ARIUS3D
IMAGING THE REAL WORLD

Customer Case Study Documentation

Holocaust Museum
Lodz Ghetto

Leon Jakubowicz and his wife Rachela holding the Lodz model

Arius3D model of Lodz Ghetto Model

Leon Jakubowicz, a shoemaker by training and a native of Lodz, began constructing this model of the Lodz ghetto in the spring of 1940, after the ghetto was sealed. Jakubowicz's model recreates, on a small scale, the physical appearance of the ghetto, creating the shape of the model to mimic the exact boundaries, streets, and buildings that had a major impact on daily life on the ghetto. The model includes official badges and seals of institutions run by the ghetto's Jewish organization, including schools, hospitals, civic offices, factories or "resorts" functioning inside the ghetto, as well as printed money used in the ghetto but virtually worthless in value. Lodz, Poland, between 1940 and 1944.

Jakubowicz continued to develop the model until he and his wife Rachela Zylber, were deported from the ghetto were deported to Auschwitz. Rachela is presumed to have perished in Birkenau. Just before he was deported, Jakubowicz was able to bury the model in the basement of his building. In his own words: "I took the model which is 15" by 34" and wrapped it in tar paper, and buried it in a metal truck in the basement of my building. The building on Brzezinska … was eventually destroyed."

Jakubowi was transferred to forced-laor camps in Germany. He was liberated by U.S troops in early May 1945. Leaon discovered that his brothers had also survived. He told them where in Lodz he had buried the model. They were able to find it in the rubble of the destroyed building. Leon's brothers dug out the model and took it to him in Germany.

Although Leon and his two brothers survived, they lost their immediate families in the Holocaust. After the war, Leon found out that his mother had died in Auschwitz. His father had died in the Lodz ghetto, Leon himself emigrated to Israel. He lived there until 1958 when he came to the United States, bringing the model with him.

Leon loaned this artifact to the United States Holocaust Memorial Museum in 1990. The model was donated to the Museum in 1996.

Faced with the problem of deterioration, the Holocaust Museum worked with Arius3D to create a 3D digital reconstruction of the model. The model was brought to Arius3D along with a curator that oversaw the complete 3D scanning process.

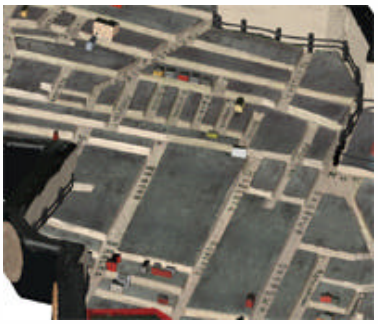
Over the course of a week, the model was scanned at a resolution of 100 microns in the X and Y axis, and 25 microns in the Z axis. More then

22 million colored points were sampled from the original model.

Based on original NRC research, the Arius3D Foundation System is recognized as the only three-dimensional measurement system that simultaneously captures color and geometry from real world objects. The non-contact laser light measurement cannot harm objects or artifacts in any way. The Arius3D process is not affected by ambient light, so it provides the most accurate and precise image possible. Once an object's image is captured it can be redeployed in a multitude of resolutions and in a range of file formats.

The technology allows researchers and educators to continue their research and share their findings around the world.

Close up view of Lodz Ghetto Model



Arius3D creates digital imaging solutions that enable organizations to research, present, and share unique physical objects in digital form.

The Arius3D three-dimensional color scanners and the Pointstream imaging software support wide ranging applications in culture and heritage, research, education, and entertainment.

Note:
Information for this case study was extracted from the Holocaust Museum web site. For more information on the Lodz Ghetto visit the following link: http://www.ushmm.org/wlc/en/index.php?ModuleId=10007028