In the past twenty years, 3D digital technologies have been adopted by professionals active in the various fields of Cultural Heritage, including archaeologists, art and architectural historians, museum professionals, and creative talent contributing to documentary film and TV production. The technologies are typically used to create illustrations (whether still or video) and interactive simulations of cultural heritage artifacts from the scale of a cylinder seal or vase to that of a building, landscape, settlement, or entire city. As such, 3D technologies have improved the quality of illustrations traditionally used by artists, architects, and scholars to represent the phases in the life of cultural heritage artifacts.

However, more than offering an improved and more effective way of meeting traditional needs, 3D technologies have also fostered new methods and approaches to the study of the past. Central to this advance has been the use of game engines to support simulations of ancient environments. Using the interactive simulation running in a game engine, scholars can engage in virtual time travel to make observations and discoveries about works of art, buildings, and landscapes that would otherwise be impossible.

This course will introduce you to this new field. In particular, you will learn how to create a 3D model of a cultural heritage artifact such as a work of sculpture. Making a model of a statue is not an end in itself but merely the first step in a longer process culminating in a new scholarly argument (for example, analyzing how your statue was displayed and used in its original architectural context). Thus, you will also learn what you can do with the 3D model once it has been created. You will also learn how to use your model to create 3D prints, 2D still images, video animations, and interactive simulations.

The works of art modeled in the class will come from ancient Rome and its hinterland. The class will focus on a case study of a particular architectural environment in which sculpture played a key role. Each student will make a model of one statue; and each student will also be part of a collaborative research team with one or two other students. The teams will work together to develop a solution to a scholarly problem closely related to the statues the team members are modeling. The results of each team’s work will be presented in the final class; and each student will write a 10-page research paper, due at the end of the course, discussing the project of modeling, restoring, and interpreting the student’s statue.

Given the nature and goals of the course, it is useful (but not required) for a student to have had previous study of at least one course in the following fields: archaeology, studio art (especially sculpture), art history (especially of ancient Greece and Rome), or Roman history and civilization. A knowledge of computer programming is not needed in this course.

Required books: