Appendix D – Glyph Example Format

The examples are almost overwhelmingly from drawings, but a small number are from photographs.

Each glyph example is labelled in quite a complex way. I provide as many of the following as possible:

- A **reference** to where I got the example from. The examples come from many different types of sources and the referencing format is appropriate for each type of source.
- **Credit**: the artist or photographer who created the drawing or photo.
- **Inscription**: the object (monument, vase, carved bone, etc) which the example comes from.
- **Transliteration**: in real-life inscriptions, the arrangement of the glyphs in the glyph-block(s) which constitute the example.

Each of these is described in more detail below.

Reference

I developed my own referencing system, which deviates to a considerable extent from the standard format for academic references.

- Teaching resources – these references have very short abbreviations, as they are cited so often:
    - The five major teaching resources (on a consistent basis):
        - K&H: *Introduction to Maya Hieroglyphs* (Kettunen, Helmke; 2020)
        - K&L: *Methods in Maya Hieroglyphic Studies* (Kettunen, Lacadena; 2018)
        - TOK: *Beginner's Visual Catalog of Maya Hieroglyphs* (Tokovinine; 2017)
        - BMM9: *9th Bratislava Maya Meeting* (Beliaev, Safronov; 2019)
        - 25EMC: *25th EMC Beginner's Workshop Handbook* (Tuszyńska, Hamann, Bojkowska; 2020)

      Where the resource does not list this glyph, I record that fact (so that I don't keep looking to try and find it for inclusion).
    - Other teaching resources (on a less consistent basis) :
        - CMC4: *Crakow Maya Conference 4 - Part 2 Workshop Materials* (Safronov, Savchenko, Rusek; 2015)
        - MC: *Reading the Maya Glyphs* (Coe, Van Stone; 2005)
        - IC: *Hieroglyphic Decipherment Guide* (Calvin; 2012)
        - FK2: *Basic List of Signs & Table of Phonograms* (Kupprat; 2017)
        - EB: *The Updated Preliminary Classic Maya - English, English - Classic Maya Vocabulary of Hieroglyphic Readings* (Boot; 2009): This has no glyph examples, but the meanings and references to monuments and vases are quite important.
        - JM: *Dictionary of Maya Hieroglyphs* (Montgomery; 2002)

      Where the resource does not list this glyph, I obviously don't record that fact as inclusion of these references is ad hoc and incidental anyway.
    - From other databases:
        - MHD: These have MHD.<3-character-code>.
        - Bonn: These have simply the 6-character Bonn-code (the "updated/revised" T-number). I don't prefix this with as B- as Bonn itself doesn't do this. It

should be clear enough from the syntax and the context that a Bonn code is being cited.

- Academic papers and dissertations – these references have abbreviations which are considerably longer, as they are so many of them that a longer abbreviation is needed to distinguish them.
    - Where there is one author, this will be the author's surname.
    - Where there are two authors, both authors' surnames will be given, with an "&" between them.
    - Where there are more than two authors, only the first author's surname will be given, with EtAl.

  A hyphen comes after the surname(s), followed by an acronym created from the title. Some examples:
    - Stuart-PTotS = *Palenque's Temple of the Skull* (Stuart; 2007).
    - Tokovinine&Zender-LoWW = *Lords of Windy Water - The Royal Court of Motul de San Jose in Classic Maya Inscriptions* (Tokovinine, Zender; 2012)
    - ZenderEtAl-SSw = *The Syllabic Sign we & an Apologia for Delayed Decipherment* (Zender, Beliaev, Davletshin; 2016).

  Note: when I have a literal quote from an academic work, the quote can also have references to other academic works. Such references are given *as found in the academic work* (i.e. in the standard style) – they are not rendered in the style of my own referencing system.
- Videos – some examples:
    - AK-YT2021-lecture5 = Alexandre Tokovinine's University of Alabama lecture series of 2021, available on his YouTube channel, lecture #5.
    - Zender-CaCiAMF = Maya at the Playa 2021 - Marc Zender - Continuity & Change in Ancient Maya Foodways.

These abbreviations for references to "printed" material (academic papers and dissertations) and videos can be found both under the examples (to give the source of that image), as well as in the notes (to give the academic work or video where an idea or reading is explained or discussed). On the LMGGC website, hovering over a reference in a CMGG popup will further pop up the full reference. A list of abbreviations and the corresponding full references is linked at the start of each CMMG popup.

Further to the reference itself, information is given which specifies yet more closely *where* in an academic work (page number, etc) or a video (elapsed time within the video) the example or note is to be found. For example:

- ZenderEtAl-SSw.**p**38.**pdfp**4.col2.**para**1.**l+**4:
    - **p** = the page number of the article in the printed issue in which it appears. Articles on David Stuart's Maya Decipherment blog are web pages with no inherent page numbers. However, I work with my own copies captured in Word, and am able to give a page number reference, though this will, of course, not be of any use to anyone else.
    - **pdfp** = the page number of the PDF that has just the article itself. When viewing PDFs, it's often very easy to get to the relevant page by typing in the desired pdfp value in the PDF-viewer being used.
        - The pdfp can be much lower than the official "printed page" number: this is when the paper is one of many, in an issue of a journal. If the paper exists as an independent PDF, then its pdfp page-number range will be from (say) 1-5,

while its printed page number range will be (say) 23-27, if the article begins on p23 of the printed issue.
        - Conversely, the pdfp can be higher than the official "printed page" number, for example, when an archival site holds such an article and inserts its own logo and organization information in the initial few pages of the PDF. If there are two such additional pages, then the pdfp range will be from 3-7, while the printed page-number range is 1-5.
    - **col** = column number (many academic papers are printed in a 2-column format, some in 3-column format).
    - **para** = paragraph number (within the column, if appropriate): para1 is the first paragraph of the page/column, not the first *complete* paragraph of the page/column. i.e. the first sentence of a page/column is considered part of para1, irrespective of whether the paragraph continues from the previous page/column or is a totally new paragraph on that page/column. A minus sign preceding the number indicates that it's the number of a paragraph *counting from the end*. E.g. para-3 is the third paragraph from the end (of the respective page/column). This is a similar convention as for line numbers (see below), for the same reason of ease of use.
    - **l** is for the line number within the paragraph:
        - l+4 = the plus sign before the 4 means the 4th line from the *start* of the paragraph.
        - l-3 = the minus sign before the 3 means the 3rd line from the *end* of the paragraph. For long paragraphs, it's easier to reference lines towards the end of the paragraph by counting from the end rather than the start.

  In this context:
    - "fn" stands for "footnote" which is used for both footnotes and end notes.
    - "fig" stands for "figure" and the value is written without full stops, irrespective of whether the cited publication uses "fig.1", "fig1.a", "figure 1a", or "figure 1.a".
- AK-YT2021-lecture5**.t0:21:34-22:15**: The information of relevance starts at 0:21:34 and ends at 0:22:15 of the cited video.

Credit

For each example, I try to give the image credit (for the drawing or photo). Such credit is given in the following way:

- If the image is extracted from a drawing or photo of an "entire" inscription, then I try to give the artist who drew or the photographer who photographed the entire inscription (or the detail of an inscription). I have access to two very large collections of drawings. Most of these drawings have an attribution to the artist or photographer in the image itself (e.g. as a label at the bottom). Failing that, the attribution will be available in the name of the file itself (or the name of the folder the file is found in). However, there remains a certain small fraction of drawings and photos which have no attribution information whatsoever. I indicate such cases as Coll-1 or Coll-2, depending on which collection the image came from.
- If the image is extracted from an academic paper or thesis, then I give a reference to the scholarly work, down to the page and figure or table number.
- If the image is extracted from a teaching resource, then I give a reference to that teaching resource, down to the page and figure or table number. It varies a lot to what extent a teaching resource gives credit for the original artist or photographer.

In the last two cases, I hope that the credit for the original artist or photographer will be given in the work I cite. I appeal to the principle that if the author(s) of a paper, thesis, or teaching resource can be excused for not explicitly giving a credit, then I may be too.

Inscription

Below the image, reference, and credit, I give the inscription which the example comes from (if known). Where possible, this is given down to the glyph-block reference, e.g. YAX Lintel 24 C2. In examples from academic papers / theses, the glyph-block reference is sometimes not given. Where I have been able to get hold of the complete drawing, I've tried to find the actual glyph-block and hence give a more complete reference.

These references use the usual standardized 3-letter site code, then "Lintel", "Stela", "Hieroglyphic Stairway" (abbreviated to "HS"), "Temple" (abbreviated to "T"), etc, then the "number" (Lintel 3, Stela 4, HS5, etc) – whatever is needed to identify the inscription.

Where two different systems of glyph-block reference exist in the real world (e.g. in different academic papers) I try to give the glyph-block number according to both systems, or at least note that there are two different systems, and give the glyph-block reference according to one of them.

Transliteration

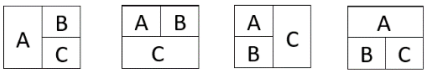
Below the inscription information, I give the transliteration. This is given in the widely accepted convention of full uppercase for logograms and full lowercase for syllabograms. I don't however bold either of them. While I recognize that bolding is an important and useful part of the convention, I only use that in continuous running text, e.g. in a sentence like: "It is written **wi**-**WITZ**-**tzi** on this inscription." In the standardized spot under the image of an example, I find bolding unnecessary. Also as it would make the resultant page look too "dense" and "heavy", and in this context, I think it's clear enough that these are transliterations.

While most epigraphers use only a hyphen for a joiner between glyphs, CMGG uses the entire panoply of available symbols for joiners, so that the learner can see exactly which glyph occurs where in a glyph-block. The CMGG joiner conventions are:

"." — horizontally joined.
":" — vertically joined.
"[]" — infixed (X[Y] = X with Y inside it).
"+" — conflated (X+Y = characteristics of both X and Y).
"{}" — underspelled ({X} = X is not present in the example, but inferred).
"*" — reconstructed from context, when the glyph is too eroded.
"?" — unknown/unreadable.

None of these is new — each one of the conventions above is used by some professional epigrapher (though some are very obscure and not often used). What *is* new in CMGG is the use of angle brackets for grouping elements which belong together (square brackets are no longer available

because they represent infixing, and curly brackets are no longer available because they represent underspelling). The examples below illustrate the usage:



In these examples, A, B, and C could themselves consist of more than a single glyph. That is where nested angle brackets come into play. For example, <X:<Y.Z>>.<B:C> would be if A in the first example was replaced by the last example, with X,Y,Z in place of A,B,C in the last example.

Yet a further innovation is the use of colours and bold type, to show which joiners go with which level of angle brackets. For very complex glyph-blocks, it's difficult to see what's going on without this additional aid.

<X:<Y.<P:Q>>>.<B:C>

<<<CHUM[mu]>:wa>.ni>:ya

- The brown angle brackets <> with a colon and a **ya** means that the quite complex grouping (enclosed in brown angle brackets) is vertically joined to **ya**.
- Within the brown angle brackets, the blue angle brackets <> with a brown period **.** and a **ni** means that a slightly less but still complex grouping (enclosed in blue angle brackets) is horizontally joined to **ni**.
- Within the blue angle brackets, the green angle brackets <> with a blue colon **:** and a **wa** means that an even less complex grouping (enclosed in green angle brackets) is vertically joined to **wa**.
- And finally, the green angle brackets with the mu in square brackets means that the **mu** is infixed in the **CHUM**.

Additional notes:

- Some epigraphers use [] for underspelling, others for infixing. CMGG follows the latter convention.
- Many epigraphers do not use {} (or whatever their convention is for underspelling) *in the transliteration step* (i.e. in the first-T of a TTT). Instead, underspelled parts of words are only indicated in the transcription (i.e. middle-T) step. As I often try to combine these two steps, I indicate underspelled parts of words already at the transliteration step, using {}.
- Many epigraphers do not use * for reconstructed readings *in the transliteration step* (i.e. in the first-T of a TTT). Instead, reconstructed readings are only indicated in the transcription (i.e. middle-T) step. As I often try to combine these two steps, I indicate reconstructed parts of words already at the transliteration step, using *.
- Colour has been suppressed for technical reasons in the popups, so the advantages of this colour-coding are available only in the PDF version of the CMGG, not in the HTML version.

- I have not followed a completely strict left-to-right and top-to-bottom order, when writing the joiners and glyphs. For example, placenames ending in *-nal* or names/titles ending in *ajaw* will often have the *nal* or *ajaw* (visually speaking) *above* the preceding word, e.g. *Nahbnal* or *Mutul Ajaw*. They are however transliterated as **NAHB**:**NAL** (or **MUT**{ul}:**AJAW**), i.e. in the "natural" reading order. This "exception pattern" is often explained as the **NAHB** (or **MUT**) "covering" a full variant of **NAL** (or **AJAW**), leaving just the reduced variant "sticking out at the top". This then explains why it is read *before* the element above it.
    - This "exception pattern" applies to a small, limited number of glyphs.
    - Having this "exception pattern" allows the transliteration to be read smoothly, without the reader having to do some mental gymnastics to restore the correct reading order.
    - However, in even more exceptional circumstances, the placement of the glyphs can be completely at odds with both the regular pattern and with this "covering" exception pattern. In such cases, I'm forced to transliterate with joiners in the completely "strict" way, even though this then hinders the smooth reading of the transliteration.