COURSE CONTENT

Course Code	DD2013 (DD8010)
Course Title	Visualisation of Cultural Heritage
Pre-requisites	NIL
No of AUs	3
Contact Hours	39 hours studio contact

Course Aims

This course will introduce you to the different stages of visualising an object for cultural heritage processing. This course is composed of acquiring the basic theoretical skills and the function of the equipment to be used. A second part is when academic skills are translated into an actual project by converting theory into practice. The course will give you the tools to develop your skills using real specimens related to cultural heritage. You will be presented with a broad range of techniques to analyse and document the biography of an example. This learning will provide the foundation for more advanced investigations into cultural heritage and technology.

Intended Learning Outcomes (ILO)

By the end of the course, you should be able to:

1. Identify and discuss the main techniques to acquire and visualise data.
2. Use data gathering equipment and software to visualise acquired data.
3. Generate interpretations and narratives around cultural heritage artefacts.
4. Develop a research practice and apply the acquired fundamental skills to the given artefacts.
5. Contribute to the learning environment by participating positively in-class discussion and presenting your work clearly and cohesively.

Course Content

What is Cultural Heritage Visualization?

The course explores current debates about the broad range of techniques used to analyse and document the specimen biography. The aim is for you to gain experience in learning what can be derived about the "hidden history" of an object and build visualisation and storytelling out of accurate data.

You will design experimental procedures, discover techniques that can be used to learn more about artefacts and curate an interactive and visually appealing platform to display the collected data to engage the public. The project will turn the numerical data into pictorial to present data to the public.

Collecting and building information

You will learn how to apply basic techniques to investigate and visualise cultural heritage objects. Using equipment and software, you will be able to:

(i) Gather data by using equipment

(ii) Interpret and visualise the data

This process can be applied to different contexts; thus, the course is open to all NTU students.

How to acquire data that is behind an exhibited object

You will be introduced to research on cultural heritage artefacts and exposed to authentic case studies. This will occur by being exposed to fundamental instrumental analysis to help you acquire information about the object biography.

How to visualise the data

By analysing various data, you will comprehend the different requirements for conceiving meaningful narratives from that data. A digital interface will be created to develop storytelling and to experience the data. During this process, you will increase your awareness of the value of applying scientific approaches to cultural heritage and then using this to visualisation and storytelling development.

Class assignment

Periodically, there will be critical readings on the assigned topics and two short presentations. The final project will contain a proposal - using different media - to display the acquired data on various devices available in NTU School of Art Design and Media and, online, on Engineering Historical Memory (i.e., touchscreen, 3D TV, videowall, projection mapping, website, blog, conference poster, publication documentation, dome theatre). The final project will be complemented by a concise but comprehensive report focusing on developing your preferred topic as agreed with the instructor.