CAEMmCom – *Corpus of Ancient Egyptian Multimodal Communication*: Getting Started

Rebecca E. Döhl & Silvia Kutscher

Introduction

- ## CAEMmCom is part of a larger enterprise:

- Establishing a Multimodality Approach for Ancient Egyptian graphic communication:

  – method and modell

- Contributing to Semiotic Theory by quest for general/cross-cultural features and techniques of multimodal graphic communication:

  – (cognitive and modality driven) universals

- Contributing to Comparative Perspective on graphic communication between disciplines:

  – typology

Why Multimodality Approach

Introduction: Why Multimodality Approach

- Why Multimodality Approach?
- 1. Contribution to Egyptology
    - specifics of Egyptian graphic communication are a long acknowleged topic in research in egyptology, but have been studied mainly from a cultural-historical perspective
    - writing and pictures have often been seen as separate and independent even in editorial work on temples, tombs, coffins,
    - analysis from a semiotically grounded and multimodal theoretical approach has gained little attention so far
    - solid knowledge about types and techniques is precondition for a systematic hermeneutical approach, which takes „anomalies" as starting point for analysis (Angenot 2011: 258)

Introduction: Why Multimodality Approach

- 2. Contribution to a diachronic perspective on multimodal graphic communication

  – numerous artefacts of graphic communication in Ancient Egypt are compositions of written texts and pictorial art; for some domains they are the majority of cases

  – some of the earliest Egyptian artefacts containing writing are in fact text-picture-compositions

  – Ancient Egyptian multimodal artefacts attested for more than 4,000 years

Introduction: Why Multimodality Approach

- **3. Contribution to Semiotics and the Theory of Multimodal graphic communication**
  - hierogyphic writing and pictorial art follow the same design schemes (-> iconicity of graphemes)

Introduction: Why Multimodality Approach

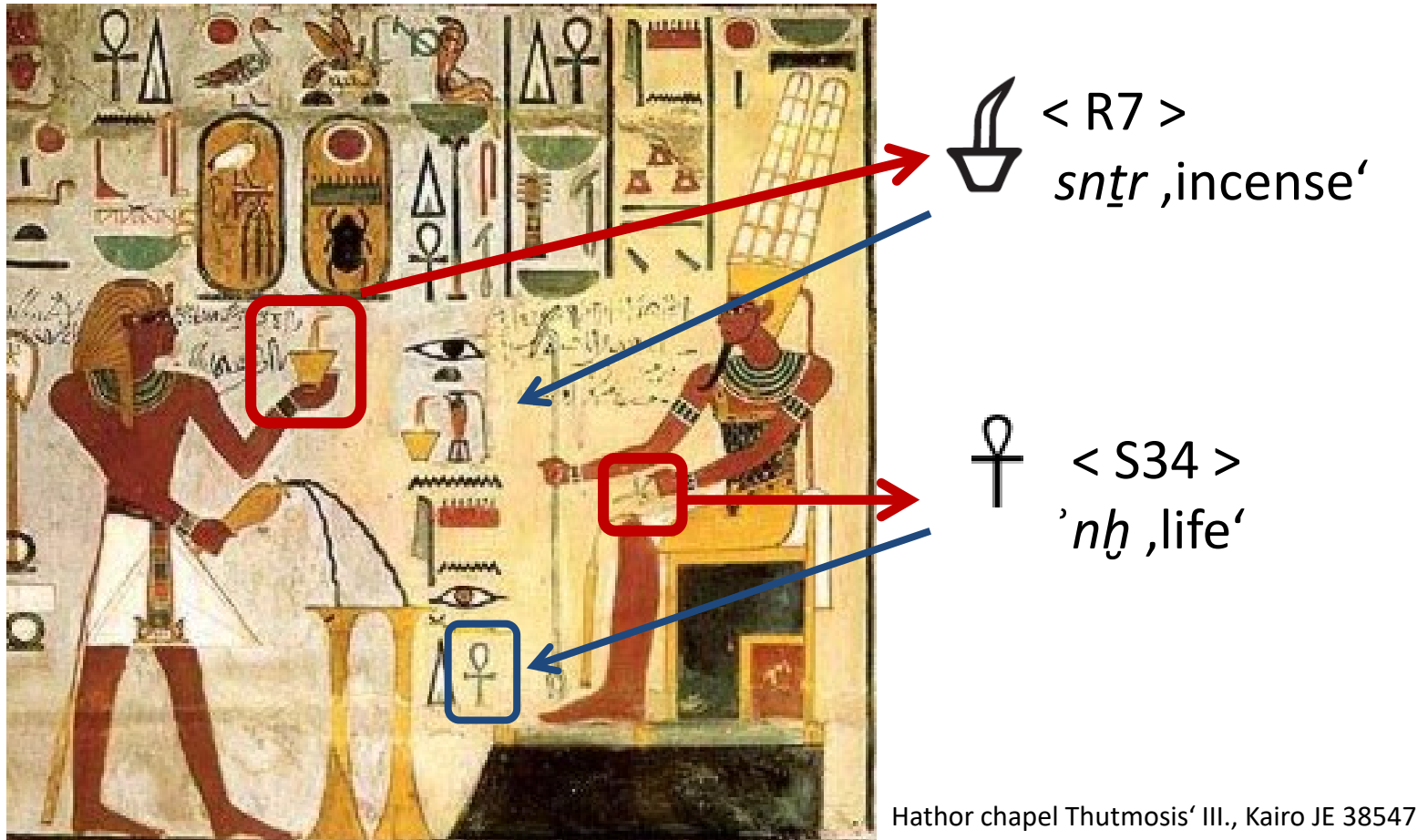- Common graphic schemes of pictures and hieroglyphic writing

God Anubis, tomb of Haremhab (KV 57)

Introduction: Why Multimodality Approach

- 3. Contribution to Semiotics and the Theory of Multimodal graphic communication
  - hierogyphic writing and pictorial art follow the same design schemes (-> iconicity of graphemes)
  - writing and pictures are thus poles on a scale; in between there are signs, which oscillate, i.e. are graphemes and pictures simultaneously (-> „hybrids", „ambimodality")

Introduction: Why Multimodality Approach

Sign as grapheme and as picture of an object

< R7 >
sntr ‚incense'

< S34 >
ʾ*nḫ* ‚life'

Hathor chapel Thutmosis' III., Kairo JE 38547

Introduction: Why Multimodality Approach

- **3. Contribution to Semiotics and the Theory of Multimodal graphic communication**

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    – Ancient Egptian graphic culture exploits hybridity of signs and iconicity of graphemes in various ways, some of which are specific to writing systems of this kind (-> common graphic schemes for graphemes and pictures -> Maya! Cuneiform? Chinese?)

    – testing ground for „univerals"/general principles of multimodal graphic communication (e.g. layout Kress/Leuven)

Why a Corpus?

Introduction: Why a Corpus

- Why a Corpus of Ancient Egyptian Multimodal Communication?

- 1. Quantitative Analysis: Are there different multimodal genre and how are they to be identified:

  - content / function (e.g. offering table scene, opening of the mouth ceremony, …) as a provisional first step

  - Invariants of Structure: Identifying definitional components and regularities (which sign inventory, which techniques of cohesion, which coherence/rhetorical structures

  - Variation of structural components:
    - synchronic (media, place, …)
    - diachronic

Introduction: Why a Corpus

- ## Offering table scenes:

seal, 1st Dynasty (ca. 3000 BC)

(Friedman 1985: 86)
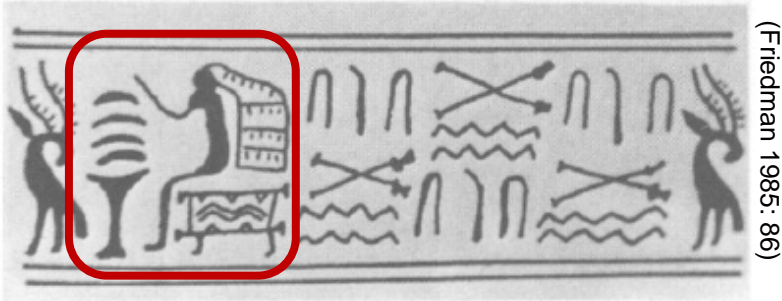
slab stela, 4th Dyn.: Khufu (ca. 2570 BC)

(Wepemnefret, in: Der Manuelian 2003: 2)
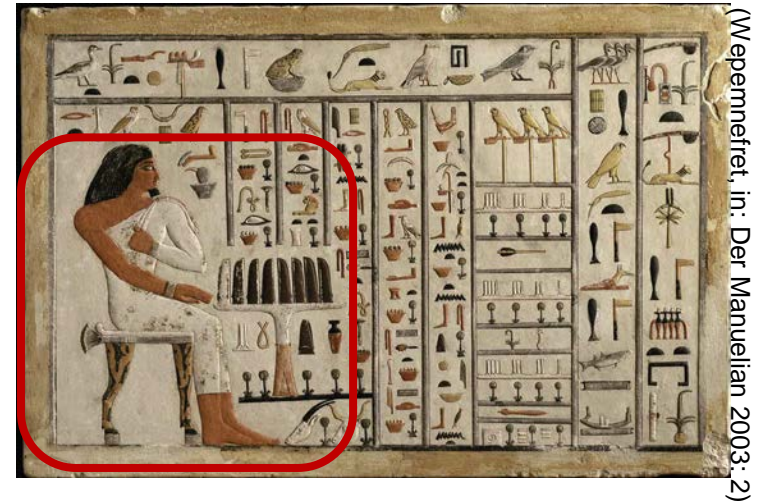
libation basin, 4th Dyn.: Khafre (ca. 2560 BC)

Hassan, Giza vol. IX, In: Lapp 1986: 34
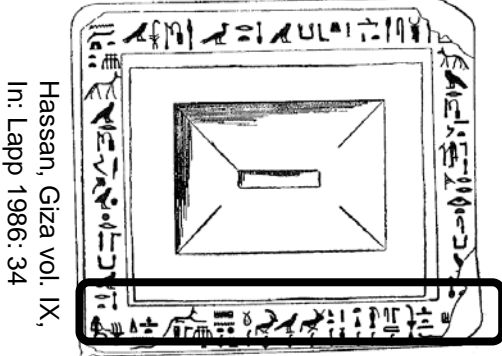
lintel relief, mastaba princess Hemet-Re (4th Dyn., Khafre)

Hassan, Giza vol. VI.3, In: Lapp 1986: 222

Introduction: Why a Corpus

- **2. Visual representation of annotation layers and analysis**
  - multimodal analysis requires visual representation of data and of the analysis of the intermodal relations
  - annotation includes glossing of linguistic expressions and explanations of iconography
  - facilitates access to data for researchers from Egyptology, offers a means to establish a common terminology
  - enables access for interdisciplinary exchange

What is CAEMmCom?

Introduction: What is CAEMmCom

- CAEMmCom serves as the basis for research in *Theory and History of Multimodal Communication* at HU Institute of Archaeology

- Research focus has been established since March 2016 (joint effort by Topoi and HU), CAEMCom started Nov 2016

- Presently: devising the architecture of the corpus

- Contributors:
  - Rebecca Döhl, Silvia Kutscher, Aleksandra Lapčić, Daniel Werning
  - participants of a master's seminar (winter term 16/17): Dora Ehrensperger, Tilmann Kunze, Antje Loka, Andrea Magliocchi, Lisa Seelau

Corpus-Workflow

Text information

Image information

Information of location

Software: HyperImage

Consolidation of multimodal data

Software: BaseX et.al.

Analysis of data

Software
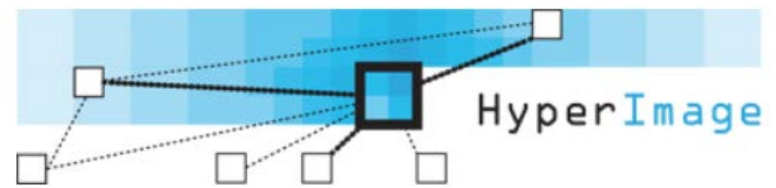
- Collection and administration: **HyperImage v. 3.0. beta2**   -   -
  - http://hyperimage.ws/de/
  - Open-Source-License
  - For annotating and linking details of images
  - Publication: hypermedial online or offline
  - developed by: BMBF-Projekt HyperImage (Humboldt-Universität zu Berlin/Leuphana Universität Lüneburg)
  - Maintained and new releases: *bitGilde IT Solutions UG*
  - Further requirements: Glassfish Server, PostgreSQl , data repository
  - based on: Java and HTML5

- Analysis:
  - BaseXML (XML database),
  - PostgreSQL (relational database)

Data collection

Material:
- Images (scans, photos) of the object, texts, maps, plans etc.
- Attributes

Vocabulary:
- Getty Institute vocabulary

http://www.getty.edu/research/tools/vocabularies/
- AAT (Art & Architecture Thesaurus
- TGN (Getty Thesaurus of Geographic Names)

- THOT controlled vocabulary:

Thesauri & Ontology for documenting Ancient Egyptian Resources
http://thot.philo.ulg.ac.be/index.html

- GeM (Genre and Multimodality)

http://www.fb10.uni-bremen.de/anglistik/langpro/projects/gem/newframe.html

- Specific attributes related to the material

Text information

Image information
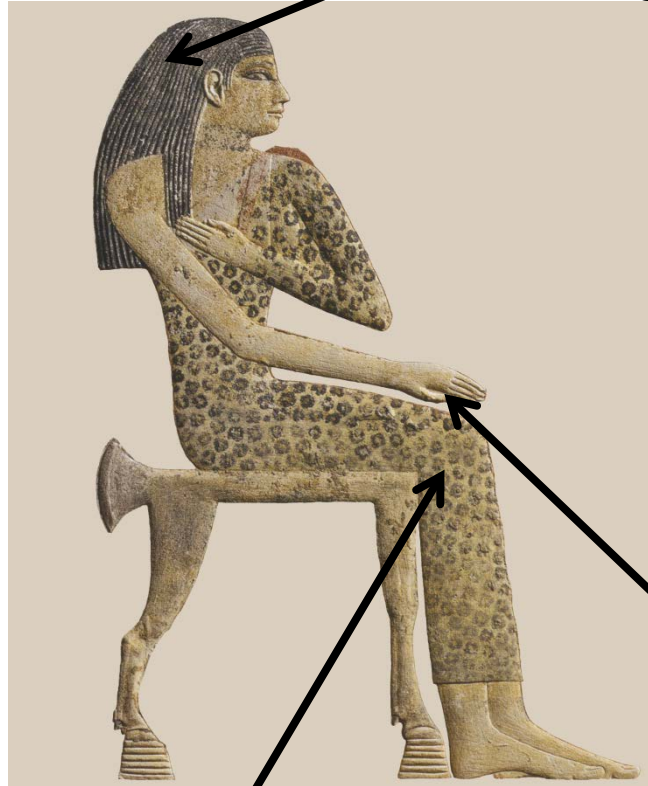
Accessoires
Wig, long, tripartite = woman

Person
Owner of tomb

Long pointed objects,
broadening base
Half loafs of bread

Garment
Skin of leopard = royal/priestly

Colour
of skin: yellow = woman
of garment: yellow/black =
skin of leopard
…
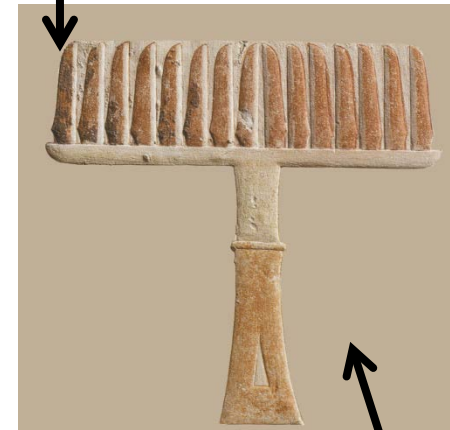
Table
Offering table

Information of Place

Consolidation of multimodal information

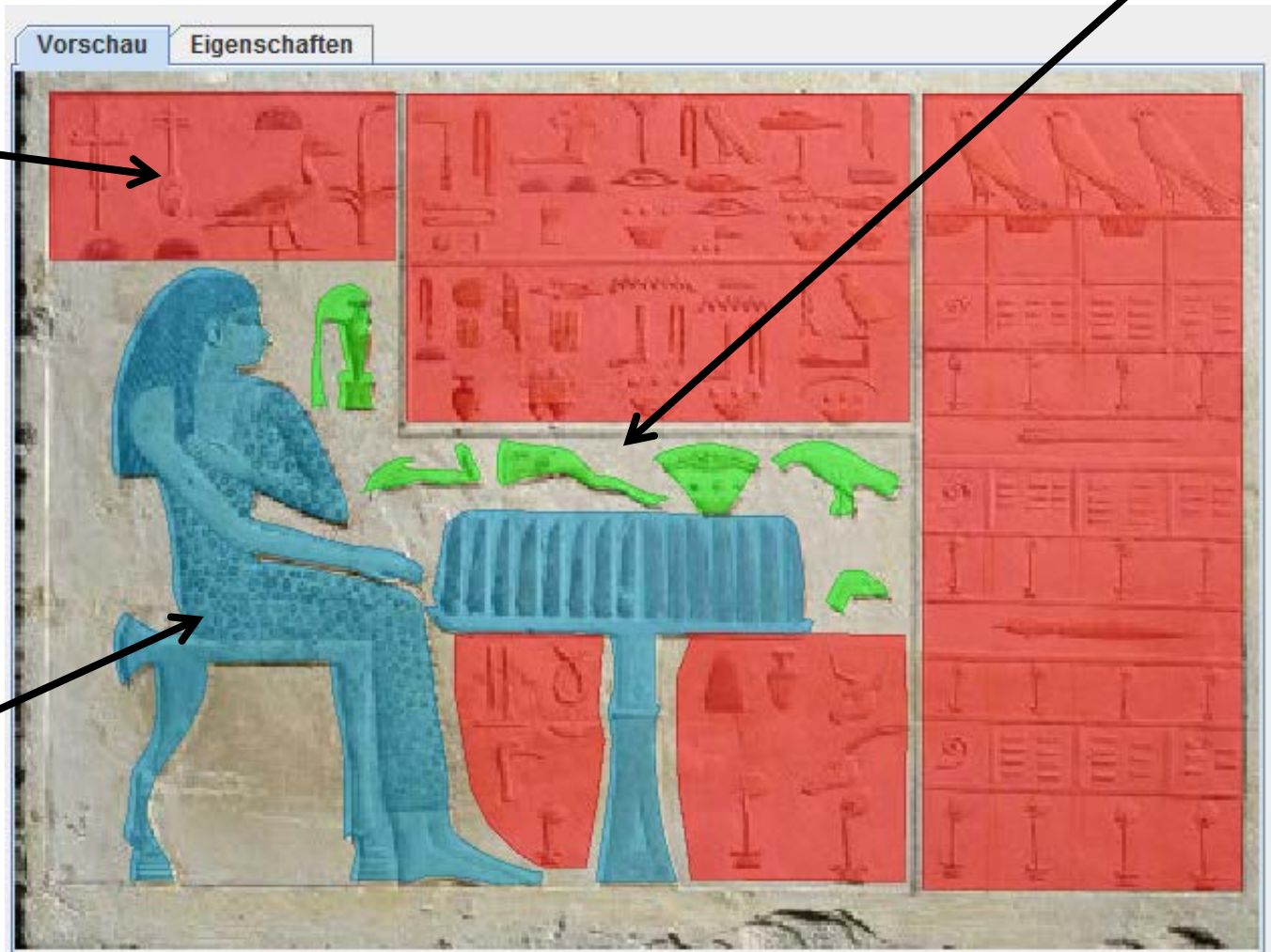- Groups: composition, text, image, location, hybrid, layout, RST analysis, salience analysis, situation of communication
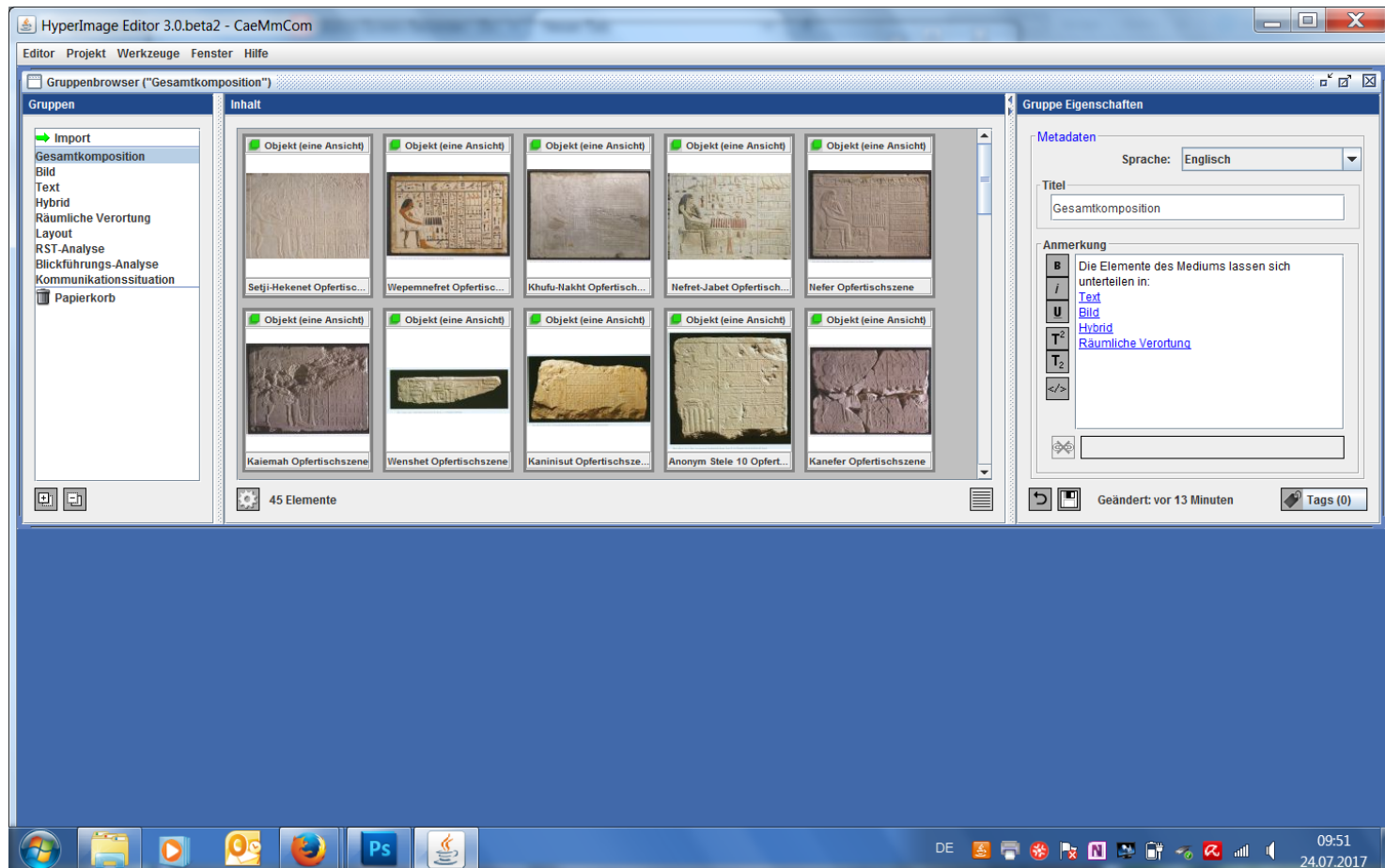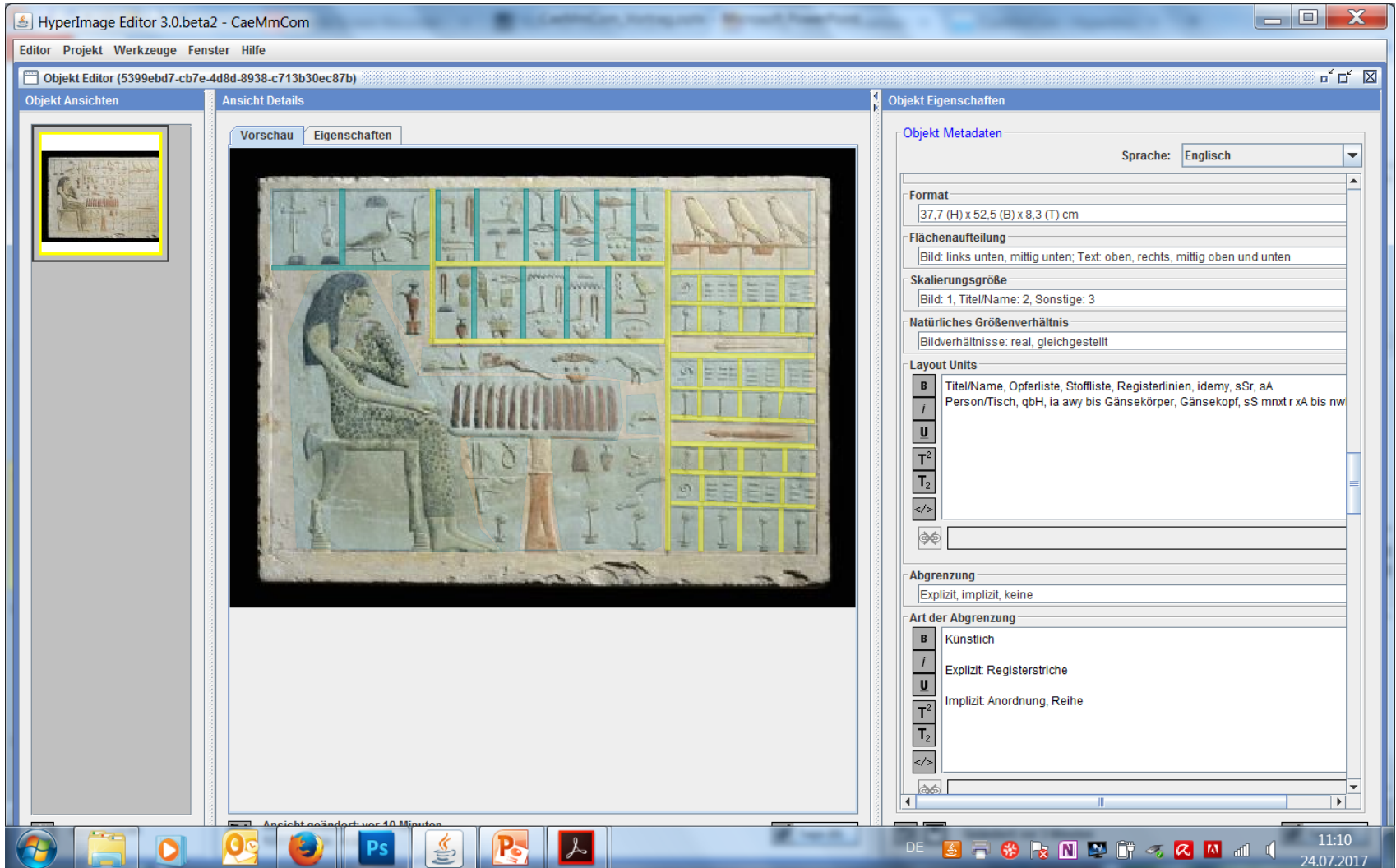
Group: Composition

Hybrid

Text

Image

Group: Layout
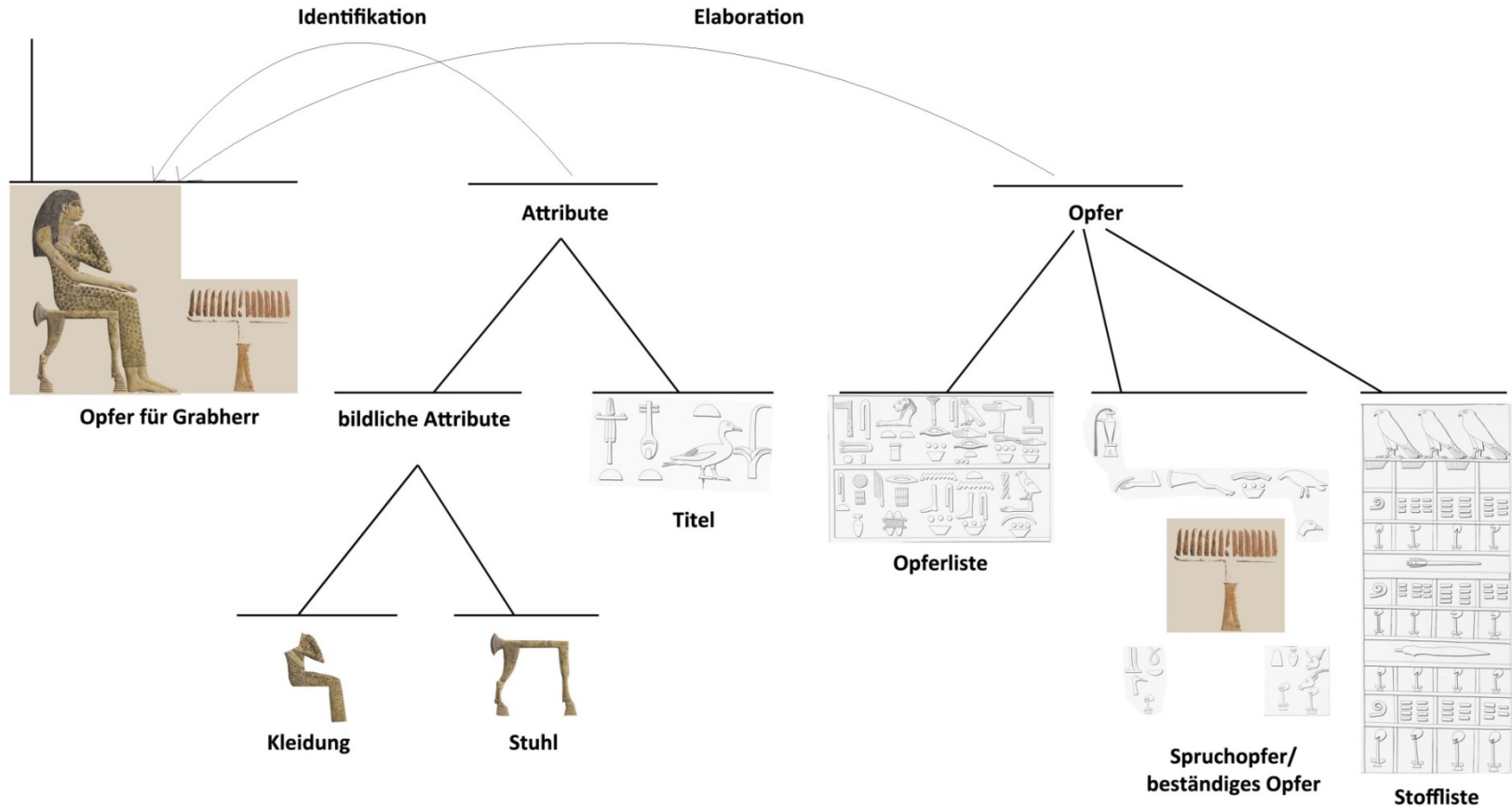
Group: Layout

Natural demarcation

Further Attributes:

Demarcation (explicit),
Demarcation (implicit),
No demarcation

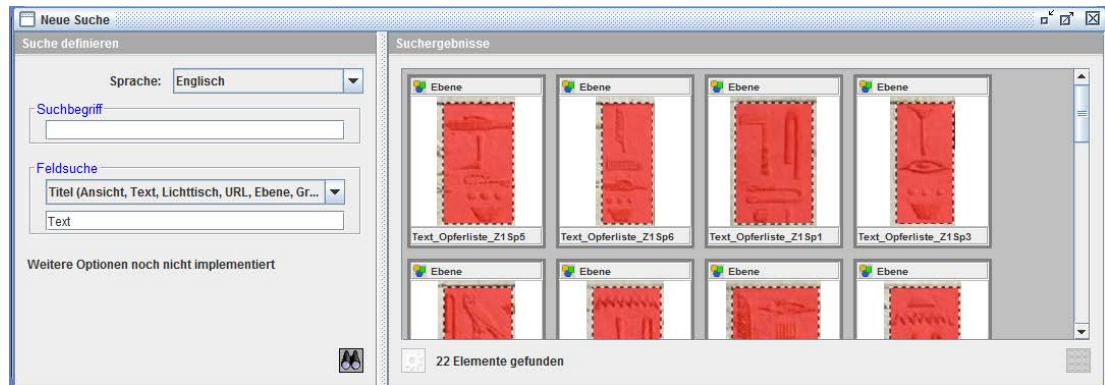Natural or articifal
demarcation

Orientation
 direction
 relation

Group: RST-Analysis

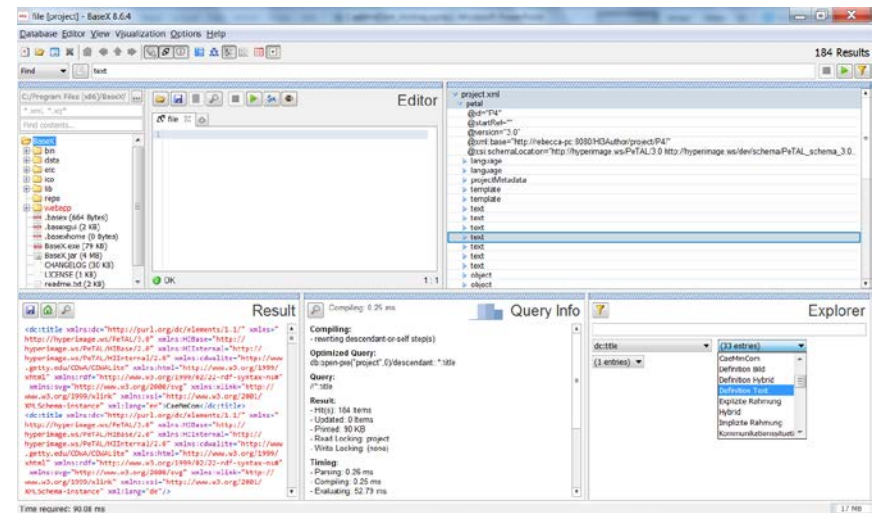Planned: Analysis of salience, situation of communication

Analysis of data

- Simple query within HyperImage

- Export of certain data from PostgreSQL, import in SQL database or as XML in other software

- Export of whole project as XML (Petal), import in e.g. XBase

Collected Data: Examples

Slab Stela, offering scene

Plate 11. Stela 6: G 1225 Nefret-iabet. Musée du Louvre, Paris, E 15591. Photograph by Bruce White
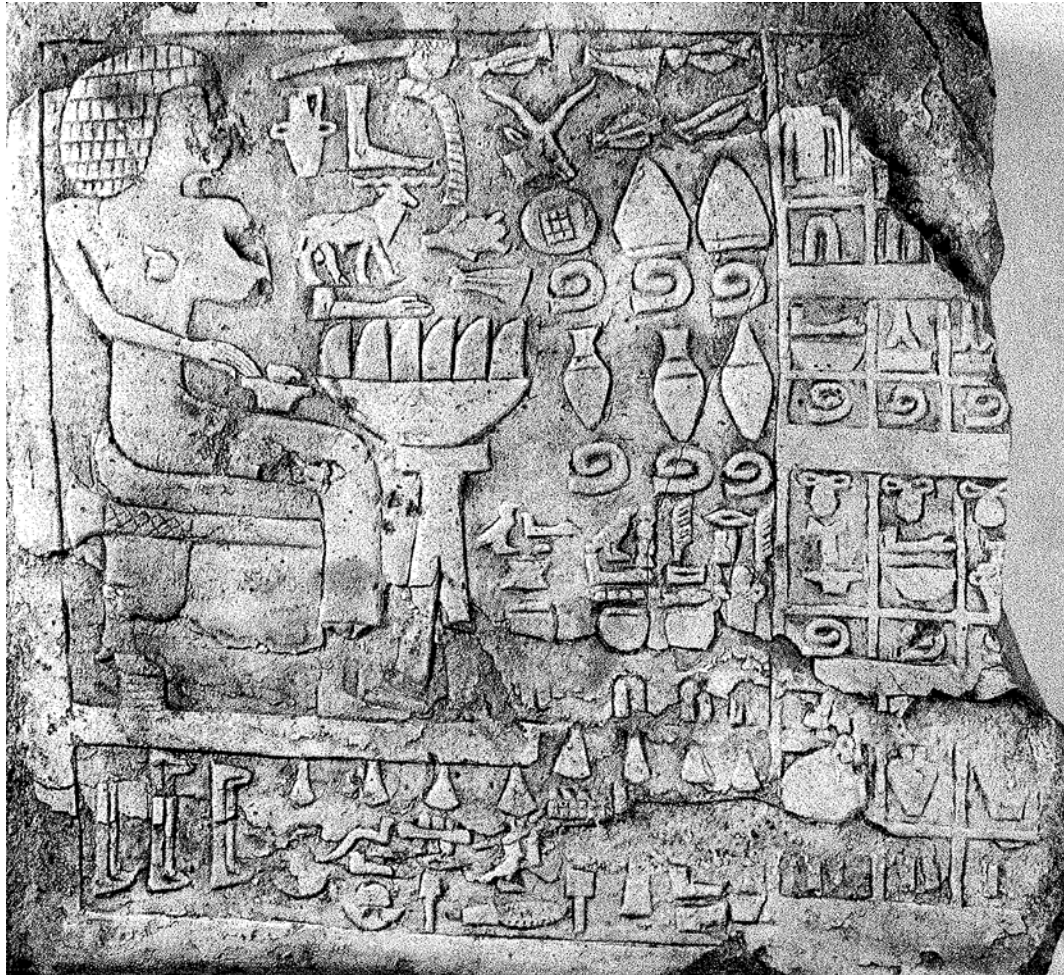
Stela 6 c. 1225 Nefret-iabet, 4. dyn.

15 slab stela

Giza cemetery 1200, 2100 and 4000

4th dynasty, reign of Khufu

Published by: P. Der Manuelian

Funerary relief slabs, offering scene

EM99-13:   Wab-Khenemu , 3. dyn.
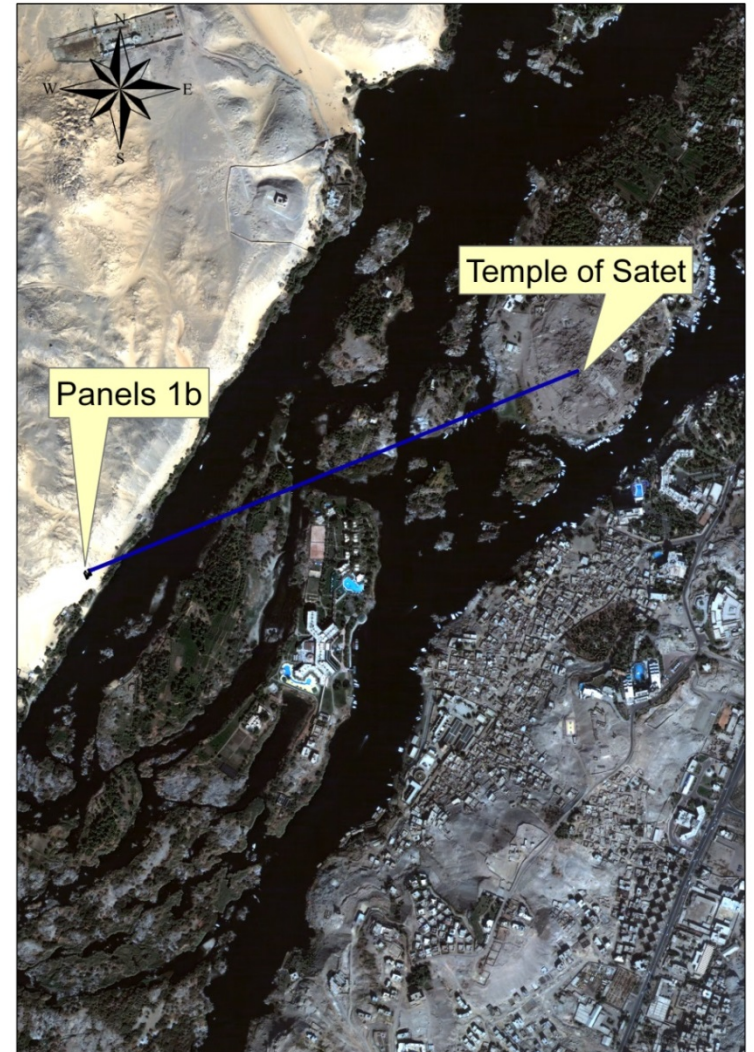
Helwan

Early Dynastic to Old Kingdom

Published by: E.C. Köhler/J. Jones

Rock inscription
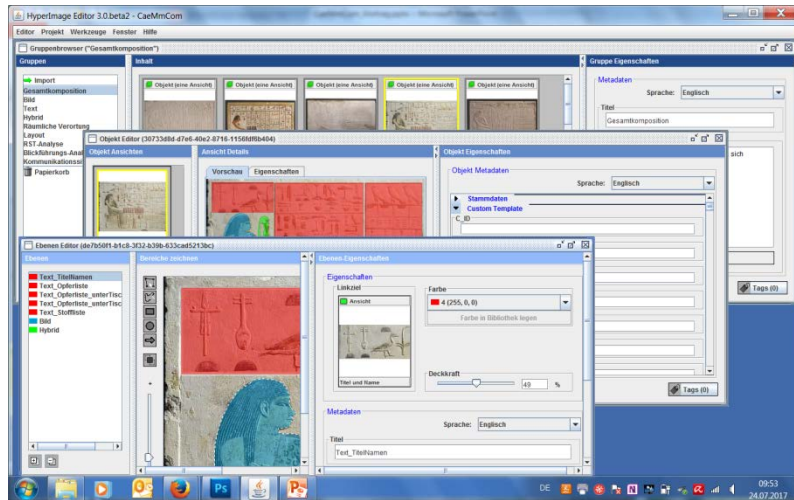

Rock inscriptions and rock art , Wadi Berber, Aswan

- Direct connection to temple of Satet, Elephantine

Presentation

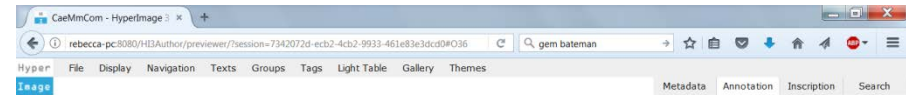User mode

Presentation mode

HyperImage Presentation

Prospect

Material to be included in future research:
- Book of Nut
- Amduat
- „Reden und Rufen" in temple decorations
- Tomb decoration 20th dynasty
- Early writing (4.millenium BC to OK)

Further refinements on technical side:
- TEI
- CIDOC CRM?
- HyperImage development for data storage and analysis?

Publication:
- Online

Thank you for your attention!