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Abstract

The applications of 3D CAD/CAM technology in the field of museum conservation and restoration

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Abstract:
The applications of the additive manufacturing technology for art and museum are numerous. The purpose of this study was to investigate the use of different 3D CAD/CAM systems, to identify opportunities and limitations in the field of museum conservation and restoration. 3D printing is a solution to recreate the objects and get detailed replicas. 3D printed replicas allow guests to give a new museum experience and to develop engagement and interactions with visitors. Other application of CAD/CAM technology includes helping people with visual impairment in the way of printing physical 3D representation of paintings. Additive manufacturing technology helps to recreate destroyed structures, damaged pieces, and missed details as a part of the restoration process. 3D simulation of the scanned objects allows manipulating fragile objects without damaging them, for example, to create diagrams for assembly of broken objects. The use of 3D reproductions is also a way to create virtual exhibits and to develop a new museum experience for the audience. Despite some limitations, CAD/CAM system is an important tool for museum conservations.

Biography:
Larisa Zolotova has completed her Bachelor's Degree at the age of 21 from the Khakas State University, Abakan, Russia and improved her knowledge in the Gemological

Institute of America, Carlsbad, CA, USA. She is a Research Assistant, CAD/CAM Specialist, and Gemologist at the State Hermitage Museum, the second-largest art museum in the world. She has published more than 10 articles in reputed journals and has received more than 10 awards in the field of jewelry design and education.

Publication of speakers:

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- Larisa Zolotova, 2013; 8(2): e56093. Published online 2013 Feb 13.
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