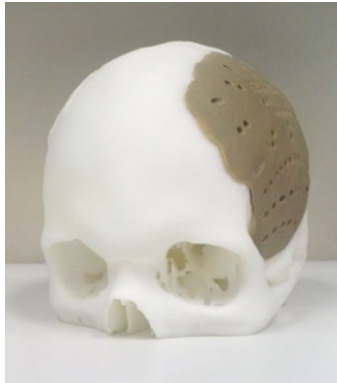
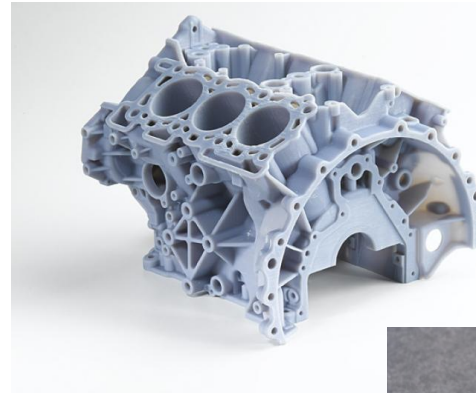
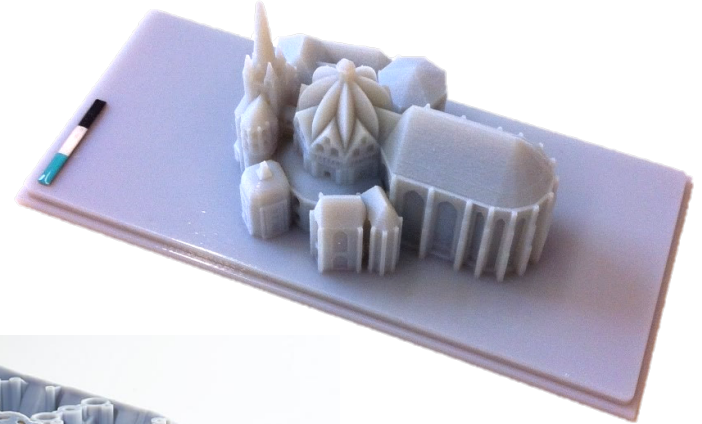
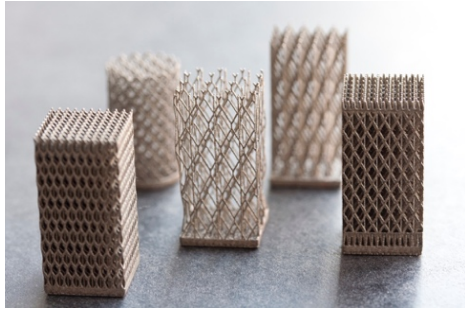




Arousing Enthusiasm for STEM: Teaching 3D Printing Technology

Laura Thurn, M.Eng.
Prof. Dr.-Ing. Andreas Gebhardt

3D Printing / Additive Manufacturing ...marks a hype

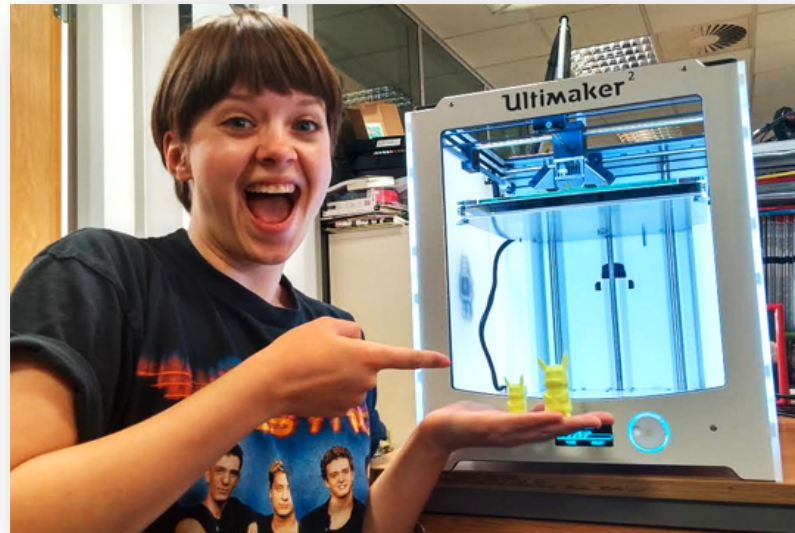


3D Printing / Additive Manufacturing (AM)

AM-Education is a broad field



3D Printing Arousing Enthusiasm for STEM



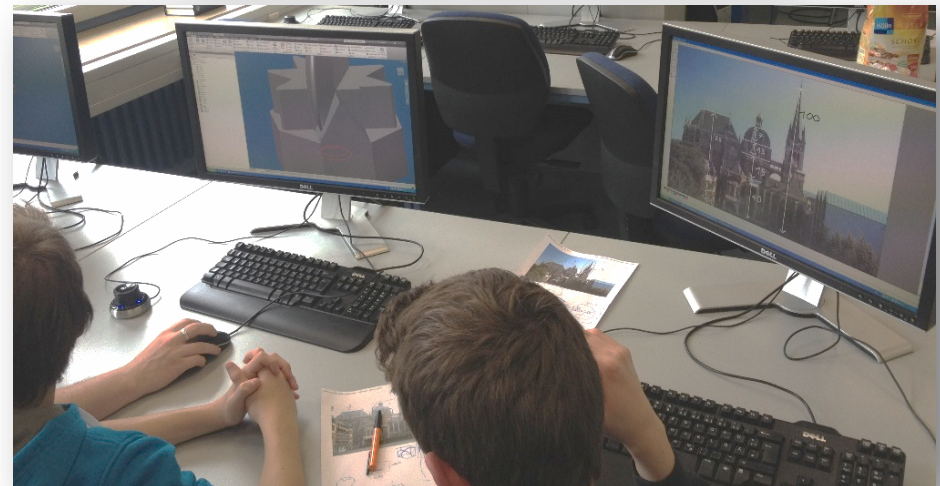
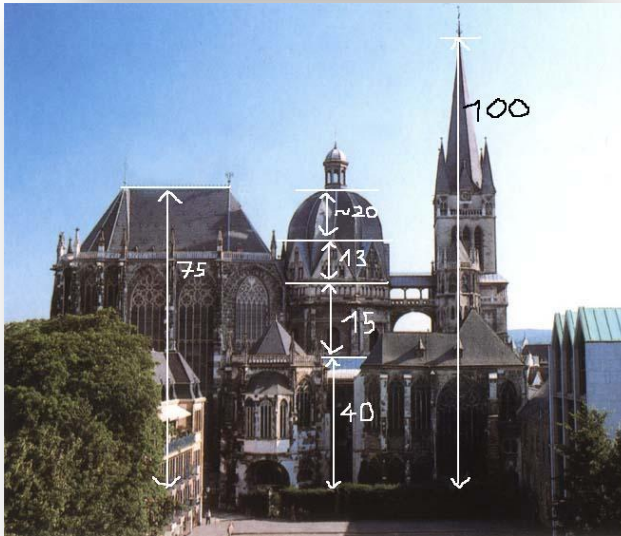
Aachen Cathedral

UNESCO World Heritage Site



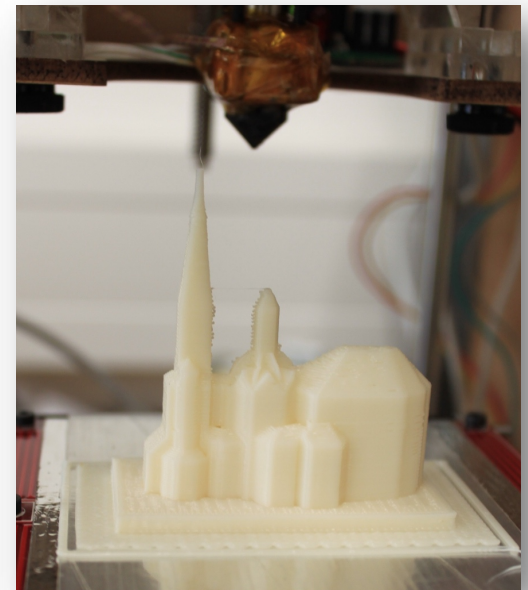
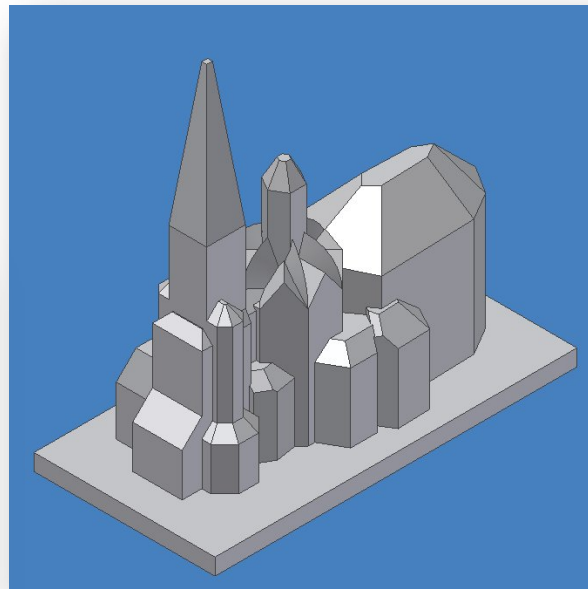
3D Printing

Arousing Enthusiasm for STEM



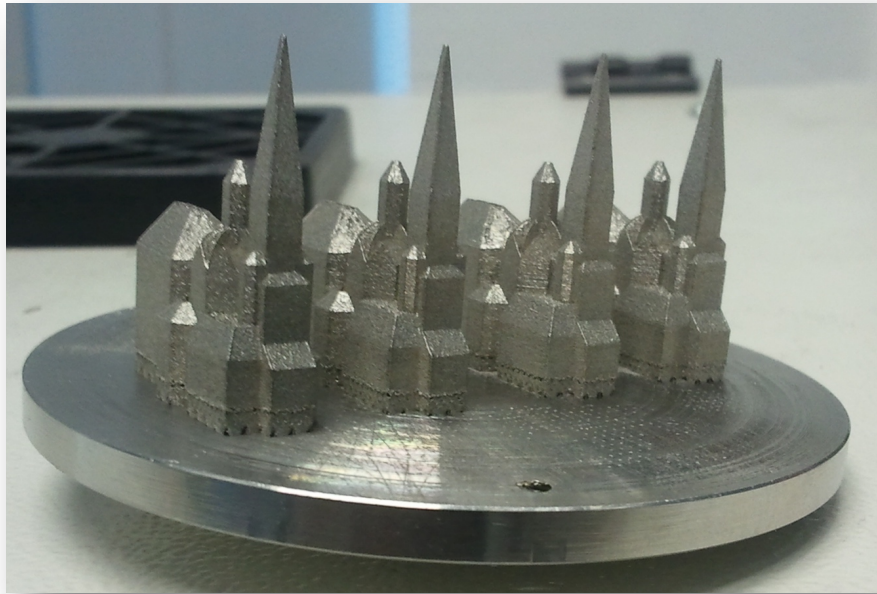
3D Printing

From the Drawing to the Printed Part



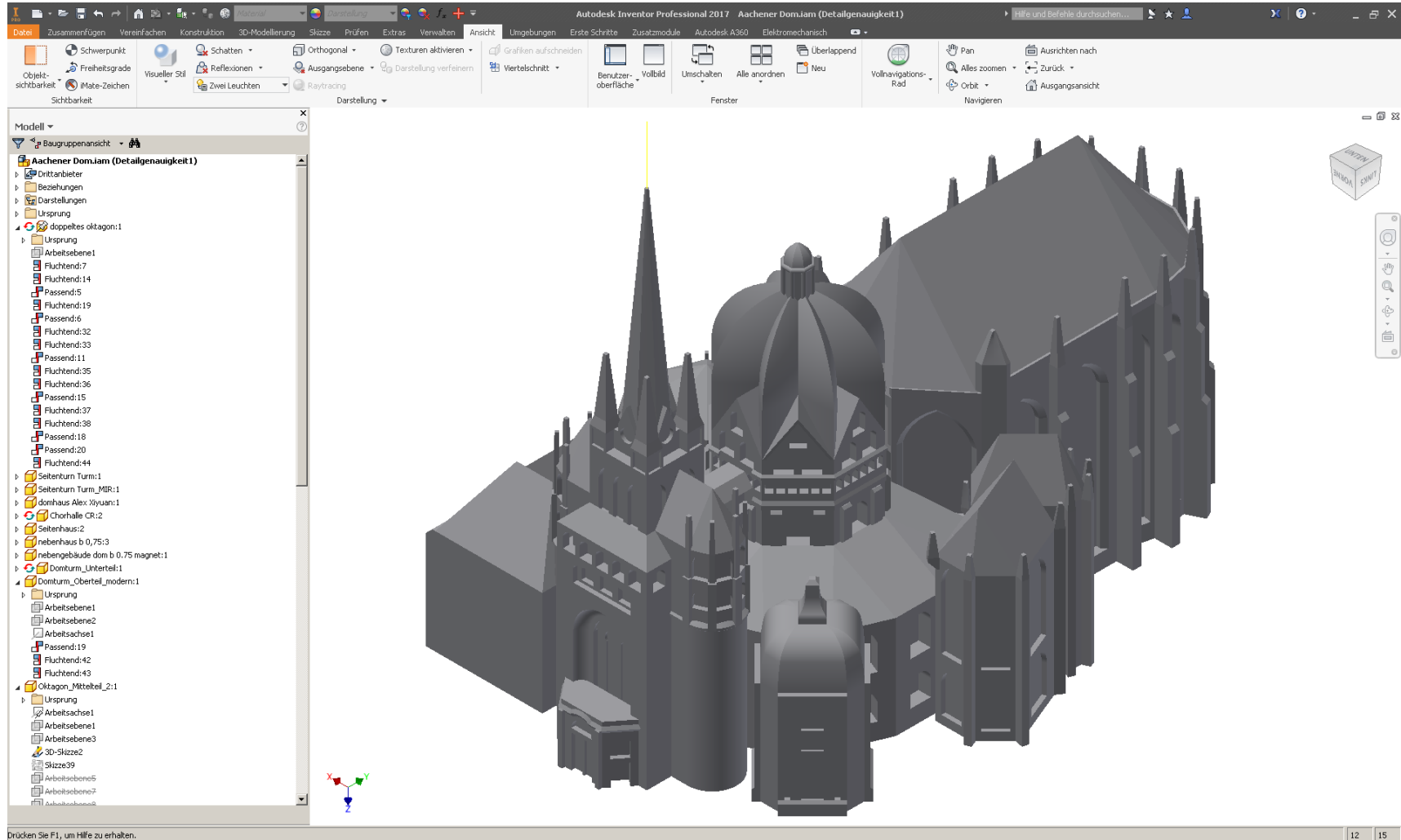
2D → 3D → 3D Print

3D Printing Material Education



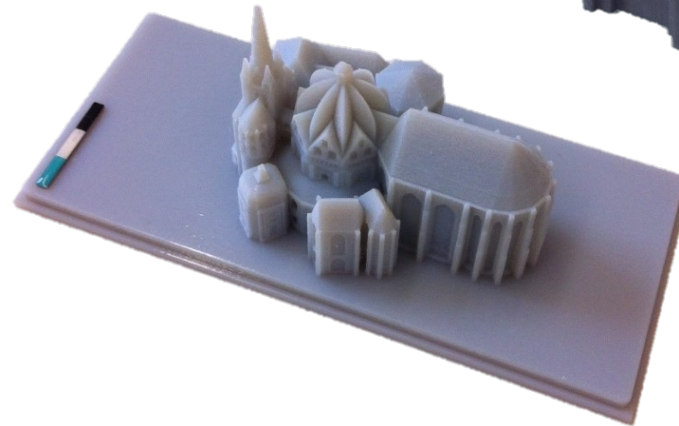
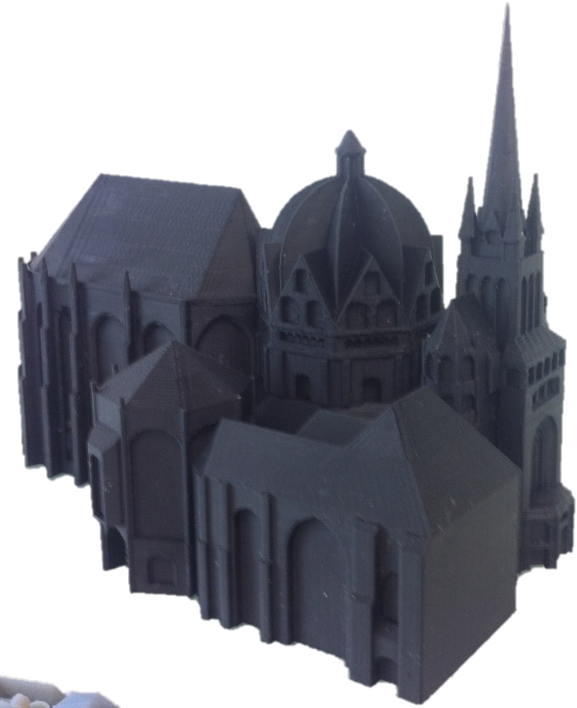
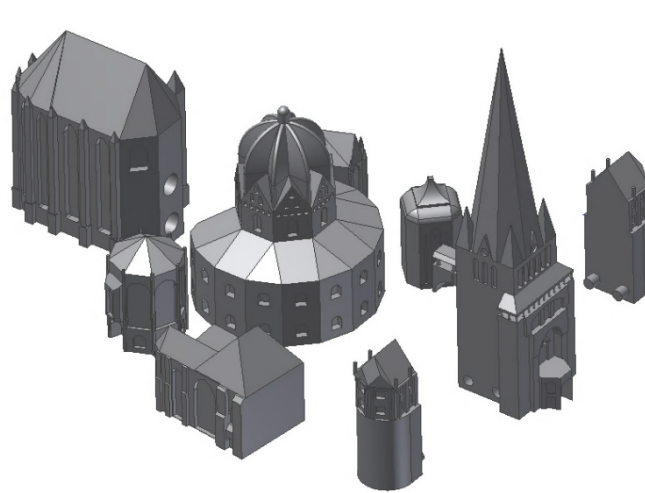
Aachen Cathedral

3D CAD File (complex)

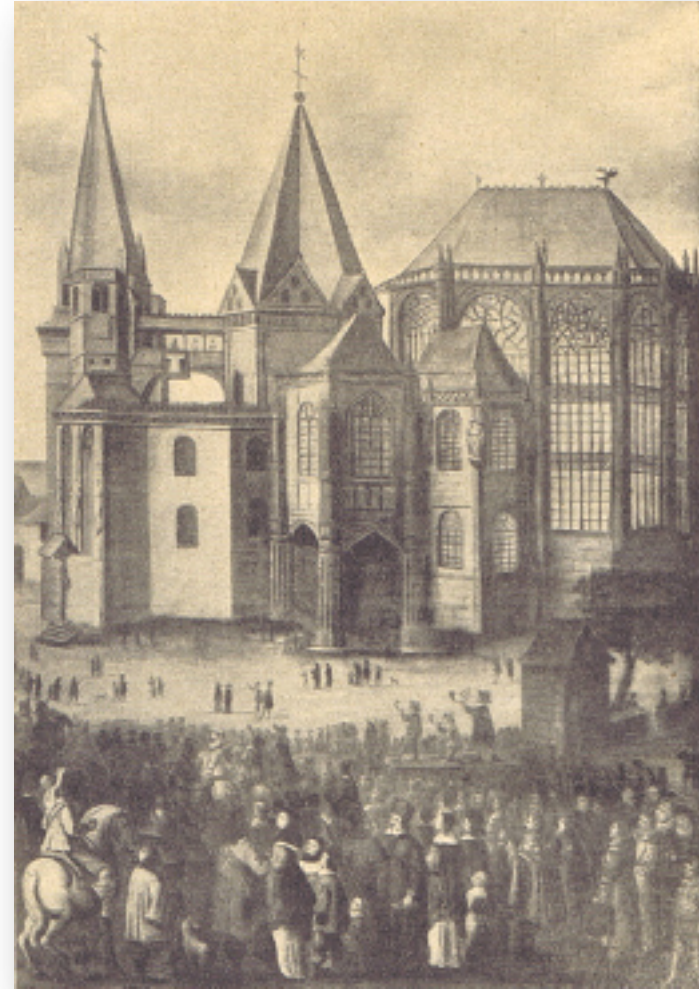
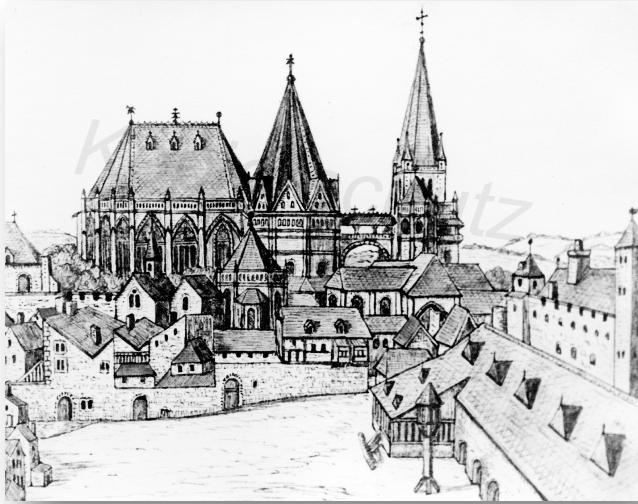


3D Printing

Arousing Enthusiasm for STEM

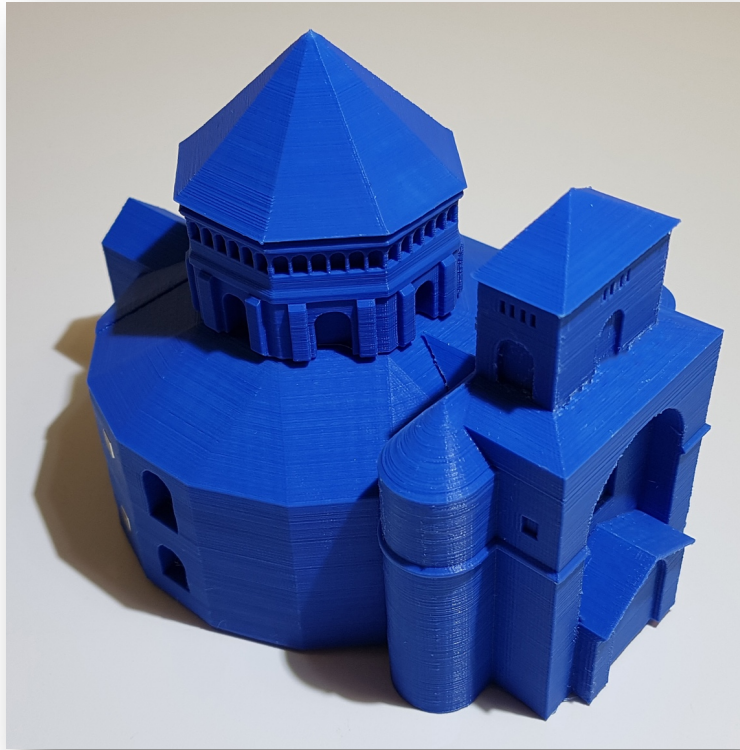


Aachen Cathedral ...a look back



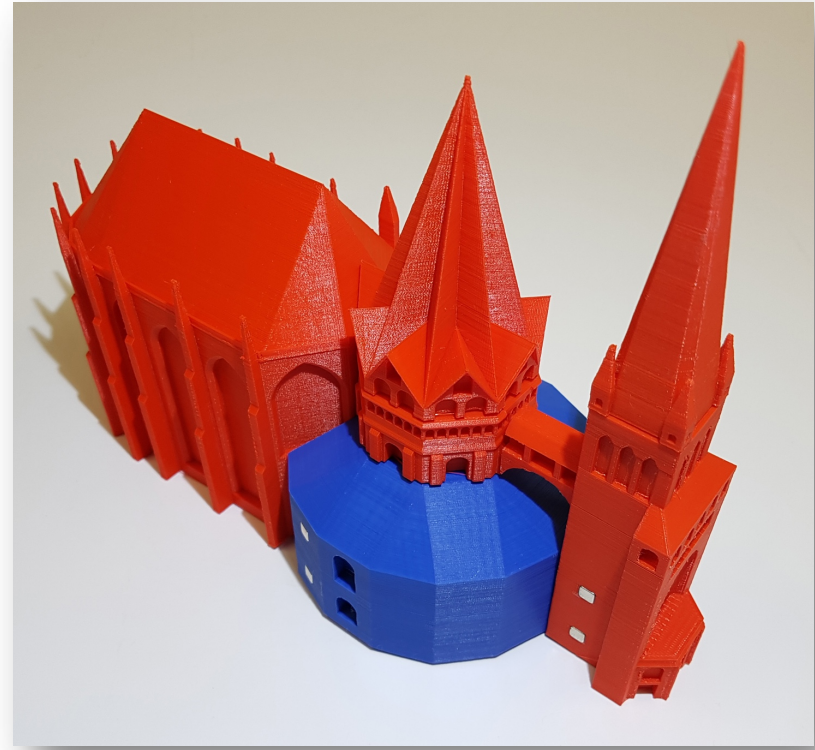
Arousing Enthusiasm for STEM

History meets 3D Printing



central and western
building

803



choir hall

1355 - 1414

Arousing Enthusiasm for STEM

History meets 3D Printing



chapels

1367 - 1487

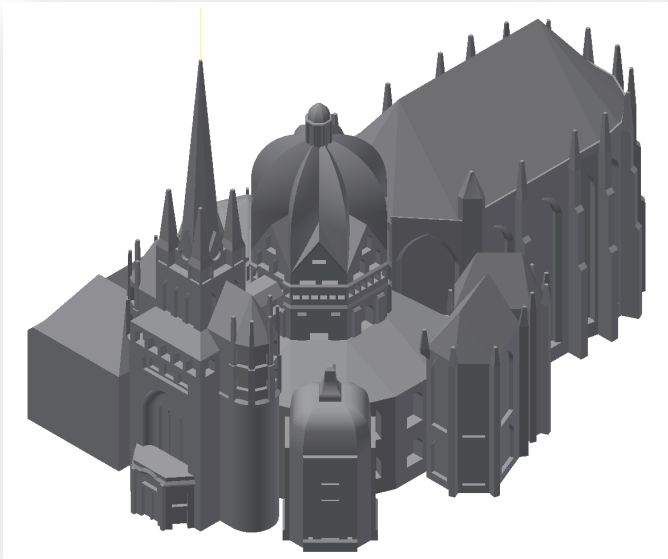
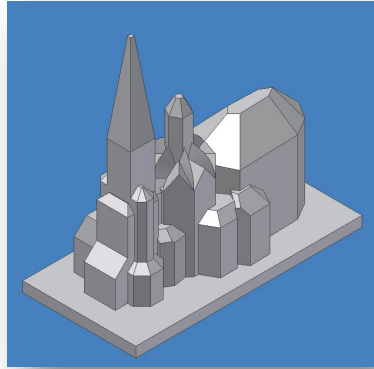


hungarian chapel

18th century

Arousing Enthusiasm for STEM

History meets 3D Printing



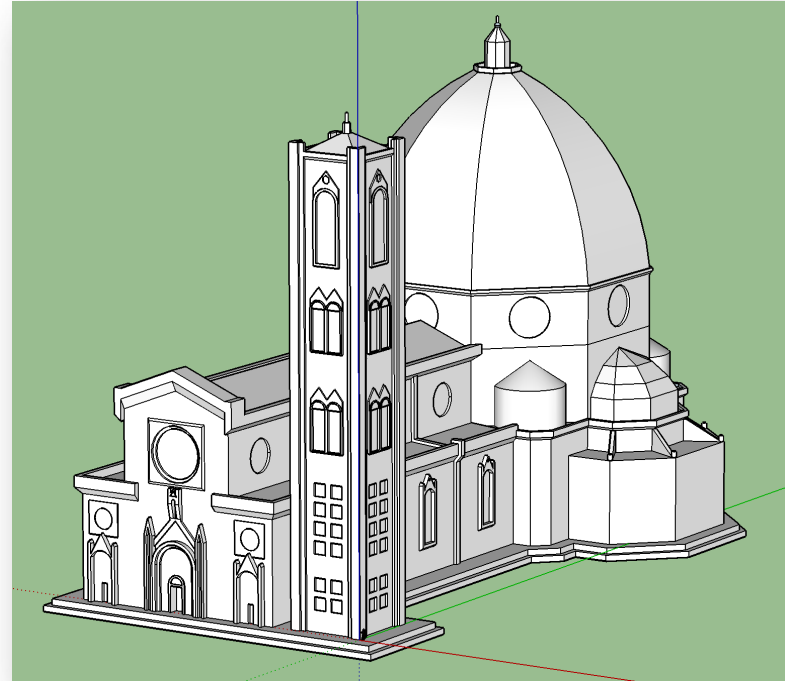
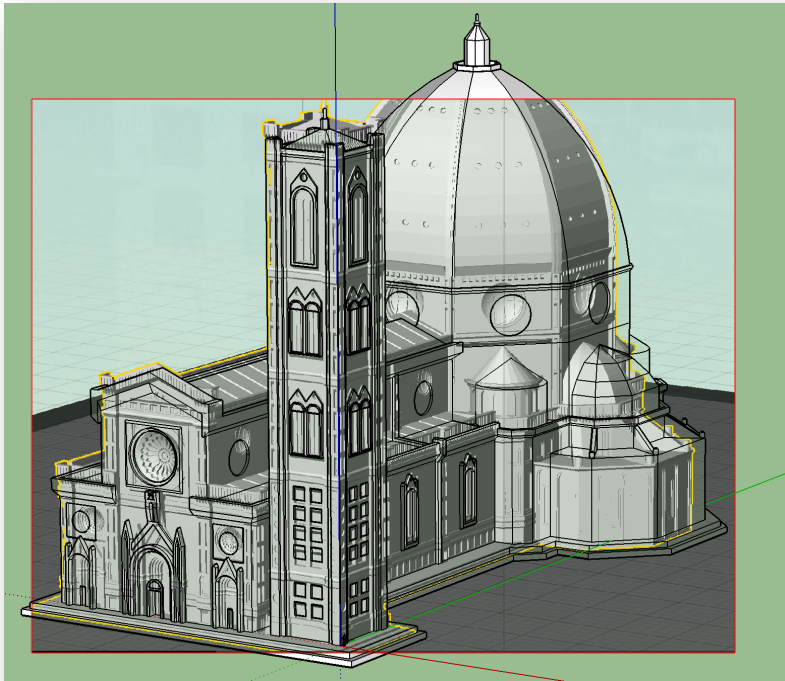
Santa Maria del Fiore

Il Duomo di Firenze

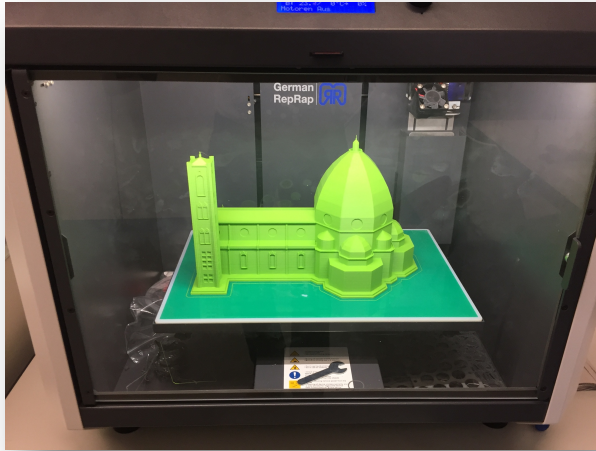


Santa Maria del Fiore

2D → 3D



Il Duomo di Firenze 3D Printed Model



Mobile 3D Printing Lab - FabBus

Democratization of Education



Mobile 3D Printing Lab - FabBus

Democratization of Education





Thank you for your attention!

Contact:

Laura Thurn

thurn@fh-aachen.de

„I showed my 8 year old niece an old floppy disk...“



She said: „Wow...Cool! You 3D printed the Save Icon!“