

# **Artificial Intelligence and Robotics Meet Cultural Heritage: The RePAIR Project**

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## **Abstract**

In this talk I will provide an overview of the RePAIR project (<https://www.repairproject.eu/>) which aims to develop a ground-breaking technology to virtually eliminate one of the most labor intensive and frustrating steps in archaeological research, namely the physical reconstruction of large shattered artworks. By developing and integrating novel technologies in the fields of robotics, computer vision and artificial intelligence, we envisage a future where archaeology can deal effectively with reconstruction problems at an unprecedented scale, thereby bringing back to life ancient artworks and masterpieces which would otherwise remain broken into pieces forever. Specifically, we are developing an intelligent robotic system which will autonomously process, match and physically assemble large fractured artefacts at a fraction of the time it takes humans to do. Our system is being tested over iconic case studies from the UNESCO World Heritage site of Pompeii.