Teaching and Learning with 3D Content

What is 3D Content?

3D data and technologies offer realistic access to primary source material — the things themselves — rather than the textual observations or interpretations that make up traditional scholarly material, like books and journal articles. All real-world objects are candidates for digital reproduction and curricular integration.

Will 3D Content Benefit Your Course?

Academic fields of study that engage with artifacts, specimens, and anatomical structures can benefit from 3D content. 3D models also offer new ways to engage with materials—using features like cutaway visualization, surface curvature measurement, and multispectral analysis.

For example:

- Organic Chemistry students can engage with protein molecules on the web or in virtual reality.
- Art history classes could examine a 3D sculpture virtually, instead of traveling to a museum.
- 3D makes it possible to walk through historical architecture at human scale, as Harvard undergraduates did in the Spring 2020 semester.

Coffin of Ankh-Khonsu by Harvard Museum of the Ancient Near East on Sketchfab

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Finding 3D Content

Freely Available Content

- Sketchfab**:** supports new model hosting and collection building with 3D objects
- NIH3D Print Exchange**:** ideal for 3D printing upgrades and modifications to equipment
- Smithsonian: has a range of open access, historical content for use in the classroom
- Other useful 3D repositories include: Thingiverse, Morphosource, and Turbosquid

Large-scale 3D scan of Widener Library Explore Widener

3D Production at Harvard Library

Thinking about using 3D objects in your classes? For the upcoming semester, we are experimenting with 3D scanning as a service, and your suggestions for potential projects is welcome.

For Faculty and Teaching Fellows

Using industry-standard scanning techniques, our team can rapidly create interactive digital surrogates of artifacts and specimens held in our collections. In addition to scanning new items, we can help you integrate existing 3D content within your course.

There's no limit to what can be produced using contemporary scanning techniques, and objects ranging from the very small to entire buildings can be digitized and integrated within a course syllabus, or deployed in a multi-user environment for shared exploration.

Book a Consultation Now
