

THE IMPACT OF USING TECHNOLOGICAL RECONSTRUCTIONS IN FIELD OF ARCHAEOLOGY

Hasnaa Essam Muhammed Mehny Askalany

MASTER STUDENT - MAPHAR

22320

POLYTECHNIC INSTITUTE OF TOMAR,
PORTUGAL

SUPERVISOR PROFESSOR LUIZ OOSTERBEEK



*ERASMUS MUNDUS
MASTER IN
QUATERNARY AND
PREHISTORY*

Apheleia
Ἀφέλεια
Humanities International Association
for Cultural Integrated
Landscape Management



United Nations
Educational, Scientific and
Cultural Organization



UNESCO Chair in Humanities and
Cultural Integrated Landscape Management,
Polytechnic Institute of Tomar



MAÇÃO
VERDE
HORIZONTE



United Nations
Educational, Scientific and
Cultural Organization

In partnership with



Management of
Social Transformations
Programme



Method of work

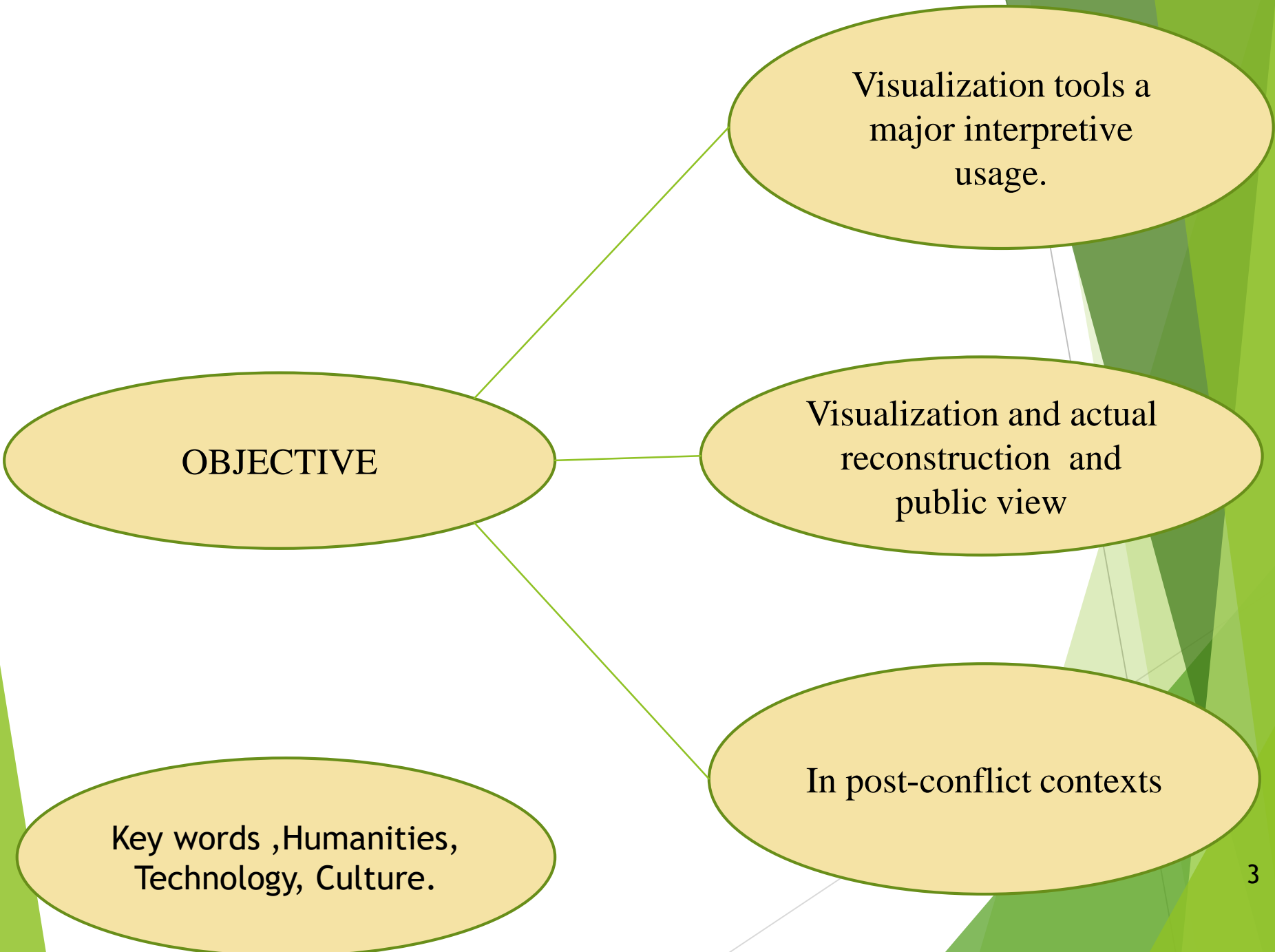
- ▶ Is to answer some questions such as,
- ▶ How Importance is visualization reconstruction in archaeological field?
- ▶ Can the visualization tools such as 3d fulfill the reconstruction process Successfully through a case study ?
- ▶ How the visualization reconstruction effect on public view ?
- ▶ Can conflict be a key player in reconstruction Heritage sites?

Type of resources

All the resources from online such as ,scientific articles, archaeological mission reports that talked mainly about,

1- Visualization technique based on ETH Zurich (Swiss Federal Institute of Technology), who applied it in Buddhas statue and shared their results, and DAI German Archaeological institute who talked about visualization concepts to public view.

2-Articles from post conflict areas from ICOMOS Workshop and how originations helped them by trying to put plans to reconstruct heritage sites.



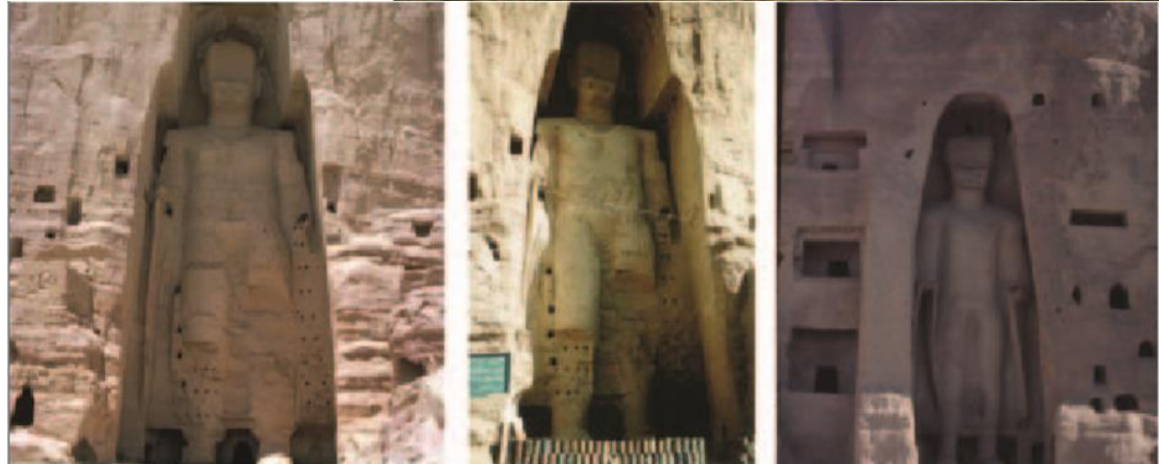
The BUDDHAS of BAMIIAN RECONSTRUCTION.

Reconstruction
resources

Internet

Kostka R.

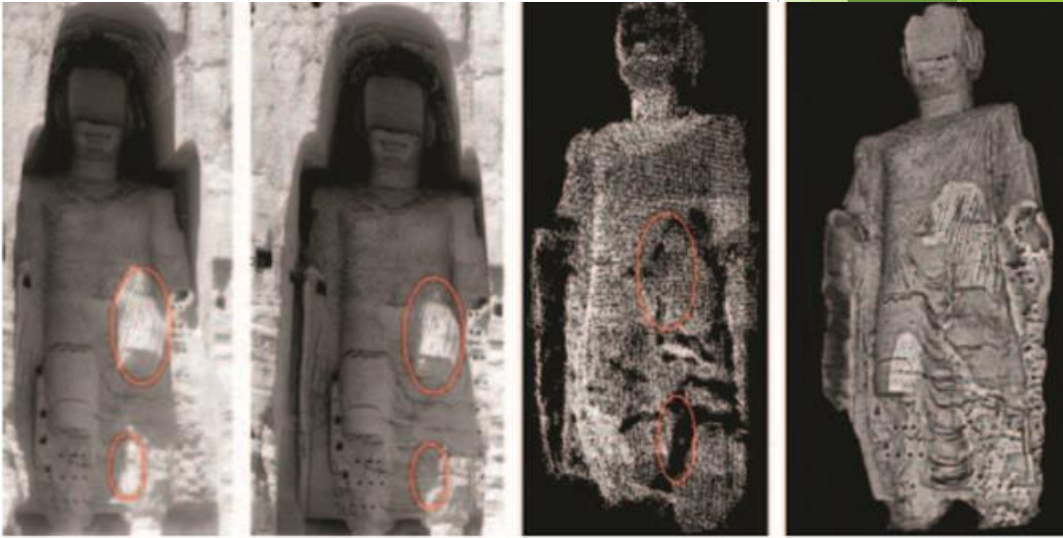
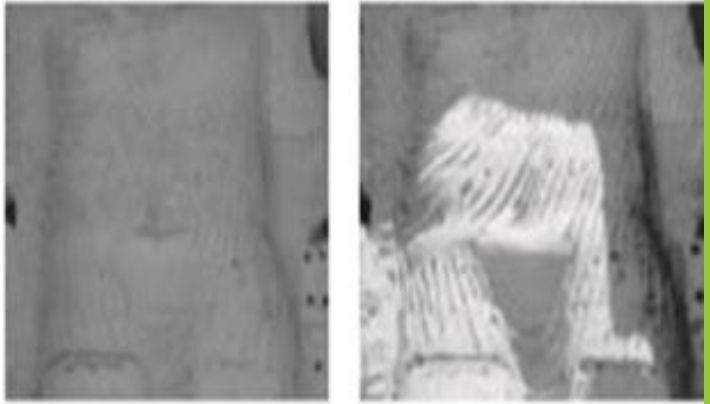
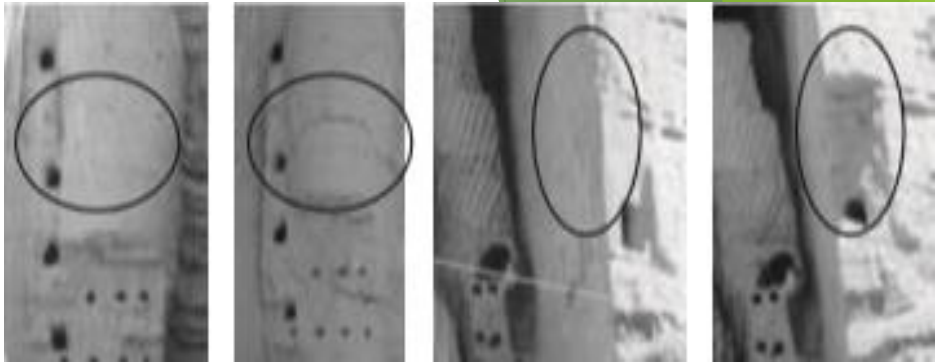
Touristic images



RESULTS

Gaps
of 3d constructions

complex structures
can be reconstructed



HOW RECONSTRUCTION TECHNOLOGY EFFECT ON HUMANITIES.

1- Arguments
about
Technological
resources

2- Public view

THE RECONSTRUCTION PROCESS REFUSAL DEBATES .

Questionnaire to
know public
opinion



Figure No.1. The Great Umayyad Mosque in Aleppo, photo by Rami Alafandi 2010.

Reconstruction of
cultural heritage is
an ideological act
that can be
destructive



(Aljazeera 2016; Stoughton 2017).

CONCLUSION

3D visualization help
to understand the
past.

Reconstruction is an
extremely complicated
process

Conflict is a key
player

The participation of the
local communities



ACKNOWLEDGEMENT

- ▶ Thanks to Professor Luiz Oosterbeek for his advices and recommendations to make the essay and the power point well presented.
- ▶ Thanks to all the researchers , authors, and all organizations that shared their results of visualization using technology to try to reconstruct what had been destroyed, and how the public see this process positively and negatively .

BIBLIOGRAPHY

▶ Gillings M., ‘The Real, the Virtually Real, and the Hyperreal: The Role of VR in Archaeology’, in S. Smiles and S. Moser (eds), *Envisioning the Past. Archaeology and the Image* (Oxford 2005), 223–39; Sanders 2012

▶ Gruen, A., Remondino, F., & Zhang, L. (2003). Image-based reconstruction of the Great Buddha of Bamiyan, Afghanistan. *Videometrics VII*, 5013(April 2017), 129. <https://doi.org/10.1117/12.473091>

▶ Grün, A., Remondino, F., & Zhang, L. I. (2004). Photogrammetric reconstruction of the great buddha of Bamiyan, Afghanistan. *Photogrammetric Record*, 19(107), 177–199. <https://doi.org/10.1111/j.0031->

868X.2004.00278.x

▶ Hageneuer, S. (2019) Without Drawing the Study of Antiquities is Lame ! Architektur-Rekonstruktion als wissenschaftliches Tool ? Architektur , Dokumentation , Präsentation , Rekonstruktion , Visualisierung. (n.d.).

▶ Hodgson J., *Archaeological Reconstruction: Illustrating the Past* Reading 2002, S. 16.

▶ Munawar, N. A. (2018). A contemporary provocation: reconstructions as tools of future-making. Selected papers from the ICOMOS University Forum Workshop on Authenticity and Reconstructions. *Icomos.*, (March), 13–15.