	C. Yukatek[35]	M. Yukatek[36]	Itzaj[37]	Lakantun[38]	Mopan
1s	<t-en>	t-èen ~ t-en	t-en	t-en	in-n-en
2s	<t-ech>	t-èech ~ t-ech	t-ech	t-ech	in-ch-ech
3s	<lay>	le(-)ti7 ~ ti7	lay(-)ti7	la(-)ti7	le7ek
1pd	<t-oon>	t-ó7on ~ t[ó(7]o)n	t-o7on	t-o7on	in-n-o7on
1pi	?	t-ó7on-é7ex	t-o7on-e7ex	t-on-eex	?
1px	?	?		t-en-o7	
2p	<t-ex>	t-é7ex ~ t[é(7]e)x	t-e7ex	t-e7ex	in-ch-e7ex
3p	<lay-ob>	le(-)ti7-ó7ob' ~ tí[(7)ó]](7)ob'	lay(-)ti7-oo7	la(-)ti7-o7	le7ek-oo7

[35] The Classic Yukatek data are from Bricker (1986:24).

[36] These data are taken from Bricker (1986:25) and McQuown (1979:50).

[37] Bricker (1986:25) shows initial glottal stops and no morpheme breaks, while Kaufman (1989:Part D, 76) does not show initial glottal stops and does show the morphemic break up of the pronouns.

[38] The Lakantun data are from Bruce (1968:51), and are also cited in Bricker (1986:24).

CHAPTER III: LIST OF TABLES

Table 3.1.[39]

SPELLING	ITEM[40]	...C	...V(G)...
7AT-ti	pC *7at < pM *7aaty 'penis'	t	a(a)
BAK-ki	pC *b'ak < pM *b'aaq 'bone'	k	a(a)
cha-b'i	pC *chab' < pM *kaab' 'honey'	b'	a(a)
cha-ki	pC *chahuk < pM *kahoq 'lightning'	k	a(a)
	MChol *chajk	k	a(j)
ch'a-hi	pC *ch'ah < pM *k'ah 'bitter' (?)	h	a
	MYu ch'àa(h/j) 'gota' (?)	h/j	àa
HAB'-b'i	pC *hab' < pM *ha7b'	b'	a(7)
7i-ka-tzi	Tze ihcatz(-il) '(la) carga'	tz	a(a)
7i-tz'a-ti	CYu <itz'at> 'wise man'	t	?a(?)
	Mo 7i:tz'-a' (tv) 'saber, conocer		
	Mo 7i:tz'-o:m (ap) 'sabio'a(a)		
	cf. Itzaj 7aj-aw-at 'shouter' <		
	aw 'shout' + -at 'agentive(?)'		
ja-yi	pC *jay < pM *jaay 'thin'	y	a(a)
hu-chi	MCh'ol huhch 'conch shell'	ch	u(h)
hu-b'i	Yu hub' 'conch shell'	b'	u
yi-ch'a-ki	pC *7ihch'ak < pM *7iSk'aq 'nail, claw'	k	a
yi-cha-ni	pC *7ichan < pM *7ikaan 'uncle'	n	a(a)
ma-xi	pC *max 'spider monkey'	x	a
mu-ti	pC *mut < WM *muut 'bird'	t	u(u)
na-hi	MYu nah 'house'	h	a
7OTOT-ti	pC *7otot < pM *7atyooty 'house'	t	o(:)
pa-ti	pC *pat < ?pM *paaty 'back, peel'	t	a(a)
su-tz'i	pC *sutz' < pM *so7tz' 'bat'	tz'	u(7)

[39] Spellings whose contexts and/or interpretations cannot be confirmed at this point by this author have been omitted. These include spellings of words with final apical (e.g., **ch'a-ti**, **cha-chi**) and non-apical (e.g., **xo-ki**, **wo-hi**) consonants.

[40] The proto-Ch'olan entries are from Kaufman and Norman (1984), the Modern Ch'ol entries are from Aulie and Aulie (1978), the Modern Yukatek entries are from Bricker, Po7ot Yah, and Dzul de Po7ot (1998), the Colonial Yukatek entries are from Barrera Vásquez et al. (1980) or (), the Mocho' entries are from Kaufman (1967), the Itzaj entries are from Hofling and Tesucún (1997), and the Tzeltal entries are from Slocum and Gerdel (1971).

ta-hi	?pC *tah < pM *tyaah 'obsidian'	h		a(a)	
TUN-ni	pC *tun < pM *tooN 'stone'	n		u(u)	
wa-WAJ-ji	pC *waj < WM+Yu *waaj 'food'	j		a(a)	
7AYIN-na	pC *7ahin < pM *7ahiin 'alligator'	n		i(i)	
ha-7o-b'a	?pC ha7-o(7)b'(+a) 'these ones (?here)'		b'		o(7)
b'u-la	pC *b'u7ul 'beans'		l		u7u

Table 3.1. (Continued)

SPELLING	ITEM		...C		...V(G)...
hu-na	pC *hun < pM *hu7N 'paper, book'		n		u(7)
yi-tz'i-na	pC *7ihtz'in < pM *7ihtz'iin 'younger sibling'		n		i(i)
ka-se-wa	<cazeu>	w		e(?)	
ke-le-ma	MYu kelem 'handsome',	m		e	
	keléem 'shoulder'		m		ée
tu--pa	MYu tùup 'earring'		p		ùu
yu-ha	pC 7uh < pM *7u7h 'bead, necklace'		h		u(7)
-Co-ma	pC -om < pM *-oom 'agent noun'	m		o(o)	
to-k'a	pC *tok' < Lowland *took' 'flint'	k'		o(o)	
7a-ku	pC *7ahk 'turtle' < WM+Yu *7ahk	k		a(h)	
b'a-tz'u	MYu b'àatz' 'howler monkey'	tz'		àa	
che-b'u	CYu <cheb> 'brush (feather) for writing'	b'		e(?)	
7e-b'u	pC *7ehb' 'ladder' < pM *7ehb'		b'		eh

Unclear/Unknown Etymology/Contexts[41]

ch'a-ti, MAN-ni, mi-ya-tzi, si-ya, K'AWIL-la, ni-la, ki-ta, k'u-ti-ma, ma-su, mu-chi, mu-ku-yi, 7a-nu, 7u-si, chi-ku, te-mu

[41] The meaning is not obvious from its context, only perhaps its general function; or the source of the example is not mentioned in Houston, Stuart, and Robertson (1998), in which case I cannot confirm its context.

Table 3.2.[42]

...Ca(G)C ROOTS

SPELLING	ITEM[43]		
7a-ja-wa	pC *7ajaw 'king, lord' < pM *7aajaaw		S
7a-ku	pC *7ahk 'turtle' < WM+Yu *7ahk	D	
7AT-ti	pC *7at 'penis' < pM *7aaty		D
BAK-ki	pC *b'ak 'bone' < pM *b'aaq		D
cha-b'i	pC *chab' 'honey' < pM *kaab'		D
cha-ki	Ch'ol chahk < pC *chahuk 'lightning' < pM *kahoq	D	
CHAN-na	pC *chan 'sky' < pM *ka7N		S
cha-pa-ta	chapaht 'centipede'		S
ch'a-b'a	pC *ch'ahb' 'fast' < pM *k'ahb' (3)		S
ch'a-hi	pC *ch'aj 'bitter' < pM *k'ah		D
HAB'-b'i	pC *hab' 'year' < pM *ha7b'		D
yi-ch'a-ki	pC *7ihch'ak 'claw' < pM *7iSk'aq		D*
yi-cha-ni	pC *7ichan 'uncle' < pM *7ikaan	D	
ja-yi	pC *jay 'thin' < pM *jaay	D	
KAB'-b'a	pC *kab' 'earth' < pYu *kaab' < pM *kab' ~ *kaab'	S	
k'a-b'a-7a	pC *k'ab'a7 'name' < LL *k'aab'aa7		S
k'a-k'a	pC *k'ahk 'fire' < pM *q'ahq'		S
la-ka	cf., Yukatek làak 'clay cup'		S
ma-xi	pC *max 'spider monkey' < Lowland #ma7x		D
na-hi	Yukatek nah 'house', pM *Naah (?)(HSR)	D	
na-li	Yukatek -nal 'from/at/in [place]' (?)		?
pa-ti	pC *pat 'back' < ?pM *paaty		D
TAN-na	pC *tahn 'chest' < LLxCT *tahn	S	
ta-hi	pC *tah 'obsidian' < pM *tyaah	D	

[42] For some of the examples in Houston, Stuart, and Robertson (1998) (e.g., **7a-nu**, **ma-su**) the etymology and phonological shape are still uncertain or unclear, making it impossible for now to use them as positive data for either Ca(G)C or Cä(G)C sequences. (Also, examples like **ma-su** are misleading, because the spelling may reflect a partly spelled -ul suffix suggested by the alternate spelling **ma-su-la**). Only nouns are included, since verbs and suffixes may not constitute cases with final silent vowels (e.g., **hu-li** may spell *hul-i-Ø 's/he/it arrived (here)' and -**wa-ni** may spell *-wan-i 'completive status of positionals'). I have not included spellings/interpretations that I have not been able to confirm either (e.g., **b'a-tz'u** for b'at7z' 'howler monkey').

[43] An S indicates that the spelling is synharmonic despite preconsonantal aG (G = /:/, /7/, /h/), and a D indicates the spelling is disharmonic, and a D* indicates the spelling is disharmonic despite preconsonantal a without G.

Table 3.2. (Continued)

...Ca(G)C ROOTS

SPELLING	ITEM	
to-ka-la	pC *tokal 'cloud' < pM *tyooq(-al)	S
wa-WAJ-ji	pC *waj 'tamale' < WM+Yu *waaj	D
wa-ya	pC *way 'sleep; animal spirit' < pM *war	S
ya-la	pC *7al 'woman's offspring' < pM *7aal	S

...Cä(G)C ROOTS (ALL SYNHARMONIC)

SPELLING	ITEM
7a-k'a-b'a	pC *7ahk'äb' 'night' < pM *7ahq'ab'
b'a-la-ma	pC *b'ahläm 'jaguar'
ka-ka-wa	pC *käkäw 'chocolate' < MZ *kakawa
k'a-b'a	pC *k'äb' 'arm' < pM *q'ab'
K'AN-na	pC *k'än 'yellow'
na-la	pC *näl 'maize ear' < pM *Nal
na-la	Yukatekan *-nal 'from/at/in' (e.g., **yi-chi-NAL**)
sa-ka	pC *säk 'white' < pM *saq

Table 3.3.

Verb Type	ERG	Stem	INC	CMP	ABS
TRANSITIVE	A-	_	-Vw		-Ø
	A-	_		-aj	-Ø
ANTIPASSIVE	S-	_	-Vl		
	--	--	--	--	
INCORPORATIVE ANTIPASSIVE	S-	_	-Ø		
		_		-aj	-S
(MEDIO)PASSIVE	S-	_	-Ø		
		_		-aj	-S
INTRANSITIVE	S-	_	-Ø		
		_		-aj	-S
POSITIONAL	--	--	--	--	
		_		-l-aj	-S
		_		-wan	-S

CHAPTER IV: LIST OF TABLES

Table 4.1

PATTERN	FREQUENCY	EXAMPLES (KERR-#)
1. **7u-**	**(6/162)**	
1a. **7u-k'i-b'i**	(3/6)	703, 1183, 4379
1b. **7u-k'i-b'a**	(1/6)	6997
1c. **?7u-k'i-b'i**	(2/6)	1186, 2323
2. **yu-**	**(159/162)**	
2a. **yu-k'i-b'i**	(153/162)	509, 511, 518, 6997
2b. **yu-k'i-b'a**	(2/162)	2206, 3025
2c. **yu-k'i-?-b'i**	(1/162)	1379
2d. **yu-k'i-b'i-?la**	(3/162)	1371, 2152, 4995
2e. **yu-k'i-?b'i**	(2/162)	5448
3. **-b'i**	**(158/162)**	
3a. **7u-k'i-b'i**	(3/158)	cf. 1a
3b. **yu-k'i-b'i**	(153/158)	cf. 2a
4. **-b'a**	**(3/162)**	
4a. **7u-k'i-b'a**	(1/3)	6997
4b. **yu-k'i-b'a**	(2/3)	2206, 3025
5. **[ba]**	**(2/162)**	
5a. **yu-k'i[b'a]**		3924, 5350
6. **-b'i-?la**	**(3/147)**	
6a. **yu-k'i-b'i-?la**		cf. 2d

Table 4.2

PATTERN	FREQUENCY	EXAMPLES (KERR-#)
1. **(y)u**-T128-**b'V**	**(5/162)**	
2. **yu**-T128	**(5)**	
2a. **yu**-T128[**b'a**]	(2/5)	1728, 5453
2b. **yu**-T128-**b'a**	(1/5)	791
2c. **yu**-T128-**b'a-b'i**	(2/5)	635, 1226
3. -**b'a-b'i**	**(2/6)**	
3a. **yu**-T128-**b'a-b'i**		cf. 2c
4. **7u**-T128-**b'V**	**(1/6)**	
4a. **7u**-T128-**b'a**		1339

CHAPTER VI: LIST OF TABLES

Table 6.1.

MONUMENT	SITE	DATE	SCRIPT
Monument 13	La Venta	600-500 B.C.	Olmec
Monument 1	El Porton	400 B.C.	Mayan(?)
Sherd	Chiapa de Corzo	300 B.C.	Epi-Olmec
Stela 27	Izapa	300-50 B.C.	?
Chicanel Sherd	El Mirador	200-100 B.C.	Mayan
Stela 2	El Mirador	A.D. 1-100	Mayan
Stela 2	Abaj Takalik	236-19 B.C.	Mayan
Stela 10	Kaminaljuyu	300-100 B.C.	Mayan(?)
Misc. Mon. 60	Izapa	200 B.C.	?
Altar 1	El Polol	176 B.C.-A.D. 35(?)	Mayan
Stela 2	Chiapa de Corzo	36 B.C.	Epi-Olmec
Stela C	Tres Zapotes	32 B.C.	Epi-Olmec
Altar 1	Kaminaljuyu	Late Preclassic	Mayan(?)
Monument 65	Kaminaljuyu	Late Preclassic	Mayan(?)
Stela 1	El Baul	A.D. 36	Mayan(?)
Bas-relief	Loltun Cave	Protoclassic	Mayan
DO Celt	Unprovenanced	A.D. 120	Mayan
Stela 5	Abaj Takalik	A.D. 126	Mayan
Stela 1	La Mojarra	A.D. 157	Epi-Olmec
Tuxtla Statuette	Veracruz	A.D. 162	Epi-Olmec
Hauberg Stela	Unprovenanced	A.D. 197	Mayan
Stela 21	Kaminaljuyu	A.D. 200	Mayan(?)
Monument 1	Chalchuapa	A.D. 200	Mayan(?)
Carving	San Diego Cliff	Protoclassic	Mayan
Altar 2	Kaminaljuyu	A.D. 200	Mayan(?)
Monument 11	Abaj Takalik	Protoclassic	Mayan
Bone stylus	Kichpanha	A.D. 150	Mayan
Diorite axe	Hatzcap Ceel	Protoclassic	Mayan

Table 6.1. (Continued)

MONUMENT	SITE	DATE	SCRIPT
Jade axe	Kendal	Protoclassic	Mayan
Jade bivalve effigy	Kendal	Protoclassic	Mayan
Stela	Alvarado	Late Preclassic(?)	Epi-Olmec(?)
DO Pectoral	Unprovenanced	Late Preclassic	Mayan
PMY jaguar	Unprovenanced	Late Preclassic	Mayan
Jade Clamshell	Unprovenanced	Late Preclassic	Mayan
Jade Spoon	Unprovenanced	Late Preclassic	Mayan
Brooklyn Museum	Unprovenanced	Late Preclassic	Mayan

Table 6.2.

TEXT	ABBREVIATION
Loltun Cave Bas-relief	LCA relief
Dumbarton Oaks jadeite celt	DO celt
Abaj Takalik Stela 5	ABT 5
La Mojarra Stela 1	LM 1
Tuxtla Statuette	TXT statuette
Hauberg Stela	HBG stela
El Mirador Chicanel Sherd	ELM sherd
El Mirador Stela 2	ELM 2
Abaj Takalik Stela 2	ABT 2
Kaminaljuyu Stela 10	KJ 10
San Diego Cliff Carving	SDC carving
Abaj Takalik Monument 11	ABT 11
Dumbarton Oaks quartzite pectoral	DO pectoral
Peabody Museum at Yale basalt jaguar	PMY jaguar
Jade clamshell effigy pectoral	UNP clamshell
Jade Museuum jadeite spoon	JM spoon
Brooklyn Museum Olmec jade mask	BMA mask
Pomona jadeite earflare	PMA flare
Chichen Itza Cenote tubular jadeite bead	CNT 6125
Kendal jadeite bivalve earring	KND bivalve
Kendal jadeite axe	KND axe
Kichpanha bone	KCH bone
Hatzcap Ceel diorite axe	HTZ axe
Kaminaljuyu jadeite ear plug	KJ plug

Table 6.3.

Text	Blocks	Sign Total	Distinct Signs[44]	Signs/ Block	Total/ Distinct
DO pect.	24	37	32	1.6	1.2
PMY jag.	16	22	22 -6 = 16	1.4	1
JM spoon	8	18	13 -7 = 6	2.3	1.4
UNP clam.	8	13	12 -5 = 7	1.6	1.1
	Total: 56	Total: 89	Total: 61	Average: 1.6	Average: 1.2 Total: 1.5

[44] I have substracted the number of signs that are repeated from text to text, so that the total at the bottom of this column represents the total number of distinct signs in the four texts as a whole.