Egyptological language resources and interlinear representation

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System in operation since 2000:

http://www.let.rug.nl/˜markjan/egyptian/texts/

- AELalign presented at I&E 2002 (Pisa).
- More resources created since then.
- New implementation; demo.
- New developments in hieroglyphic encoding.
Motivations:
- Share results of studying texts with others.
- Consolidate knowledge contained in printed media and the internet.
- Other applications, e.g. museum visitors.

Realized by creating corpus of resources:
- hieroglyphic,
- transliteration,
- translation,
- lexical annotation.
Related work

- BAMBI (Univ. Pisa; I&E 1998)
- METEOR (Univ. Chicago)
- Thesaurus Linguae Aegyptiae (Berlin, ...)
- ROSETTE (Euverte; this I&E)
Principles

- Ease of creating resources.
  - XML or ‘almost plain’ ASCII.
  - Creation of new resources.
  - Digitization of existing resources.
- Flexibility of combining resources.
  - Distributed efforts.
  - Open-source.
- Flexibility of rendering.
  - Inclusion or exclusion of resources.
  - Intelligent alignment.
There was a man called Khunanup.
There was a man called Khunanup.
version = B1

<42> mk wj r nHm aA=k sxtj;
<42> ‘Look, I shall take away your donkey,

<R=9.6> Hr <43> wnm=f Sma=j;
<R=9.6> because <43> it ate my barley.
version = R

<B1=42> mk Hm aA=k ;

<B1=42> `But look, your donkey

<9.6> Hr wnm jt=j ;

<9.6> is eating my barley!
Hieroglyphic encoding

**Revised Encoding Scheme** (RES) instead of Manuel de Codage. (See further I&E 2002.)

- More powerful.
- More streamlined syntax and meaning.
- Well-documented and standardized.
- Easier to embed into other formats.
Possibilities of RES

**Fitting**: scaling down or moving so that one sign is at a minimum distance to another (font independent).

\[
\text{insert}\ [te] (z\bar{A},\text{ra})
\]

**Stacking**: placing one sign on top of another.

\[
\text{stack}\ [\text{under}] (Hm, D)
\]
RES is powerful but rendering is time consuming.

Solution: auxiliary format \textit{REScode} is ‘compiled’ RES.

Is only meaningful if font is fixed.

\textit{REScode} preserves other benefits of RES: line breaks, avoiding pixelization, etc.
To be done

- Graphical editor for hieroglyphic.
- Automatic alignment of hieroglyphic with transliteration.
- Scaling up the corpus.
- Determine how to ensure quality of contributions.