

sample & hold

Parthenon Marbles / Athletes Village



A photograph showing a 3D scanner and a camera on tripods. The scanner is a black, boxy device with a lens and a microphone. The camera is a black DSLR with a lens. They are positioned in front of a large, light-colored stone relief sculpture. A person's arm and shoulder are visible on the left side of the frame. A pink banner is overlaid on the right side of the image, and a blue banner with text is overlaid in the center.

3D scan at the British Museum

Carved by Greeks, blown up by Venetians, transported to England by Lord Elgin and the subject of heated debate ever since, the sculptures of the Parthenon have had a traumatic history. But for a residential block at the London 2012 Olympics athletes' village, they have been part of a creative rather than a destructive process. Sections of the frieze have been digitally scanned, made into moulds and cast in concrete to clad the building in a bold attire of light, shadows and movement.





3D scan at the British Museum



In two two hour sessions we scanned 9 panels from the Parthenon Marbles in situ at the British Museum. From this data five sections were chosen by the client for further development. We cropped the data, collapsed the depth to 50mm and extended the aspect ratio of the panels so that they would fit the building, while retaining a seamless stone texture. Areas of detail were enhanced or smoothed so that the panels would read well when observed up close and at a distance.



CNC Machining

Each panel was CNC machined from high density foam





Rubber Mould

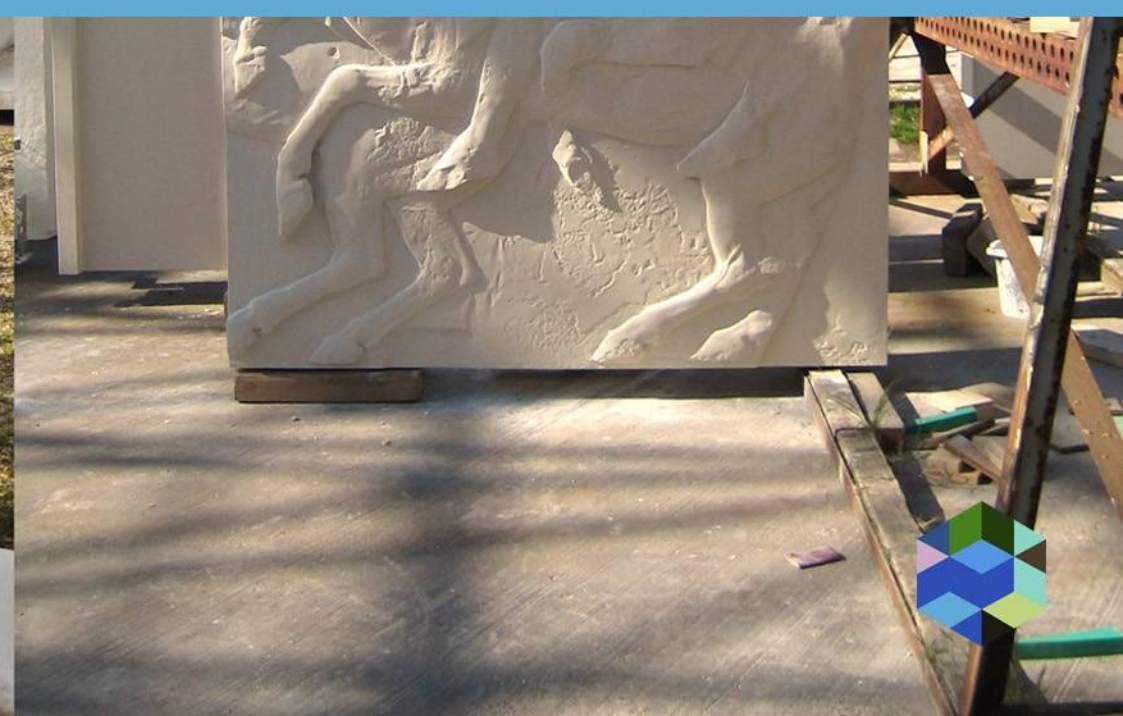

Negative glass-fibre-backed rubber moulds were made, two from each plug, to allow the concrete casts to be created more quickly. Five different-sized panels were cast from each mould by fixing a temporary stop-end, making a total of 25 panel types.





Concrete Panels

To achieve a white finish, the concrete incorporates white cement with a white Malaga Dolomite aggregate and buff sand from Gloucestershire. The choice of colour is ironic considering the various attempts in the 19th and 20th centuries to “restore” the Elgin Marbles to their assumed original white – the stones would in fact always have had a honey-coloured patina.





Building facade

The panels are fixed using stainless-steel brackets with tolerance for adjustment in three directions. A random number generator was used to order the panels on the elevation and there is just enough variety that the repetition is not apparent. The reliefs are always projected in front of the adjacent smooth panels, expressing the primacy of the construction system over the decoration, but they are cut abruptly at the panel edges so the horses seem to jostle in a continuous procession across the facades.





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