Protocol of Workshop 1: Disruptive Technologies: Feature on 3D in Egyptian Archaeology

By Franziska Naether and Felix Schäfer

Chair: Felix Schäfer

Observation: This highly structured workshop attracted professionals and a great number of students.

Opening with Good Practice

The session started with two short presentations about 3D software (Autodesk Maya, Blender, Sketch-up) and 3D use cases (Theban Tombs) by Rebekka Pabst and Hassan Aglan. Please see also the additional presentation by Athena Van der Perre (unable to attend the workshop) about a combination of techniques used to read inscriptions.

Shaping your goals: What do you want to communicate with 3D?

Felix Schäfer explained that the creation of 3D models take up a lot of time. Therefore, it should be clear what the purpose, research question, goal etc. of such an endeavour should be

3D could help to shape your research – be prepared for many questions

While designing 3D models and landscapes, you have to be really concise in your research: you will have more questions that you think while e.g. positioning tomb artifacts in a tomb by Sketch-up, as Hassan Aglan explains. Felix Schäfer notes that it's not the aim to create an antique look in your models.

3D models provide a new way of documenting objects

Besides photos, drawings etc., 3D models can include shading/light effect which increase the readability of script or visualize tool marks (Schäfer).

How can 3D models be stored?

For this question, see also the paper of Felix Schäfer's evening lecture.
Guidelines by him:

- Firstly, scholars should use programs which are sustainable.
- Data should be exported to free software (open source).
- Some information can be stored in PDF format.
- 3D models can be exported to free databases such as Europeana or the Carare project (there are more, and there are recommendations and documentation online, please refer to the IANUS and Archaeology Data Service websites – 3D has more issues to it than conventional 2D photography)
- Minimum – presented by Rebekka Pabst: create shots of your 3D model from different angles, make a movie

- Recommended – added by Felix Schäfer: save the original data such as photos, geometry etc. In the worst case of a loss, people should be enabled to remodel your artifact and know how to do it

Standards in 3D – a tricky matter! Four important guidelines by Felix Schäfer

- 1) There are many (maybe too many, some are not used) – check in the IANUS/ADS/tDAR recommendation if your file types are sustainable
- 2) The application and your user interface – check how long does it take to learn itm are there tutorials, which formats are supported, is the program itself sustainably (e.g. by support)
- 3) sustainability of your data – always think: you want your data to stay longer than the funding period of your project (e.g. store the data in repositories such as IANUS, ADS, tDAR, CLARIN projects…)
- 4) cooperation possibilities – team up with colleagues in the field and in the museums, share your models and discuss such issues

How "authentic" are 3D models?

Several issues were discussed lively in this workshop, among them:

- the relevance of what (digital) humanists do – by presenting results of research through 3D models
- models help visualizing those result
- attractive for the public, but not limited – scholars enjoy a good model embedded in a plausible narration, too
- raising awareness in certain issues by the visual effects