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**Comments on the question of encoding Egyptian hieroglyphs in the UCS - *WG2 N2025-1***

## Presentation of the argument

While the encoding of Egyptian hieroglyphs within Unicode is worth looking into in principle, it is for the following reasons not yet ripe for decision at this point in time:

1.) All lists of hieroglyphical »characters« that are in use today are directly or conceptionally derived from registers of print types. Lead types were created to cater for specific practical needs, often therefore without thorough systematic stock-taking of those characters occurring on Egyptian Buildings (statues,tombs).

2.) The most thoroughly worked through directory is Gardiner's list of types, on which the Standard Library that is being taken into consideration for a standardization is based on. In this list of types, there is on the one hand a basis of hieroglyphs that more or less has to be listed in any usable register of types, but on the other hand it also contains rare characters and paleographical variants which were selected more or less at random. Any list of characters, that aimed to contain only those characters that belong to the classical hieroglyphical script in the most general sense, would have to include at least twice as many hieroglyphs as the Standard Library. Such a list does not yet exist, but is being worked on. (See also 5.)

3.) The Extended Library is a list which is even less complete and elaborated than the Standard Library. In this list it is even less clear than in Standard Library, whether a glyph represents a character in the sense of a unit of information or a paleographical variant — a glyph variant in UCS terminology. This list especially takes into account the immensely expanded repertoire of »characters« of the latest, Ptolemaic-Roman period, without exhaustively covering all of them and without sorting this stock according to scriptsystematical aspects.

4.) Almost none of the numerous types from the Early Egyptian period, which were no longer used after that, are listed in general registers. These types are catalogued in Jochen Kahl, *Das System der ägyptischen Hieroglyphenschrift in der 0.–3. Dynastie,* Wiesbaden 1994 (*The system of Egyptian hieroglyphic script letters in the 0–3rd dynasty*). This register is not complete either, as new characters are continually being discovered and the categorization of these new characters is often unstable. However, these special difficulties of early written language do not necessarily hinder the standardization of letter repertoire from later periods. The letters from early periods are a more or less marginal problem.

5.) A new extensive but condensed list of characters (»handlist«) of — in a most general sense — classical hieroglyphical script is being worked on by Prof. Dr. Erik Hornung, Basel. This list will be much bigger than the Gardiner repertoire of types or the Standard Library. Judging from the parts of this list that have been communicated to me personally, it would be much more appropriate as a basis for a standardization than those print type derived lists already in existence. Here it is at least being attempted to list the complete stock of the — in the most general sense — classical hieroglyphical script, and at the same time to determine the functions of these characters and thus to get a better hold of the paleographical variants.

6.) At the present stage of research in Egyptian hieroplyphic script, one always has to expect new characters and changes in what we currently perceive to be an abstract character. This means that the clumsy instrument of standardization cannot meet the demands of the incomplete stage of research in Egyptology. A far more appropriate means would be fonts registered by Egyptologists, which can be very quickly expanded and modified within the science itself, as is the case with the directories of the Standard and the Extended Library that Hans van Berg,

Utrecht, is running within the framework of the program for hieroglyphical print »Glyph« (please note the name).

## Summary

If, inspite of what was said in 6., a standardization of hieroglyphical character repertoire should be considered, then in any case the publication of the new list of characters by Hornung (mentioned under 5.) should be waited for. Whether this list of characters can actually serve as a basis for a standardization remains to be examined when it is published. At this point in time and on the basis of registers of hieroglyphs currently available a standardization within Unicode cannot be recommended.