To: UTC
From: Deborah Anderson, SEI, UC Berkeley
Subject: Ad Hoc report on Egyptian Hieroglyphs (Oct. 7 2019)
Date: 8 October 2019

Participants: Michel Suignard, Ken Whistler, Lisa Moore, Roozbeh Pournader, Liang Hai, Steven Loomis, and Debbie Anderson

Variants
We discussed variant hieroglyphs (such as the 2-bar vs. 3-bar glyph for U+1321A [N037A], a character that can also occur with one bar). The discussion highlighted an issue that applies to many Egyptian hieroglyphs: the glyphs may vary between how they appear in the actual inscription versus the way they appear in the printed transcription (in hieroglyphs). We suggest that experts propose new characters for variants that vary from the encoded repertoire, if the variants have distinct semantics that need to be maintained in plain text.

For the click beetle suggested by Jorke Grotenhuis, we agree with Michel Suignard to retain the current glyph at U+131AC, whose origin remains murky, and add a new character, if a glyph is provided by Jorke Grotenhuis.

Quadrats
Most of the discussion centered on how to handle quadrats, given that Egyptian now includes format control characters. We agreed that any Hieroglyphica characters (not already in the repertoire) be encoded atomically. However, if the character *could* have been created as a sequence with format characters, the sequence should be documented on a "do not use" list. This "do not use" list would be maintained in the UniKemet2 database on the Unicode website.

This model will be simpler for users, and mirrors what is already done as RGI (Recommended for General Interchange) for emoji. Note that an input model can still allow users to type in the sequence, but the font would generate the atomic glyph, instead of creating the glyph dynamically, which could be difficult. Other combinations of characters not in Hieroglyphica could be handled as sequences, but need to be documented. It was noted that there are already atomically encoded characters in the Egyptian Hieroglyph repertoire; the sequences that could have been used to generate them will also be documented on the "do not use list".

Michel will check the document from Andrew Glass et al. (L2/17-112 "A method for encoding Egyptian quadrats in Unicode (revised)") to see if his document covers the z order of elements.

Review process
To encourage wide review of the proposal, we recommend the proposal be submitted as a UTR, until it is deemed mature enough for final publication.