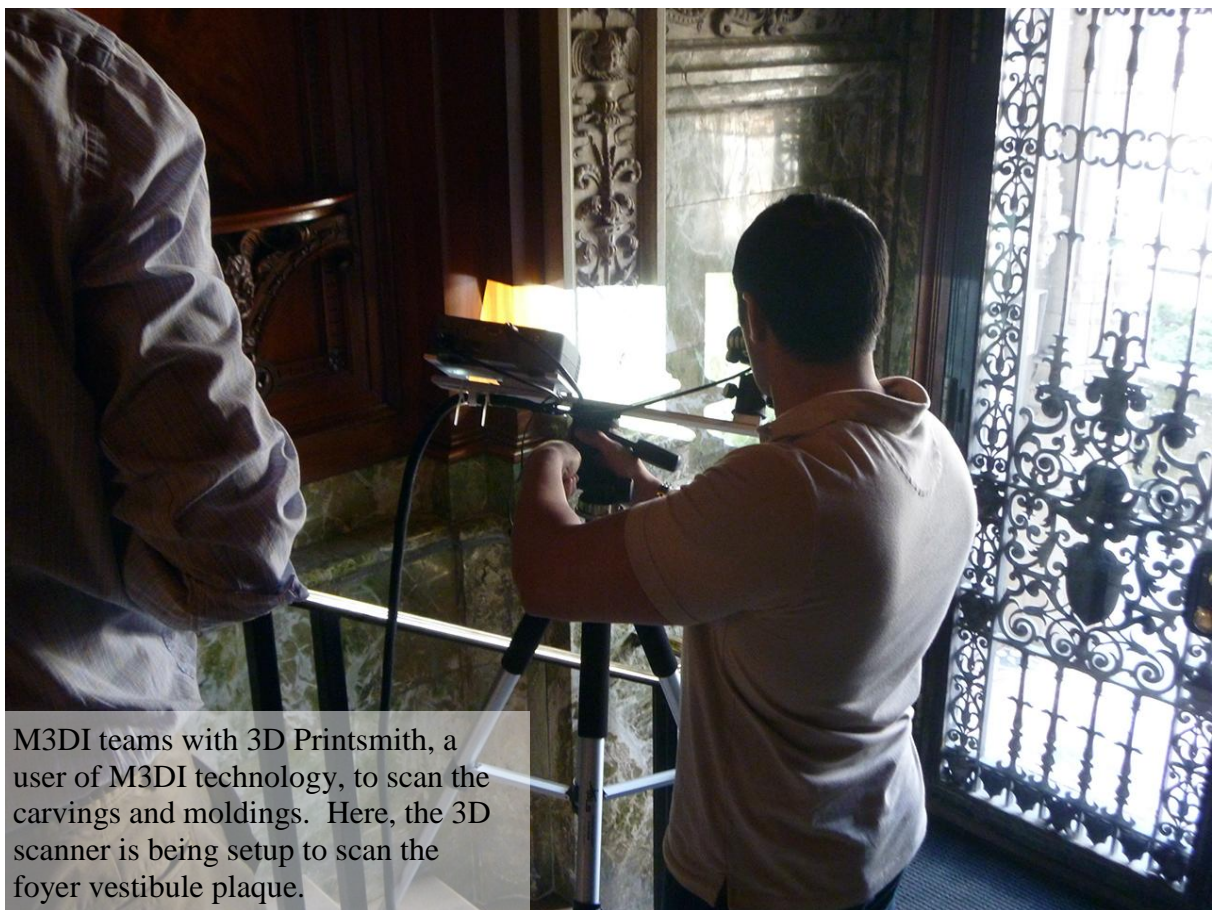




**3D Scanning Case Study:
The Burrage Mansion,
Back Bay, Boston**

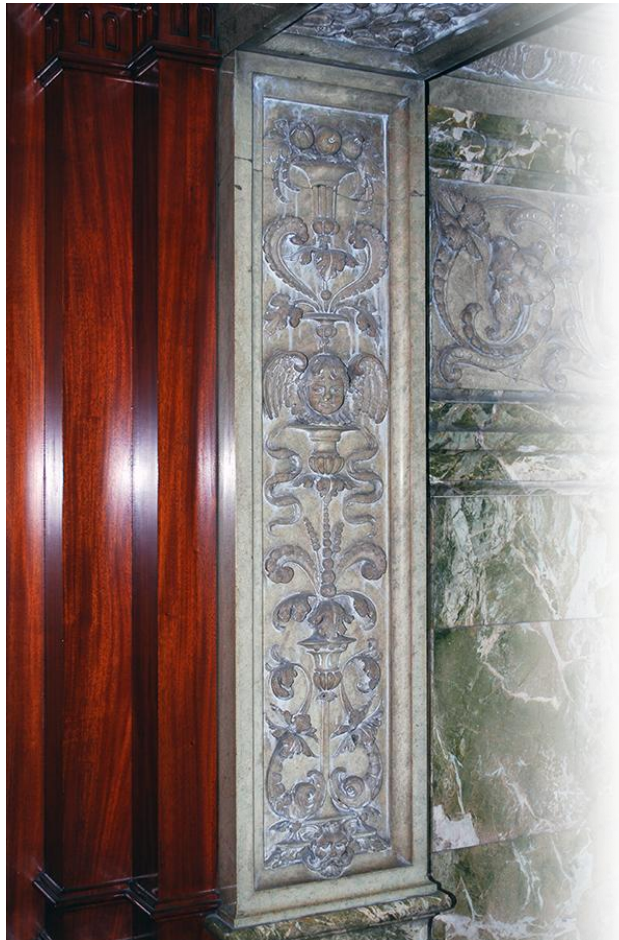
**Objective: Scan historically preserved architectural details,
and reproduce using 3D printed and CNC foam cut molds**



M3DI teams with 3D Printsmith, a user of M3DI technology, to scan the carvings and moldings. Here, the 3D scanner is being setup to scan the foyer vestibule plaque.



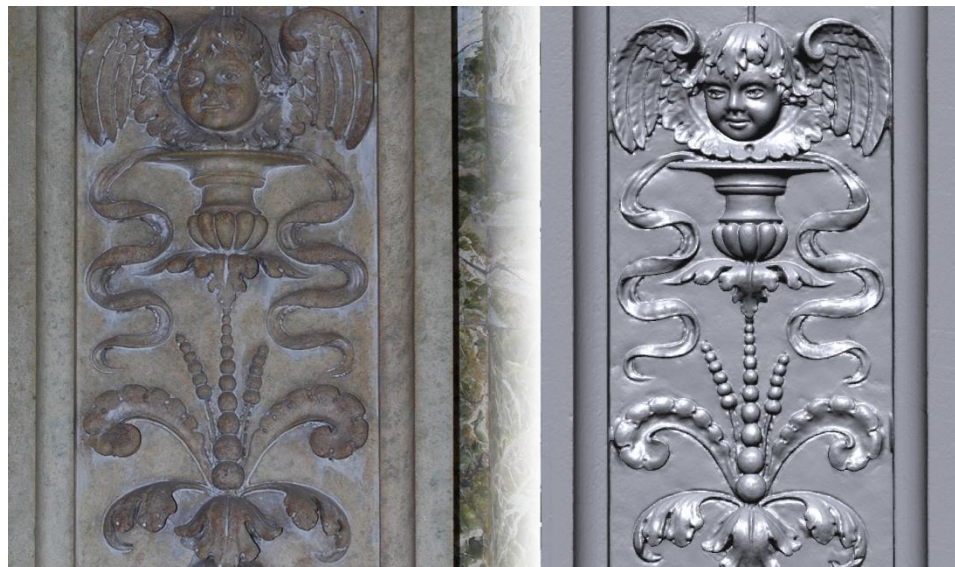
Since the carvings are fixed in place, the 3D scanner is moved around the item to capture different views that will be aligned and merged together to form the complete model.



Foyer Carving 3D scan result.



Foyer Carving 3D scan result.

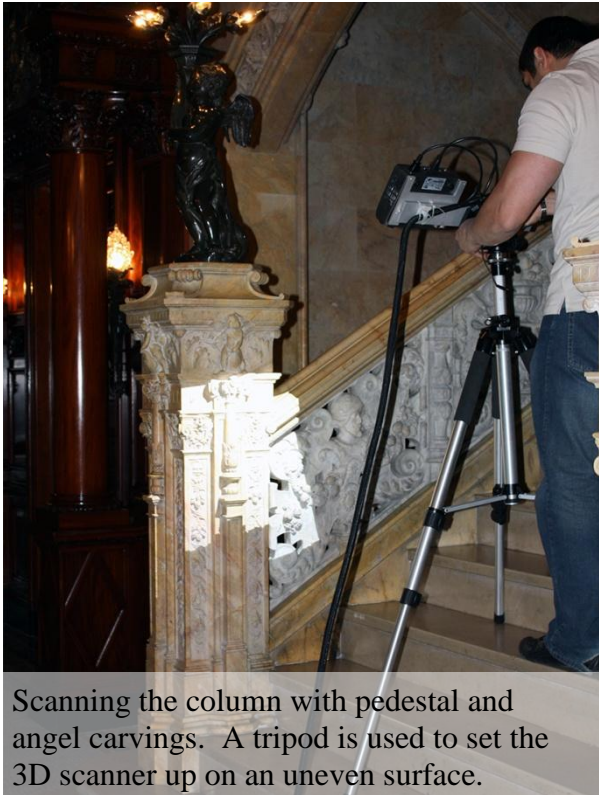


Finished piece of the foyer carving made from CNC cut foam.





The large window at the top of the stairs posed no problems for the 3D scanner even in the highly lit area

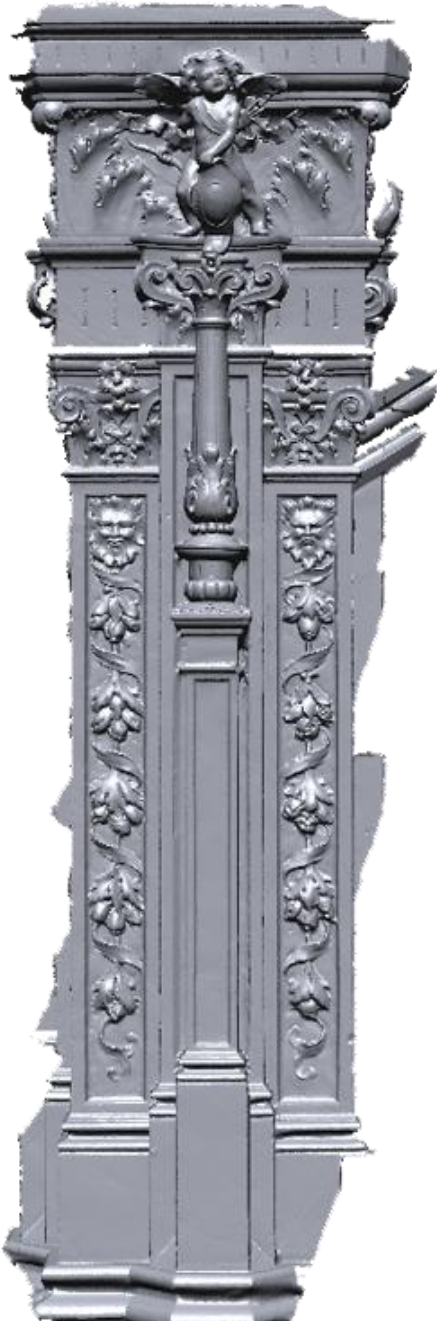


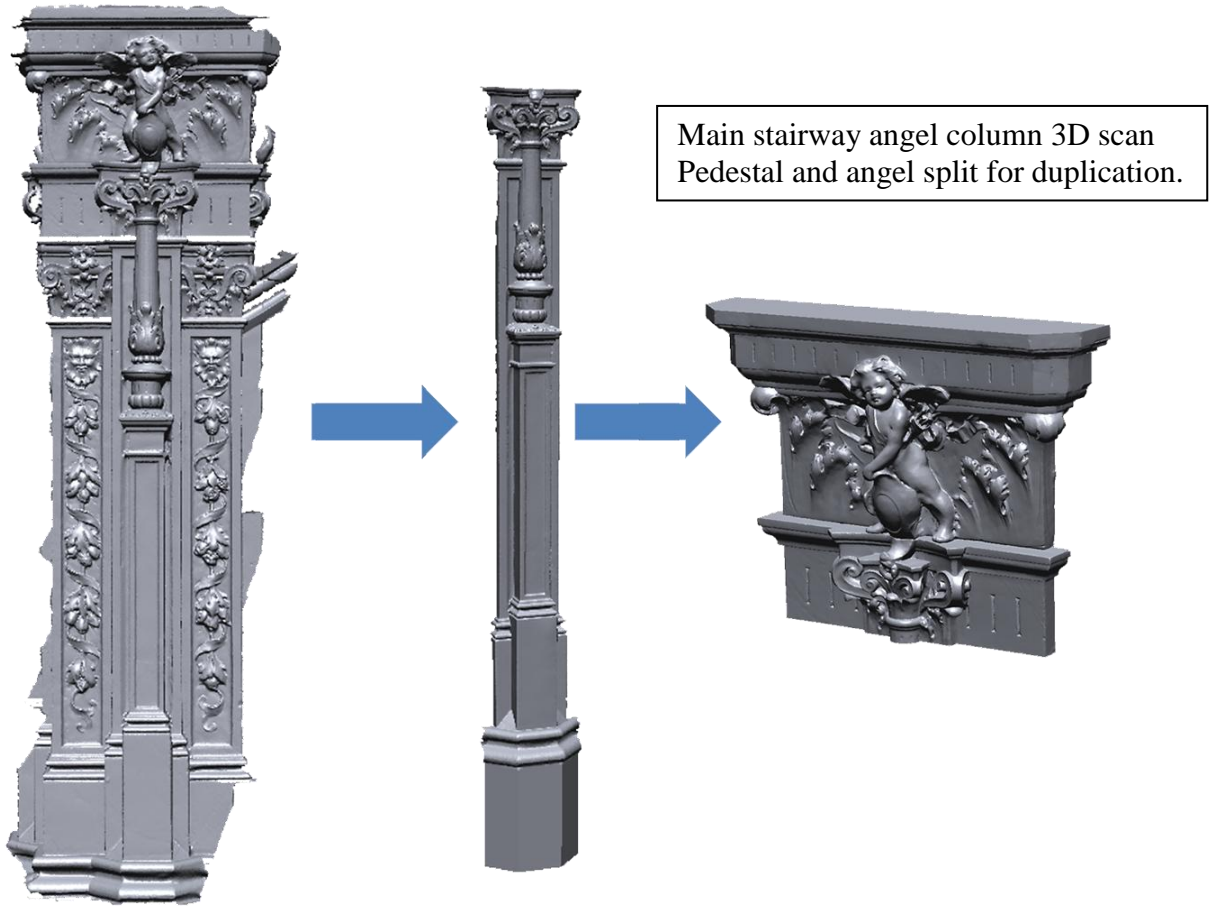
Scanning the column with pedestal and angel carvings. A tripod is used to set the 3D scanner up on an uneven surface.



Using a mini flexible tripod to get the lower scans of the stairway column.

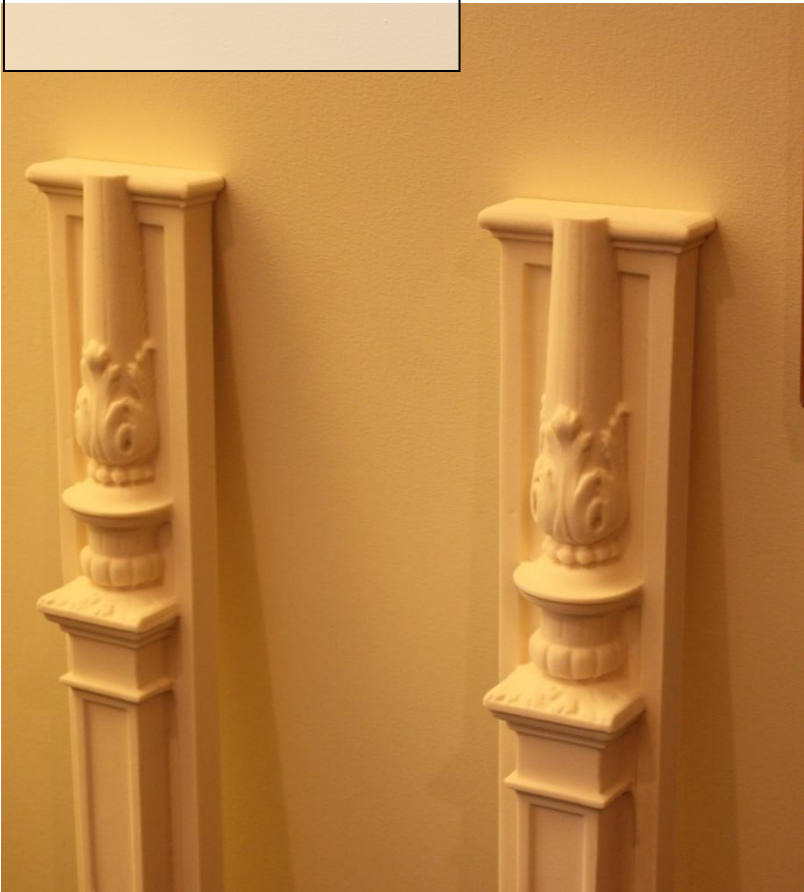
Main stairway angel column 3D scan result

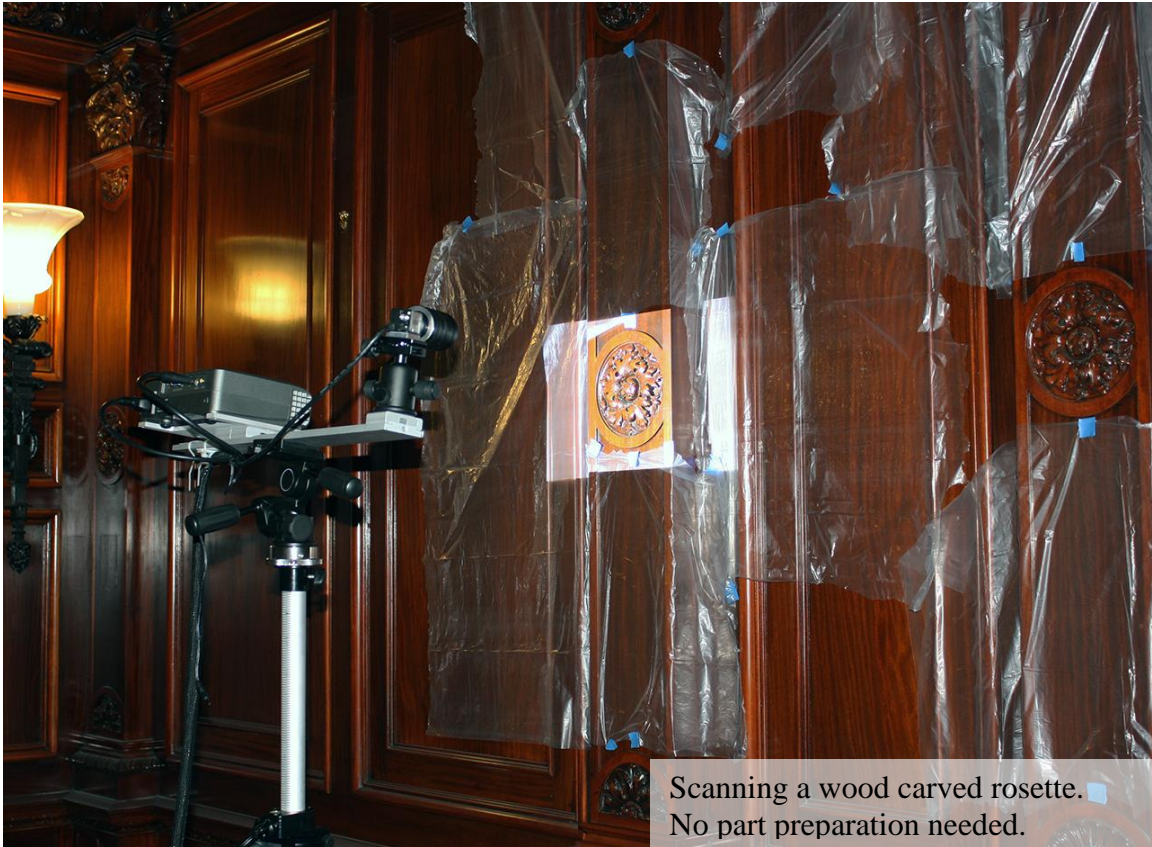




Main stairway angel column 3D scan

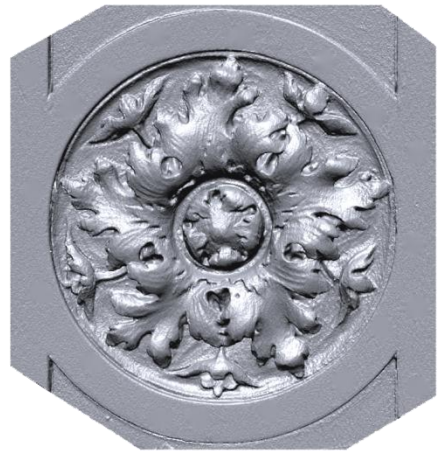
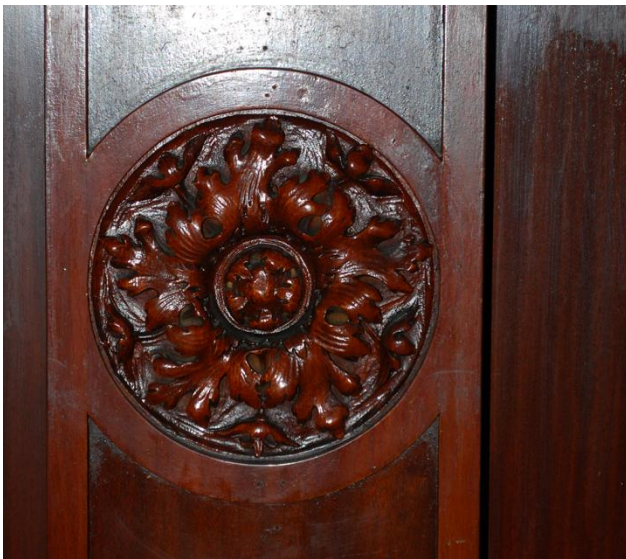




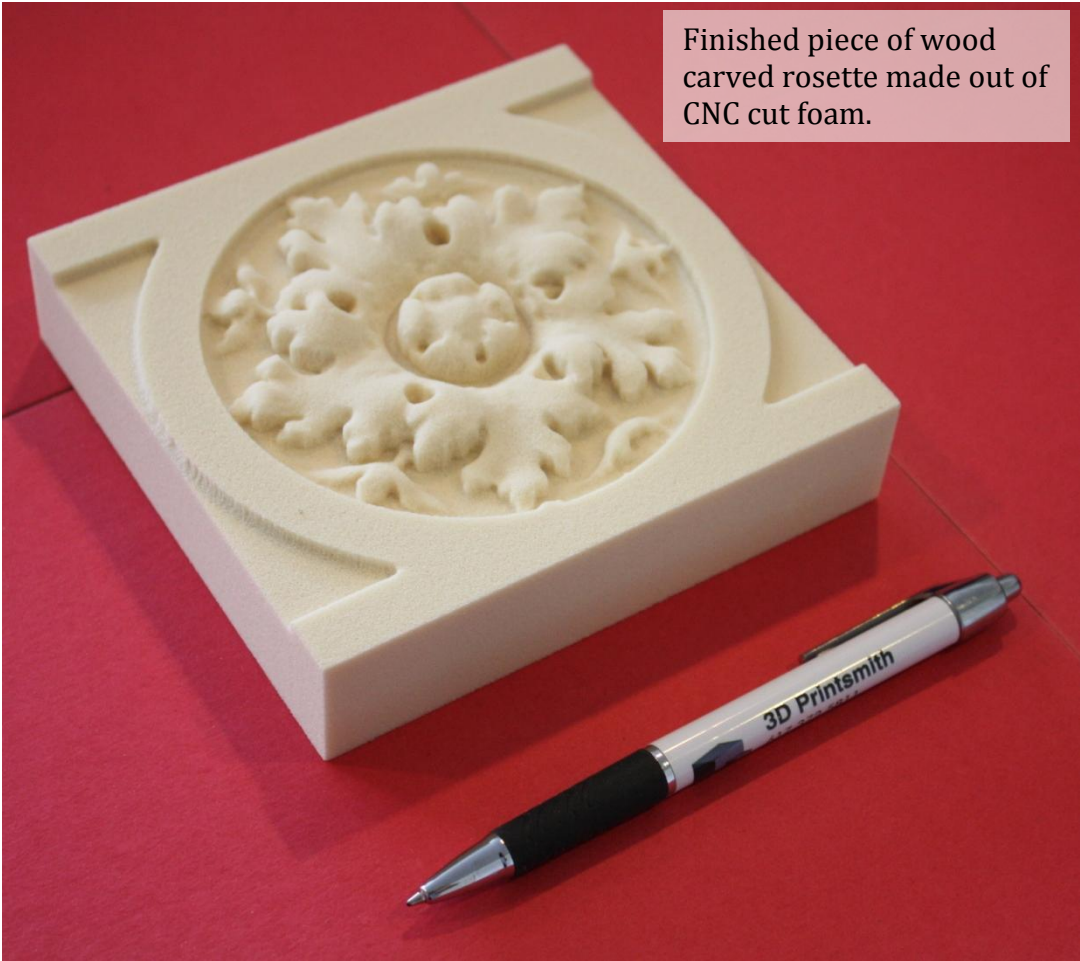
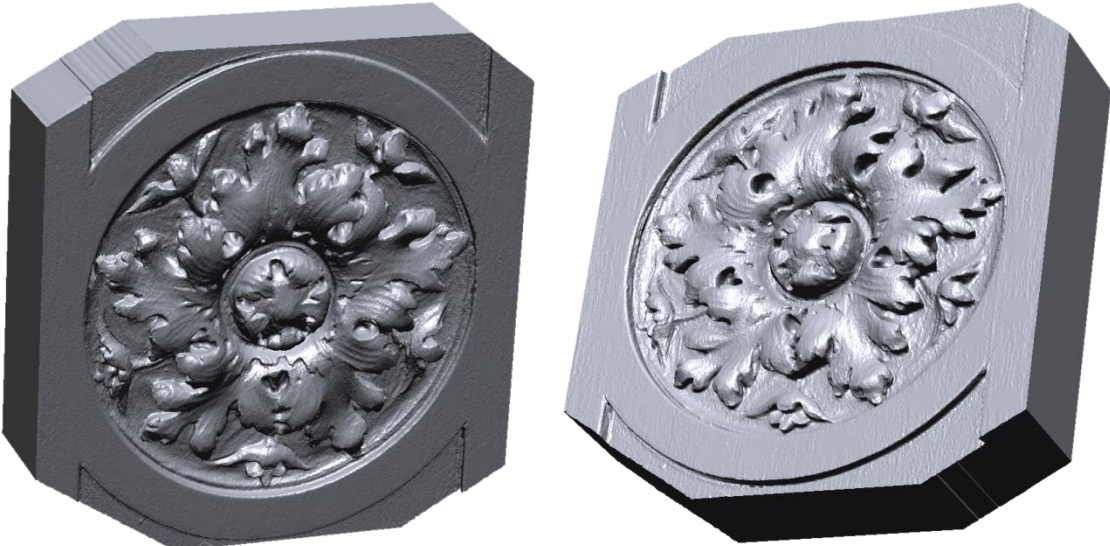


Scanning a wood carved rosette.
No part preparation needed.

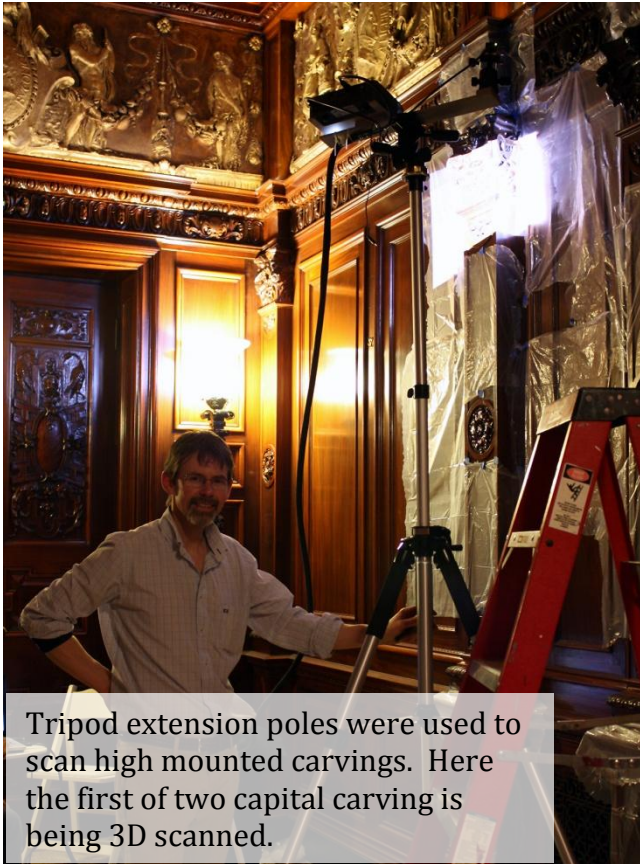
Wood carved rosette scan result.



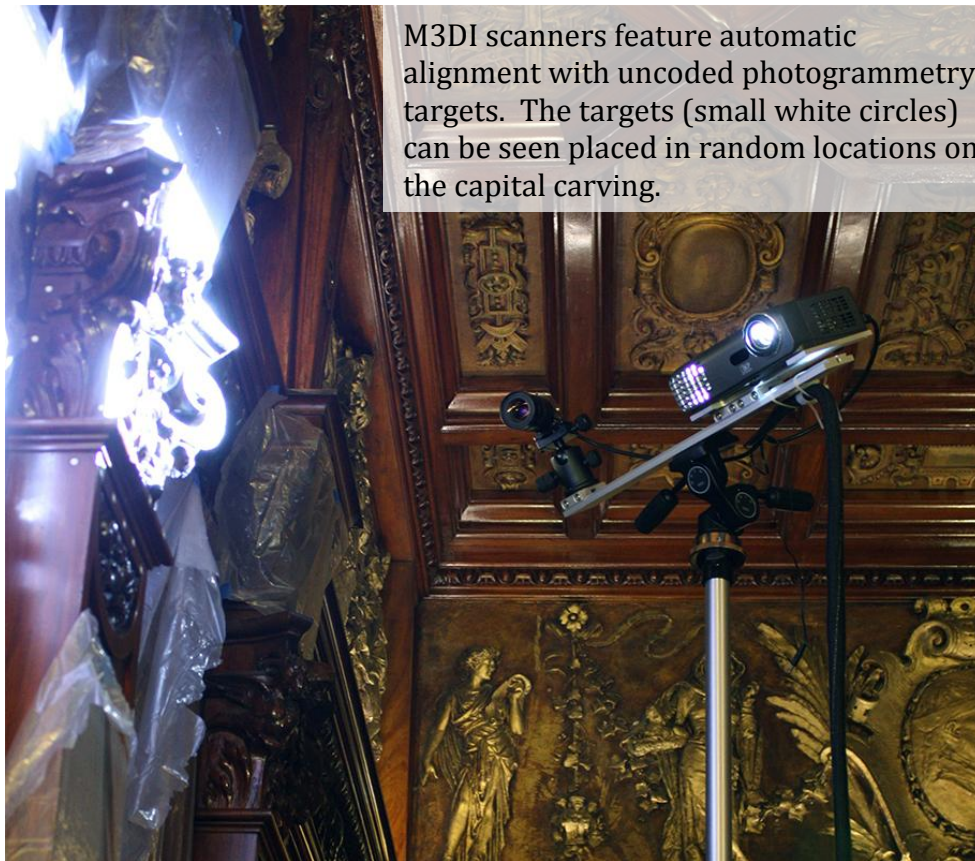
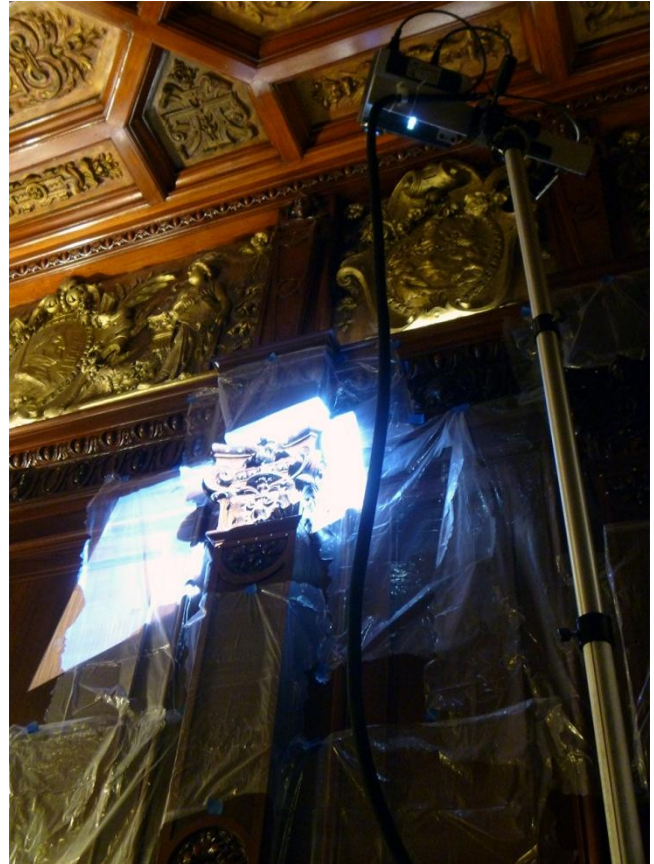
Wood carved rosette scan detail



Finished piece of wood carved rosette made out of CNC cut foam.



Tripod extension poles were used to scan high mounted carvings. Here the first of two capital carving is being 3D scanned.



M3DI scanners feature automatic alignment with uncoded photogrammetry targets. The targets (small white circles) can be seen placed in random locations on the capital carving.

Capital one carving scan result.



Capital one carving scan detail.



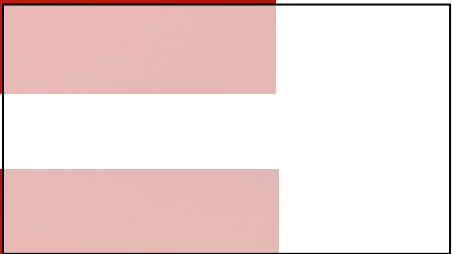


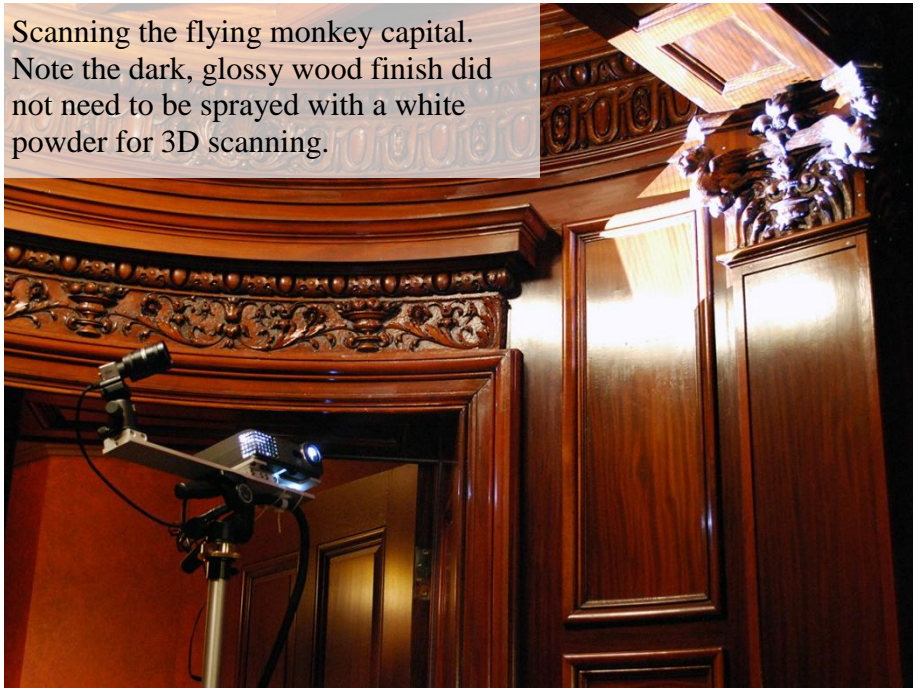
Capital two carving scan result



Capital two carving scan detail

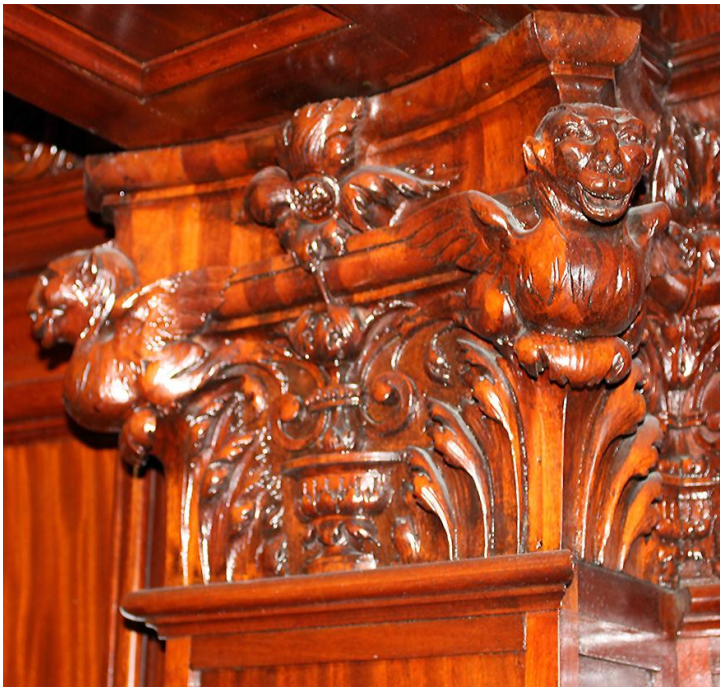






Scanning the flying monkey capital. Note the dark, glossy wood finish did not need to be sprayed with a white powder for 3D scanning.

Flying monkey capital scan result.



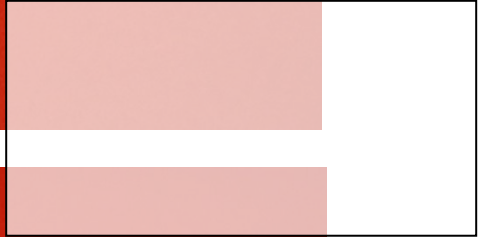


Cupid capital carving scan result



Cupid capital carving scan detail





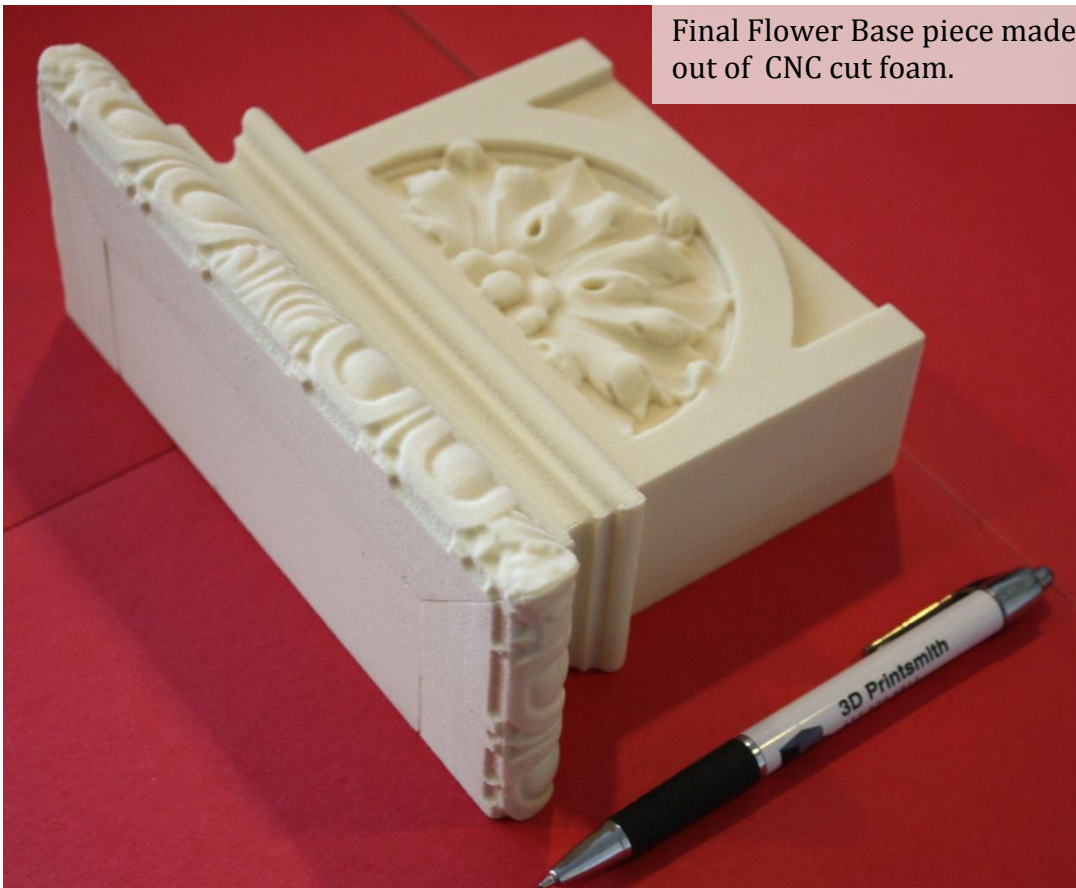
Flower Base 3D scan result



Flower Base 3D scan detail



Final Flower Base piece made out of CNC cut foam.



Seashell Base 3D scan detail



Seashell Base 3D scan detail



Final Seashell Base piece
made out of CNC cut foam.

