3D Printed Mathematical Art

Christopher R. H. Hanusa
Queens College
Mathematics + Art

Bathsheba Sculpture

Henry Segerman

- Repetition
- Symmetry
- Geometry
- Higher Dimensions
What does 3D Printing look like?
3D Printing is not just printing

Concept
3D Printing is not just printing
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Concept

Design

Prototype
3D Printing is not just printing

Concept
Design
Prototype
Print it
At Queens College

- Art: Prof. Greco
  - Arts 282 - 3D Modeling/Printing and Slip Casting
  - Also: 3D Modeling (Intro & Advanced)
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- Math: Prof. Hanusa
  - Math 213 - Math with Mathematica - Spring 2018
At Queens College

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• Coming soon to classes near you
  • Biology: Frog Model
  • Art History: 3D printed ancient sculptures
  • Dance: Costumes with LED Enclosures
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  - Art History: 3D printed ancient sculptures
  - Dance: Costumes with LED Enclosures
  - Math: 142, 201
  - Printing parts: Physics CNC / Music Mic Part
  - Molds for casting
Math 213

Trip to Shapeways
April 29, 2015
So you want to 3D print?

Design your own models

- Tinkercad / Autodesk
So you want to 3D print?

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Find models to download
• Thingiverse
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Go do stuff
• Makerspaces
• QC Computer Graphics Club (Prof. Greco Klapper 108)
3D Models!