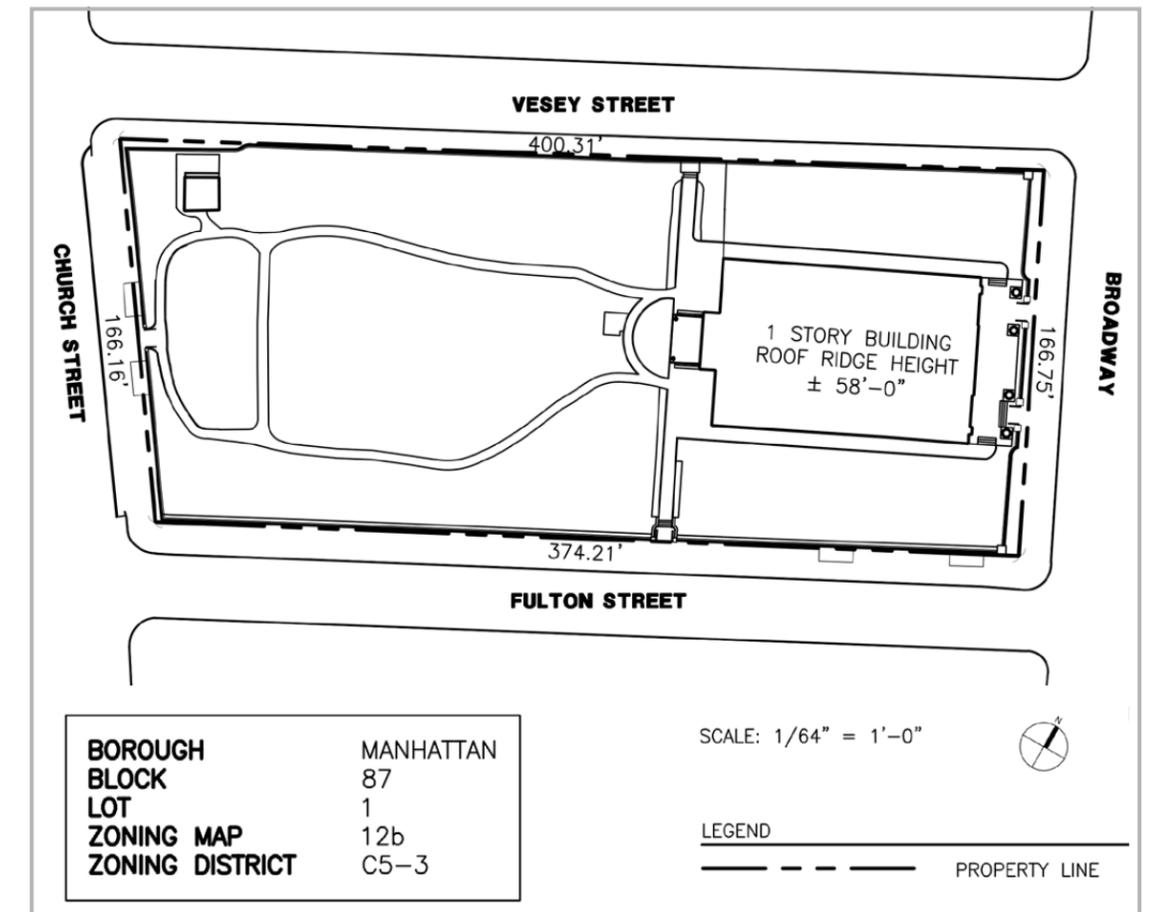




REPLICATION OF THE SCULPTURE AT ST. PAUL'S CHAPEL
Application to the NYC Landmarks Preservation Commission



1. East elevation of St. Paul's Chapel after 2014 restoration and prior to August 2015 removal of sculpture from the niche in the tympanum.



2. Site plan.

Before 1868



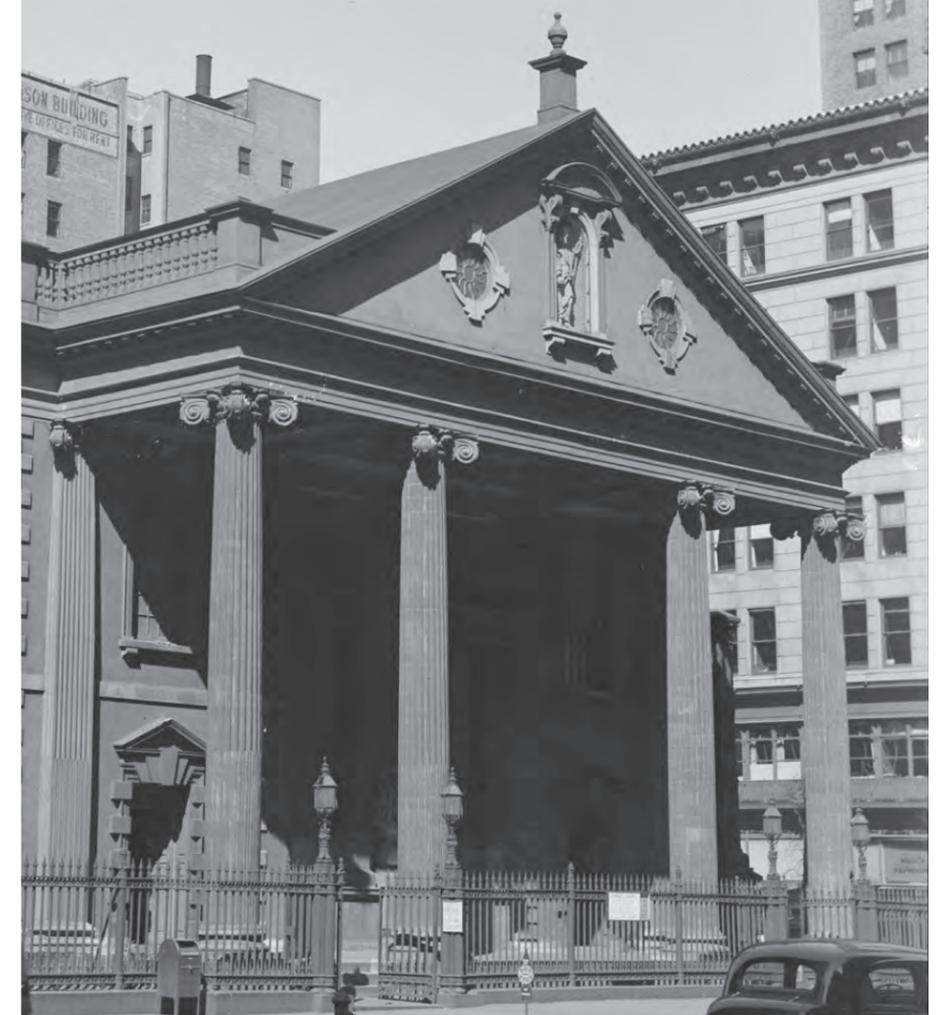
3. In this earliest known image, the sculpture is lighter in tone than the surrounding architectural elements.

c. 1900

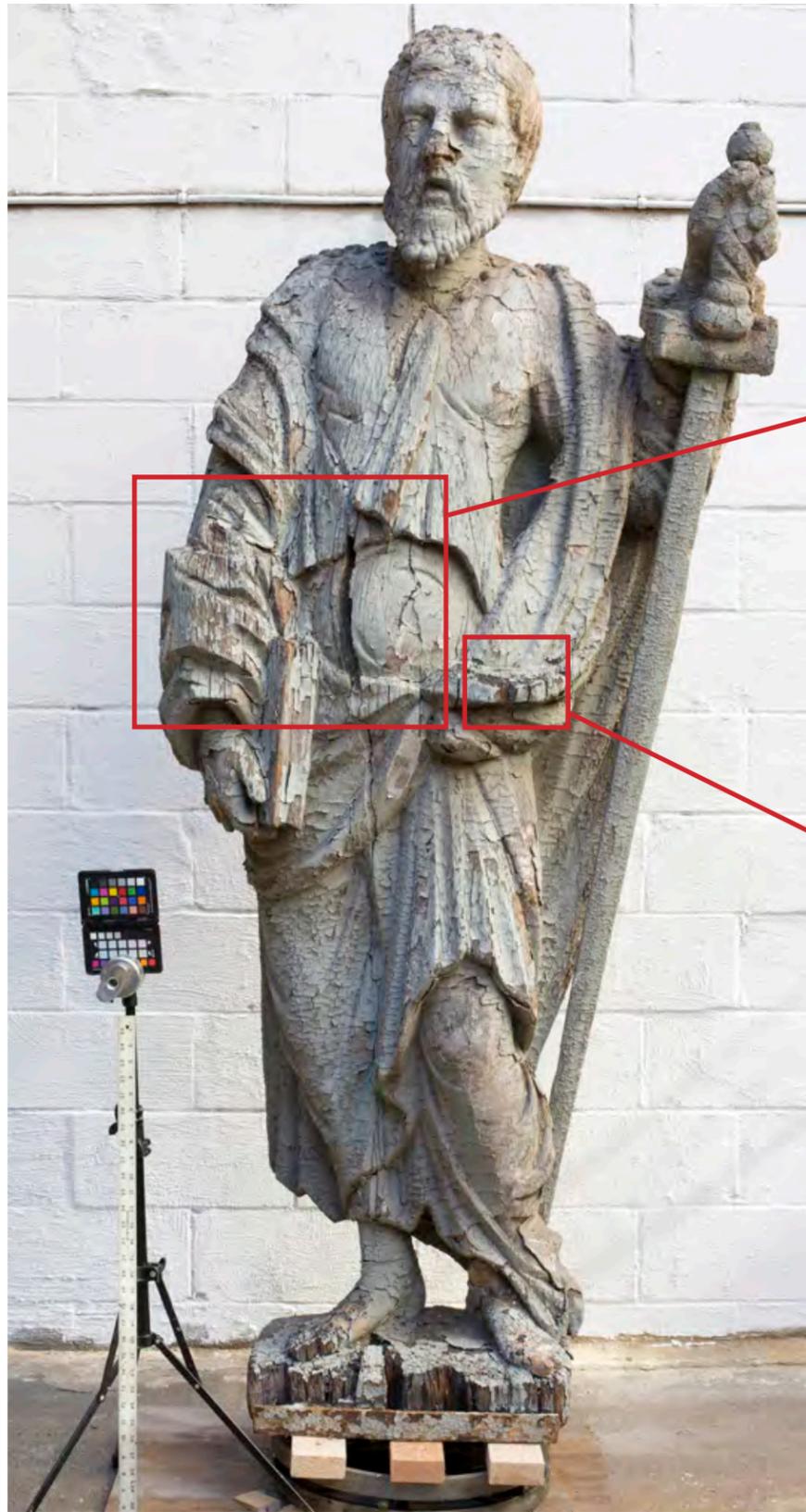


4. In this c. 1900 image, the sculpture is still far lighter in tone than the surrounding architectural elements.

1937



5. Following the 1930 restoration of both the facade and the sculpture, the sculpture appears to have a darker tone than it did previously, though it still appears lighter than the architecture.



6. Sculpture documentation after arrival at the studio.



A. Detail of extensive splits in wood and loss of coatings.



B. Detail of extensive deterioration of the wood.



7. Sculpture documentation after arrival at the studio.



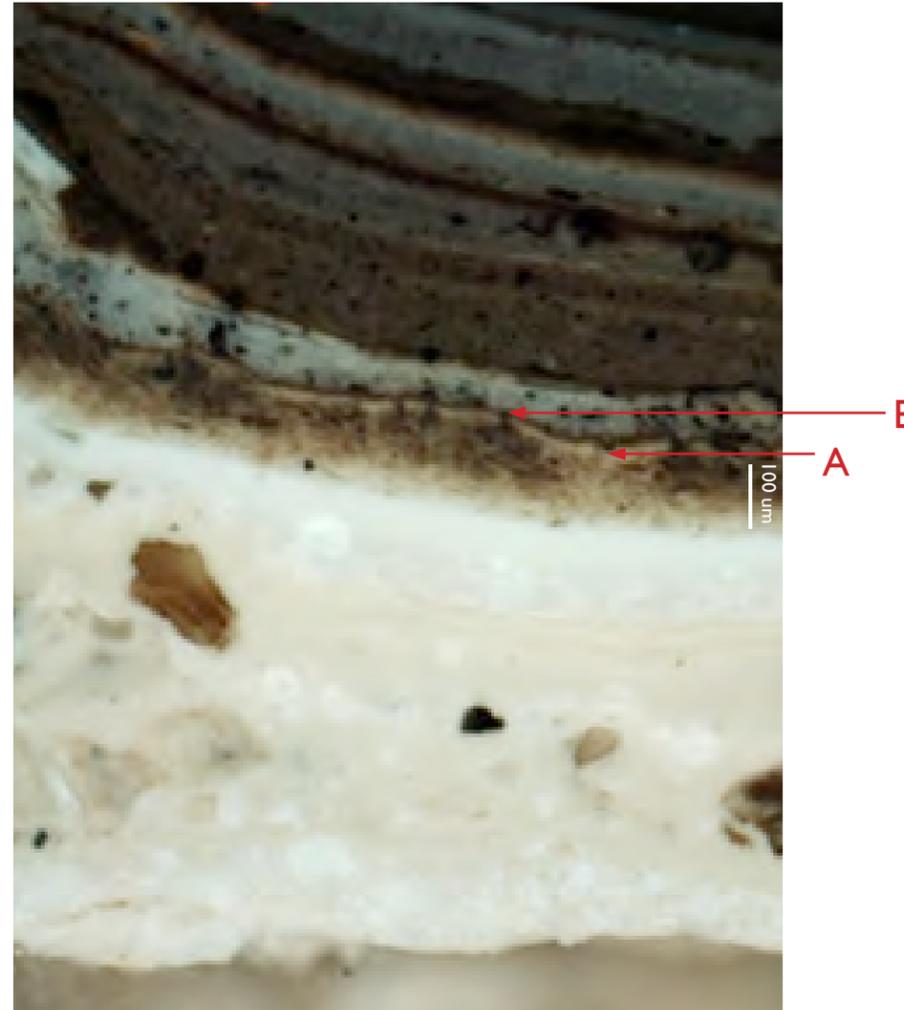
A. Base of sculpture before removal of unsalvageable deteriorated wood.



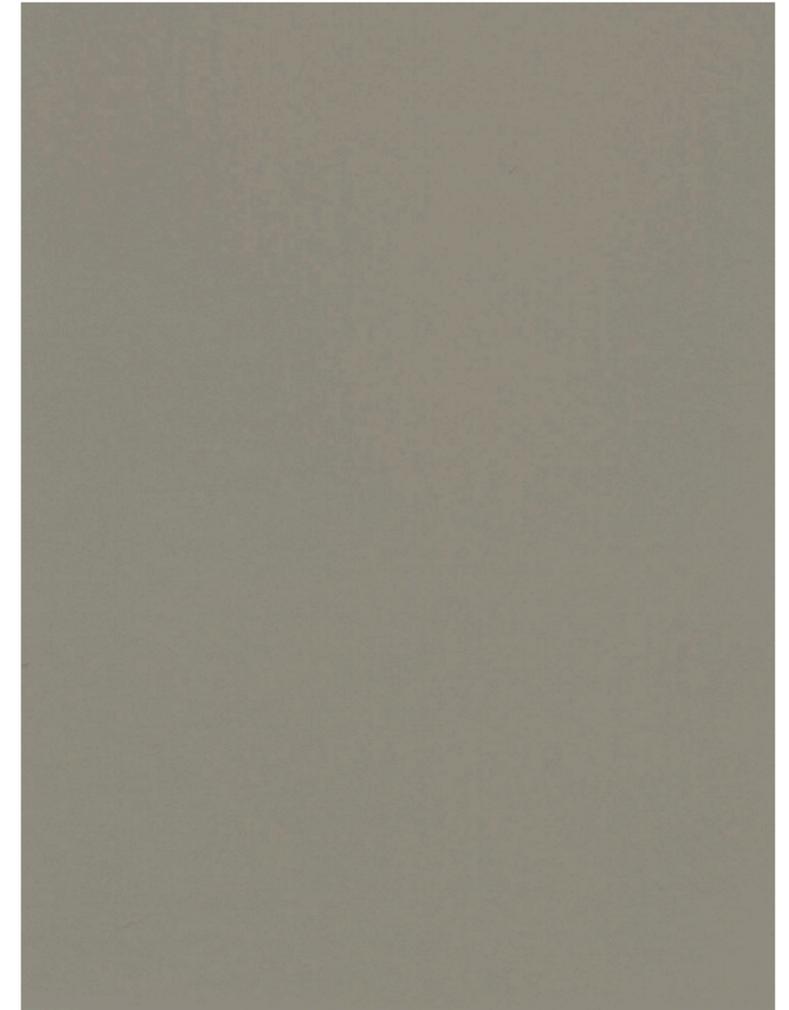
B. Base of sculpture following removal of all unsalvageable deteriorated wood. Grey material is a resin that has been cast to infill the largest loss.



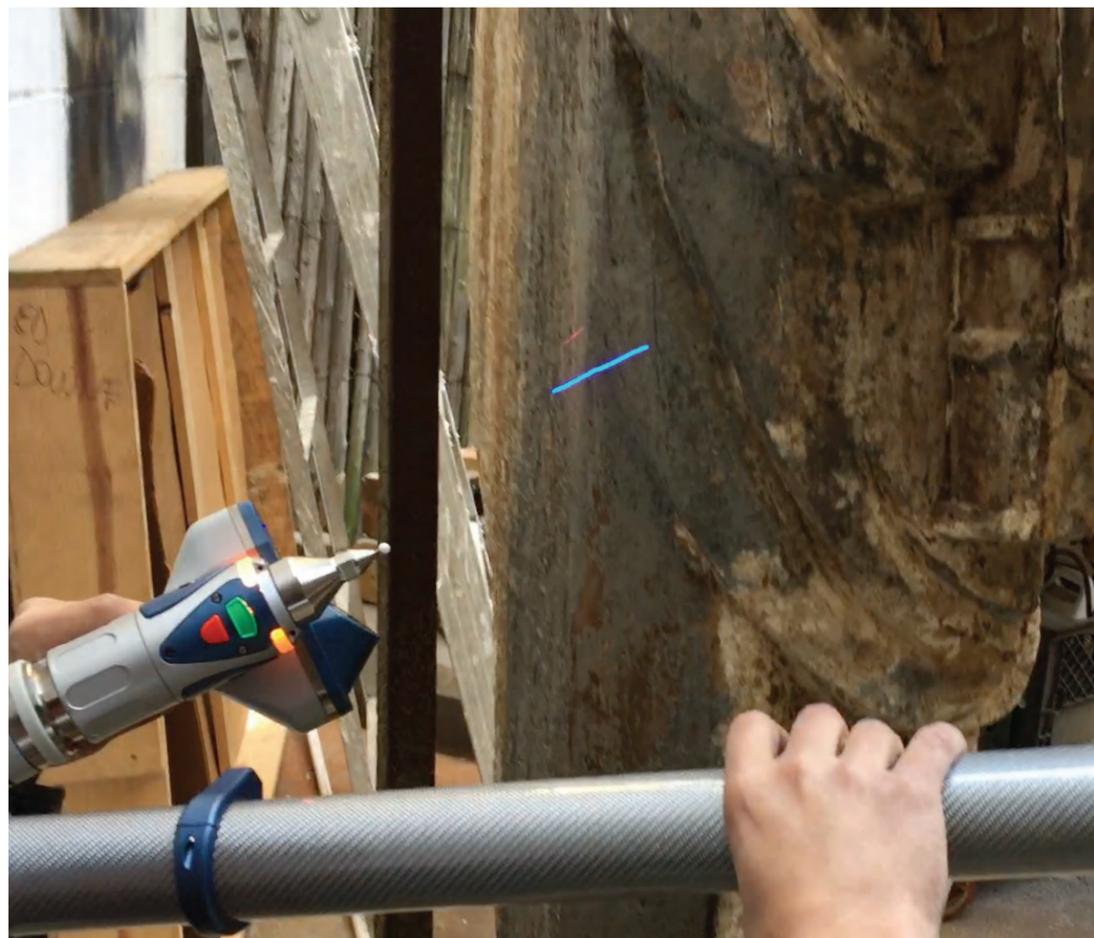
8. The bracketed layers are the c. 1930 “liquid marble.” It was applied not to make the sculpture look like stone, but to provide a hard, dense barrier to protect the wood and a smooth surface for painting. The remnants of pre-1930 coatings are identified by the red arrow.



9. Red arrow A indicates the layer believed to be the primer applied on top of the “liquid marble” and red arrow B is believed to be the 1930s finish paint, which in the archival literature is noted to be a ‘natural color.’



10. Color chip representing the paint color believed to be the 1930 presentation layer, based on finishes analysis and a study of archival information.



11. 3D laser scan of entire sculpture in progress.



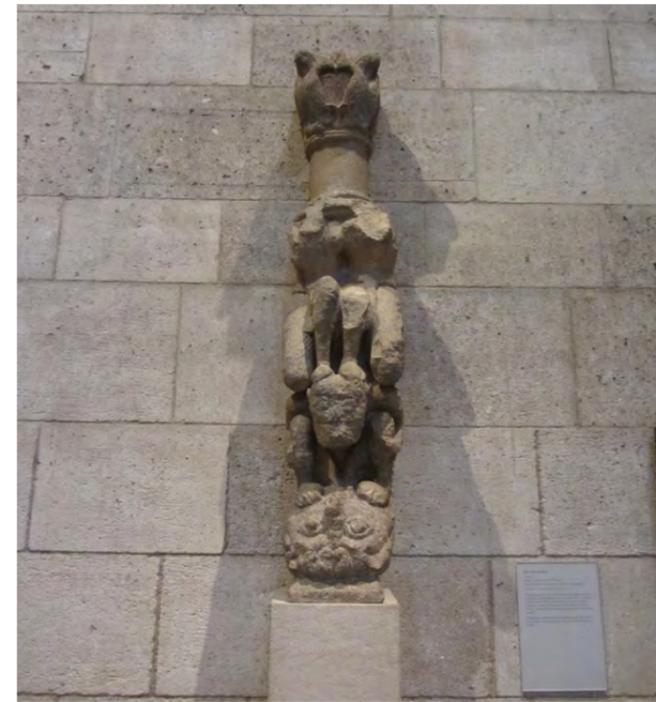
12. Scan data converted to digital 3D model.



13. Using the 3D model, software creates tool paths for cutting heads of robotic milling system to create foam positive. Mold is made from this positive, and resin replica is cast using this mold. (The pictured fabrication process shown for illustration purposes only.)



14. The Fuentidueña apse on the exterior facade of the Cloisters. The carving is a cast resin replica.



15. The original carving from the church of San Martin at Fuentidueña in Spain is displayed inside the Museum.



16. The Erechtheum in Athens where cast resin replicas take the place of the original stone figures.



17. The originals are in the Acropolis Museum.

Replica secured with stainless steel rods bolted to internal armature and anchored into masonry at jambs of niche and with stainless steel angle at rear of base anchored to internal armature of replica and bolted to base of niche.



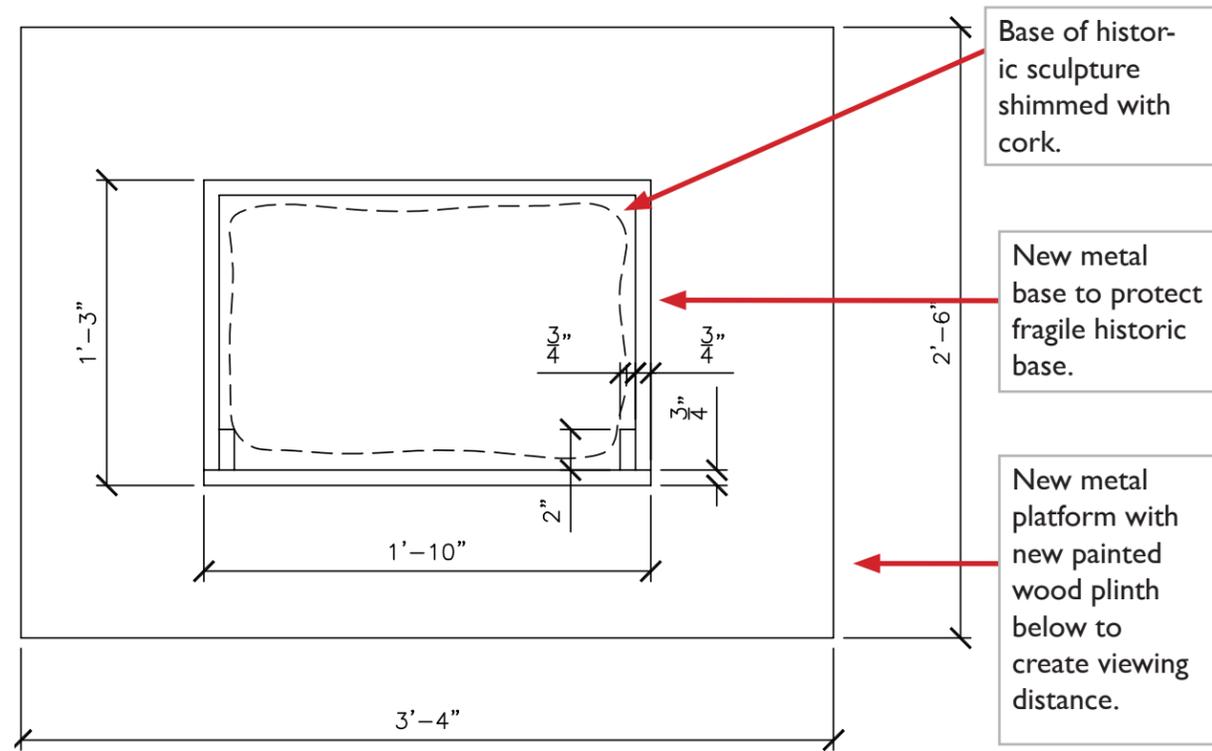
18. Back elevation as viewed from attic (niche doors are removed). Image shows historic sculpture for reference only.



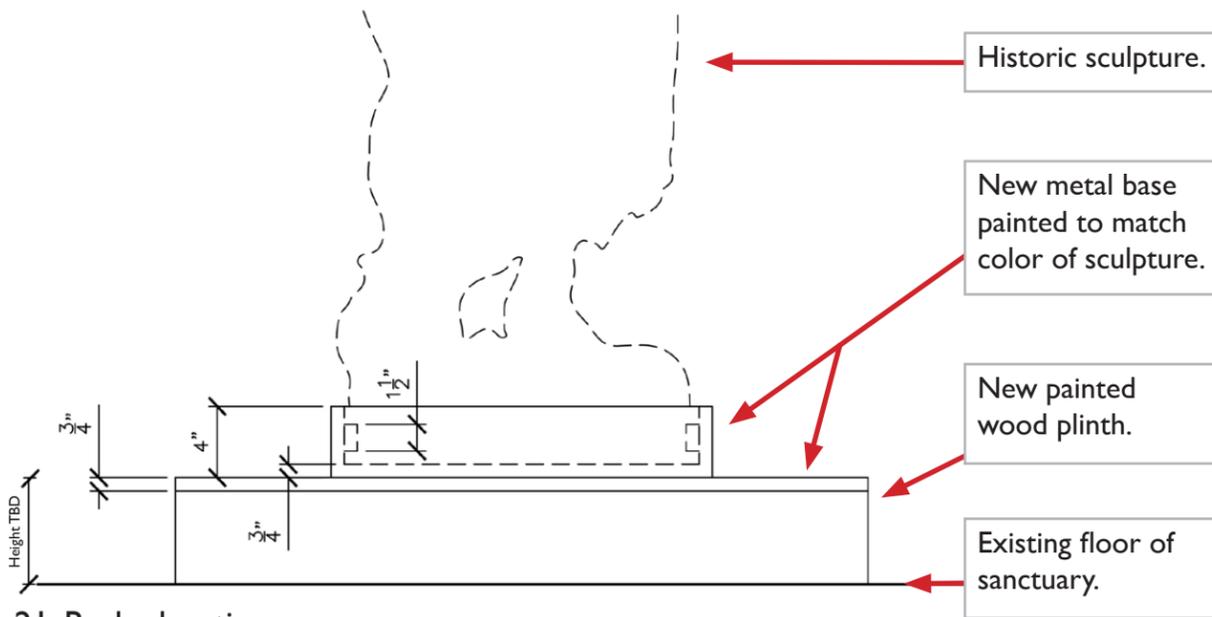
Anchorage (at back of sculpture) located at widest point to minimize visibility.

Base anchorage not visible from front.

19. Front elevation showing location of proposed anchorage for replica. Image shows historic sculpture for reference only.



20. Plan at new base.



21. Back elevation.



22. Back elevation of historic sculpture showing proposed protective base and plinth for indoor exhibition. The sculpture will be restrained with two slender stainless steel rods anchored at four points to the sculpture and to the new metal base. Restraint is a necessary precaution in case someone touches the sculpture and because New York City is in an earthquake zone.



23. Front elevation of historic sculpture showing proposed protective base and plinth for indoor exhibition.