



CASE STUDY

Ramesses II Statue

CLIENT

Catholic University of Leuven

SERVICES

Heritage Laser Scanning
3D Modelling

The requirement

When the decision was made to move a colossal red granite statue of Ramesses II, one of the mightiest pharaohs of the 19th Dynasty, the Catholic University of Leuven turned to Plowman Craven to assist in providing a full record of the statue in its minutest detail.

For the past 50 years the statue has languished in downtown Cairo's busy Ramesses Square which marks the location of the City's main railway station. In order to preserve the 3,200 year old effigy, a decision was made to move it to the Giza Plateau in anticipation for its place in the newly constructed Grand Egyptian Museum.

The solution

In order to provide a permanent and accurate record of the statue and to provide the vital data necessary to facilitate the move, archaeological, geological and architectural studies were undertaken to record all elements of the massive monolith.

Lon Addison from the Centre for Design Visualisation at the University of California coordinated the study of the spatial form of the statue. Among the key digital heritage consultants involved in its recording was Plowman Craven.

Along with colleagues Bjorn Van Genechten from the Catholic University of Leuven in Belgium and Egyptian consultant Dr Tariq Al Murri, Plowman Craven utilised state-of-the-art laser scanning techniques to create an accurate 3D computer model of the Ramesses II effigy. This was complimented with a range of other state-of-the-art image-based 3D data collection techniques including photogrammetry.

The Conclusion

Together, these techniques provided a full record of the statue in its minutest detail — including all of the joints, visible fault lines and cracks. This allowed for a structural analysis of the component pieces of the statue before being dismantled and moved, as well as the production of traditional survey drawings such as plans and elevations.

Plowman Craven supplied the necessary information needed to create a purpose built secure cradle to hold the mighty statue during the move. Though Ramesses II stands shrouded in scaffolding and is yet to be placed at the entrance of the Grand Egyptian Museum, the scanning has produced not just the first accurate measurements of the statue, but also a state-of-the-art digital record.



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