

GUGGENHEIM

NEWS RELEASE

Guggenheim Restores First Internet Artwork Acquisition through Conserving Computer-Based Art Initiative

***Brandon (1998–99)* by Shu Lea Cheang Now Fully Functional and Accessible to Public**

(NEW YORK, NY – May 16, 2017)—As one of its case studies for Conserving Computer-Based Art (CCBA), a research and treatment initiative established in 2016 to preserve software and computer-based artworks in the museum's permanent collection, the Solomon R. Guggenheim Museum has completed the restoration of Shu Lea Cheang's web artwork *Brandon (1998–99)*. Commissioned by the Guggenheim in 1998, *Brandon* was the first of three web artworks acquired by the museum. Many features of the work had begun to fail within the fast-evolving technological landscape of the Internet: specific pages were no longer accessible, text and image animations no longer displayed properly, and internal and external links were broken. Through the efforts of CCBA, *Brandon* fully resumes its programmed, functional, and aesthetic behaviors, and the newly restored artwork can again be accessed at <http://brandon.guggenheim.org>.

Brandon's restoration was supervised by Joanna Phillips, Senior Conservator of Time-Based Media, Solomon R. Guggenheim Museum, and Professor Deena Engel, Department of Computer Science at the Courant Institute of Mathematical Sciences, New York University. The code migration was executed by Emma Dickson, NYU computer science student, and supported by Jonathan Farbowitz, CCBA Fellow at the Guggenheim. A blog post authored by the restoration team, which includes a full navigation video of the restored site, is available at <https://www.guggenheim.org/blogs/checklist>.

Conceived between 1998 and 1999 as “a one-year narrative project in installments” examining the story of Brandon Teena, a Nebraska trans man who was brutally murdered in 1993, *Brandon* developed into a complex website encompassing 82 pages and popup windows. The site also features online discussions about gender and racial identity and LGBTQ+ issues, as well as chat logs and webcasts from live events hosted at the Guggenheim SoHo, New York, and De Waag Society for Old and New Media, Amsterdam, as part of the project.

To prepare *Brandon*'s restoration, the research team, consisting of Guggenheim conservation staff and NYU computer science faculty and students, conducted two semesters of source code analysis of over 65,000 lines of programming code that had been written manually, as was typical in the early years of the Internet. Then, a four-month restoration process focused on migrating obsolete programming to modern and more sustainable technologies compatible with contemporary browsers. Java applets were replaced with GIFs, JavaScript, and new HTML, while nonfunctional HTML elements were replaced with CSS or resuscitated with JavaScript. A duplicate version of *Brandon* was created, in which defunct code was deactivated to prevent its continued execution, and new code was added. Wherever possible, the original code was retained active or reanimated to preserve *Brandon*'s original technical composition and the unique and characteristic tone of its code.

In line with Conservation ethics, all treatment to *Brandon* is reversible and annotated in the code so that future conservators and programmers will have a clear understanding of the interventions that were made. The pre-restoration version of *Brandon* was also saved by creating copies of the file directory, taking a digital snapshot of the web server, and creating a web archive. Per the artist's request, *Brandon*'s original [credits page](#) has been updated to reflect the 2016–17 restoration process. With restoration now complete, *Brandon* is included in *Net Art Anthology*, an [online exhibition](#) launched by Rhizome in April 2017 featuring one hundred seminal artworks in net art history.

About the CCBA

A longtime pioneer in the field of contemporary art conservation, and one of the few institutions in the United States with dedicated staff and lab facilities for the conservation of time-based media art, the Guggenheim established the [Conserving Computer-Based Art initiative](#) in 2016. The first program dedicated to this subject at the museum, this multiyear project was created to research and develop better practices for the acquisition, preservation, maintenance, and display of computer-based art. By addressing the challenges of preserving digital artworks, including hardware failure, rapid obsolescence of operating systems, and artists' custom software, CCBA is tasked with the conservation of 22 computer-based artworks in the Guggenheim collection to ensure long-term storage and access to the public. The CCBA initiative is an opportunity for the Guggenheim to facilitate cross-institutional collaboration towards best-practice development, and CCBA integrates the museum's ongoing work with the faculty and students of the Department of Computer Science at NYU's Courant Institute for Mathematical Sciences.

Conserving Computer-Based Art is supported by the Carl & Marilynn Thoma Art Foundation, the New York State Council on the Arts with the support of Governor Andrew Cuomo and the New York State Legislature, Christie's, and Josh Elkes.

About the Solomon R. Guggenheim Foundation

Founded in 1937, the Solomon R. Guggenheim Foundation is dedicated to promoting the understanding and appreciation of art, primarily of the modern and contemporary periods, through exhibitions, education programs, research initiatives, and publications. The Guggenheim network that began in the 1970s when the Solomon R. Guggenheim Museum, New York, was joined by the Peggy Guggenheim Collection, Venice has since expanded to include the Guggenheim Museum Bilbao (opened 1997), and the Guggenheim Abu Dhabi (currently in development). The Guggenheim

Foundation continues to forge international collaborations that celebrate contemporary art, architecture, and design within and beyond the walls of the museum, including the Guggenheim UBS MAP Global Art Initiative and The Robert H. N. Ho Family Foundation Chinese Art Initiative. More information about the Solomon R. Guggenheim Foundation can be found at guggenheim.org.

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FOR ADDITIONAL INFORMATION

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