

## GRAMMAR IN THE SCRIPT

### PASSIVES, MEDIO-PASSIVES, AND ANTIPASSIVES

by Hutch Kinsman

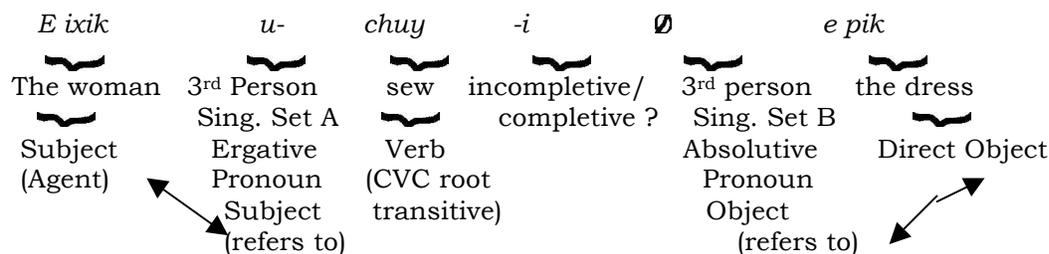
This is the third article in a series designed to allow the non-linguist to analyze verbs in the hieroglyphic script. Highlights of previous articles include the fact that the script follows the rules of ergative/absolutive languages as opposed to the familiar nominative/accusative languages. The verbal analysis chart included in the first article (Kinsman, 2007:40) should be referred to throughout the current and future articles. Table 2.1, Hieroglyphic Script Root CVC Transitive Verbs (Kinsman 2008:31) should also be available for reference.

Discussion will focus on the use of **passive**, **medio-passive**, and **antipassive** constructions derived from CVC root verbs. It is important to note that all passives, medio-passives and antipassives by definition begin as transitive verbs and are derived by certain suffixes to become intransitive constructions--thus the importance of knowing whether a CVC root verb is transitive or intransitive. For some transitive verb roots found in the script, such as *tzutz*, 'to end', or *pul*, 'to burn', it is not obvious for English speakers that these verbs are transitive, however by noting the affixes that are used with these roots in the script, it becomes apparent to which category each belongs.

When linguists refer to passive, medio-passive, and antipassive, they are referring to **Voice**. "Voice" concerns the relationship between the subject and the predicate. In the active voice we have a transitive verb in the predicate position with a direct object, the set A pronouns marking the subject and the set B pronouns marking the object.

Transitive constructions in the active voice contain at least two arguments, the Subject, termed the "Agent" in a transitive formation, and the Direct Object. The following transitive-construction example is from modern Ch'orti language (Perez, 1994:152):

Ex. 3.1 (Ch'orti') Transitive: *E ixik uchuyi e pik*. The woman sews/sewed the dress.



Most readers are familiar with the 3<sup>rd</sup> person singular ergative pronoun *u* which is found throughout the script. As in the script, the *u* in Ch'orti is a dependent pronoun appearing as a prefix to the verb. Dependent pronouns are also termed "pronomial affixes". The 3<sup>rd</sup> person singular set B absolutive pronoun is now the object of the verb but still shows up in the same form, the null, ∅, that it did as the subject of the intransitive verb in the examples in the first article.

#### Passives

In the passive voice, we delete the old subject and make the former object the new subject. The above example in Ch'orti passivized becomes:

Example 3.2 (Ch'orti)(Perez, 1994:152). Passive:

*E pik chujya umen e ixik.* 'The dress was sewn by the woman.'

|   |   |   |   |   |
|---|---|---|---|---|
| <i>E pik</i>  | <i>chu-j-y</i>  | <i>-a</i>   | <i>∅</i>  | <i>umen e ixik</i>  |
|  |  |  |  |  |
| The dress<br>(Subject)  | sew<br>Verb   | single argument<br>predicate marker   | 3 <sup>rd</sup> Person Sing.<br>Absolutive Set B<br>Pronoun (Subj.)               | Prepositional<br>Phrase<br>"by the woman"   |
| -   | -j- passive   |   |   |   |

The former direct object "dress", has been promoted to the subject and the original subject is now the object of a prepositional phrase. Only a single argument, the subject, remains. The "-a" suffix on the verb indicates that only one argument will be used with the verb. Since the new statement is now intransitive, the **subject** is designated by the absolutive pronoun, in this case the ∅ "null", and refers to "The dress." The null ∅ is in the same position relative to the verb as in the transitive construction, however now this absolutive pronoun represents the subject instead of the object. The "j" that is inserted between the "u" and the "y" in *chujya*, called the "infix j" and indicated by a dash either side of the "-j-", marks the verb as passive.

What affixes did the writers of the script use to derive passives? Affixes were chosen according to whether the root of the original transitive verb was a CVC root verb or a non-CVC/Derived verb (MacLeod, personal communication).

In the case of CVC root verb, to derive the passive the Mayas infixed an "aspirated" -h- after the V and before the last C. Thus CVC becomes CVhC.



In the case of **chu-ka-ja**, from Yaxchilan Lintel 41, the collocation is transcribed **chu-ka-ja**, and transliterated *chuhkaj*. It is analyzed *chu-h-k-aj-∅*, where *chuk* is the CVC transitive root 'to capture', infixed -h- marks the derived word as passive and is reconstructed in the transliteration but not marked in the actual glyphs, -aj is a "single argument predicate marker" (any intransitive calls for a minimum of only one argument, the subject for instance), and the null ∅ is the 3<sup>rd</sup> person singular absolutive subject pronoun. For an in-depth discussion on passive voice in the script, the reader is referred to Alfonso Lacadena (2004:165-194), which includes the infixed -h- and the -aj in passive constructions and also points out in the same volume (2004:169) John Robertson's alternative view that the entire [h] -aj is a "bi-partite morpheme" that altogether marks the passive, not just the infixed -h-.

### Mediopassives

Mediopassive, also known as "middle voice", verb forms are somewhat varied and involve:

- 1) A verb which is active in form but passive in meaning. "My new Book is selling well." "Nylon washes easily.
- 2) A verb in an intransitive construction that is understood reflexively—an action is done to oneself by oneself. "I shaved." Meaning "I shave myself." "The fire ants queued up on approach to the nachos. (B. Macleod, personal communication).
- 3) The agent, or doer, or "referent of the action" is usually not immediately identifiable within the context. "The flint shield 'got knocked down.'" The subject gets acted upon.

So far only mediopassives of the type 3) have been found in the script. Barbara MacLeod was the first to specifically identify mediopassives in the hieroglyphics. These mediopassives are all

recognizable by a  **-yi** suffix on a **transitive CVC root verb**. The **-yi** suffix transforms the transitive verb to mediopassive. In the above "dress" example, the mediopassive statement would be (Ch'orti has a couple of suffixes that indicate mediopassive, *-p* being one of them):

Example 3.3 (Ch'orti) Mediopassive:

*E Pik chuypa.* 'The dress got sewn.'

|   |   |   |   |   |
|---|---|---|---|---|
| <i>E Pik</i>  | <i>chuy</i>   | <i>-p</i>   | <i>-a</i>   | <i>-∅</i>   |
|  |  |  |  |  |
| The dress<br>(subject)  | verb<br>(sew)   | medio-<br>passive   | single argument<br>predicate marker   | 3 <sup>rd</sup> Person Sing.<br>Set B Absolutive<br>Pronoun (subject)               |

The subject pronomial affix is the 3<sup>rd</sup> Person Singular Set B Absolutive Pronoun represented by a null  $\emptyset$  and referring to the subject "dress". The suffix *-a* indicates that the verb, a CVC root transitive that has been derived by the suffix "*-p*" to a medio-passive, now only requires one argument.

Example 3.4 (Hieroglyphic script[Palenque Tablet of 96 Glyphs]) Mediopassive:

...*tzutzuy/tzutzuyu<sup>1</sup> ujunk'atun...* '...got ended/ended the first k'atun...'

|   |   |   |  |  |   |   |
|---|---|---|--|--|---|---|
|   |  | <i>-yi</i>  |  |  | <i>1</i>  |   |
| <b>TZUTZ</b>  |  | <b>-yi</b>  |  | <b>U</b>   |  | <b>K'ATUN</b>   |
| <i>tzutz</i>  | <i>-uy</i>  | $\emptyset$   |  | <i>u</i>   | <i>-jun<sup>2</sup></i>   | <i>k'atun</i>   |
|  |  |  |  |   |  |  |
| verb (CVC<br>root transi-<br>tive) "to end"   | medio-<br>passive   | 3 <sup>rd</sup> Person Sing.<br>Set B Absolutive<br>Pronoun (Subj.)                 |  | 3 <sup>rd</sup> Person<br>Singular<br>Set A Ergative Pronoun                         | "One"   | 7200 days   |

<sup>1</sup> Lacadena, Wichmann transliterate **TZUTZ-yi** as *tzutz-[uu]y* "marking the long u-vowel off by means of square brackets as a convention to indicate that this element has been reconstructed"; he uses "uu" instead of a single "u" as per his spelling rules for disharmony (2004:131). Since not all linguists follow this convention, this article will use the single "u". Another question is how do we know what vowel is supplied after *tzutz* and before *-yi*? According to Lacadena, Wichmann (2004:131), "The large number of pairs of the type **pu-lu-yi/TZUTZ-yi** shows that the Maya scribes always chose a complement vowel that would correctly complement the morphemic vowel had it actually been written."

<sup>2</sup> Kaufman and Norman (1984:137) reconstruct Proto-Cholan *\*jun* for the numeral one (entry #663), however some linguists will double the *u*, *juun*.

Although as yet to be discussed fully in this series of articles on grammar in the script, the 3<sup>rd</sup> person singular Set A ergative pronoun occurs as a prefix to a number which changes the cardinal number “one” to the ordinal number “first”. The Set B absolutive pronoun ∅ is a suffix to the verb and refers to the subject “first K’atun”.

The verb *tzutz* appears in the script in the active voice transitive form as *u-tzutz-aw/uw?- ∅ (∅)*



is the 3<sup>rd</sup> Person Singular Set B Absolutive Pronoun [Direct Object],



passive form as *tzuhtzaj-∅*. See Hurby and Robertson (2001:35, Table 1) for all three forms occurring on numerous monuments over a large time span.

Identifying mediopassive verbs can be confusing because of the similarity with intransitive verbs of motion (see Table 2.3[Kinsman, 2008:33]). Both the intransitive verbs of motion and mediopassives carry the same **-yi** suffix. Verbs such as *lok’oy* [*lok’yi?*] (exact spelling not determined), “exits, leaves”, *t’ab’ay* [*tab’yi?*], “goes up”, and *’ehmey* [*’ehmye?*], “goes down” fall into this category of intransitive verbs of motion. Therefore, merely the existence of the **-yi** suffix on a CVC root verb is not cause enough alone to categorize a mediopassive construction—remember that the original verb root in a mediopassive must be transitive, by definition. In either case, intransitive verb of motion or mediopassive, no Set A subject ergative pronoun will be present, only the Set B absolutive subject pronoun.

### **Antipassives**

The antipassive voice only occurs in the ergative languages and thus is usually unfamiliar to speakers of the nominative/accusative languages such as English. In a few words, the antipassive voice is an active construction in an intransitive form where in some way the direct object is de-emphasized. The “feel” of the antipassive construction can best be served by a fictional story illustrating the forms that the antipassive can take:  
Little Jaguar Paw came running into the ootoot, flint flakes flying.

“Mom!”, Little Jaguar shouted breathlessly to Lady Two Sky, “All the kids are wrestling out in the south acropolis and Huntan ‘Une’ is getting pounded. Even daddy’s old chest pectoral is not helping.”

“Fine, fine”, Lady Two Sky calmed her little heir to the throne, and ran outside to see what was going on. The scuffle seemed to be subsiding and there was little Huntan ‘Une’, standing there clutching her left arm with her right hand and tears streaming down her face.

“Someone hit me and I think it was Little Jol Chaak!”, Huntan ‘Une’ managed between tears.

“Oh, Little JOL CHAAK hit you”, said Lady Two Sky, stretching out the name Jol Chaak to make sure everyone heard her.

“Yes”, Huntan ‘Une’ continued to sob, “Jol Chaak is bad. Jol Chaak hits!”

Lady Two Sky ran the statements through her mind just to be sure she understood:

|   |                     |
|---|---------------------|
| Someone hit Huntan ‘Une’.                 | <i>transitive</i>   |
| Huntan ‘Une’ got hit.                     | <i>mediopassive</i> |
| Huntan ‘Une’ was hit by Little Jol Chaak. | <i>passive</i>      |

**Little Jol Chaak** hit Huntan 'Une'. *agent-focused antipassive* (The spoken emphasis is on the agent "Little Jol Chaak", that is to say, Little Jol Chaak is the one who hit Huntan 'Une'.) The nominative/accusative languages write this as a transitive construction, but the ergative/absolutive languages write this statement grammatically as an "agent-focused" antipassive. In other words, information that is passed to the listener by the tone of the voice of the speaker in English can be written grammatically by the Mayan language writer.

Jol Chaak hits. *absolutive antipassive* (object dropped.)

Jol Chaak little-girl hits. *object-incorporated antipassive.*  
In another scenario it might be known that Jol Chaak performed action, for instance, but not exactly what was done, i.e., he could have hit Huntan, hugged her, or kissed her. Therefore when we found out the answer to that question, we would say that Little Jol Chaak **hit** Huntan 'Une', stressing the the verb "hit". In another instance the focus might be on the object, knowing who did what but the question of "to whom" would be answered.

The crux of the use of the antipassive is that in some way the direct object is de-emphasized. When this de-emphasis occurs, the originally transitive verb becomes intransitive. The way this transformation takes place is through the use of derivational affixes—suffixes in the Mayan languages, and consequent use of the ergative and absolutive pronouns. As can be seen from the above illustration, there are ways in the English language to get across the same meaning as that desired from an antipassive construction, either with the tone of the words used or with extra words, but grammatically the only way to do it is to be writing or speaking an ergative language, since those languages are the only ones that allow it. The Maya generally use three different forms of the antipassive:

1-- Absolutive antipassive – the direct object is dropped altogether from the clause.

2-- Object-incorporated antipassive – the object is placed directly adjacent to the verb. An object in this position cannot be possessed because the object becomes 'general'. Object-incorporated antipassives are usually translated something like, "The hummingbird honey-sucks.", or "God A flower-takes."

3-- Focused antipassive – the object remains in its normal position but the subject, usually in the form of an independent pronoun, like *ha'ob'*, 'those ones', or *ha'i*, 'that one', is placed at the beginning of the clause for greater emphasis on the subject thus deemphasizing the direct object.

Antipassives in Epigraphic Maya can be recognized using several clues<sup>3</sup>:

1-- No ergative pronoun prefixed to the verb<sup>4</sup>. Because the antipassive is an intransitive construction, the subject pronoun will be the Set B Absolutive pronoun.

2-- Use of the antipassive derivational suffix, *-ow*, *-aw*, or *-wi* with CVC root transitives, or *-n* with nonCVC or derived verbs.

---

<sup>3</sup>See Tallerman (1998:191) or Dixon (1994:146) for a general listing of the criteria for antipassives.

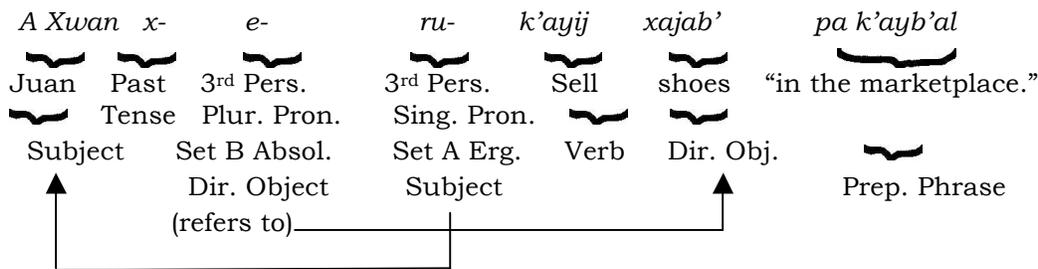
<sup>4</sup>David Mora-Marin (2004:342-343) discusses two cases where an ergative pronoun will be used as a prefix to a verb in an antipassive construction: 1) an example from Copan Altar 157, **u-CHOK-no-ma**, 's/he would throw down', and 2) "nominalized" antipassive constructions that are possessed by the agent. In the nominalized constructions however, the verb is a noun in a gerund form, such as 'the throwing of Mr. Wos(a).'

3-- CVC root verb or derived stem = transitive verb (as is also the case with a passive or mediopassive, beginning initially as a transitive verb then transformed by a derivational suffix to an intransitive construction [by definition]).

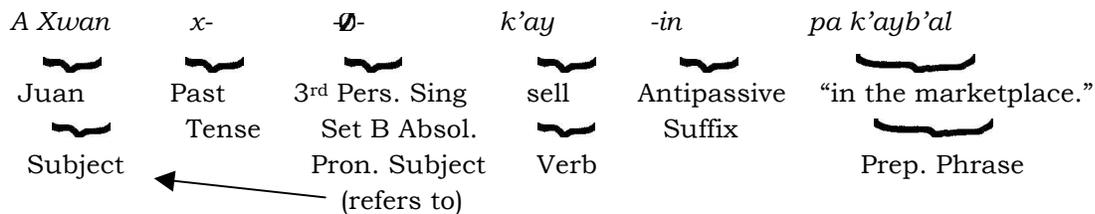
4-- Noun or independent pronoun immediately prior to the verb indicating a word order of S-V-O (Subject-Verb-Object) for agent-focused antipassives.

Examples from modern day Mayan languages and Epigraphic Maya follow. Note that the absolutive pronoun may sometimes occur as a prefix, depending on the language and the type of construction (to be discussed in later essays), however, most linguists agree that in Epigraphic Mayan the absolutive pronoun always occurs as a suffix to the verb.

Ex. 3.5 (Kaqchikel [Oscar Garci Matzar, 1992:130]). Transitive. *A Xwan xeruk'ayij xajab' pa k'ayb'al*. Juan sold shoes in the marketplace.

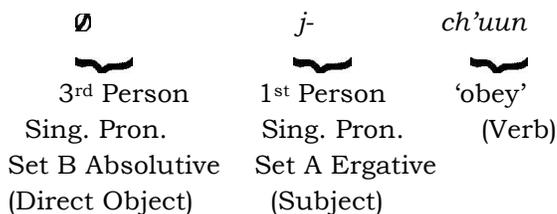


Antipassive (Absolutive). *A Xwan xk'ayin pa k'ayb'al*. Juan sold in the marketplace.



In the transitive statement, the direct object pronoun, *e-*, the set B absolutive prefix pronoun comes first and agrees in number, plural, and person, 3<sup>rd</sup>, with the direct object *xajab'*, shoes. The set A ergative pronoun prefix, *ru*, follows agreeing in person and number with the subject Juan. In the *absolutive antipassive*, 'Juan sold in the marketplace.', it is a little easier to see how the sentence becomes intransitive because the patient (direct object), *xajab'*, has been completely removed. So the obvious clues that we have an antipassive construction are 1)no ergative pronoun, so we must have an absolutive pronoun for the subject, i.e. the sentence must be intransitive, 2) we have an antipassive suffix, and 3) there is no direct object.

Ex. 3.6 (Colonial Tzotzil [Laughlin,1988:115]). Transitive. *Jch'uun*. I obey him/her.



Antipassive (absolutive). *Xech'uunvan.* I obey [people].

|         |                       |        |             |
|---------|-----------------------|--------|-------------|
| x-      | e-                    | ch'uun | -van        |
| ⏟       | ⏟                     | ⏟      | ⏟           |
| Neutral | 1 <sup>st</sup> Pers. | “obey” | Antipassive |
| Aspect  | Sing. Pron.           | (Verb) | Suffix      |
|         | Set B Absol.          |        |             |
|         | (Subject)             |        |             |

Ex.3.7 (Colonial Tzotzil [[Laughlin,1988:116]). *Antipassive (absolutive).* *Ta xjapiwan caballo.*  
The horse grapples (with things).

|            |         |                                   |           |                |          |
|------------|---------|-----------------------------------|-----------|----------------|----------|
| ta         | x-      | ∅                                 | japi      | -van           | caballo. |
| ⏟          | ⏟       | ⏟                                 | ⏟         | ⏟              | ⏟        |
| Incomplete | Neutral | 3 <sup>rd</sup> Pers. Sing. Pron. | “grapple” | Anti-          | “horse”  |
| Aspect     | Aspect  | Set B Absol. (Subj.)              | (Verb)    | Passive Suffix | (Subj.)  |

Ex. 3.8 Ep. Maya (Palenque Temp. of the Sun Tablet, F13). *Antipassive (Object Incorporated).*  
... *tzakaw k'uh...* ...he “god-conjures”...

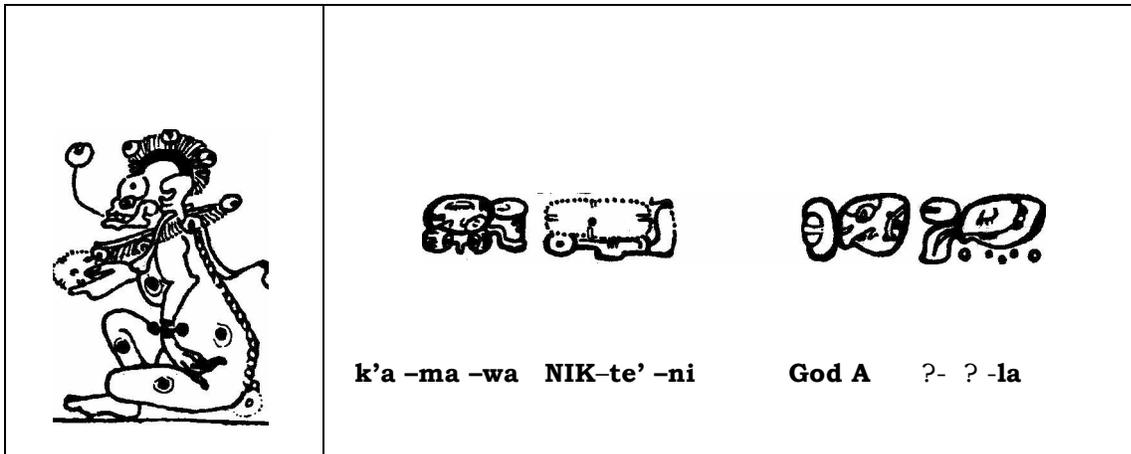
**TZAK-wa-K'UH**



|              |             |                        |                |
|--------------|-------------|------------------------|----------------|
| tzak         | -wa         | ∅                      | K'uh           |
| ⏟            | ⏟           | ⏟                      | ⏟              |
| verb         | Antipassive | 3 <sup>rd</sup> Person | Direct Object  |
| (CVC         | suffix      | Singular Set           | (Incorporated) |
| Trans. Root) |             | Absolutive (Subject)   |                |

There is no ergative pronoun therefore the verbal construction must be some type of intransitive. The root transitive CVC *TZAK* is followed by the *-wa* suffix, which indicates an antipassive providing there is no ergative pronoun as a prefix. The direct object immediately follows and there is no independent pronoun preceding the verb, therefore the form must be an object-incorporated antipassive.

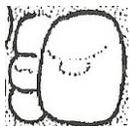
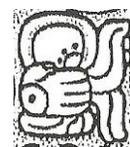
Ex. 3.9. Antipassive.(object-incorporated) Dresden Codex 15C. *K'amaw nikte' God A.*  
'God A flower-took.'



|             |                    |  |                      |               |
|-------------|--------------------|--|----------------------|---------------|
| <i>k'am</i> | <i>-aw</i>         | ∅  | <i>nikte' ni (?)</i> | <i>God A.</i> |
| “receive”   | Antipassive Suffix | 3 <sup>rd</sup> Pers. Sing. Set B Absol. Pron. | “flower”             | Subject       |
| Verb        |                    | Subject (refers to)                            | Dir. Obj.            |               |

The set B absolutive pronoun is indicated by a null in the 3<sup>rd</sup> person singular, and as shown in previous examples, then this must be the subject pronoun as the ergative pronoun is not present indicating an intransitive construction. After the verb, the antipassive *-wa* is present cueing an antipassive. Since the object is still present, and there is no independent pronoun preceding the verb, we know that we have an object-incorporated antipassive and not a focused antipassive. “Flower-took” is the typical way to translate an object-incorporated antipassive.

Ex. 3.10. Antipassive (agent-focused). Pusilha Stela H D4C5 (Drawn by C. Prager).  
*...hai k'alwituun...* ‘He/That one wraps/wrapped the stone.’

|               |   |                  |   |                        |           |               |            |
|---------------|---|------------------|---|------------------------|-----------|---------------|------------|
| <b>ha- -I</b> |  | <b>K'AL</b>      |  | <b>-wi</b>             | <b>-∅</b> | <b>-TUN</b>   | <b>-ni</b> |
| <i>hai</i>    |   | <i>k'al</i>      |   | <i>-wi</i>             | <i>-∅</i> | <i>-tuun</i>  |            |
| “that one”    |   | “bind, wrap”     | Antipassive   | 3 <sup>rd</sup> Person |           | “stone”       |            |
| Independent   |   | verb (CVC        | Suffix  | Sing. Set B            |           | Direct Object |            |
| Pronoun       |   | root transitive) | Absolutive (Subject)  |                        |           |               |            |
| (Subject)     |   |                  | (refers to)   |                        |           |               |            |

The independent pronoun *hai*, “that one” immediately precedes the CVC root transitive verb which does not have an ergative pronoun and therefore it is not surprising to find the antipassive marker *-wi* as a suffix. Since the direct object *tuun* is present we can be assured that the construction is an agent-focused antipassive.

The use of the antipassive allowed the scribe grammatical freedom that he would not otherwise have had. In the example 3.10 above, “That one bound the tuun”, follows a long statement, though partially eroded, that puts emphasis on the agent of the action *that seems to inform the reader of the importance of that person’s actions*. In example 3.7, ‘The horse grapples (with

things)', the friar "explains that this means 'a horse that takes mares', commenting that the expression is suggestive and thus should be avoided in favor of euphemism." Other languages will use the antipassive to make an 'oblique' expression out of the object, taking a statement like 'The hunter attacked the bear', to 'The hunter ran at the bear' [same verbal root 'attack' used]. In all of these antipassives "the former object becomes in some way less affected by the action of the verb" (Tallerman, 1998:186).

## SUMMARY

The scribes of the hieroglyphic script relied heavily on the intransitive constructions of the passive and mediopassive, and to a lesser extent on the antipassive. All of the forms of these derived intransitives originated from root transitive CVC verbs. The infix *-h-* derived the passive with the *-aj* suffix usually from the **-ja** syllabic sign, the mediopassive was derived by the **-yi** syllabic sign suffix to yield a *-Vy* suffix, and the antipassive was derived by the *-aw*, *-ow*, and *-wi* suffixes from the **-wi** and **-wa** glyphic CV signs. These three constructions are the first three listed on the left side of Chart 1.1, the Intransitive Verb Flow Chart. Future essays will treat the passives and antipassives of the non-CVC/derived intransitives diagrammed on the right side of the flow chart.

## NOTES AND CORRECTIONS

This author follows the convention of transcription and transliteration as expounded by Lacadena and Wichman (2004:133,134) where the transcription is the **-cv** syllable or **CVC** logogram written directly from the hieroglyphics. Transliteration is the next step after transcription and records the Mayan morpheme in italics, as in *-vc* for the syllabic suffix or *cvc*

for the logogram. For example,  is transcribed as **-yi** and transliterated as *-Vy*. As such, a correction should be made in the heading of the Table 2.6 "biba" chart (2008:35,36) where the second column should be Transcription and the fifth column should be Affix Transliteration and not vice-versa. In the same volume the transitive and positional verb *pat* should have been transcribed **pa-ti** instead of **PAT-ti** (pages 32 and 34).

## ACKNOWLEDGMENTS

The author wishes to thank John Harris and the Glyph Group of the Philadelphia Pre-Columbian Society for a constant stream of grammatical questions and feedback on the issues presented in these essays.

## REFERENCES CITED

Dixon, R.M.W.

1994 *Ergativity*. Cambridge: Cambridge University Press.

Hruby, Zachary X. and Robertson, John S.

2001 *Evidence for Language Change in Ancient Maya Writing: A Case Study of the*

*Verb Tzutz*. Research Reports on Ancient Maya Writing No. 50.  
Barnardsville, NC: Boundary End Archaeology Research Center.

Kinsman, James H.

2008 *Grammar in the Script: Morphemes, CVC's, Affixes, and Clitics*.  
**The Codex**, At the University of Pennsylvania Museum. Volume 16,  
Issue 1 – 2. ISSN 1083-6314.

Kaufman, Terrence S., and Norman, William M.

1984 *An Outline of proto-Cholan Phonology, Morphology, and Vocabulary in  
**Phoneticism in Mayan Hieroglyphic Writing***, edited by John S Justeson  
and Lyle Campbell. Institute for Mesoamerican Studies, State University of  
New York at Albany, Publication No. 9. Albany, NY: Institute for  
Mesoamerican Studies, State University of New York at Albany.

Lacadena, Alfonso, and Wichmann, Soren

2004 *On the Representation of the Glotal Stop in Maya Writing*, in **The  
Linguistics of Maya Writing** (Wichmann, ed.). Salt Lake City:  
University of Utah Press.

Laughlin, Robert M. with Haviland, John B.

1988 **The Great Tzotzil Dictionary of Santo Domingo Zinacantan** with  
Grammatical Analysis And Historical Commentary, Volume I Tzotzil-  
English. Washington, D.C.: Smithsonian Institution Press.

Mora-Marin, David

2004 *The Preferred Argument Structure*, in **The Linguistics of Maya Writing**  
(Wichmann, ed.). Salt Lake City: University of Utah Press.

Oscar Garcia Matzar, Pedro, et al.

1993 **Gramatica del Idioma Kaqchikel**. La Antigua Guatemala: Proyecto  
Linguistico Francisco Marroquin.

Perez, Vitalino Martinez

1994 **Gramatica Del Idioma Ch'orti'**. La Antigua Guatemala: Proyecto  
Linguistico Francisco Marroquin.

Tallerman, Maggie

1998 **Understanding Syntax**. London: Arnold Publishers

