Guide to the Marc Levoy Papers SC1258SC1258

Daniel Hartwig
Department of Special Collections and University Archives
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Access to Collection
The materials are open for research use. Audio-visual materials are not available in original format, and must be reformatted to a digital use copy.

To access computer files from the Forma Urbis Romae project, whether raw or elaborated, please contact Francesca de Caprariis (francesca.decaprariis@comune.roma.it) for permission.

Biographical / Historical
Marc Levoy is the VMware Founders Professor of Computer Science and Electrical Engineering, Emeritus. He received a Bachelor's and Master's in Architecture from Cornell University in 1976 and 1978, and a PhD in Computer Science from the University of North Carolina at Chapel Hill in 1989. In the 1970's Levoy worked on computer animation, developing a cartoon animation system that was used by Hanna-Barbera Productions to make The Flintstones, Scooby Doo, and other shows. In the 1980's Levoy worked on volume rendering, a technique for displaying three-dimensional functions such as computed tomography (CT) or magnetic resonance (MR) data. In the 1990's he worked on 3D laser scanning, culminating in the Digital Michelangelo Project, in which he and his students spent a year in Italy digitizing the statues of Michelangelo. In the 2000's he worked on computational photography and microscopy, including light field imaging as commercialized by Lytro and other companies. At Stanford he taught computer graphics and the science of art, and digital photography. Outside of academia, Levoy co-designed the Google book scanner, launched Google's Street View project, and currently leads a team in Google Research that has worked on Project Glass and the Nexus 6 HDR+ mode. Awards: Charles Goodwin Sands Medal for best undergraduate thesis (1976), National Science Foundation Presidential Young Investigator (1991), ACM SIGGRAPH Computer Graphics Achievement Award (1996), ACM Fellow (2007).

In 2014, Levoy retired from Stanford to lead a team at Google. His team is in Google Research, and works broadly on cameras and photography. One of their projects was computational photography for Glass. More recent projects include HDR+ mode on the Nexus 6 and a more flexible application programming interface (API) and hardware abstraction layer (HAL) for the cameras on Android devices.

Subjects and Indexing Terms
Computer graphics.
Levoy, Marc
Levoy, Marc

Forma Urbis Romae project 1 2002-2015
Biographical / Historical
Forma Urbis Romae, or Severan Marble Plan of Rome, is an enormous map, measuring approximately 18.10 x 13 meters (circa 60 x 43 feet), carved between 203-211 CE and covered an entire wall inside the Templum Pacis in Rome. It depicted the groundplan of every architectural feature in the ancient city, from large public monuments to small shops, rooms, and even staircases.

Existence and Location of Copies
Photographs and 3D models are available online: https://exhibits.stanford.edu/fur

Subjects and Indexing Terms
Rome
Levoy, Marc

Digital Michaelangelo project 2
Presentations

The Digital Michelangelo Project 2000-05-19
The Digital Michelangelo Project 1999-08-09
The Digital Michelangelo Project and the Forma Urbis Romae Project 2005-10-19

The Digital Michelangelo Project 2000-07-24
The Digital Michelangelo Project: 3D scanning of large statues 2000-07-26
The Digital Michelangelo Project: creating a 3D archive of his sculptures using laser scanning 1999-03-16
The Digital Michelangelo Project 1999

Software

Digital Michelangelo software
ScanView 1.21

Website 2017

Websites 2015-2018