The proto-Sapoteko key file was done 28 March - 4 April, 1993 by going through my card file collection of Sapotekan etymologies. Quite a few more etymologies could be found in the available sources.

I have not counted the reconstructions, but assuming all sub-entries are counted, I imagine there are between 600 and 700, and perhaps 500 roots.

The reconstructions are approximate in some cases. All must be checked, and some will be refined along with the statement of historical phonology.

This database has been a-building since the mid sixties. The biggest share of data was the entry of Fernandez de Miranda’s data under some 500 Spanish glosses, which was copied off in 1984, using a 1961 ms. file that Nick Hopkins and Kathryn Josserand had on trust/loan from Doris Bartholomew. F de M’s materials include a ms. which reputedly was submitted for publication to the Museo Nacional de Antropologia before F de M’s death, but was never published because of an editorial decision that the work was not ready for publication. [This work was shepherded through publication by Thomas Cedric Smith-Stark and appeared in 1995]. My work has mainly been the sifting of etymologies proposed earlier, and multiplying of etymologies by splitting up proposed cognate sets. I found a few (less than ten) myself, and Rob MacLaury found a couple.

My phonological analysis is based on (and could be thought of as a refinement of) those of F de M and Swadesh; Joe Benton, whose work I saw after I had worked out my own reconstruction, has had some interesting ideas, adopting, as I did, Swadesh’s analysis of the Sap fortis/voiceless obstruents as geminates; but in general I have not adopted his innovations. Benton’s cognate sets embody some etymologies not found by F de M, and most importantly, he has data from Western Sapotekoo not found in F de M’s sets. Suarez’s hypotheses have not been particularly helpful. My own reconstruction does not yet account for tone, but segments, including /ː/ and /ɬ/, are pretty well worked out.

Over the years I have spent several chunks of time (up to 9 weeks) on Sapoteko description and comparative linguistics. I have probably seen most of the phonology and morphophonology, but a lot of syntax and some derivation undoubtedly have escaped my eye. But I will gradually learn more.
Observations

Most pSap forms with a root-initial geminate can be shown to have a prefix that consists of or ends in a consonant (perhaps only /k/). Very few pSap root morphemes (w/o prefixes) begin with a geminate. This supports the geminate analysis of voiceless fortis stops, and makes it more like Dravidian and Hurrian, which have geminates, but not initially.

About half of the pSap reconstructions contain a glottal stop. Since syllable-final pre-OM stops > /ʔ/, this is not necessarily out of line.

The reconstruction of *o versus *u is not always clear. Some languages lack the contrast; others change *u to /i/ or /e/ under certain conditions.

Notation Conventions

E    e or i
V    some vowel
\ after a symbol means the reconstruction at that point is uncertain and possibly wrong.
%
root

Spanish spelling:
   <n*> (not <ny>), <u">, <a*>, <e*>, <i*>, <o*>`, <u*>
Sapotekoo dialects belong to five main divisions, each of which should be considered a separate language:

- Northern (N)
- Central (C)
- Southern (S)
- Papabuco (P)
- Western (W)

Each of the "languages" has several major dialect groups: but the number of ethnolinguistic groups under Sapoteko reported in Ethnologue is monstrously inflated.

When the reconstructions were being assembled, I thought that Central and Eastern might be separate languages; now I think they are not, though there is considerable internal diversity. Wherever "E" is found in the attestations, C should probably replace it.

Chatino (Ch) is cited whenever a cognate is known to exist; Ch cognates that are not fully cognate phonologically are noted by square brackets: [Ch]

Chatino is not a member of the Sapoteko group (15mc); it is coordinate with Sapoteko, and with it forms the Sapotekan family (24mc). Proto-Sapotekan has a somewhat different phonological structure from proto-Sapoteko. Although the forms cited here are mostly proto-Sapoteko and not proto-Sapotekan,
Chatino reflexes of proto-Sapotekan final vowels have occasionally been used to resolve ambiguous vowel reflexes in Sapoteko proper [proto-Sapoteko has root-initial stress, and many descendant Sapoteko varieties have lost some or all unstressed vowels; Chatino has stress on root-final vowels, which are consequently never dropped.] Where Chatino has nasalized vowels, Sapoteko has lost the nasality, and the nasality is reconstructed. In addition, a form found in Chatino and only one form of Sapoteko was surely found in proto-Sapoteko.

lexical distributions:

Northern Fringe
N + C
C + S

Southern Fringe
S + W
S + Ch
W + Ch

Rough tree diagram of Sapoteko(an) languages

```
  pSapn
  x  x
  x  x
  x  x
    pSap  x
    x  x  x
    x  x  x  x
    x  x  x  x
    x  x  x  x
    x  x  x  x
    x  x  x  x
    x  x  x  x
    x  x  x  x
    x  x  x  x
  x  x  x  x  x
  x  x  x  x  x
  x  x  x  x  x
  x  x  x  x  x
  x  x  x  x  x
  x  x  x  x  x
  x  x  x  x  x
  x  x  x  x  x
  x  x  x  x  x
  x  x  x  x  x
  x  x  x  x  x

NS  CSw  SS Pap WS  Ch
```
This file is in effect a list of headings under which cleaned-up Sapoteko etymologies should be arrayed.

The reconstructed vocabulary provides data for the analysis of derivational morphology, not only of some regular patterns, but especially of numerous patterns that are only partly regular, and a variety of clitics-affixes of only moderate frequency.

All grammatical morphemes that have definable functions and show cognates within Sapoteko are listed. The relevant section of OMTAM is found at the end of this file.

To be included in this list an item has to be found in at least two divisions of Sap, or in one of them plus Chatino. Some items are limited to C. They were included before it was realized that C is just one division. They are left in, because a C dialect was probably the language being written in the Valley of Oaxaca from 500 AD to 1000 AD. Before that proto-Sapoteko (500 AD), pre-proto-Sapoteko (500 AD to 400 BC), proto-Sapotekan (400 BC) and pre-proto-Sapotekan (400 BC to 1300 BC) were spoken there.

My motive for creating this file was to prepare relevant materials for the possible decipherment of Oaxacan ("Sapoteko") writing. Another conceivable language for the Valley of Oaxaca is Mije-Sokean. I have worked on both these possibilities, Sapoteko seems assured, inasmuch as a sizable number of plausible and interlocking phonetic readings and syntactic parsings have been achieved on the assumption that the language of these inscriptions is Sapoteko(an). [see Kaufman & Justeson 1993-2006ms, The Decipherment of Sapoteko Hieroglyphic Writing]

Examples of Mije-Sokean influence on Sapoteko, but not Chatino, therefore between 400 BC and 500 AD, are:

- stem-initial stress (vs. normal final stress in other OM languages)
- insertion of preconsonantal /h/ in some forms of Sapoteko
- almost total shift of pre-Sap *kw to pSap *p
- pSap *mmani7 ‘animal’ < pSokean *mW7a ‘deer’ + pSapn *ni7 ‘animal’

OTHER TRAITS TO BE ADDED: cited near end of file

Alphabetical order: a aε e i k kw l m n o p s t tz ty u w x y

The spelling used for pSap is a subset of a practical orthography for writing
present-day Sapoteko and Chatino. This orthography is also designed to be used for transcribing the phonetic symbols of Sapoteko (Valley of Oaxaca) writing, as they are deciphered.

The Sapoteko(an) orthography is in turn related to that used for Mije-Sokean languages and the recently-deciphered Epi-Olmec writing system (Justeson & Kaufman 1993, 1997; Kaufman & Justeson 2003) and both of these in turn to the orthography for the Mayan languages developed at the PLFM in the 1970s and officialized in Guatemala in 1987. A variant of this orthography is used by PROCOMITH and the Tzeltal-Tzotzil Writers’ Workshop for writing Mayan languages of Chiapas.

Briefly put, these orthographies (as used by TK)
(a) are phonemic
(b) write each phoneme in one way only
(c) use digraphs and overstrikes as needed
(d) avoid the graphs č, ň, hu, gu
(e) use tz, not ts
(f) use j, not h, unless j = [x], h = [h]
(g) use ʔ for glottal stop
(h) use x for [s^]

Chatino: the primary contribution of Chatino to proto-Sapotekan is vowel nasality. The reconstructions need to be modified to reflect this when relevant.
Proto-Sapoteko sounds

<table>
<thead>
<tr>
<th>t</th>
<th>ty</th>
<th>tz</th>
<th>k</th>
<th>kw</th>
</tr>
</thead>
<tbody>
<tr>
<td>s</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>mm</th>
<th>n</th>
<th>l</th>
<th>y</th>
<th>w</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>i</th>
<th>u</th>
<th>e</th>
<th>o</th>
<th>a''</th>
<th>a</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>i</th>
<th>e</th>
<th>a''</th>
<th>a</th>
<th>o</th>
<th>u</th>
</tr>
</thead>
</table>

V

<table>
<thead>
<tr>
<th>V:</th>
<th>6</th>
<th>5+</th>
<th>1</th>
<th>10+</th>
</tr>
</thead>
<tbody>
<tr>
<td>V7</td>
<td>75+</td>
<td>100+</td>
<td></td>
<td></td>
</tr>
<tr>
<td>V:7</td>
<td>25+</td>
<td>25+</td>
<td>25+</td>
<td>15+</td>
</tr>
<tr>
<td>V7V</td>
<td>10+</td>
<td>12+</td>
<td>10+</td>
<td></td>
</tr>
</tbody>
</table>


In Sapoteko there is no consonant phoneme /7/.

[V7] is a “checked” syllable, symbolizable as /V’/.

[V17V1] ~ [V:] is a “broken” syllable, symbolizable as /V”/.

[V17V2] does not occur.

It is problematic that *V:7 is much more common than *V:; *V: and *V7V cannot be merged; *V: and *V:7 cannot be merged.

Relative frequencies are V - V7 - V:7 - V7V - V:

One imagines a possible connexion among V7V, V:7, and V:, whereby all of them could be /V:/ -- it would have to relate to tone differences.

The following alternations are found in different forms of the same root upon addition of derivational morphemes.

V ~ V7

V ~ V:7
Thus there exist derivational morphemes/processes of the shape
    \( V \Rightarrow V7 \)
    \( V \Rightarrow V:7 \)
    \( V7 \Rightarrow V:7 \)
    \( V7V \Rightarrow V:7 \)

This shows that \( V:7 \) is often derived from something else.
Discrepancies of this type should not impede reconstruction.
The vowels \(*V\), \(*V7\) or \(*V7V\) should probably be reconstructed in such cases.
Sound correspondences [to be filled out where blank]

pSapn pCht pSap CHO VA R ATP JCH CHI MTL CUI COA TEX ZAN LCH

t j t d d t d
tt j tt t t tt t
ty t ty r dx r r
tty t tty ch ch tch ch ty ky
tz tz tz dz zh tz dx
ttz tz ttz tz sh ttz ch
k k k g g g g
kk k kk k k kk k
kw kw kw b b b b
kkw kw kw p p pp p
s t s z z dh z
ss t ss s s tth s
x s x zh zx zx zh
xx s xx x x xx x
mm mm b mm m
n n n n n n n
nn n nn n nn n nn
l l l l 1 l l 1 l l
ll l l ll 1 lh 1 nd
y y y y y y y
w w w w w w w

pSapn pCht pSap CHO VA R ATP JCH CHI MTL CUI COA TEX ZAN LCH

i i i i i i i i
e e e e e e e i
a a a a a a a
an an a"
o o o o o o,u
u u u o o u,o

Vn Vn V

ik# i ik gh Ia e
ek# e ek gh Ia e
ak# a ak gh Ia e
ok# o ok oG ghw Ia e

V V V V V V
V: V V V V V V V: V:
V:7 V V V V V V: V7
V7V V7V V7V V7V V7V V7V V7 V: V:7
V7 V7 V7 V7 V7 V7 V7 V

pSapn pCht pSap CHO VA R ATP JCH CHI MTL CUI COA TEX ZAN LCH
**A**

**a** (N,C) vi madurarse/to get ripe

**a7anna** (N,C) vi arar/to plow; escarbar/to dig; rozar/to clear land

- **k-a7anna-k** (N,C,S) vtD (k > t) escarbar(lo)/to dig (it)
- **ko-7onna(k)** (ko+ a7anna(k)) (N,C,S) v arar/to plow; "buey"/ox

**y-aka** (N,C,W,S) s fri*o/cold

**%aka7**
- **ti+ yaka(7)** (C;Ch) s oreja/ear
- **n-aka(7)** (N) s oreja/ear
- **(na+) laka7** (N,C) adj ancho/broad, wide
- **llaka7** (N,C,S,W;Ch) s hoja/leaf

**akka** (N,C,S;Ch) vC poder, ser capaz/to be possible; suceder, ocurrir, llegar a ser/to happen

- **y-akka** (N,C,S;Ch [y > tz]) v sanar(se)/to get well
- **na+ s-a:7kka** (C) sano, saludable/healthy; bien/well; bonito, chulo/cute

**sakka7** (N,C,S) vi (a) sufrir, enfermarse (N,C);
(b) alegrarse, felicitar, estar feliz (N,C)

- [how are these two meanings linked?]

**aku** (N,W;Ch) vtD (0 > t) comer(lo)/to eat (it)
- [I originally thought this was part of *awo (C,N,S);
COR <-ago>; ZOO /-agw/; LCH /-ahko/; ZEN /-aku/; YAI /-ku/]

**akku** (N,C,S;Ch) viC vestirse/to get dressed

**%ala7**
- **y-ala ~ y-alok** (N,S,W;Ch) adj abierto/open; claro/clear
- **x-ala ~ x-alok** (C,S;Ch) adj abierto/open
- **ok+ x-ala ~ ok+ x-alok** (C,S) caus abrir/to open

- **n-alla** (N,C,S,W;[Ch]) adj fri*o/cold [cf. %lla [1]]

**y-a:7lla** (C; N? w/o y-) vB olvidar/to forget
y-a\llV (C,S)  vi  venir//to come
alak (N,C,S,W;Ch)  viC  nacer//to be born
k-a7na (N,C)  vtD (k > t)  tentar(lo), tocar(lo)//to touch (it)
y-a7ana (N[y > k],C,S;Ch)  vi  quedarse, permanecer//to stay, remain
                     ok+ s-a:7nna (N,C,S)  caus  dejar//to leave
akwa7 (N,S)  viC  gotear//to drip
a(k)kwa (N,C;Ch)  vt [N:vtC;C:vtD (k > t)]  tejer(lo)//to weave (it)
akkwa (N,C,S)  vtC  tener(lo)//to hold (it)
            k-akkwa7 (7) (N,C)  vtD (k > t)  golpearlo/pegarle con la mano, abofetear(lo)//to hit him/it (with the hand)
%a7kkwa
            1-a7kkwa (N,[C];Ch)  adj  plano, aplanado//flat, level
            tt-a:7kkwa7 (N,C)  vi  aplastarse//to get flattened
akwi (C,S;Ch) v  decir//to say
akkwi (N,C,S)  vi  subir//to go up
a:7sa (N,C,S;Ch)  vtC  sembrar(lo)//to sow (it), plant (it); clavar(lo)//to stick (it) in
            (y-)assa (N,C,S,W)  vi  levantarse//to get up, to rise
a7ssa7 (N,C,S;Ch)  vtC  mascar(lo)//to chew
assi (N,C,S;Ch)  vi  dormir//to sleep
asak (N,C,S,W;Ch)  viC  ban*arse//to take a bath
                     ok+ asak (N,C,S)  caus  ban*ar//to bathe, give a bath to
k-assak (N,C,S,W;Ch) [k- ~ y- (N,C,W)]  adj  negro//black
a7tta7 (N,C,S)  viC  acostarse//to lie down
atti (N,C,S;Ch)  viC  morir//to die
            kella7 ko-tti {ko+ atti} (N,C,S)  sv  muerte//death
            u:7tti (N,C,S;Ch)  vtA  matar(lo)//to kill him
atyi7 (N,C,S;Ch)  vG  mamar//to nurse [cf. %tyi7]
atza(k) (C;Ch) vi/adj mojarse; mojado//(to get) wet  
[Cord. <-acha>]

ok+ atza(k) (C,S;Ch) caus mojar(lo)//to make (it) wet

y-attzi (N,C,W) ~ k-attzi (N,C,W,S;Ch) adj amaril(lo)//yellow

ku-ttzi {?ko+ attzi} (N,C,S;Ch) adj amaril(lo)//yellow

awo (N,C,S) vtD (Ø > t) comer(lo)//to eat (it)

kella7 k-awo (N) ~ ty-awo (C) sv comida; alimento//meal; food

awo xi+ tze7 (N,C,S,W;[Ch]) vt + s cenar//to eat supper

awo ye7a (N,C) vtD + adv morder(lo)//to bite (it) [lit. EAT RAW]

awo xi+ si:7la (N,C) v + s comer almuerzo/desayuno//to eat breakfast/elevenses
A&

**y-a:7kun** (E) vi taparse//to get covered; cerrarse//to (get) close(d)

ok+ **s-a:7kun** (C,W;Ch) caus tapar//to cover; cerrar//to close
[cf. *-a:7yok (N,C,?S)]

--- SAME? ---

**y-a:7yok** (N,C) vi cerrarse//to get covered

ok+ **s-a:7yok** (N,C,S) caus cerrar//to close; cubrir, tapar//to cover [cf. *-a:7kun (C,S,Ch)]

**k-a:7kwe** (N,C,S;Ch) vD (k > t) tragar//to swallow

**k-a:7kwi** (???) vtD (k > t) sobar(lo), frotar(lo), darle masaje //to rub him, massage him

**t-a:7tzzi** (N,C,S) adj vaci*o//empty
kw+ e(7) (N,C,S;[Ch ‘bat’]) s mariposa//butterfly; polilla//moth

kw+ e(7) (+) keti7 s + modif mariposa//butterfly (C,W); murcie*lago//bat (N,C,W)

kwe+ keti7 kwe+ sina7 (C,S) s + modif murcie*lago//bat
[lit. BUTTERFLY MOUSE]

kw+ e7 (N,C ‘pulga’) s liendre(s)//nit(s) [WEAK SET]

(kw+ ettzu7) kw-e:7 (N,C,S;Ch) s cangrejo//crab, crawfish

kwe-k (C) s caracol//snail

ty-e7 (N,C) adj sentado//sitting, seated

kw-e7 (N,C) viD (kw > ty) sentarse//to sit

ok+ kw-e7 (N,C) causA sentar//to set

kw+ e:7 (N,C,S,W;Ch) s aire//air; viento//wind; aliento//breath

E7k (N,C) vtC beber(lo)//to drink (it)

kw-e:7k (N,C) vtD (kw ~ l ~ ty) sacar(lo)//to take (it) out/off

%eka7

xika7 (N,C,S,W;Ch) s ji*cara//gourd (dipper), water gourd
[cf. Nawa xikal-li which is borrowed from Sapoteko]

k+ eka7 (N,S,W;Ch) [k > kw:N; k > ty:C,Ch] s bule//water gourd

k-eka7 (N,C,S,W;Ch) [k > kw:N; k > ty:C,Ch] s hielo//ice; helada//frost; nieve//snow

kw+ eku (C,W) s paloma//dove

l-eku (N,C;Ch:s < *x) [l ~ kw ~ t] adj jorobado:///hunchbacked

kw+ e7kku7 (N,C,S,W) s perro//dog

ni=kku (Ay,L) s perro//dog [lit. ANIMAL DOG]

[NOTE: not in Ch; > Wasteko pik’o7, Yukateko pe:k’]
[cf. pMije-Sokean *7uku ‘dog’ > Chimalapa Soke ‘agouti’: pSap *kw+ e7kku7 < **kwe+ u7kku7 by rule d]

y-ekkenk (N,C,S;?Ch) vi regresar//to return; torcerse//to get twisted
ty-e:7la (N,S,W;Ch) ~ k-e:7la (N,C,S) s noche//night
kw+ ela ~ kw+ elok (N,C,S,W;Ch) s estrella//star
kw+ ella [1] (C,S,W) s hermana de mujer//woman’s sister
kw+ ella [2] (N,C,S;Ch) s pescado//fish
kw+ e:7lla (N,C,S,W;Ch) s culebra//snake; gusano//caterpillar
ty-e7ne (N,C;[Ch]) (ty > k:some S; ty > kw:some S,some C;Ch) adj
tierno//very young
kw+ enne7 (N,C,S,W;Ch) s gente//people
  kw+ enne7 tzakwa7 (C) s + modif diablo, demonio//devil
  [lit. PERSON BAD]
  kw+ enne7 lityi (C,S) s of s familia, pariente//kinsman
  [lit. PERSON of HOUSE]
  kw+ enne7 k-o:la (N,C) s + modif anciano//old person
  [lit. PERSON OLD]
(na+) x-e(7)ni (N,C,S;[Ch]) adj amplio//spacious; ancho//wide;
grande//big
  xe (N,W;Ch) adj amplio//spacious; ancho//wide; grande//big
  ty-eni (N,W) adj grande//big
kw+ e7nak (C,S,W;Ch) s lagarto//cayman
C-esa (N:var., C:t-,S:t-,W:kw-,l-) s tlacuache//possum
kw+ e:7sa7 (N,C,S,W;Ch) s zorra//fox [mid-sized wild animal]
kw+ eson7 (N,C,S,W;Ch) s abeja//bee
  kw+ eso7 tyenV (N,S) s + modif avispa (de panal)//wasp
  kwe+ sok (N,S) s avispo*n, abejo*n, abejorro, mosco*n//
bumblebee [N only?]
kw+ esu7 (C,S) s criatura//baby
kw+ e7tti(k) (N,C,S,W;Ch) [e [1] ~ i] s zorrillo//skunk
  cf. kwette (ya&7a&) ‘goosefoot’

k-etta7k (N,C,S,W) vi/adj bajarse//to go down; hondo//deep;
abajo//down
  1-etta7k (N,C) vi bajarse//to go down
**kw+ etya ~ kw+ etyok** (N,C,S;Ch) s ave domestica; pavo; gallina//turkey 

[cf. Wasteko pi:ta7 (W), kwita7 (C)]

**kw+ e:7ttye7** (N,C,some S;?Ch) ~ **kwe+ ttye:7** (W, some S, some N;?Ch) s piojo//louse

**kw+ etyi7** (C,S,W;Ch) s rana//frog; sapo//toad

w-etyi7 (N,C) s "orina" de sapo//toad’s venom

**kw+ e7ttyi7** (N,C,S,W) s hermano de hombre//man’s brother

**k-etzi** (N,C,S,W) [k ~ tz:N,C] adj fuerte//strong; duro//hard

**kw-etzi** (N,C,S,W) viD (kw > ty) gritar//to shout; llamar//to call; chillar//to squeak, squeal; bramar//to beller; cacarear//to cackle

**kw-etzi ya7a** (N,C,S;Ch) viD (kw > ty) aullar//to howl; gritar//to shout; bramar//to beller

ok+ **kw-etzi** (N,C,S) causA tocar flauta, etc.//to play music

**kw-e\[tz\]** (C) s cl. de arana//spider sp.

**kw-e\[tz\] ki7** (C) s + s:modif viuda negra//(black widow) spider [lit. SPIDER of FIRE]

**kw+ e:7tzi(k)** (N,C,S,W;Ch) s tigre, leon//large wild feline

**kw+ ettzi** (N,C,S,W) [e ~ i] s zopilote//buzzard

**ko:la kw+ ettzi** (C,S) s zopilote//buzzard [lit. OLD.PERSON BUZZARD [1]]

%ettzu7 "arthropod"

**kw+ ettzu7 ka7a** (N,C) s + modif saltamontes, chapulini//grass-hopper

(kw+ ettzu7) **kw-e:7** (N,C,S;Ch) s cangrejo//crab, craw-fish

**kw+ ettzu7 su** (N,C) s + modif langosta//locust/lobster

**y-exxu** (N,C,S,W;Ch) [e > a:C; y > k ~ l:W,S] s aguacate//avocado

**kw+ exV** (N,C,S) s paloma, torcaza//dove; "huila, pa*jaro"//"pecker"

**kw+ e7wa** (N,C,S) s guacamaya//macaw

[cf. pMije-Sokean *7owa 'macaw': pSap *kw+ e7wa < **kwe+ o7wa by rule d]

**kw+ ewe** (C;Ch) s puerco, *javali*/*peccary

**kw+ eya7** (N,C;Ch) s animal, esp. insecto//bug, etc.
kw+ e7ya [1] (N,C,S;Ch) s mosca, mosquito//fly

kw+ e7ya [2] (N,C,S,W;Ch) s hongo//mushroom

kw+ e7yo7 (N,C,S,W;Ch) s luna//moon; mes//month

tza&7 (X) kw+ e7yo7 (N,C,S) "luna llena" //full moon;
lit. llenarse la luna//moon to be full

kw+ e7yu (N,C,W;Ch) s pulga//flea

kw+ eyu7 (C,S;Ch) s aran*a//spider
I

i:7 (E) vi agriarse/to get sour

na+ y-i:7 (C,S) ~ s-i:7 (N,W) adj agrio//sour

kw+ i7i (N,C,S) s nin*o//child

i7ita (N,C,S;Ch) [C:i > e] viA venir//to come

s-ina (N,C) ~ k-ina (S,W;Ch) s palma//palm tree

k-inVk (N,C,S) vtD (k > t) golpear(lo), azotar(lo), pegar(le) //to hit (it), beat (it)

k-ikwa (C,S;Ch) vD (k > t) coser//to sew

k-i:7kwE (N,C) vtD (k > t) lavar(lo)//to wash (it)

%i:7kwi

kw-i:7kwi (N,C,S;[Ch]) viD (kw > tz) sacudirse//to shake

ok+ kw-i:7kwi (N,C,S) causA sacudir(lo)//to shake (it)

n-i:7kwi (C) vi mover//to move; temblar//to quiver, quake

--- SAME ROOT? ---

tz-ikwi (???) s lanzadera//weaver’s stick, shuttle

kw+ issi (C,S,W) [S:i > e] s fantasma//ghost

k-i:7ssi(k) (N,C,S) vD (k > t) distribuir, repartir//to deal out

kw+ itE (N,C,S;Ch) s chinche//bedbug

k-i:7tok [or k-itok] (N,C,S;Ch) vtD (k > t) agujerar(lo)//to make a hole in (it)

k-ittak (N,C,S;Ch) viD (k > t) jugar//to play

kw+ ittzi (W;Ch) s conejo//rabbit

t-ittzi(k) [i ~ e:C] s/RN espalda//back; atra*s//behind

k-i7ttzi (C,S;W:k > ty) v rajar(?se)//to crack

ok+ k-i:7ttzi (N,C) caus apretar//to tighten, squeeze; sobar//to rub, massage

ki:7ttzi (N,C,S,W;Ch) s metate//quern
\textbf{k-i:7ttzi7} (N,C) \ vtD \ picarlo \ (insecto)//to sting him

\begin{quote}
[NOTE: a TK original]
\end{quote}

\textbf{k-ixok} (N,C,S) \ vtD \ (k > t) \ pagar(lo)//to pay (it)

\textbf{laxok} \ s \ salario//wage \ [GET SUPPORTING FORMS]

\textbf{k-ixxe7} (N,C,S;Ch) \ s \ orina//piss

\textbf{ixxi} (N,W;Ch) \sim \textbf{na&xxi} (C/S) \ adj \ dulce//sweet \ [cf. \%xxi]

\textbf{kw-ixxi} (N,S) \ vt \ (kw > ty) \ pesar(lo)//to weigh (it)

\begin{quote}
[NOTE: a Maclaury original]
\end{quote}

\textbf{kw-i7xxi} (N:kw ~ ty,C:kw ~ t,S) \ viD \ voltearse//to turn over

\textbf{n-i7ya} (N,C,S) \sim \textbf{k-i7ya} (W;[Ch]) \ s \ pie//foot; pierna//leg
ka (C) viB rasurarse//to shave self

kwe+ ka7 (N,C,[Ch]) s collar//necklace; arete//ear-ring, ear-plug; joya//jewel, bezote//lip-plug, ?nariguera//nose-plug

ka7a (N,C,S) viB estirarse//to stretch; crecer//to grow

kw+ ettzu7 ka7a (N,C) s + modif saltamontes, chapuli*n//grass-hopper [lit. ARTHROPOD X]

kka7a (N,C) vtB coger(lo), agarrar(lo)//to seize (it), grab (it)

kka7a la7tzi7 (N,C) vt + s respirar//to breathe; suspirar//to sigh [lit. SEIZE HEART]

kalla7 (N,S) adv/adj cerca//near, close by

kwa+ ka:7lla (C,S) ~ xi+ ka:7lla (W;Ch) s suen*c, somnolencia//sleep(iness); sombra//shadow

kannV (N,S) v dudar//to doubt

kka7kwi (N,C,S,[Ch]) vB contestar//to answer

kaxxa ~ kaxxok (N,C,S,W) adj/adv cerca//near

na+ kattye (C,W;Ch) adj blanco//white

kuttyi (???) s cana(s)//gray hair

ka:7ttyik (C,S) viB aplastarse, machucarse//to be smashed

(na+) ka7ttzi7 (N,C,S,W;Ch) adj/vi escondido//hidden; ser enterrado//to be buried

o(k)+ ka:7ttzi7 (N,C,S;Ch) caus enterrar//to bury; esconder//to hide

xi+ kkawi (C,S,W) adj oscuro//dark

(na+) ka&7 (N,C,S,W;Ch) adj verde//green

kka:& (C,S) viB subir//to go up

kka&7 (C,W) adj/s ciego//blind (person)

ka&yu7 (N,C,S) s mosca//fly
ko+ kke (N,C)  s  rey//king, sen*or//lord, duen*o//owner
based on Co*rdo<coqui*> and Co*NSap <coque>.

keyek (N,C,S;Ch)  s  piedra//stone, rock
[NOTE: cf. ‘flower’, ‘rain’, which are NOT homophonous]

keyek kiyok (N,C;[Ch])  s + modif  granizo//hail
[lit: STONE RAIN] [NOTE: Ch reverses order]

keyek lawo (N,C;Ch)  s  of s  ojo//eye [lit. STONE of FACE]

ke+ kwa7 (N,C,S)  s  cielo//sky [lit. STONE SKY]

keyek sakwa (S)  s + modif  metlapil, mano de metate//muller
[lit. STONE of MULLER]

(keyek) wana (N,C,S,W;Ch)  s  espejo//mirror
[lit. (STONE) MIRROR]

ke7yek (N,C,S,W;Ch)  s  flor//flower
[NOTE: cf. ‘stone’, ‘rain’, which are NOT homophonous]

ke7i (C)  vi  tostarse/to get toasted; asarse//to get broiled

ok+ ke7i (C;Ch)  caus  tostar//to toast; asar//to broil

ke:7ku (N,C,S,W;Ch)  s  ri*o//river

kela [1] (N,C;S;Ch)  s  milpa//corn plant, corn-stalk

kela [2] (N,C;S;Ch)  s  huarache//sandal

kela [2] kiti (C,S)  s + modif  huarache//sandal
[lit. SANDAL of SKIN]

ke7la (N,C,S,W)  adj  (agua) honda//deep (water)

kella7 (N,C,S,W;Ch)  s  pla*tano//plantain, banana (N); chirimoya,
anona//sour-sop (N,C); mamey (C,S,W;Ch); zapote (C;Ch)

kella7 xono (N,C)  s  mamey//mammy apple

ke7na (C;Ch)  s  plato//plate

xi+ ke7kkwi7 (C)  s:poss  ombligo//navel

ke7sa (N,C,S,W;Ch)  s  tabaco//tobacco; cigarro//cigar
[NOTE: not ‘dust, flour’]

kessa (N,C)  s  rela*mpago//lightning; rayo//thunder

ya67kkwi kessa (N)  v + s  relampaguear//lightning to flash
[lit. GO.UP LIGHTNING]
kesso7 (N,C,S,W;Ch)  s  olla//pot
ke:7sak (N,C,S;Ch)  s  harina, pinole, pólvora//flour, pinole, powder
[NOTE: not 'tobacco']
ke7ssV (C,S)  s  animal feroz del monte//wild animal
ketta (N,C,S,W;Ch)  s  tortilla
%keti7
   kw+ e(7)(+) keti7  s  + modif  mariposa//butterfly (C,W);
   murcie*logo//bat (N,C,W)

   kwe+ kiti(7) (N,C,S)  s  murcie*logo//bat
   [NOTE: a TK original: BUT cf. foregoing, so prob. wrong]

   kwe+ keti7  kwe+ sina7 (C,S)  s  + modif  murcie*logo//bat
   [lit. BUTTERFLY MOUSE]

kettu (N,C,S,W;Ch)  s  calabaza//squash

   kettu wetzi (N,C)  s  chilacayote//winter squash?

ketye (N,C,S,W;Ch)  s  ocote//pine kindling; antorch, "vela"//a light
   yaka ketye (N,C,S;Ch)  s  of  s  ocote, pino//pino tree
   [lit. TREE of KINDLING]

xi+ ketyu7 (N,S)  s  :poss  ombligo//navel

ke:7tyu (N,C,S,W;Ch)  s  agujero, hoyo//hole

ke:tze [1] (N,C,S,W;Ch)  s  pueblo//town

   ke:tze lawo yu (???)  s  of  s  of  s  mundo//world
   [lit. TOWN of FACE of EARTH]

ke:tze [2] (N,C,S,W;Ch)  s  ixtle, fibra de maguey//maguey fiber

kettze7 (N,C,S,W;Ch)  s  espina//thorn

ke7tzu7 (N,C,S,W;Ch)  s  grano, barro//pimple; divieso//boil [cf. %tzu7]

kexxok (N,C,S,W;Ch)  s  red//net

   (kwe+) kke:7xu (C,S)  s  costra//scab

ok+ ke7xxu7 (N,S)  vT  tostar(lo)//to toast (it); asar(lo)//to broil (it)

ke7ya [1] (N,C,S;Ch)  s  cerro//mountain; colina//hill

ke7ya [2] (N,C;Ch)  s  mercado, plaza//market [from pM *k’aay ‘sale’]
ke7yo (N,C,S,W;Ch) s cal//quick-lime (CaCO2)
ke7e (N,C,S;[Ch]) s excremento//shit
tyoe7wa ke7e (N,S) s of s ano//anus [lit. MOUTH of SHIT]
kie+ ke7e(k) (C,S) s liendre(s)//nit(s) [lit. SHITlings]
ki: [1] (N,C,S;Ch) s carrizo//reed; bambu*//bamboo
ki: [2] (N,C,S,W;Ch) s fuego//fire
kw-e\tzi ki7 (C) s + s:modif (black widow) spider [lit. SPIDER of FIRE]
o(+) ki(7) (N,S;Ch) vtA cocer(lo), cocinar(lo)//to cook (it);
asar(lo)//to broil (it), roast (it); tostar(lo)//to toast (it)
 a&7ki7 (C) vi cocerse//to get cooked; arder//to burn
(yaka) kila (N,C,S) s fresno//ash tree
kina7 (N,C,S,W;Ch) s cera//wax; chapopote//tar
ki7na [1] (N,C,W;Ch) s bau*l, caja//box, trunk, coffin
ki7na [2] (S;Ch) s cama//bed
ki:7na7 (N,C,S,W;Ch) s chile//chilli pepper
kini7 (N,C) s divieso//boil
kwe+ kinni (N,S,W;Ch) s pa*jaro//bird
ki:7kwa (N,C,S,W;Ch) s metal//metal; fierro, hierro//iron
    ki:7kwa yaka (C,S;Ch) s of s hacha//axe [lit. METAL of WOOD]
lityi ki:7kwa (C,S) s + modif ca*rcel//jail [lit. HOUSE of METAL]
kikwi (C,S,W;[Ch]) s nervio, tendo*n, cuerda//sinew; vena//blood vessel
kwe+ kitta7 (N,S) s arco iris//rainbow

--- SAME? ---

se+ kitta7 (N,C,S,W;[Ch]) GN Me*xico DF//Mexico City
[cf. Ch-T /c^ihya7/]
kiti (N,C,S,W;Ch) s piel//skin; cuero//leather

kwet+ kiti(7) (N,C,S) s murcie*lago//bat
[NOTE: a TK original: BUT see %keti7]

kela [2] kiti (???) s + modif huarache//sandal
[lit. SANDAL of SKIN]

kiti X lawo (N,C,S) s of X of s pa*rpado//eye-lid
[lit. SKIN of X of EYE]

kiti tyo7wa (N,C,S;Ch) s of s labio(s)//lip(s)
[lit. SKIN of MOUTH]

kiti(k) (N,C,S,W) s "gallina, pollo"//"chicken"; orig. grouse

ki7ttyi (N,C,S,W;Ch) s papel//paper

kitza (N,C,S,W;Ch) adj enfermo//sick

kittza(7) (N,C,S,W;Ch) s cabello//head hair

kittza(7) X lawo (N,C,S;Ch) s of s ceja//eyebrow;
pestan*a//eyelash
[lit. HAIR of EYE]

(na+) kkittzi (C,S,W) adj blanco//white

ki:7ttzi (N,C,S,W;Ch) s metate//quern [cf. k-7ttzi]

kixi (N,C,S,W;Ch) s zacate//grass; forraje, pasto//fodder

ki7xxi7 (N,C,S,W;Ch) s hierba, monte//herb, weed, brush

kixxok kwet+/ko+ sa&lla7 (N:ko+,C:kwet+) s honda//sling
[lit. X X]

ki7ya [1] (N,C,S,W) adv arriba//up

ki7ya [2] (C,S,W;Ch) s pecado//sin; culpa//guilt

ki7ye (W;Ch) v bajarse//to go down; debajo//below, under

kiyok (N,C,S,W;Ch) s lluvia//rain
[NOTE: cf. ‘stone’, ‘flower’, which are NOT homophonous]

kwe+ ki7yu (N,S) ~ ni+ ki7yu (C,W;Ch) s hombre//man

ko: (N,C,S,W;Ch) s camote//sweet potato [maybe borrowed from pMS *k@j
‘tuber’]

kwe+ kko:7ko (N,C,S) s almohada//pillow; coji*n//cushion;
altar//altar

T Kaufman: proto-Sapoteko and proto-Sapotekan reconstructions (2016)
ko:la [cf. y-o7la]

ko(l)la (N,C) adj/s suave, blando//soft; yema//yolk

kosse7 (S;Ch) s/adj hembra//female; mujer//woman

ko:7(s)ik (C,S) s caza(r)//hunting

kella7 ko-tti {ko+ atti} (N,C,S) sv muerte//death [see atti]

kko7tyV(k) (C,S) s pierna, muslo//thigh

kowe (S;Ch) s huevo//egg [NOTE: this is the original word for ‘egg’]

[S,C:mbey7ya] ko7wek (C,S) s alacra*n//scorpion

kwe+ kukkwe (N,C,S;Ch) s armadillo

kkukwi (N,C,S,W;Ch) adj nuevo//new

kwe+ kussi (N,C) s malacate, huso//spindle

ku-ttzi (N,C,S;Ch) adj amarillo//yellow [cf. y-attzi]

(na+) ku:7tyu (N,C,S;Ch) adj suave, blando, tierno, tibio//soft, mild

ku-ttyi (???) s cana(s)//gray hair [cf. na+ kattye]

ku:7za7 (N,C,S,W;[Ch:a > u]) s pantano//swamp; lodo//mud; humedad de la tierra//damp earth

ku:7tze7 (N,C,S;Ch) s pus//pus; moco//snot

kkutzu7 (N;[Ch]) s espalda//back; atra*s//behind

ku7xxu (C) s polvo//dust

ku7xxu7 (N,C) s humo//smoke; vapor//steam
KW

kwa(7) (N,C) v? bramar//to bellow; aullar//howl
ko+ kwa (N,C) s vapor//steam

%kwa+ [is this a single morpheme?]
kwa+ llati7 (C,S) s corteza/ca*scara de a*rbol//bark; astilla//chip

kwa+ ka:7lla (C,S) ~ xi+ ka:7lla (W;Ch) s suen*o, somnolencia//sleep(iness); sombra//shadow

kwa+ l-o:7lla (C,S,W) ~ kwe+ y-o7la (N,S) s renacuajo, "bilolo"//tadpole

(kwa+) kkwela (C,S,W) ~ kela (N) s totomoxtle//cornhusk

kwa+ sa (N,C,S) s (zarza)mora//blackberry
kwa+ sso7o (N,C,S,W;Ch) s adobe//mud brick

(kwa+) ku:tzi (C,S,W) ~ xu7utzi (N,C,S) s yerno//son-in-law

llo+ kwa7 (N,C) s bejuco//vine; rai*z//root [lit. ROOT X]
ok+ kwa7 (N,C,S) causA levantar//to raise, lift; juntar//to gather; amontonar//to pile up; colocar//to lay/set out

lawo+ kkwa (C) s of s frente//forehead [lit. FACE/EYE X]

kwa7(a) (N,C) s garganta//throat

kkwalla (N,C) adj torcido//twisted [cf. %lla [2]]

kkwana (N,C,S;Ch) s hierba, usu. comestible//(eatable) herb

xu+ kwa:7na (N,C,?S) ~ xx+i+ kwa:7na (N,C,?S) s cola//tail

to7+ kwa:7na7 (N,C,S;Ch) s mecapal//tump-line [lit. STRING X]

kwani (???) viB despertarse//to wake up

ok+ kwa:7ni (???) caus despertar a*//to wake up

na+ kwani (N,C,S,W) adj vivo//alive; vida//life

kwakwa7 (C,S) s comezo*n, picazo*n//itch

(ko+) kwasa (C,S,W;[Ch]) [ko+:S,W] s flecha//arrow

kkwattzi (N,C) v esconder(se)//to hide
kwawo7 (N,C,S,W) s carbo*n//charcoal

kwa&7 (N,C,S;Ch) s cielo//sky
ke+ kwa7 (N,C,S) s cielo//sky [lit. STONE SKY]

yu=kwa (N) s cielo//sky [lit. EARTH SKY]

xV+ kwa7 (N,C) s cielo//sky [lit. X SKY]

kwe [1] (N,C) vtC; viC escoger(lo)//to choose (it); ser escogido//to be chosen

o+ k-kwe [or ok+ kwe] (N,S) causA escoger(lo)//to choose (it)

kwe [2] (N,C;Ch/kxe/) vi/s (hacer) ruido//(to make) noise

%kwe

nya7 kwe (C,W;Ch) s + modif mano derecha//right hand [lit. HAND STRAIGHT]

nni7 kwe (C,S) v + x mandar//to order [lit. SPEAK STRAIGHT]

kkwe (N:kwekkwe7,C) s soplador//fire fan

kweka(7) (C,S;Ch) adj izquierdo//left(-hand)

kweku(k) (N,C,S,W;[Ch]) s peine//comb

kwettzi (N:kwettzi lla,C,S,W;Ch) s vapor//steam

kwe:7la7 (N,C,S,W;Ch) s carne//flesh, meat

(kwa+) kkwela (C,S,W) ~ kela (N) s totomoxtle//cornhusk

kwella(k) (N,C,S) s llama, fuego//flame; luz//light

xu+ kwenE (N) ~ (kwe+) kkwenE (C,S) s dedo//finger

kwennok (N,C,S,W) s lodo//mud

kwe:7tu(k) (N,C,S,W) s mugre, suciedad//dirt, filth; moco//snot; pus; sarna//mange

kwette (N,W) s epazote//goosefoot (Chenopodium sp.)

kwettet+ ya&7a& (C,S) s epazote//goosefoot [cf. kw+ e7tti(k) ‘skunk’]

kwe:7tyi7 (N,C,S,W;Ch) s semilla//seed (in general)

kwetyV (N,C:ko+,S:kwe+) s ‘gobera’, sarna, erisipela, pinto//skin disease
kw-\textit{etzi} ya7a (N,C,S;Ch) \quad \textit{vD} (kw > ty) \quad \text{aullar}:// \text{to howl}; \text{gritar}:// \text{to shout}; \text{bramar}:// \text{beller}

kweya7 (N,C;Ch) \quad s \quad \text{medida}:// \text{measure}; \text{peso}:// \text{weight}

kweya7k (N,C,S,W) \quad s \quad \text{moho}:// \text{mold}; \text{cuitlacoche}:// \text{corn-smut}

kweyok (N,C,S,W;Ch) \quad s/adj \quad \text{nube}:// \text{cloud}; \text{niebla}, \text{neblina}, \text{vapor}:// \text{mist, fog}; \text{nublado}:// \text{cloudy}; \text{oscuro}:// \text{dark}

kwi7 (N,C;Ch) \quad \text{vi} \quad \text{regresar}:// \text{to return (home)}

kwinni (N,C,S) \sim \text{kw+ ni (C,S)} \quad s \quad \text{semilla (de mai*z)}:// \text{maize seed}; \text{siembra}:// \text{planting}

ko+ kwisE7 (N,C,S) \quad s \quad \text{vi*bora (de cascabel)}:// \text{rattlesnake}

kwityi (N,C;Ch) \quad \text{vi} \quad \text{secarse}:// \text{to get dry}; \text{acabarse} -- \text{li*quidos}:// \text{to dry up}

(na+) kwityi (N,C,S,W;Ch) \quad \text{adj} \quad \text{seco}:// \text{dry}; \text{stale}

ok+ kwi:7tyi (C,S;Ch) \quad \text{caus} \quad \text{secar}:// \text{to dry (up)}

ko+ kwitza [cf. \textit{%tza}] (N,C,S,W;Ch) \quad s \quad \text{sol}:// \text{sun}; \text{di*a}:// \text{day}

lla\&ni ko+ kwitza (N,C,S) \quad \text{viB} + s \quad \text{amanecer}:// \text{sun to rise}

[lit. \text{ARRIVE SUN}]

kwit\textit{tzi}: (C,W) \quad s \quad \text{tuna}:// \text{prickly-pear fruit} \quad \text{[NOTE: *tz or *ty?]}\n
X kwitu7 (N,C) \quad s + \text{modif} \quad \text{chirimoya}, \text{anona}:// \text{soursop}
L

la (N,C,S) viB bajarse/to go down; caer [esp. lluvia/to fall (esp. rain)

la+ ni (N,C) adj flojo, perezoso/lazy [NOTE: a TK original]

lla+ ni (N,C,S) s fiesta/festival, party

la7 (S;Ch) vt dejar(lo)/to leave (it)

%lla [1]
   n-alla (N,C,S,W;[Ch]) adj frio//cold
   silla7 (N;Ch) adj frio//cold

%lla [2]
   olla (N,C,S) vC torcer/to twist
   kkwalla (N,C) adj torcido//twisted

%lla [3]
   alla (???) viC anochecer/to become night; oscurecer/to get dark
   ttyu:7lla (N,C;Ch) adj oscuro//dar

lla7 (N,C,S) viB oler, apestar/to have a (foul) smell

--- SAME? ---

(na+) lla7 (C,S,W) adj amargo//bitter

yaka lla7 (N,S) s + modif batea//trough

la7a [1] (N,C,S,W) [nV+:S;Ch] s huaje

   lawo+ la7a (N,C,S;Ch) GN Oaxaca
   [cf. Misteko-SM nûndûá, Chatino-T londa7a]

la7a [2] (N,C) viB soplar/to blow

la7a [3] (???) viB ??

   k+ la7a (N,C) vt partir(lo), dividir(lo)/to split (it);
       apartar(lo)/to separate (it)

(na+) laka(7) (N,C) adj ancho//broad, wide [cf. %aka7]

llaka7 (N,C,S,W;Ch) s hoja//leaf

la(k)ku (N,C) s corteza, ca*scara//bark
lla:7ku (C)  s  buche//crop, craw
lana (N,C,S,W;Ch)  [ni+:S;Ch]  s  holli*n, tizne//soot
  kwe+ lana (C,S)  s  carbo*n//charcoal
kwi+ lana (C,S)  s  liebre//jackrabbit, hare
lla:7na (C,S)  s  hambre//hunger
o+ lakkwa (N,C,S;Ch)  vt  cosechar(lo), pizcar(lo)//to harvest (it)
lla:7kwi (N,C,S;Ch)  viB  hervir(se)//to boil
(na+) lassi(k) (N,C,S,W;Ch)  adj  delgado//thin; angosto//narrow
  nesa lassi (N,C)  s + modif  vereda//path [lit. ROAD X]
latE(7) (C,S;Ch)  vB  quitarse, desprenderse//to come off; quitar, privar//to take away
lati (N,C,S)  s  cuerpo//body
kwa+ llati7 (C,S)  s  corteza/ca*scara de a*rbol//bark; astilla//chip
latti (N,C,S;Ch)  ~  la(t)ti-k (N,C)  s/RN  lugar//place; entre//among
lattak (N,C,S,W;Ch)  adj  vaci*o//empty
  o(k)+ la:7ttak (N,C,S;Ch)  caus  vaciar//to empty
latye7 (N,C,S,W;Ch)  s  tela//cloth
la7tyi7 (N,C)  s  centro de emociones
  la7tyi7 tawo7 (N,C,S,W;Ch)  s + modif  corazo*n//heart
kka7a la7tyi7 (N,C)  vt + s  respirar//to breathe; suspirar//to sigh [lit. SEIZE HEART]
si7i la7tyi7 (N,C)  vB + s  descansar//to rest [lit. X HEART]
  yu7u la7tyi7 (N,C)  viC + s  gustar, estar satisfecho//to be pleased [lit. ENTER HEART]
la7ttyi7 (N,C,S,W;Ch)  s  llano, llanura, valle//flat land
kwe+ lattyV (N,C,S,W)  s  mosquito, zancudo//skeeter
ok+ la:7tzi (C,S)  caus  cuidar, vigilar//to watch (over)
lawe (C;Ch)  adj  chico//small, little
lawe7 (N,C,[S];Ch) RN/adv en medio (de)//in the middle (of)

(kwe+) la7we (N,C,S;Ch) s zapote (negro)//(black) zapote

lawo (N,C,S,W;Ch) s cara//face
RN encima de//on top of;
enfrente de//in front of

keyek lawo (N,C;Ch) s of s ojo//eye [lit. STONE of FACE]

lawo yo: (C;Ch) s of s terreno//land, territory
[lit. FACE of EARTH]

ke:tze lawo yo: (???) s of s of s mundo//world
[lit. TOWN of FACE of EARTH]

kiti X lawo (N,C,S) s of X of s pa*rpado//eye-lid
[lit. SKIN of X of EYE]

kittza(7) X lawo (N,C,S;Ch) s of s ceja//eye-brow;
pestan*a//eyelash [lit. HAIR of EYE]

lawo+ la7a (N,C,S;Ch) GN Oaxaca
[cf. Misteko-SM núnduá, Chatino-T londa7a]

lawo+ kkwa (C) s of s frente//fore-head [lit. FACE/EYE X]

sU lawo (N,C,S) vC + s empezar//to begin [lit. STAND FACE]

la6 (N,S) adj afilado//sharp-edged

la6 (N,C,S;Ch) s nombre//name

la6 (C,W,S;Ch) adj suelto//loose

ok+ la67 (N,C,S) caus aflojar, soltar//to loosen

lla67 (N,C,S) vi/adj calentarse; caliente//(to become) hot

xi+ lla67 (N,C,S) s calor//heat; calentura, fiebre//fever

k+ la67a6 (N,C,S;Ch) vtB romper(lo), quebrar(lo), astillar(lo)////
to break (it)

kwe+ lla67a6 (N,C,S,W) s adobe//adobe/mud brick; alma*cigo//
seed-bed; terro*n//clod
[or kwe+ lle7a]

la6ni (N,C,S;[Ch]) viB llegar//to arrive

lla6ni ko+ kwitza (N,C,S) viB + s amanecer//sun to rise
[lit. ARRIVE SUN]
(kwe+) li7(k) (N,C,S,W) [kwe+:S, some C] s cercado, corral//fence; patio//courtyard

lle7a (N;Ch) s barriga, estomago, vientre//belly, stomach
RN (a)dentro//inside

lle7a ni7 or (l)la:7ni (C,S,W;[Ch]) RN (a)dentro//inside

lle7aya (N,C,S) s bendicion//blessing; rezo, oracion//prayer

lle7e (N,C,S;Ch) vtB lamer(lo)//to lick (it)

kwe+ lela (C;Ch) s tlacuache//possum

(l)le7ya (N,C,S,W;Ch) s diente//tooth

lli (N,C,S,W;Ch) adj derecho, recto//straight; verdadero//true

nya7 lli (N,S) s + modif mano derecha//right hand
[lit. HAND STRAIGHT/TRUE]

so: lli (N,C,W) vi + adv parado//standing
[lit. STAND UPRIGHT]

lli+ yo7o (N,S) s cueva//cave [lit. UPRIGHT HOUSE]

kwe+ li7i (???) s puerta//door; cerca de carrizo//fence of reeds

llissa7 (N,C,W) [i ~ e] vtB levantar(lo)//to lift (it), raise (it)

lityi (N,C,S,W;Ch) s:poss casa//house; hogar//home; placenta//afterbirth

lityi ki:7kwa (C,S) s + modif ca*rcel//jail
[lit. HOUSE of METAL]

kw+ enne7 lityi (C,S) s of s familia, pariente//kinsman
[lit. PERSON of HOUSE]

xi+ wa7(+) litzi7 (N,C) s nuera//daughter-in-law

lo [1] (N,C,S;Ch) vt sacar(lo)//to take (it) out/off

lo [2] (C,S) vi acabarse, terminarse//to get finished

llo (N,C,S,W) s rai*z//root

lo+ kwa7 (N,C) s bejuco//vine; rai*z//root [lit. ROOT X]

lo7o (C,S,W;Ch) s cercado//fence

lo:7na (N,C,S,W) s cama//bed

ok+ lukwi (N,C;Ch) causA soplar, abanicular//to fan
luttyi (C, S; Ch) s bejuco//vine
lu:7tze7 (N, C, S, W; Ch) s lengua//tongue
do luwe7 (N, C, S, W; Ch) vt ensen*ar(lo)//to teach (it); mostrar(lo)//to show (it)
luxu (N, C, S; Ch) s barba//beard; fleco//fringe, bangs
linV7 (S) ~ lana (W) s an*o//year
mmani7 (C,S;[Ch])  s  animal//animal; pa*jaro//bird; insecto//bug
    [cf. pSokean *mu7a ‘deer’]

cf. tamma7, tzummi  [*mm is always geminate]
N

na (N,C) v [uninflected:C] decir//to say

na7 (N,C;Ch) vt ver(lo)//to see (it)

na7a (N,C,S;Ch) s madre//mother

ko+ na7(a) (C;Ch) s mujer//woman

no na7a [sic!] (N,C) s mujer//woman

n-aka(7) (N) s oreja//ear [cf. %aka7]

nalla (N;Ch) adj duro//hard; fuerte//strong

nnakwa(7) (N,C,S;Ch) vB pedir//to ask for

xi+ nawo (S;Ch) s anona, chirimoya//soursop

na& (C,S) s dolor, la*stima//hurt, pain

(na+) xi+ nna& (N,C,S,W;Ch) [no xi+:S,W] adj rojo//red

na67a& (C,S) adj pesado//heavy

na6xxi (C/S) ~ ixxi (N,W;Ch) adj dulce//sweet [cf. %xxi]

na(+) nna:& (C,S) ~ nnese (N) ?s/adj saber//to know

ko+ ne7 (W,S;Ch) s alacra*n//scorpion

nesa (N,C,S) s camino//road

nesa lassi (N,C) s + modif vereda//path [lit. ROAD X]

%ni ‘animal’

mma=ni7 (C,S;[Ch]) s animal//animal; pa*jaro//bird; insecto//bug

ni=kku (Ay,L) s perro//dog [lit. ANIMAL DOG]

ni:7 (N,C,S) s luz//light; claro, brillante//bright

nni7 (N,C,S) vi hablar//to speak, talk

nni7 kwe (C,S) v + x mandar//to order [lit. SPEAK STRAIGHT] [cf. %kwe]
la+ ni (N,C)  adj  flojo, perezoso//lazy  
[NOTE: a TK original]

lla+ ni (N,C,S)  s  fiesta//festival, party

k-o7o kwe+ ni (C,S)  vtC + s  sembrarlo (mai*z)//to plant (it), sow (it)  
[lit. PUT SEED IN]

o+ netzok (N,C)  vt  dar(lo)//to give (it)

wi (nni) (N,C,S)  vB  ver(lo)//to see (it)

ni7i (S,W;Ch)  s  casa//house

nii7lla (N,C,S)  s  nixtamal//leached corn

o+ ni:7kkwi (N,C;[Ch])  [i > u:Rinco*n]  vtA  oler(lo), olfatear(lo)://  
to smell at (it)

nissa (N,C,S;Ch)  s  agua//water  
[NOTE: A inda, L inza; Ch *7i:ta]

nissa tawo7 (N,C,S;Ch)  s + modif  mar//sea;  
lago, laguna//lake [lit. WATER HOLY]

nissa ya:7kwa (C;Ch)  s + modif  atole//corn gruel  
[lit. WATER X]

nnitti (N,C,S)  viB  perderse//to be lost

ni:7tyi7 (N,C,S,W;[Ch])  s  leche de pecho//mother’s milk; latex//sap  
[?contains *nissa ‘water’] [cf. %tyi7]

we(+) niya7 (N,C)  s  curacio*n//curing; curandera [sic!]/curer

nukkwi (N,C,S,W;Ch)  s  tepache, pulque//fermented juice, “wine”, “beer”

na7 (N,C) = ya7 (S,Ch)  s  mano//hand; brazo//arm  
(*nya7 is just a conflated representation, not a real reconstruction)

nya7 lli (N,S)  s + modif  mano derecha//right hand  
[lit. HAND STRAIGHT/TRUE]

nya7 kwe (C,W;Ch)  s + modif  mano derecha//right hand  
[lit. HAND STRAIGHT] [cf. %kwe]
O

Oko7o (N,C/[C],S) [k- ~ l-:N] vtC meter(lo), echarlo dentro //

to put (it) in

k-o7o kw+ ni (C,S) vtC + s sembrar (mai*Z) // to plant, sow

[lit. PUT SEED IN]

ko+ wa7 (N,C) vt llevar(lo), cargar(lo) // to carry (it), bear (it)

%ola "long(-lived)"

y-o7la (C,S) adj largo//long; alto//tall

k-ola (N,C) [ni+:N, na+:C] s hembra//female; mujer//woman

[NOTE: maybe this root means 'grown up']

[na+ is a reduced form of *na7a 'mother']

(ni+) k-ola (N,C,S,W;Ch) [ni+:C;Ch] s macho//male

[ni+ may be related to *ni+ ki7yu 'man']

k-o:la (N,C,S,W;Ch) adj viejo//old -- of people

k-o:la (S) s zopilote//buzzard [lit. OLD.PERSON]

k-o:la kw+ ettzi (C,S) s zopilote//buzzard

[lit. OLD.PERSON BUZZARD [1]]

kw+enne7 k-o:la (N,C) s + modif anciano//old person

[lit. PERSON OLD]

olla (N,C,S) vC torcer//to twist [cf. %lla [2]]

o:7lla (N,C,S;Ch) viA cantar//to sing; tocar mu*sica//
to play music

kwa+ l-o:7lla (C,S,W) ~ kw+ y-o7lla (N,S) s renacuajo, "bilolo"//
tadpole

ona (N,C,S;Ch) vtA oi*r(lo) // to hear (it)

o:7na7 (C,S;Ch) vi llorar//to cry, weep

onna (N,C,S) vtA dar(lo) // to give (it)

k-okwa [1] (C,S;Ch) vD (k > t) jalar(lo) // to pull (it)

k-okwa [2] (N,C,S) vtD (k > t) quitar(lo) // to remove (it), take (it) away

k-o7kwa (N,C,S) vtD (k > t) chupar(lo) // to suck (it); fumar(lo) //
to smoke (it)
T Kaufman: proto-Sapoteko and proto-Sapotekan reconstructions (2016)
S

sa  (C) s  nube//cloud

kwa+ sa  (N,C,S) s  (zarza)mora//blackberry

%sa
   nisa  (C,S;[Ch]) ~ kesa  (N,C,W) s  mazorca//ear of corn

sa7  (S;Ch) vtB  dar(lo)//to give {it}

sa:7  (C,S) vt  tejer(lo)//to weave {it}

(kwe+) sa:7  (N,C,S,W;Ch) [kwe+:C,W,S; nV+:S,Ch] s  frijol//bean; Ejutla//String-bean Town [NOTE: loan from pMZ *s@k]

sa7a  (N,C,S;Ch) viB  completarse//to get finished

ok+ sa7a  (N,C,S) caus  completar//to finish

ssa7a [1]  (C;Ch) s  pariente//kinsman; familia//family

ssa7a [2]  (C,W;Ch) s  fiesta//festival, party; baile//dance

sakka7  (N,C,S) vi  (a) sufrir, enfermarse (N,C);
           (b) alegrarse, felicitar, estar feliz (N,C)
           [how are these two meanings linked?]

na+ sa:7kka  (C) adj  bien, bueno, bonito//good, goodly

kixxok kwe+/ko+ sa&lla7  (N:ko+,C:kwe+) s  honda//sling [lit. X X]

sana  (N,C,S) [s ~ x] viD  parir//to give birth

kwi+ sa7na  (N,C,S;[Ch]) s  hermana de hombre//man’s sister;
           hermano de hombre//woman’s brother (cross-sex sibling)

kwe+ sakwa  (N,C) s  metlapil, mano de metate//muller

   keyek sakwa  (S) s + modif  metlapil, mano de metate//muller
           [lit. STONE of MULLER]

sa:7kwi  (N,C,S,W;Ch) [a > e:]W,some C] v  deber//to owe

sa& [1]  (N,C,S,W;Ch) viC  andar//to walk

sa& [2]  (C;Ch) s/adj  Zapoteco//Sapoteko

sa:&  (N,C,S,W;Ch) s  grasa//fat, manteca//lard
**Kixxok kwe+/ko+ sa&lla7** (N:ko+,C:kwe+) s honda//sling
[lit. X X]

**Kwe+ sa&kwi** (C,S) ~ **ko+ sa&kwi** (N,S) s hue*rfano//orphan

**ok+ sa&styi7** (N:s,C:x;Ch) causA desatar//to untie

**o+ sa:&7ttyu** (N,C) causA torcer//to twist

**se** (C,S) s/RN lugar//place; a, en//at

**se7a&** (N,C,S,W;Ch) s elote//roasting ear

**sse:7lla7** (N,C,S,W;Ch) vtB mandar(lo), enviar(lo)//to send (it)

**seni ~ xeni** //y-seni// (N,S) vtC cazar(lo)//to hunt (it); coger(lo), agarr(ar(lo)//to seize (it), grab (it)

**sete7** (N,C,S;Ch) s sal//salt

**ok+ se:7ti7** (N,C,S,W) vt ensen*ar(lo)//to teach (it); aprender(lo)//to learn (it); estudiar(lo)//to study (it)

**ko+ se7yu** (N,C,S,W;Ch) s trueno//thunder; rela*mpago//lightning
[NOTE: this is the Sapoteko god "Cociio"]

**si7** (N,C,S;[Ch]) vtB comprar(lo)//to buy (it)

**si:7 ~ xi:7** //y-si:7// (N,C,S) vi exprimirse, orden*arse//to get squeezed out (liquid)

**k+ si:7 ~ k+ xi:7** (N,C,S,W) causB exprimir, orden*ar//to squeeze out (liquid)

**si7i [1]** (N;Ch) adj pesado//heavy

**si7i [2]** (N,C,S,W;Ch) adj pobre//poor; miserable, penoso//wretched [same as above?]

**kella7 si7i** (C,S) abstr pobreza, miseria//poverty, wretchedness

**si7i la7tyi7** (N,C) vB + s descansar//to rest [lit. X HEART]

**awo xi+ si:7la** (N,C) v + s comer almuerzo/desayuno//to eat breakfast/elevenses

**silla7** (N;Ch) adj fri*o//cold [cf. %lla [1]]
kwe+ sina7 (N,C,S,W;Ch) s rato*n//mouse

(kwe+ sina7) waka (N,C,S) s rata//rat [lit. (MOUSE) ?RAT]

kwe+ keti7 kwe+ sina7 (C,S) s + modif murcie*lago//bat [lit. BUTTERFLY MOUSE]

(na+) ssinnak (C,S,W) adj listo//intelligent

sikwi (N;Ch) adj alto//high; largo//long

sittu7 (N,C,S;Ch) adj lejos//far

(kwe+) si7ya (N,C;Ch) s cacao//cocoa-bean

kwe+ ssi7ya (N,C,S,W;[Ch]) s a*guila, gavila*n//hawk

si7yenk (C,S;Ch) s tripa(s), intestino//gut(s)

so: (N,C,S;Ch) vIC pararse//to stand; estar//to be in a place

so: lli (N,C,W) vi + adv parado//standing
[lit. STAND UPRIGHT]

so: nissa (C,S) vIC + s sudar//to sweat

so: ti:7tza7 (N,S) v + s conversar, platicar//to talk
[lit. STAND WORD]

so lawo (N,C,S) vC + s empezar//to begin [lit. STAND FACE]

so7o (N,C,S) s pulque, "vino"//fermented drink

kwa+ sso7o (N,C,S,W;Ch) s adobe//mud brick

sokwa (C,S,W;Ch) [s ~ x] vi sentarse//to sit

kw+ ettzu7 su (N,C) s + modif langosta//locust/lobster
[lit. GRASSHOPPER X]

kwe+ (s)su:7ti (N,C,W) s bolsa//bag; ocho mil//8000
[NOTE: a TK original]
Ta (N,C,S) vi ir, moverse, manar/to move

(na+) ta (C,S,W) adj delicate

ta7a (N,C) vi clavarse/to get thrust in

ta:7a (N,C,S,W;Ch) s petate/mat [> Wasteko taat]

tamma7 (N,C) s lechuza/screech? owl
[borrowed in Cu = Mia; probably diffused generally]

tani (C) s cerro/mountain; colina/hill

tawo (N,C,S;Ch) s espiga/maize spike

tawo7 (n,S) adj grande/big

=tawo7 (N,C,S) adj pequen*o, chico/small, little

kwe+ tawo7 (N,C) s criatura/baby; nin*o/child

tzina7 tawo7 (N,C) s + modif ???

kwe+ tawo7 (N,C,S;Ch) s "i*dolo", "santo"/image of a god
[lit. being HOLY] [cf. Nawa teo:-tl 'god']

nissa tawo7 (N,C,S;Ch) s + modif mar/sea;
lago, laguna/lake [lit. WATER HOLY]

yo7o tawo7 (N,C) s + modif "iglesia"/temple
[lit. HOUSE HOLY]

te(k) (N,C,S) ~ ti: (S,W;Ch) s ceniza/ashes; polvo//
dust, powder; caspa/dandruff

tex-okwa7 (N,C) s of s pinole [lit. DUST of MAIZE]

teyaka (N,C) s of s serr*in/sawdust [lit. DUST of WOOD]

o+ te7e (N,C) caus dar/to give; entregar/to hand over

te7ti (N,C,S,W;Ch) viC pasar/to pass through, to cross
ti:7tza7 \(\text{(N,C,S,W;Ch:*Citza7,*ke:7tza7)}\) \(s\) palabra//word; idioma//language; consejo//advice

\[
\begin{align*}
\text{o+ tzi7i ti:7tza7} &\quad v + s \quad \text{contestar}//to answer \quad [\text{lit. RETURN WORD}] \\
\text{so: ti:7tza7} &\quad (\text{N,S}) \quad v + s \quad \text{conversar, platicar}//to talk \quad [\text{lit. STAND WORD}] \\
\text{o+ we7} &\quad (\text{ti:7tza7}) \quad (\text{N,C}) \quad vt + s \quad \text{conversar}//to talk \quad [\text{lit. HIT WORD}] \\
\text{tilla(k)} &\quad (\text{N,C}) \quad \text{vi}\ddagger \quad \text{pelear}//to fight \\
\text{ttinni(k)} &\quad (\text{N,C}) \quad v \quad \text{reventar}//to burst; derrumbar//to cave in \\
\text{tikkwa} &\quad (\text{N,C}) \quad \text{adj} \quad \text{duro}//hard \\
\text{titti} &\quad (\text{N;Ch}) \quad \text{vi} \quad \text{sentir comezo\*n}//to itch \\
\text{to(7)} &\quad (\text{N,C,S;Ch}) \quad s \quad \text{cuerda}//string; hilo//thread; mecate//rope \\
\text{to(7)+ kwa:7na7} &\quad (\text{N,C,S;Ch}) \quad s \quad \text{mecapal}//tump-line \quad [\text{lit. STRING X}] \\
\text{to7o} &\quad (\text{C,S}) \quad \text{vi}\ddagger \quad \text{venderse, ser vendido}//to be sold \\
\text{ok+ to7o} &\quad (\text{C,S}) \quad \text{causA} \quad \text{vender}//to sell \\
\text{ttottze7} &\quad (\text{N,C}) \quad \text{adj} \quad \text{filoso, afinado}//sharp-edged \\
\text{tolla7} &\quad (\text{N,C,S}) \quad s \quad \text{pecado}//sin; culpa//guilt \\
\text{tokwa7} &\quad (\text{N,C,S,W}) \quad s \quad \text{maguey}//agave, century plant \\
\text{tokkwa} &\quad (\text{N,C}) \quad \text{vi/adj} \quad \text{reunirse, juntarse; reunido(s), junto(s)}// \\
&\quad \text{(to get) gathered together} \\
\text{ok+ tokkwa} &\quad (\text{N,C}) \quad \text{caus} \quad \text{reunir, juntar}//to gather together \\
\text{tto:7kwak} &\quad (\text{C}) \quad s \quad \text{cana(s)//gray hair} \\
\text{toxxo} &\quad (\text{C}) \quad \text{vi} \quad \text{ladrar, estar bravo}//to bark (angrily) \\
\text{toxxu} &\quad (\text{N,C}) \quad \text{adj} \quad \text{valiente, bravo, feroz}//mean \quad [\text{which is right phonologically?}] \\
\text{kwe+ to7wa} &\quad (\text{N,C,S,W;Ch}) \quad s \quad \text{pla*tano, ?*cuajilote}//banana \\
\text{tto(7)wi} &\quad (\text{N,C,S;Ch}) \quad \text{vi} \quad \text{avergonzarse}//to be ashamed \\
\text{tuni} &\quad (\text{N,C}) \quad \text{adj} \quad \text{alto}//high, tall \\
\text{tukwi} &\quad (\text{N,C}) \quad \text{vi/adj} \quad \text{(ser) envuelto}//(to be) wrapped \quad [\text{TK add A } /\text{t\textsuperscript{u}p\textsubscript{i}}/ \text{‘envuelto’}] \\
\text{tu:7kwi7} &\quad (\text{N,C,S,W}) \quad s \quad \text{pluma}//feather
\end{align*}
\]
%ttak

nittak (C,S;Ch) $\sim$ kettak (N,C,W) s can*a//cornstalk
TY

ty to enfermo//sick; cansado, agotado//weary

ty7a to arriba//up

ty7 to rasparse//to get scraped

ok+ tya7a to raspar//to scrape

ko+ tyaku to lagartija//lizard

ty7wo to crecer, engordarse//to get big/fat; gordo, crecido, grande//big/fat

ty7 to acabarse//to be finished

tye+ wi:ni7 to estar triste/arrepentido//to be sad, rueful; sufrir caresti*a//to be in want

kwe+ tye to corre camino//roadrunner

ty7 to (a)bajo//down (N); juntarse, recogerse, amontonarse//to be gathered (C)

kwe+ tye7 to hormiga//ant

ty7e to cantaro, jarro//(water) jug

tye to mento*n//chin; barba//beard

(kwe+) tye:kk7 to corto, chaparro//short in height

tyene to sangre//blood

kw+ eso7 tyenV to avispa (de panal)//wasp

tyesa to rasgarse, romperse; roto//(to get) torn

k+ tyesa to rasgar, romper//to tear

kwe+ ttye:7sa to nido (de pa*jaro)//(bird’s) nest

ttyessa to brincar//jump

@ty7

aty7 to mamar//to nurse

xity7 to seno, chiche, teta//breast, udder

ni:7ty7 to leche de pecho//mother’s milk; latex//sap [?contains *nissa ‘water’]
ttyi7i (N,S;Ch)  s  voz//voice

tyi7la (N,C,S,W;Ch)  s  comal//clay griddle

#kwe+ ttyi7illa (N,C)  s  caiman//cayman, especially as the "first" day-name

tyina (N,C,S,W) viB  llegar//to arrive

tyi:7na (N,C,S,W;Ch)  s  trabajo//work

kwe+ tyi:7(s)sa (N,C,S,W;[Ch])  [ty > tty: some C]  s  ardilla//squirrel

ok+ tyi7xxi (N,S) vtA  medir(lo)//to measure (it)

tyitta (N,C,S,W;Ch)  s  hueso//bone; huevo//egg (N,C)

    na+ tyitta (N,C)  adj  flaco//skinny

tyo:(7) (N,C,S,W;Ch)  s  tos//cough

kwe+ ttyoka7 (tyitta) (N,C)  ~  (kwe+ ttyo: (C,S;Ch)  s  cascaro*n//egg-shell; concha//shell

ok+ tyo:7ko (N,C,S) causA  cortar//to cut  [also w/o -ko]

tyo:7llV (???)  adj  baboso//slobbery

tyokwa (N,C,S,W)  s  [cesto], tenate, tompiate//tortilla basket

tyo7kwa (C,S)  adj  grueso//thick; gordo//(); grande//big

tyo7wa (N,C,S,W;Ch)  s  boca//mouth

    tyo7wa KE7e (N,S)  s of s  ano//anus  [lit. MOUTH of SHIT]

    kiti tyo7wa (N,C,S;Ch)  s of s  labio(s)//lip(s)  
    [lit. SKIN of MOUTH]

    yaka tyo7wa (C)  s of s  viga//beam; horco*n//house-post  
    [lit. TREE of ?MOUTH]

ttyu (N,S)  adj  chico//small, little

ttyu:7lla (N,C;Ch)  adj  oscuro//dark  [cf. %lla

kwe+ ttyu:xxik (N,C,S,W;Ch)  s  (ji)tomate/tomato

    [NOTE: Popolokan cognates exist; cf. Wasteko tuthay]
TZ

tza (N,C,S;Ch) s di*a//day

ko+ kwitza (N,C,S,W;Ch) s sol//sun; di*a//day

lla&ni ko+ kwitza (N,C,S) viB + s amanecer//sun to rise
[lit. ARRIVE SUN]

cf. witzak (N,C,S;Ch) adv pasado man*ana//day after
tomorrow

%ttzok

attzok (N,C,S;Ch) viC reventarse//to burst; quebrarse//
to break/get.broken

k-ittzok (N,C,S,W;Ch) vtD (k > t) estallar(lo), reventar(lo)//$
to burst (it), break (it)

tza:7ka (N,C;Ch) adj junto(s)//together
[cf. Cord. <chaga> ‘one -- of flat things’]

na+ tzakwa7 (C,S) adj sucio//dirty; malo//bad; feo//ugly

kw+ enne7 tzakwa7 (C) s + modif diablo, demonio//devil
[lit. PERSON BAD]

#tza7 tina (Ch,Sp) s Chatino [This reconstruction is based on Chatino
/tza7 jnya/ and Spanish <chatino>, behind which has to lie a Sapoteko #tza7
tina].
[a TK original]

tza:7we (E;Ch) adj adornado//decorated, bien arreglado//well-
dressed

tza:7wi7 adv lento, despacio//slowly; poco a poco//little by
little

tza&7 (N,C,S,W;Ch) vi/adj llenarse, lleno//(to get) full

ok+ tza&7 ([N],C,S;Ch) caus llenar//(to fill

kwa+ tza&7 (X) kw+ e7yo7 (N,C,S) "$luna llena" //full moon;
lit. llenarse la luna//moon to be full

ttza&7 (N,C,S) s cazuela de barro//casserole, stew-pan

kwe+ tziyok (N,C,S,W) s flauta de can*a//carrizo//reed flute
[e ~ i]
xi+ tze (C,S,W)  adv  mucho tiempo//for a long time

kwa+ (t)tze (N,C)  adv  hace rato//a while ago

tze7 (C,S)  s  (a) di*a/day (C,S); (b) noche//night (N)

ko+ tze7 (N,C,S,W)  vi:completive  "la tarde"//afternoon

xi+ tze7 (N,C,S,W;[Ch])  s  cena//supper

awo xi+ tze7 (N,C,S,W;[Ch])  vt + s  cenar//to eat supper
[This should be compared to Soke *tza7y+ji and Epi-Olmec <tza-ji> ‘late in the day’ (a JJ original)]

ttzek (N,C,S;Ch)  vi  ir//to go

tze7a (N,C,S,W;Ch)  viC  caliente, tibio; calentarse, estar caliente//(to be/get) hot, warm

ok+ tze7a (N,C,S)  caus  calentar//to heat

kwe+ tze7a (C) ~ ko+ tze7a (N) ~ we + tze7a (N,C)
(N,C,S;Ch)  s  brujo (), espi*ritu maligno)///witch

tze:7tzE (C)  adj/vi  (estar) enojado//(to be) angry

tzela (N,C,S)  vB  encontrar//to find

(t)tze:7la (N,C,S;[Ch])  s  marido, esposa//spouse

tzeni (N,C,S;Ch)  s  humo//smoke

tzekwE (N,C,S,W;[Ch])  viB  tener miedo//to be afraid

ok+ tzekwE (N,C,S,W)  caus  espantar//to frighten

tzi (N,C,S,W;?Ch[points to *ty])  adj  tranquilo, quieto//peaceful, quiet

%tzi7i
 o+ tzi7i (N,C)  vtA  devolver(lo)//to give (it) back, return (it)

 o+ tzi7i ti:7tza7  v + s  contestar//to answer [lit. RETURN WORD]

tzila (N,S;[Ch])  s  cola, pegamento//glue

(kwe+) tzina7 (N,C,S,W;[Ch:tz > kw])  s  miel//honey

tzina7 tawo7 (N,C)  s + modif  miel//honey
[cf. Sokean *tzinu < pMS *tzi:nu]

kwe+ tzina7 (N,C,S,W[no kwe+];Ch)  s  venado//deer
kwe+ (t)tzi:7na7 (N,C,S) s espuma//foam
tzikwa (N,C;Ch) v desplumar//to pluck feathers
tzi:7kwi (N,C) adj liso/smooth
kwe+ tzittzi (C) s dinero//money; adorno//decoration
tzo (C,S) v existir//to exist

%7tzu7
ke7tzu7 (N,C,S,W;Ch) s grano, barro//pimple; divieso//boil
(y)u:7tzu7 (N,C;Ch) vi podrirse//to rot
y-u:7tzu7 (N,C/[C]) adj podrido//rotten
tzummi (N,C) s cesto, chiquihuite, cargador//basket
[borrowed from Matlatzinka(n) *tz3mi]
tzu:7ni7 (N,C,S) vi gotear//to drip; babear//to drool; escurrir//to trickle
tzuwi7 (C,S,W) v quemarse, arder//to (be) burn(t)
U

1-utza(k) (N,C) v acabar(se)//to get finished

%utzi
   (kwa+) ku:tsi (C,S,W) ~ xu7utzi (N,C,S) s yerno//son-in-law
uni (N,C,S;Ch) vtA hacer(lo)//to do (it), make (it)
u:7tti (N,C,S;Ch) vtA matar(lo)//to kill (it) [cf. atti]
u:7tto (N,C,S) vtA moler(lo)//to grind (it)

(y)u:7tzu7 (N,C;Ch) vi podrido//to rot [cf. %tzu7]
   y-u:7tzu7 (N,C/[C]) adj podrido//rotten
y-uwi7 (N,C,S;Ch) vi apagarse//to get doused

ok+ s-uwi7 (C,S;Ch) caus apagar(lo)//to douse (it)
ko+ wa7 (N,C) vt llevar(lo), cargar(lo) //to carry (it), bear (it) [lit. ?PUT X]

xi+ wa7(+) litzi7 (N,C) s nuera//daughter-in-law

(kwe+ sina7) waka (N,C,S) s rata/rat [lit. (MOUSE) ?RAT]

(keyek) wana (N,C,S,W;Ch) s espejo//mirror [lit. (STONE) MIRROR]

xxu+ wa:7na7 (C,W,S) > xxana7 (N) s duen*o//owner; sen*or//lord

(ko+) wattzi7 (N,C:w > tty,S,W;Ch) s lagartija//lizard; iguana

wattzi (C) ~ wittzi (W) GN Sola de Vega

xu+ we (N,C,S) s comida//food

o+ we7 (ti:7tza7) (N,C) vt + s conversar//to talk [lit. HIT WORD]

we(+) niya7 (N,C) s curacio*n//curing; curandera [sic]//curer

we7eni (N,C:[Ch]) adj chico, tierno//very young

kwe+/ko+ we7yo (E:ko+C,S:kwe+,W,Ch:∅) s coyote

kettu wetzi (N,C) s chilacayote//winter squash?

(na+) ko+ wE (N,C,S;Ch) vi/adj madurarse, maduro//(to get) ripe

wi (N,C,S;Ch) s guayaba//guava

wi (nni) (N,C,S) vB ver//to see

tyel+ wisi7 (N,C,S) vi estar triste/arrepentido//to be sad, rueful; sufrir caresti*a//to be in want

witzak (N,C,S;Ch) adv pasado man*ana//day after tomorrow
X

XXAKA7 (N,C,[W])  s  mejilla, cachete//cheek
XA7NA (N,C,S)  s  asentaderas, nalga//buttocks; bajo//low
XA+ (N,C)  RN  debajo de//below, under
XAKWA  ([N],C,S;Ch)  s  ca*scara, corteza//bark; ropa//clothing
X XXAKWA (C,S)  s  + modif  tara*ntula
XA(T)TA (C;Ch)  adj  chaparro, bajo//short in height
XA:7TTA (E)  viB  ~  aplastarse//to get flattened/smashed
OK+ XA:7TTA (N,C)  caus  aplastar(lo)//to flatten (it)/smash (it)
Ko+ XXAYTU7 (N,C,S)  s  saltamontes//grasshopper
XA&(K)KA (C)  viB  desatarse//to get untied
OK+ XA&(K)KA (C,S)  caus  desatar//to untie
XXAYA (N,C,S)  adj  a*spero, rasposo//rough [a MacLaury original]
XE (N,W;Ch)  adj  amplio//spacious; ancho//wide; grande//big
[cf. %ENI]
(XA+) X-E7NI (N,C,S;[Ch])  adj  ancho [cf. %ENI]
KWE+ XE7 [1] (N,C,S,W;Ch)  s  mapache//raccoon
KWE+ XE7 [2] (C,S)  s  fantasma//ghost (E); brujo//witch (S)
XENE (S,W;Ch)  s  sapo//toad
XENE7 (N,C;Ch)  s  saliva//spittle
XI (N,C)  viB  ~  borrarse; borrado//(to get) rubbed out
%XXI
NA&XXI (C,S)  [< NA+ IXXI?]  ~  IXXI (N,W;Ch)  adj  dulce//sweet
XI7E (C,S;Ch)  s  nariz//nose
XI7INNE (N,C,S,W;Ch)  s  hijo, hija//offspring  [?possessed proclitic XI+]
KWE+ XIKA (C,S,W)  s  pin*uelo//pinecone
XIKA7  adj  apretado//tight, squeezed (N); amarrado//tied (Ch)
xika7 (N,C,S,W;Ch) s ji*cara//gourd dipper, water gourd  
[cf. *eka7]

xikkok (N,C,W;Ch) [i > a:some C; i > e:some C] s hombro//shoulder; brazo//arm  

xila7 (N,C,S,W;Ch) s algodo*n//cotton  

xxila7 (N,C,S) s ala//wing  

(x)xinni (N,C,S) s noche; sombra; oscuridad//darkness  

xxinni(k) (N,C,S,W) adj oscuro//dark; malo/bad, evil, untrue  

xikwi (N,C,S,W) s rodilla//knee  

kwe+ xissa(k) (C,S) s cun*ada//sister-in-law; partera//midwife  

xisE (N,C,S) vi temblar//to quiver, quake  

xitti7 (N,S) vi temblar//to quiver, quake  

o+ xityi (N,C,S,W;Ch) vA rei*r//to laugh [formally transitive!]  

xityi7 (N,C,S,W;Ch) s seno, chiche, teta//breast, udder  
[cf. *tyi7]  

xittyu (N,C,S) s cebolla//onion  
[OtoManguean: ‘leaf’ + ‘stink’]  

xitzu7 (C,S,W) s pin*a//pineapple  

kwe+ xi:7tzu7 (N,C,S,W;Ch) s tejo*n//coati  

kwe+/ko+ xi:xV (C,S) s nuera//daughter-in-law  

o(k)+ xiya (kw+ e7ku7) (N,C,S) vA ladrar(lo), chillar(lo), gritar(lo) //  
to bark (it)  

(kwe+) xo: (N,C,S,W;Ch) s temblor//earthquake [kwe+ > ko+:Cho]  

kwe+ (x)xo (C,W) s correcamino//road-runner  

(kwe+) (x)oka7 (N,C,S,W) s un*a//finger-nail  

kella7 xono (N,C) s mamey//mammy apple  

o+ xo:7nna7k [or o+ xo:7nak] (N,C,S;Ch) vA correr//to run  
[formally transitive!]  

xxosa7 (N,S,W;[Ch]) s rama//branch  

(kwe+) xxosi(k) (N,C,S,W;Ch) s padre//father; "padre", cura//priest
xoxak (N,C) vi/adj despadazarse; roto, rasgado, estrellado/
(to get) torn/ripped/broken to pieces

xoxxo (C) adj tostado/toasted

ok+ xoxxo (C) causA tostar(lo)//to toast (it)

{(x)xu+}

xu+ kwa:7na (N,C,?S) ~ xxii+ kwa:7na (N,C,?S) s cola//tail

xxu+ wa:7na7 (C,W,S) > xxana7 (N) s duen*o//owner; sen*or//lord

xu+ we (N,C,S) s comida//food

xxukkwE7 (N,C;[Ch]) vtB frotar(lo)//to rub (it)

xukwi (N,C) viB jalar(se), arrastrar(se)//to get pulled/drug

xukkwi (N,C,S;Ch) vb chupar//to suck

kwe+ xukki(k) (ni7) (N,C,S) s alacra*n//scorpion

[kwe+ > ni+:C; (k):N only; ni7: N only]
Y

**ya** (N,C) vi acabarse, terminarse//to get finished

(na+) **ya** (N,C,S) adj tejido//woven

  **k-iya** (N) vtD (k > t) tejer(lo)//to weave (it)

**ya7** (S,Ch) = **na7** (N,C) s mano//hand; brazo//arm

  **nya7 lli** (N,S) s + modif mano derecha//right hand
    [lit. HAND STRAIGHT/TRUE]

  **nya7 kwe** (C,W;Ch) s + modif mano derecha//right hand
    [lit. HAND STRAIGHT] [cf. %kwe]

**yak** (C,S,W;Ch) vi irse//to go away

**kwe+ ya**: (N,C,S,W;Ch) s nopal//prickly pear cactus

(kwe+) **ya7a** (N,C,S;Ch) [kwe+:C,S;Ch] s amole//soap-root,
  soap-wort
  Co*rdoa: ‘xabo*n d’esta tierra - ray*zes’

**ni+ ya7a** (C,S) s milpa//corn-field

**kw-etzi ya7a** (N,C,S;Ch) vD (kw > ty) aullar//to howl; gritar//
  to shout; bramar//beller

**yaka** (N,C,S,W;Ch) s a*rbol, palo//tree; madera//wood

  **yaka ketye** (N,C,S;Ch) s of s ocote, pino//pino tree
    [lit. TREE of KINDLING]

  (yaka) **kila** (N,C,S) s fresno//ash tree

**yaka lla7** (N,S) s + modif batea//trough

**ki:7kwa yaka** (C,S;Ch) s of s hacha//axe [lit. METAL of WOOD]

**te yaka** (N,C) s of s serr*in//sawdust [lit. DUST of WOOD]

**yaka tyo7wa** (C) s of s viga//beam;; horco*n//house-post
  [lit. TREE of ?MOUTH]

**y-aka** (N,C,W,S) s fri*o//cold [listed under %aka]

**xi+ yaka** (C,[S],W) s nieto//grand-child

**kwe+ yakk** (C) ~ **kwekkik** (N) s cuervo//crow

**ya:7la7** (N,C,S,W;Ch) s copal//copal incense
yana (C,S) vi/adj escocer/to itch, arder/to burn; picante/spicy hot

   xi+ yana (C,S) s coraje/anger, wrath

ya:7na (N,C,S;?Ch) s olote/corn-cob

nissa ya:7kwa (C;Ch) s + modif atole/corn gruel [lit. WATER X]

yakkwak (N,C,S,W;[Ch]) s chayote

  (kwe+) yatyi (N,C,S;Ch) s cirhuela, jocote, jobo/hog-plum (Spondias sp.)
[cf. pSokean *yati = pMijean *7a:ti ‘soursop’]

yawo (N,C,S) s rio/river

  (na+) ya& (N,C,S) adj limpio/clean

ya:& (N,C,S,W;Ch) s temascal/sweat-house

ya&7 (C,S) adj claro, aclarado/clear(ed)

o+ ya&7a& (N,C;Ch) viA bailar/to dance [formally transitive!]

   ko+ ya&7a& (N,C) s bailari*n, danzante/dancer

kwette+ ya&7a& (C,S) s epazote/goose-foot

ya&nni (N.C,S,W;Ch) s cuello/neck; garganta/throat

ya&7kkwi (N,C,S;Ch) viC subir/to go up

   ya&7kkwi kessa (N) v + s relampaguear/lightning to flash

ya&7tye (N,C) vi/adj lavarse; lavado/(to get) washed

ye: (N,C) s pleito [C], guerra [C], envidia [N]
[a TK original]

ye7a (N,C,S;Ch) adj crudo/raw; sin madurar/unripe; "verde"/"green"

   awo ye7a (N,C) vtD + adv morder/to bite [lit. EAT RAW]

yekkek (N,C,S,W;Ch) s cabeza/head

   yekkek yo7o (N,C,S) s of s tejado, techo/(tile) roof
   [lit. HEAD of HOUSE]

yenE(k) (N,C) vtB oir/to hear
yisa (N,C,S,W) s an*o/year

do adyisa (???) adv el an*o pasado/last year

kwe yo: (N,C:add +xVk;S) s muchacho/boy

yo: (N,C,S;Ch) s tierra/earth

lawo yo: (C;Ch) s of s terreno/land, territory
[lit. FACE of EARTH]

ke:tze lawo yo: (???) s of s of s mundo/world
[lit. TOWN of FACE of EARTH]

yu=kwa (N) s cielo/sky [lit. EARTH SKY]
[should this be *yo=kwa?]

yu=xi (N,C,S;Ch) s arena/sand [should this be *yoxi?]

yo7o (N,C,S) s:absol casa/house

yo7o tawo7 (N,C) s + modif "iglesia"/temple
[lit. HOUSE HOLY]

yskke y07o (N,C,S) s of s tejado, techo/(tile) roof
[lit. HEAD of HOUSE]

lii+ yo7o (N,S) s cueva/cave

yokkV (N,S) viB/adj torcerse; torcido/(to get) twisted

kwe y07kwa7 (N,C,S) s hormiga arriera/leaf-cutter ant

yu7u la7tyi7 (N,C) viC + s gustar, estar satisfecho/
to be pleased [lit. ENTER HEART]

yu=kwa (N) s cielo/sky [lit. EARTH SKY] [cf. *yo:]

(y)u:7tzu7 (N,C;Ch) vi podrido/to rot [cf. *tzu7]

y-u:7tzu7 (N,C/[C]) adj podrido/rotten

yu=xi (N,C,S;Ch) s arena/sand [cf. *yo:; should this be *yoxi?]

kwe yuxi7 (C,S) s jeje*n, mosquito/gnat
GRAMMATICAL WORDS AND MORPHEMES

**xi+** (N,C,S;Ch)  possessed noun prefix/proclitic

**DEMONSTRATIVES**

**(ni+) te7** (N,C,S;Ch)  dem  este//this

**(nV+) tye7** (C,S,W;Ch)  dem adv  aqui*//here

**ni** (N,C)  dem adv  aqui*, este (N); ese (que), uno (que) (C)

**(ni+) ka** (N) ~ **kka7** (C,S,W)  dem adv  aqui*//here (elevated!?)

**se(+) kka** (C)  dem adv  asi*//like that

**(ni+) ka** (N,C)  dem  ese, aquel//that

**tye(+) kka7** (C)  dem adv  alla*//there

**le7a (#kwi)** (N,C,S)  3rd person pronoun base//e*l

**kka7** (N,C ...)  pluralizer//aquellos -- cosas

**kka (N,C)**  plual of pronoun

**xa** (N,C,S;?Ch)  indef  algun, algo//some(thing)

**INTERROGATIVES AND RELATIVES**

**kkwa** (C,S)  rel adv  donde//where

**gen interr**  which

**(k)kwa(+) lla** (N,C,S)  interr quant  cuantos?//how many?

**ttyo** (S,W) ~ **ttzo** (C) ~ **ttu** (C,W)  interr  cuien?//who?

**no** (N)  interr  cuien?//who?

**no** (N,C)  rel  el/los que ...//the one(s) that ...

**ko** (C)  interr  cuail?//which?

**(k)ka** (N,C)  interr adv  donde?//where?

**xi** (N,C)  interr  cuens?//what?

**kwi** (N)  interr  cuens?//what?

**NEGATIVES**

**kka** (N,C)  adv  negative

**na** (M;Ch)  adv  negative
**CONJUNCTIONS**

?*nok: no (C,S,W) ~ ne (C) ~ na (N)

<table>
<thead>
<tr>
<th>conj</th>
<th>y//and</th>
</tr>
</thead>
<tbody>
<tr>
<td>prep</td>
<td>con//with</td>
</tr>
<tr>
<td>adv</td>
<td>tambie*n//also, too</td>
</tr>
</tbody>
</table>

ne (C) vtB llevar(lo), cargar(lo)//to carry (it)
[pCht *lo:7o ‘con’]

**NUMERALS AND QUANTIFIERS**

numeral expressions

tukwi (C) ~ tikwa (C,S) ord num primero; so*lo; todos
k-tukwi (C,W) ~ k-tikwa (C,S) ~ k-tu (N) card num one
k-ti (C) indef art
set+ ti (C) num otro
set+ tukwi (C,S) ~ set+ tikwa (S) num otro
#tzaka (C,Ch) one

tyokkwa (C) ord num second
k-tyokkwa (N,C,S,W;Ch) card num two
<ca-to> < #ka-tyo (Co*rdo) two
ki+ tyokkwa (C,S) quant ambos, los dos//both

yonna (C) ord num third
<ca-yo> (Co*rdo) three
k#tzonna //k-yonna// (N,C,S,W;Ch) card num three
ki+ yonna (C) quant los tres

takkwa (N,C,S) ord num fourth
k-takkwa (N,C,S,W;Ch) card num four
<taa> (Co*rdo) four
ki+ takkwa (C) quant los cuatro

ka:7yu7 (N,C,S,W;Ch) card & ord num five; fifth
ki+ ka:7yu7 (C) quant (todos) los cinco

xo:7kkwa (N,C) ord num sixth
k-xo:7kkwa (N,C,S,W;Ch) card num six
ki+ xo:7kkwa (C) quant (todos) los seis

katyi(k) (N,C,S,W;Ch) card & ord num seven; seventh
ki+ katiyi (C) quant (todos) los siete

xonu7 (C) ord num eighth
k-xonu7 (N,C,S,W;Ch) card num eight
ki+ xonu7 (C) quant (todos) los ocho

ka&7 (N,C,S,W;Ch) card num nine
ki+ ka&7 (C)  quant  (todos) los nueve
tyi:7 (N)  ord num  de*cimo
k-tyi:7 (N,C,S,W;Ch)  card num  diez
ki+ tyi:7 (C)  quant  (todos) los diez
[or *(k-)tyi7i]

k-tyi:7 kwE k-tukwi/k-tikwa (N,C;[Ch])  num  eleven [lit. 10 plus 1]
[Ay,Ch:kwE > Ø]
k-tyi=？nnek (N)  num  once//eleven

k-tyi:7 kwE k-tyokkwa (N,C;Ch)  num  twelve [lit. 10 plus 2]
[I2:kwE > nu;Ay,Ch:kwE > Ø]
k-tyi7nu (N,C;Ch)  num  thirteen [lit. 10 + 3]
[Atepec: "12"]
k-tyi ta7 (N,C)  num  fourteen [lit. 10 + 4]
k-tyi:7 nu k-takkwa (C;Ch)  num  fourteen [lit. 10 plus 4]
k-tyi:7=nu7 (N,C,S,W;Ch)  num  quince//fifteen
k-tyi:7=nu7 kwE k-tukwi/k-tikwa/k-tu (N,C;[Ch])  num  sixteen
[lit. 15 plus 1] [Ch,N:kwE > Ø]
k-tyi:7nu7 kwE k-tyokkwa (N,C;Ch)  num  seventeen [lit. 15 plus 2]
[Ch,N:kwE > Ø]
k-tyi:7=nu7 kwE k-tyo7wa (N)  num  eighteen [lit. 15 plus 3]
[N:kwE > Ø]
k-tyi:7=nu7 kwE k-takkwa (C;Ch)  num  nineteen [lit. 15 plus 4]
[Ch:kwE > Ø]
kallak (N,C,S,W;Ch)  num  veinte//twenty [from Mayan *=k’ahl]
1-19 (k)e+ tyo7wa (N)  num  21-39
k-tyi:7 (k)e+ tyo7wa (N)  num  treinta//thirty
[lit. 10 towards 40] [like older Mayan pattern]
kallak kwE k-tyi:7 (C,S;Ch)  num  treinta//thirty
[lit. 20 plus 10]
k-tyo7wa (N,C,S,W;Ch)  num  cuarenta//forty
k-tyokkwa (la) kallak (C,S)  num  cuarenta//forty
[lit. 2 times 20] [innovation]
1-19 ka+ yonna  num  41-59
k-tyi:7 ka+ yonna (N)  num  cincuenta//fifty [lit. 10 towards 60]
[like older Mayan pattern]
k-tyo7wa kwE k-tyi:7 (N,C,S;Ch) num cincuenta//fifty
   [lit. 40 plus 10]

k-tyokkwa (la) kallak k-tyi:6 (C,S) num cincuenta//fifty
   [lit. 2 times 20 plus 10] [innovation]

ka+ yonna (N,C,S) num sesenta//sixty [lit. 20 times 3]
k-yonna kallak (N,C,S;Ch) num sesenta//sixty [lit. 3 times 20]

ta (N,C) num 80
k-takkwa la kallak (N,C,S;Ch) num ochenta//eighty
   [lit. 4 times 20] [S,Ch:la > Ø]

80 + 1-19 (N) num 81-99

(k-ti[kwa]/k-tu) ka+ yo7wa (N,C,S) num cien//one hundred
   [lit. 20 times ?5]

NUM # ella (N,C) num 400

<NUM # coti> (Co*rdova) num 8000
kwe+ (s)su:7ti (N,C,W) s bolsa//bag
   JCH bi-zuudi ‘enagua’; suudi ‘su enagua’
cf. Yuk pi:k ‘enagua’ < *pe:q ‘pataxte, madre de cacao’
   [NOTE: a TK original]

                         grammatical elements in numerical expressions
kwE   conj ‘plus’: in additive numerical expressions
la   conj ‘times’: in multiplicative numerical expressions
ki+ NUM (C,S) (todos) los NUM
se+ NUM (C) otros NUM, NUM ma*s

                         quantifiers
(ki+) tya7 (C,S) quant todo(s)
nesa (C;Ch) quant par//pair
tyolla7 (C,S) vt dividir, partir//to split
   kv+ tyolla7 (N,C) quant mitad//half
(ka+) la7a (N,C) mitad//half
se7ya (N,C,W) ~ se+ yani (C,S,W) quant muchos//many
sityo (C,W) quant ma*s//more
(ko+) xi7(k) (C,S,W) quant poco//little
latti7(k) (N,C;Ch) quant (un poco) ma*s//a little) more
tyukwV //Y-tu pV// (N,C;Ch) quant unos cuantos, varios//a few, several

PRONOUNS

na(7) (C,S:inclusive;Ch) pron yo
+a enclitic pronoun yo
(t)tu(7) (N,C) pron nosotros -- exclusivo
nu (C:inclusive,S:exclusive) pron nosotros -- *inclusivo
li7 < lu7wi (N,C,S) free pron tu*
+lu7 (N,C,S,W;Ch) bound/clitic pron tu*
tyu (N,C,W) pron Ustedes
kwi (N,C) pron 3: male person [*kwe, *kwVk < **kwe?]
yu (W;Ch) pron 3: male person
(x)xe (N:xa,C) pron 3: female person
mma(n) < *mman(i7) (C,S) pron 3: animal
ni (N:[na&],C) pron 3: thing, ?animal
ne (N,C) pron 3: sacred, deity, respect
#tin (C; Ch) possessed thing [JCH x+ti.., ZEN ji&i&]

from TK&JJ Deciphering Sapoteko Hieroglyphic Writing-06

3.2.6. PRONOUNS & DEMONSTRATIVES [2002]

personal pronouns

pSapn *na7(a) ‘1s’ (Ch [no&7]). (In 1993 I had reconstructed pSap *na(7) ‘I’ and pSap *a ‘enclitic’)
pSapn *lu&7wi ‘2s’ (Ch [(nu)7wi]). (In 1993 I had reconstructed pSap *li7 < *lu7wi ‘you (familiar or free)’ and pSap *luN(+i) OR *lu7 ‘you (polite or clitic)’)
pSapn *na ‘we (inclusive)’ Ch+W+P+S+C
pSap *nu ‘we’ S+C [this must have been ‘exclusive’ earlier; it is exclusive
in Co*rdova] (Cht [o&]). (In 1993 I had reconstructed pSap *nu ‘we (inclusive)’)

pSapn *wE ‘plural, including second person’ Ch+W+S+C+N (Cht [ba])

pSap *tye7u ‘including second person’ P+C+N [if P <ru> was originally plural, then *tye7u would be ‘plural, including second person’] (≠ Cht [wo6]). (In 1993 I had reconstructed pSap *tyu ‘yall’)  

N&C *tu ‘we (exclusive)’ [this is an innovation in N and only part of C (including JCH); where this occurs in C, *nu becomes ‘we (inclusive)’] (In 1993 I had reconstructed pSap *(t)tu(7) ‘we (exclusive)’)

In epigraphic Sapoteko, of all the above only *na7(a) ‘I’, spelled <na>, and *tu ‘we (exclusive)’, spelled <to>, are found.

[JJ: check for *na ‘inclusive’]

[C *ttu7 ‘yall’ occurs only in C]

THIRD PERSON (ANAPHORIC) PRONOUNS [2002]

<table>
<thead>
<tr>
<th>#yu</th>
<th>‘man’</th>
<th>TAT</th>
<th>LCH</th>
<th>TEX</th>
</tr>
</thead>
</table>

#yu ‘3male’: Tex /yu/; Cht?

| #nchu7 | ‘woman’ | TAT | LCH | {ndxoh} |

| #ni7 | ‘animal’ | TAT | LCH | {i”} |

<table>
<thead>
<tr>
<th></th>
<th>Ch</th>
<th>W</th>
<th>P</th>
<th>S</th>
<th>C</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>human</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ordinary human</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>adult equal</td>
<td></td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>general</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>impersonal</td>
<td></td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>man</td>
<td></td>
<td></td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>female</td>
<td></td>
<td></td>
<td></td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>familiar</td>
<td></td>
<td></td>
<td></td>
<td>x:V</td>
<td>x</td>
<td></td>
</tr>
</tbody>
</table>

*kw(?k) ‘3familiar’ [1994]:
North: A /bi/, R /bo7/, Yal /+be7/ [be] ~ [bi] ~ [ba], Cho /bi(7)/
Center: I (human) /be/, M (respect) /ba/, Zaa (human) [b(i)]
South: Lagueche (person) /me/, Coatlan /mE/, Cuixtla (human) /ba/
(Chatino: Cht /kwa/ does not belong here)
cf. *kw+ enne⁷ [N,C,S,W;Ch] ‘people’
(In 1993 I had reconstructed *kwe ‘he (male person)’ (= Cht [kwa])

Original meaning of *kwe is probably just ‘+human’.

This may be present in epigraphic Sapoteko, spelled <kwe>

[ba] ‘respected human’ some V
<table>
<thead>
<tr>
<th></th>
<th>Ch</th>
<th>W</th>
<th>P</th>
<th>S</th>
<th>C</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>respectful</td>
<td>x</td>
<td>x</td>
<td>Valley</td>
<td>[ba]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>formal</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

[2 items? ordinary human [be,bi] vs. respected human [ba,бу]: this latter only in some Valley towns]

(?Southern & Central Sapoteko)
[ba] ‘respected human’ some V
<table>
<thead>
<tr>
<th></th>
<th>Ch</th>
<th>W</th>
<th>P</th>
<th>S</th>
<th>C</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>respectful</td>
<td>x</td>
<td>x</td>
<td>Valley</td>
<td>[ba]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>formal</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**#xa** [S,C]; (diffused?) innovation after split of W and P (and N?)

‘familiar person’ (S,C) => ‘among males’ (S,C), ‘among females’ (C)

<table>
<thead>
<tr>
<th>Ch</th>
<th>W</th>
<th>P</th>
<th>S</th>
<th>C</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

human x x
specific x
familiar x
confianza x
lowly x

male x
man-to-man x x
woman x

Southern and Central Sapoteko
XAN[S], QUIe, QUIo[S?], MIX, GUEv[C] {w} inanimate

#xa ‘familiar person’

<table>
<thead>
<tr>
<th>Ch</th>
<th>W</th>
<th>P</th>
<th>S</th>
<th>C</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**#xa7** [pSap: W,S,C] ‘respected person’

unfamiliar x

respect <zxa> x

[maybe 2 items ‘human, woman’ vs. ‘respected’]

*x(e) (7) ‘3’ [1994]

Center: Zaa (3f) [s^], Zaa (derog) /s^e/, M (fam: male spkg) /z^i/,
I (3f) <xe>, Ocotlan [z^@7(8)] (3)

South: Cuixtla (human) /s^a7/
Western: LCH <zxa>

In Zaachila and Isthmus, this has female human reference; in Ocotla*n and Cuixtla it has +human reference; in Mitla it is used only by men. It is unclear what the original use of this term might have been.

(In 1993 I had reconstructed *(x)xe ‘she (female person)’)
#ne7 ‘god; high-status human’ [pSap: W,C,N]

<table>
<thead>
<tr>
<th>Ch</th>
<th>W</th>
<th>P</th>
<th>S</th>
<th>C</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

god, deity x
sacred x
reverential <ni> x<no> x
honorific x x
respect x x

*ne(7) '3respect’ [1994]:
    North: A /ne(e)/, R,Cho /(n)e7/, Yal /+e7(e)/
    Central: Ay (anonymous) /n8/ ‘uno’, Co*rdova, M (fam/god) /ni/
    ‘he,she,it’, Teo (human) /(a)n/, Ay (human) /(/a)7n/,
    I (sacred) /ni/, Zaa (sacred) /ni(?)/
    Western: LCH <no>
    Chatino: (male person) /ni7/

In Valley dialects *ne7 has been shifted to have merely +human reference.

(In 1993 I had reconstructed *ne ‘he, she (god, high-status person)’)

This is spelled <ne> in epigraphic Sapoteko


<table>
<thead>
<tr>
<th>Ch</th>
<th>W</th>
<th>P</th>
<th>S</th>
<th>C</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

animal x{ma} x x x

LCH {ni7} shows the result of contact with Cht

*mmaN ‘3animal’ [1994]:
    North: A /ba/, Cho,Yal /ba7/, R /(b)b/
    Center: I /me/, Teo /m(in)/, Zaa /m(an)/ ~ /me/, Ay /ma/
    South: Cuixtla /ma(7)/, Lagueche/Coatlan /ma/
    Papabuco: Tex /ma/ (cf. Chatino: (animal) /ni7/)
    cf. pSap *mma=ni7, containing an early loan from (pre-proto-)Sokean
    *m@7a ‘deer’
    /mm/, which is extremely rare in Sapoteko, shifts to [b] in Northern
    Sapoteko.

(In 1993 I had reconstructed *mma(n) ‘it (animal)’ <= *mmani7 ‘animal’)

T Kaufman: proto-Sapoteko and proto-Sapotekan reconstructions (2016)
#ni [pSap:W,P,S,C,N] ‘thing’ => ‘female’ (P); => familiar human (some V)
thing        x{i,ne}   {ya}  x  x
woman        x{nyi}
human        x:V
familiar     x

*ni 3inanimate’ [1994]:
   North: A /na/ ~ /i&/, Cho /n(a)/, R (-resp) /θ)n/, Yal /n/ ~ [e&]   
   Center: M /ni/, I /ni/ ‘it’, Teo /i)n/, Zaa /ni(7i)/, Ay /yn/ ~ /en/
   Papabuco: Tex (female) /nyi/
In A(tepec-Ixtla*n), /na/ refers to things, children, bad people, and foreigners.
(In 1993 I had reconstructed *ni ‘it (thing)’)
This is spelled <ni> in epigraphic Sapoteko

#ni7n [pSap: W,C] <no>
baby, infant  x  x
small         x
diminutive    x

[JJ: cf. Zoque 7une7 > Western Mayan 7unen ~ 7unin]
anaphoric pronouns found in one Sapoteko branch only

Papabuco Sapoteko
TEX (mi) woman + respect
#mi ‘3fresp’: Tex /mi/

Southern Sapoteko
COA (ta7) inanimate

COA (ar) human respectful

XAN (ma) thing

#ka ‘3human’: Cuixtla/Coatlan/Lagueche /ka/

QUI {zaa} masculine = CUI {sa} impersonal = COA {sa} human
#sa ‘human’: Coatlan /sa/, Cuixtla (‘uno’) /sa/

QUI (me) respectful; OCO (m@) reverence

CUI {kwan} thing
‘3inan’: Cuixtla/Lagueche /kwan/ < *kkwana ‘plant’

GUE (by) child

Northern Sapoteko

SJB {da&} spirit
#taN ‘3spirit’: Cho /da&/

Recapitulating:
When Sap writing was being developed, proto-Sapoteko had
*yu [male adult human];
soon after XXX CE it was replaced by
S/C/N *kw+enne7 [ordinary adult human]
At this time proto-Sapoteko probably had
*ni7 [animal];
soon after XXX CE it was replaced by
P/S/C/N *mma=ni7 [animal] < pSokean *m@7a ‘deer’
+ pSapn *ni7 ‘animal’
*xa7 [respected human]
*ne7 [noble, god]
*ni [thing, bad person, foreigner]
*ni [baby]

All forms of Sapoteko that have it reduce *kwenne7 in pronominal use to a
single syllable, sometimes keeping /7/, /n/, or /s/. I conventionally
represent it as #kwen7. None of these final segments would be reflected in
epigraphic Sapoteko spelling. <kwe> is found 2–3x apparently spelling this
pronoun. In the attested forms of Sapoteko the vowel of the surviving monosyllable sometimes shifts from the reflex of *e.

All forms of Sapoteko that have it reduce *mma=ni7 in pronominal use to a single syllable, sometimes keeping /7/, /n/, or /&/. I conventionally represent it as #mman7. In the attested forms of Sapoteko the vowel of the surviving monosyllable sometimes shifts from the reflex of *a. The origins of *xa7, *ne7, *ni1, and *ni2 in independent nouns has not yet been established.

In the texts we find <kwe> [S,C,N], <ne>, and <ni>. The use of <kwe> shows that the form of Sapoteko being represented in the hieroglyphic texts is neither Western nor Papabuco.

The above re-examination is based on data in a ms by Rob MacLaury (2001) ‘Sapotekan Personal Pronoun Inventories: Data, Typology, and Reconstruction’ 50pp. Natalie Operstein also has a ms on this topic, which she sent to me; I annotated it and gave it back to her but she never got her revised version back to me. Her article appeared in IJAL (2003). On 26 September 2005 I wrote to Natalie Operstein:

I have some problems with your methodology for doing comparative linguistics. It mainly concerns your not touching all the bases, and leaving some issues unmentioned or uncontextualized. My impression of your writings about Sapoteko(an) pronouns is that you did not take any of the advice I offered you about how to improve your presentation. You did not explicitly deal with comparative phonology. Since I disagreed with a number of your conclusions [not all of which I told you about], it clearly would have been profitable if there had been some level of argument between us on several issues about what is probably right, what is merely possible, and what is really shaky or even probably wrong. And, as you may have gathered, in my view "general principles" never get you out of an unclear situation.

Talk with Jeff Rasch 3 August 2004

YAI Chatino has the following third person pronominal types, all optional:

- person {ne7} *kw+enne7
- man {yu} *ki7yu
- woman {cho}
- respected person {ni}
- family member {wi}
- baby {kwi7}
- animal {in7} *ni7
- thing {o ~ an} cf. na ‘thing’

++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++

Talk with Jeff Rasch 3 August 2004

YAI Chatino has the following third person pronominal types, all optional:

- person {ne7} *kw+enne7
- man {yu} *ki7yu
- woman {cho}
- respected person {ni}
- family member {wi}
- baby {kwi7}
- animal {in7} *ni7
- thing {o ~ an} cf. na ‘thing’

===========================================================================

T Kaufman: proto-Sapoteko and proto-Sapotekan reconstructions (2016) 70
TIME ADVERBS

witza(k) (N,C,S,W;Ch) adv pasado man*ana//
   day after tomorrow
ko+ xxe (N) ~ ki+ xe7 (C) adv man*ana//tomorrow
ke7 (C,S;Ch) adv man*ana//tomorrow

ssila (N,C,S,W) s man*ana//morning

na:67ka(k) (N,C,S,W;Ch) adv ayer//yesterday

nna (N,C,S,W) adv ahora//now; hoy//today

nnasse(k) (N,C,S,W) adv antier//day before yesterday

from TK &JJ Deciphering Sapoteko Hieroglyphic Writing-06

Relational nouns and prepositions
*tya7a adv 'up, at' (N:Jua*rez; C:Isthmus; Chatino)
*se 'at, in the manner of' (N:Rincon; C:Isthmus; S) = 'place'
*lawa 'on, in front of' (N:Jua*rez, Rincon; C:Mitla, Isthmus; Chatino)
   = 'face'
*(xi+) ni7ya 'at the foot of, under' (N:Rincon; C:Mitla) = 'foot'
*yekkek 'on top of, over' (N:Jua*rez, Rincon; C:Mitla, Isthmus)
   = 'head'
tyo7wa 'at the edge of, in front of' (N:Rincon; C:Mitla) = 'mouth'
tyo7wa lawo 'in front of, around' (N:Jua*rez, Rincon) =
   'mouth + face'
*x(7na) 'below, under' (N:Jua*rez, Rincon; C: Mitla, Isthmus; S)
   = 'buttocks'
lawe7 'in the middle of' (N:Jua*rez; C:Isthmus [ga lawi7]; S; Ch)
   [J:lanj, R:len] 'with, by means of' (N:Jua*rez, Rincon)
*lati 'on top of' (N:Jua*rez; C; S) = 'body'
lati(t)ik 'among, between' (N:Rincon; C:Isthmus; S; Ch)
   = 'place'
*lle7a 'inside, on' (N:Jua*rez, Rincon; Ch) = 'belly'
cf. [I: nda7ani, M: neN] 'inside'
kkwitta7 'beside, next to' (N:Jua*rez, Rincon) = 'side'
kkwewe7e 'behind, beside' (N:Jua*rez; C:Mitla, Isthmus) = 'back, side'
   [I: deche, M: dejtz] 'behind' = 'back'
[Ch: lo7o] 'along with'
FROM "OTO-MANGEAN TENSE-ASPECT-MOOD, VOICE, AND NOMINALIZATION MARKERS" (Kaufman 1988ms)

3.2.1 SAPOTEKO

Sapoteko is not a single language, but a language complex made up at least five language areas or virtual languages, each with considerable internal differentiation. Sapoteko as a whole is calculated to have at least 1400 years time depth. The analysis presented here is based on Kaufman 1987ms (‘Aspects of Sapoteko Morphophonology: Verbs’), in which the verb systems of Juchitán and Guevea de Humboldt Sapoteko (Eastern Sapoteko language area), Ixtlán and Yatzachi Sapoteko (Northern Sapoteko language area), and Papabuco (Western Sapoteko language area) are analyzed in depth. Sapoteko is rather well known, and is documented since the 16th century, with Córdova’s large dictionary from the Central Sapoteko language area. Sapoteko is spoken in the State of Oaxaca, Mexico.

Sapoteko forms are cited in proto-Sapoteko phonological garb.

Sapoteko verbs fall into four classes, according to the allomorphs of TAM markers they select, and any changes they themselves undergo apart from occurring with TAM markers. Each class contains underived stems that are apparently roots (though further analysis may show some to be analyzable), and two of the classes contain stems that are derived by means of proclitics. The classes are labeled A, B, C, D. Class A "roots" are transitive and begin with /u/ or /e/. Class B roots are transitive and begin with a consonant. Class C roots are either transitive or intransitive and begin with either V or C (except /p/, /k/). Class D roots (or rather "bases") are transitive or intransitive, and take the same TAM allomorphs as class C roots, but they show replacive initial consonants, that are chosen by reference to both TAM categories and voice categories. Practically all verbs of class D show transitive/intransitive pairs, where the transitive member has causative meaning and the intransitive member has versive meaning. One of the pair of replacives is used with transitive verbs in all TAM categories but the completive, while the other of the pair of replacives is used with the intransitive verbs and the completive of the transitives. This distribution of two different markers, one with the completive and one with other aspects, reminds me of certain kinds of split ergativity, for which there is no current evidence in Sap. The replacive prefixes found in verbs of class D are given below. Once the replacive prefixes are removed from verbs of class D they all begin with vowels. There is a total of 54 verbs in the kinds of Sapoteko examined for the mentioned study. The data for Eastern and Northern Sapoteko were probably nearly complete.
<table>
<thead>
<tr>
<th>transitive minus</th>
<th>intransitive and</th>
<th>number of verbs showing the</th>
</tr>
</thead>
<tbody>
<tr>
<td>completive</td>
<td>transitive completive</td>
<td></td>
</tr>
<tr>
<td>alternate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ZERO</td>
<td>i-</td>
<td>3</td>
</tr>
<tr>
<td>ZERO</td>
<td>t-</td>
<td>9</td>
</tr>
<tr>
<td>k-</td>
<td>tz-</td>
<td>2</td>
</tr>
<tr>
<td>k-</td>
<td>t-</td>
<td>18</td>
</tr>
<tr>
<td>k-</td>
<td>r-</td>
<td>2</td>
</tr>
<tr>
<td>kw-</td>
<td>t-</td>
<td>1</td>
</tr>
<tr>
<td>kw-</td>
<td>tz-</td>
<td>4</td>
</tr>
<tr>
<td>kw-</td>
<td>r-</td>
<td>5</td>
</tr>
<tr>
<td>k-,kw-</td>
<td>l-</td>
<td>6</td>
</tr>
<tr>
<td>s-</td>
<td>x-</td>
<td>4</td>
</tr>
</tbody>
</table>

Sap *[p] is underlingly /kw/ and comes from earlier *kw. Since /kw/ cannot occur before rounded vowels, in cases where //kw// is followed by a rounded vowel it becomes /k/. Thus the k-,kw-:l- in the above chart. Sap *[r] is underlingly /ty/, and represents palatalization of earlier Oto-Mangean *tz and *t.

On the above chart we see that the transitive verb forms begin with ZERO (12x), k- (22x) and *kw- (16x). Note that verbs of class C begin with any consonant except /p/ and /k/. This can hardly be accidental. This fact, however, does not allow us to unite classes C and D, because there are many class C verbs that begin with V. The s-:x- alternation seem clearly due to *s- being palatalized in the intransitive form, so that the original relationship is ZERO:y-.

This being so, the verbs with s-:x- become the only verbs of class D that begin with a consonant. The intransitive verb forms of the above chart begin with t- (28x), tz- (6x), *ty- (7x), l- (6x), i- (3x), and y- (4x). *ty- can be the result of palatalization of both /t/ and /tz/. i- and y- can perhaps both be combined. So the intransitive forms seem to represent two layers of prefixation: nearest the root we have t- and tz-, ZERO, and perhaps l-. Immediately to their left we have i-/y-, and perhaps l-. i-/y- + t-,tz- > ty-; i-/y- + s.. > x..

Most verb roots belonging to classes B and C are intransitive. Class A verbs are transitive, but few in number. Since the intransitive forms of class D verbs are more complex than the transitive forms, it looks like class D is where a large number of originally transitive verb roots found their homes.

The t- of the intransitive pairs may be compared to Mixtec *ta-'impersonal’, for which no other cognate has yet been found. To these we may also compare pOP *t- ‘impersonal’ (before bases beginning in /h/,/7/). These would all derive from a pOM *ta.. ‘impersonal 1’ (See 2.9.1).
To the i-/y- that occurs with some class D intransitives we may compare the Ixtlān Sapoteko prefix //Iy+// that derives versives from adjectives. Both may go back to a pre-Sap *i+, cognate with Pop hi- ‘impersonal/passive’, and pOP *h− ‘impersonal’ (with bases beginning with /p/, /t/, /k/, /s/, /m/, /n/). These would all derive from a pOM *hi+ ‘impersonal 2’ (See 2.9.2).

The OM etymologies *ta+ ‘impersonal 1’ and *hi+ ‘impersonal 2’ would never have occurred to me if I had not carried out a detailed analysis of Sapoteko verbs, and as well had detailed information on Poploca, Mixtec, OtoPamean which I also analyzed in great detail. This kind of analysis is absolutely essential for recovering the history of the OM stock and its daughters, but the insights are not merely diachronically relevant; they also in many cases simply show how the languages work in the present era, though in ways that are not obvious when an excessively surface phonetic focus is employed. I wish to explicitly contradict any claim that the kind of analysis I have performed on the Sap data has a purely diachronic relevance. While some of the phenomena may be quite buried under later accretions, they are mostly quite superficial, requiring only a modest amount of subtlety to unravel. What is specifically required is a willingness to view these phonological systems in their own terms and not through the eyes of Spanish speakers or other Europeans.

The ZERO, k-, and *kw- that the transitive members of class D verbs begin with may in fact be frozen variants of *ki+ ‘potential’ and *kwe+ ‘completive’, that got phonologically attached to transitive verbs that began with vowels. This is merely a suggestion at the moment, because it would have to be explained how there independently exists a class of transitives that begin with a vowel and do not behave like class D verbs, namely class A (some class C verbs are also transitive); and it would have to be explained why some class D verbs got *ki+ frozen onto them, while others got *kwe+ frozen onto them, and others got nothing (ZERO) frozen onto them. In any case, these would be cases of double marking, because all class D verbs occur with the same TAM proclitics that the rest of the verbs take.

As an initial wedge into the job of explaining away the evidence of class A verbs, we note that they all begin with /u/ or /e/ in Northern, Eastern, and Western Sapoteko. The /u/ could reflect pSap *o+ CAUSativizer, except that it is part of the stem and not a proclitic in class A verbs. If *o+ CAUS is in evidence here, it has changed its morphophonemic behavior in these items.
The four verb classes of Sap are defined by the allomorphs of *ki+ ~ *k+ ‘potential’ and *kwe+ ~ *ko+ ‘completive’ they occur with, as well as by whether they show replacive initials on transitive intransitive pairs.

<table>
<thead>
<tr>
<th></th>
<th>class A</th>
<th>class B</th>
<th>class C</th>
<th>class D</th>
</tr>
</thead>
<tbody>
<tr>
<td>potential</td>
<td>ki+</td>
<td>ki+</td>
<td>k+</td>
<td>k+</td>
</tr>
<tr>
<td>completive</td>
<td>kwe+</td>
<td>ko+</td>
<td>ko+</td>
<td>ko+</td>
</tr>
<tr>
<td>replacives</td>
<td>NO</td>
<td>NO</td>
<td>NO</td>
<td>YES</td>
</tr>
<tr>
<td>begin with</td>
<td>V</td>
<td>C</td>
<td>V,C</td>
<td>V,s</td>
</tr>
</tbody>
</table>

Class A can/could be combined with class B on phonological grounds, since class a begins with V and class B begins with C. Why COMpletive shows the alternation here that is does is however a fact peculiar to this morpheme, and not accountable for by a general phonological process. Class C/D is distinguished from class A/B by the choice of allomorph for POTential.

The structure of the TAMVN string in proto-Sapoteko has been outlined in 2.6 and 2.8, and in the discussion above.

The TAMVN markers of Sapoteko are given on the following chart. On the left are given the names I use, on the right are given names used by others, where they differ. Also given is the distribution in the various Sapoteko language areas.
<table>
<thead>
<tr>
<th>TK labels</th>
<th>TAMVN markers</th>
<th>Cord CSap WSap NSap SSap</th>
<th>other labels</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>POSITION 3</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>habitual</td>
<td>*tyi+</td>
<td>+ + + + +</td>
<td>continuative</td>
</tr>
<tr>
<td>contra-factual</td>
<td>*niy+</td>
<td>+ + + - -</td>
<td>irrealis</td>
</tr>
<tr>
<td>progressive</td>
<td>*kkay+</td>
<td>? + - - +</td>
<td>continuative</td>
</tr>
<tr>
<td>potential</td>
<td>*ki+ ~ *k+</td>
<td>+ + + + +</td>
<td>indefinite</td>
</tr>
<tr>
<td>future</td>
<td>*sa+ ~ *si+</td>
<td>? + - + -</td>
<td>incompletive</td>
</tr>
<tr>
<td>completive</td>
<td>*kwe+ ~ *ko+</td>
<td>+ + + + +</td>
<td></td>
</tr>
<tr>
<td>infinitive</td>
<td>*we+</td>
<td>- - - + ?</td>
<td></td>
</tr>
<tr>
<td>imperative/affirmative/interrogative</td>
<td>*wa+</td>
<td>- + - + ?</td>
<td></td>
</tr>
</tbody>
</table>

**AUX POSITION**

| causative | *o+ *k+ | + + + + + |
| andative | *ya&k *k+ | + + + + ? |
| venitive | *eta *k+ | - ? - + ? |
| repetitive | *ey | + ? ? + ? |
| frequentative | *ese | + ? ? + ? |

**DERIVATIONAL POSITION**

| causative | *o+ | + + + + + |
| | *o(s)se+ | + + + + + |
| intransitive/non-active | *t- | + + + + + |
| intransitive/versive | *i- | + + + + |
| stative/participle | *na+ | + + + + ? |
In Eastern Sapoteko *sa+ ~ *si+ means ‘definite future’, that is that the subject intends that the event occur, or that the speaker asserts that the event will occur. In Northern Sapoteko (Yatzachi) a cognate morpheme [z] occurs in two restricted functions; as an allomorph of the stative {n-}, and in interrogative forms with completive aspect. This TAM marker may derive from the pSap ancestor of IZ /u+ sa7/ tv ‘to make, build’.
DESCRIPTIVE SOURCES FOR SAPOTEKO [needs update]


Córdova, Juan de 1578. Vocabulario en Lengua Zapoteca.

Mock, Carol C. 1983ms. ‘A Comparative View of Verbal Aspect in Zapotecan Languages’.


--------------- 1984. ‘The Phonology of the Texmelucan Zapotec Verb’, IJAL 50.139-164.


*Burnett, H., Inez M. 1997. Diccionario Zapoteco de Yatzachi. 528pp. SIL.


Kaufman, Terrence. 1989msa. ‘The phonology and morphology of Sapoteko verbs’.


*Long C., Rebecca & Sofronio Cruz M. 1999. Diccionario Zapoteco de San Bartolomé Zoogocho, Oaxaca. 531pp. SIL. [5k]


Pride, Kitty D. de. 1965. Chatino Syntax. 249pp. SIL.


Ruegsegger, Manis y Juana. 1955 Vocabulario Zapoteco del Dialecto de Miahualtan del Estado de Oaxaca. México DF: Instituto Lingüístico de Verano. [.5k]


-------------. 1984. ‘The phonology of the Texmelucan Zapotec verb’, *IJAL* 50.139-164. [GF]


3.2.2 CHATINO

Chatino is either a single language with three strongly differentiated dialects, or else a language area with three emergent languages. It is spoken in the State of Oaxaca, Mexico. Cht is not well documented, and only an incomplete characterization of its TAMVN system can be offered here.

The known TAM markers that have cognates in other OM languages are the following:

TK labels       Chatino morphemes       other labels used
potential       ki-                      
completive      ngu- ~ ngwi-
"present"       n-                       
habitual        ndV- (ngi-)
progressive     ndya-                    continuative

It seems likely that the COMP, HAB, and PROG markers all have procliticized n+ < pOM *na# ‘now’.

DESCRIPTIVE SOURCES FOR CHATINO

to be filled in
3.2.3 PROTO-SAPOTEKAN

In this section are presented all the Sapoteko or Chatino morphemes that have cognates with any TAMVN markers in other OM languages. The proto-Sapotekan form for each etymon is given. In the chart below the relevant data is displayed.

<table>
<thead>
<tr>
<th>Proto-Sapotekean</th>
<th>Proto-Sapoteko</th>
<th>Chatino</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>POSITION 3</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>*tyi+ HAB</td>
<td>*tyi+ HAB</td>
<td>n-dV- HAB</td>
</tr>
<tr>
<td>*niy+ CONTRAF</td>
<td>*niy+ CONTRAF</td>
<td></td>
</tr>
<tr>
<td>*kkay+ PROG</td>
<td>*kkay+ PROG</td>
<td>n-dya- PROG</td>
</tr>
<tr>
<td>*ki+ POT</td>
<td>*ki+ ~ *k+ POT</td>
<td>ki- POT</td>
</tr>
<tr>
<td>*kwe+ ~ *ko+ COMP</td>
<td>*kwe+ ~ *ko- COMP</td>
<td>n-gwi- ~ n-gu- COMP</td>
</tr>
<tr>
<td><strong>DERIVATIONAL</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>*se+ CAUS</td>
<td>*o(s)se+ CAUS</td>
<td></td>
</tr>
<tr>
<td><strong>ADVERBS</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>*na# ‘now’</td>
<td>*nna ‘now’</td>
<td>n- &quot;present&quot;; n- on HAB,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>PROG, COMP</td>
</tr>
<tr>
<td>*nwa# ‘already’</td>
<td>IZ mma7 ‘already’</td>
<td></td>
</tr>
<tr>
<td>*sa# ‘nothing’</td>
<td>IZ sa7a ‘no matter’</td>
<td></td>
</tr>
</tbody>
</table>

The absence on this chart of a Chatino form means only that a Cht cognate has not yet been found. It does not mean that a cognate form is known or believed to be absent.
loans from Mije-Sokean

JCH mma7 'already' can be compared to pMZ *ma 'earlier'.
[other forms of Sap have #ba, which goes back to *mma7]

kw+ e7kku7 (N,C,S,W) s perro//dog
   ni=kku (Ay,L) s perro//dog [lit. ANIMAL DOG]

[NOTE: not in Ch; > Wasteko pik'o7, Yukateko pe:k']
[cf. pMijean *7uku 'dog' < pMZ 'agouti': pSap *kw+ e7kku7
< **kwe+ u7kku7 by rule d]

kw+ e7wa (N,C,S) s guacamaya//macaw
   [cf. pMZ *7owa 'macaw': pSap *kw+ e7wa < **kwe+ o7wa by rule d]

(kwe+) yatyi (N,C,S;Ch) s cirhuela, jocote, jobo//hog-plum
   (Spondias sp.)
   [a TK original; *ty or *tz?]
   [cf. pSokean *yati = pMijean *7a:ti 'soursop']

mmani7 (C,S;[Ch]) s animal//animal; pa*jaro//bird;
   insecto//bug
   [cf. pSokean *mu7a 'deer']

(kwe+) tzina7 (N,C,S,W;[Ch:tz > kw]) s miel//honey
   tzina7 tawo7 (N,C) s + modif miel//honey
   [cf. Sokean *tzinu 'honey']

tze7 (C,S) s (a) di*a//day (C,S); (b) noche//night (N)
   ko+ tze7 (N,C,S,W) vi:completive "la tarde"//afternoon
   x-tze7 (N,C,S,W;[Ch]) s cena//supper
   awo x-tze7 (N,C,S,W;[Ch]) vt + s cenar//to eat supper
   [This should be compared to Soke *tza7y+ji and Epi-Olmec <tza-ji> 'late in the day' (a JJ original)]
Other loans in Sapoteko [found in Córdova’s dictionary]

ma*ni pe'o       papagayo verde grande
ma*ni xiica      pe'o xiica     papagayo mas pequeno verde la cabecza colorada
co'cho          ma*ni co'cho   papagayo verde chico
ma*ni quili      papagayo chiquito verde
pe'hua           ma*ni pe'hua   papagayo grande colorado
que*ye, qui*ya batey, juego de pelota de los yndios el lugar
Sapoteken sound correspondences

*..ok  *..ak  *..ek  *..ik

JCH ...e ...e

CHI ...a? ...a?

<COR> ...e ...e

CHO ...o(g) ...o(g)

1700 ...og ...ag ...eg ...ig

YZT ...Rw ...R ...R ...R

ATP ...ia (.a after /x ty tz/) => =>

[COA] ZERO ZERO

[CUI] ZERO ZERO

[ZAN] ZERO ZERO

LCH ...o ...o

ZEN ...a ...u ...e ...i

YAI

FdM’s *R and *Rw. I used to think these were *+ja and *+ju, but now I think they were *..ak (*..ek, *..ik) and *..ok. I contemplated only *+ja because VA Sapoteko merges *..ak, *..ek, and *..ik as /R/.

Evidence
written <ag>, <eg>, <ig>, and <og> in 1700 N Sap
CHO has /o/_# ~ /og/_V
*k is the only consonant that may occur preconsonantally in non-word final position, and the only consonant that can end (preposed) morphemes: now *k also appears word finally.

Now we have
$(k)CV(k)$
$(k)CV(k)CV(k)$
ADD: words of OM pedigree that survive in only one Sapotek(an) language distribution: Justeson, MacLaury, Benton, Hopkins & Josserand, Urcid, LMA, Beam de Azcona

Further vistas.

Still lacking is a reconstruction of pSap tone. Most likely there will be 3 level tones, plus at least one moving tone, perhaps two.

The work that Eric Campbell is engaged in, the reconstruction of proto-Chatino and its diversification, should materially amplify, and partially correct, the present work.