



Art Conservation *and the return of the king*

With one hand on the sword at his hip and the other holding a large chalice of foaming beer high in a toast, the 11-foot-tall zinc statue of the mythical King Gambrinus was once well known in Wilmington, Delaware. For 80 years after being installed in 1882, the king, a Germanic icon of brewing and joviality welcomed visitors to the Diamond State Brewery on 5th and Adams streets from a perch over the building’s brewhouse.

The brewery was demolished in 1962 to make way for Interstate 95, but the king’s reign of good cheer continued for another decade from its new location outside the King’s Inn restaurant in suburban Wilmington. In the early 1970s, King Gambrinus was moved into storage. While being relocated again in 1978, the statue was unfortunately dropped, shattering into many pieces. Since 2014, the remains of King Gambrinus have been in storage under the care of its current owner, *The Friends of Delaware’s Gambrinus Statue, Inc.*, a non-profit leading a campaign to restore the statue and return it to public display.

This year the restoration effort included an unusual project by WUDPAC Fellow Olav Bjornerud, an objects major with a minor in furniture and an interest in 3D printing and scanning. Working in an old coach house on the Winterthur estate, Olav used a powerful, 21st-century Artec handheld 3D scanner, on loan from UD’s Fashion and Apparel Department, and a software program called Blender to bring the king’s broken body back to digital life. One by one, Olav swept the scanner, which projected a grid of light, over each fragment. The scanner then used built-in cameras to recognize distortions to the grid caused by each fragment’s surface geometry. From this information, the scanner constructed virtual models of the pieces. After scanning, Olav pieced together the digitized fragments in Blender. While he was able to assemble 45 of the 58 existing pieces, he was not able to find the proper locations of 13. He believes they may belong to missing parts of the statue, including the cape and both arms.



The result of these efforts is a digital 3D model showing the pieces, which Olav has color-coded like a patchwork quilt, in place. The model also helps identify the missing pieces that will need to be created as part of the statue’s eventual restoration. Until the funds can be raised, the king’s pieces will be returned to storage.



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The University of Delaware’s Art Conservation Department educates and trains professional conservators who are well versed in the treatment, analysis, documentation, and preventive conservation of individual artifact and archive collections. For more news about our students and other department activities visit our web site at www.artcons.udel.edu.

Top: WUDPAC Fellow Olav Bjornerud 3D scanning King Gambrinus’ bust with an Artec scanner. Above: The pieces of King Gambrinus in storage, under the care of The Friends of Delaware’s Gambrinus Statue, Inc., a non-profit leading a campaign to restore the statue. Left: A screenshot of the assembled fragment scans from the program Blender. (Images: S. Billups and O. Bjornerud.)