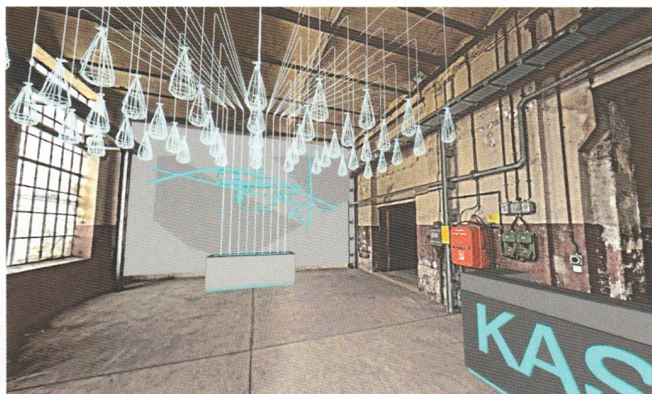


BIM Advancements in REALITY MODELING



3D ScanWorld

Energy Factory Knappenrode
Knappenrode, Saxony, Germany

The Energy Factory Knappenrode in Saxony, Germany is a former industrial facility that is now a museum. Because the numerous assets are difficult and expensive to maintain in their original size and capacity, machines that are redundant or visually unappealing will be dismantled. To preserve the cultural heritage of the structure and assets, authorities mandated comprehensive documentation to be compiled prior to renovations. 3D ScanWorld worked with community agencies to perform 3D laser scanning to capture the layout of the entire factory.

The team used the dataset from the scans to create architectural drawings of floor plans and cross sections as point clouds and imported them into Pointools for visualization and integration into the digital historical building stock. Using Pointools allowed the team to remove distracting elements and focus on essential components, develop visual documentation with elaborate image retouching multiple times faster than with classic photo documentation, and navigate point clouds for review. As a result, a uniform set of architectural plans is now available for different disciplines. **Project Playbook:** Pointools