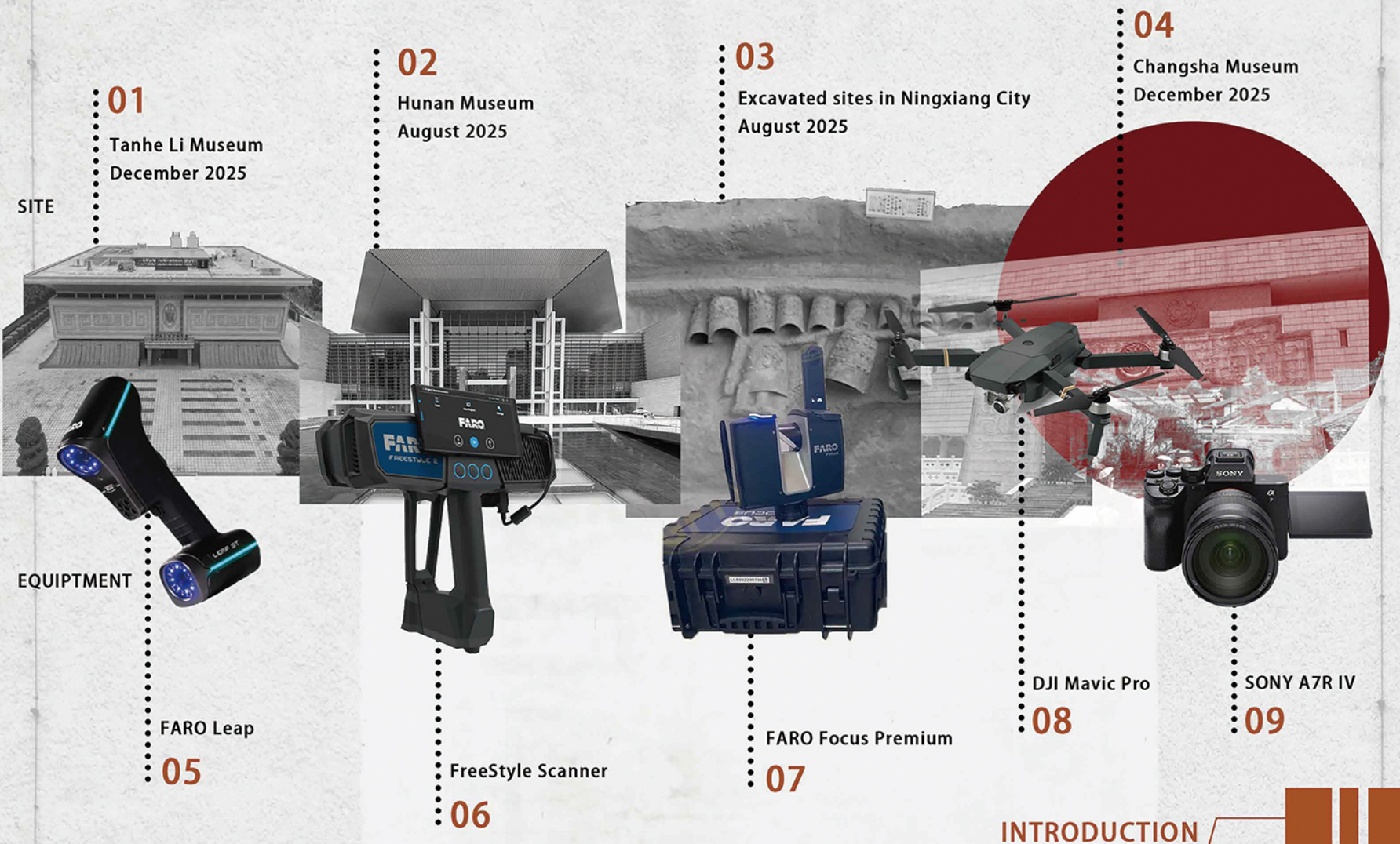


GUANGDONG AND HONG KONG UNIVERSITIES

“1+1+1” Joint Research Collaboration Scheme

粵港高校「1+1+1」聯合資助計劃

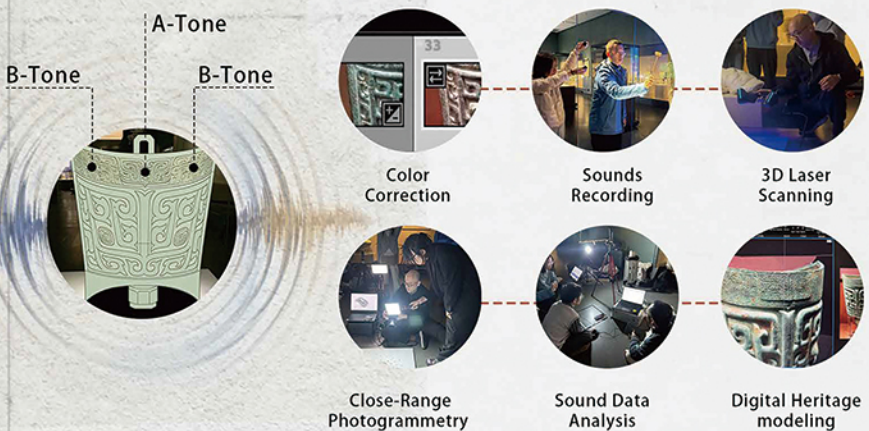
Digital Studies of Ancient Bronze Bells: Sound, Form, and Re-creation



INTRODUCTION

ONE BELL WITH TWO SOUNDS

The summit of a hill, referred to as Shiguzhai Hill in Hunan province, China, has yielded a total of seventeen bells from three pits. Such condensed finds have provided many interesting clues to our study of the histories of ancient music, acoustics, and bell casting.



OUTPUT

34 units
3D Modeling

15 Units
Bronze bell Scanning

744 GB
File Size

Texture Mesh Process
3D Modeling Process

This project explores the intersection of ancient Chinese cultural heritage and cutting-edge digital technologies through AI-powered, immersive experiences in the Metaverse. By integrating digital models of Chinese bronze bells with generative AI, extended reality (XR), and data-driven methods, the project will facilitate creative access, experiential learning through new pedagogy, and audience engagement in virtual and augmented reality (VR/AR) environments. In collaboration with the Yuzhen Jinsheng Yayue Orchestra of UIC, live, real-time performances will be fused with generative video art to creatively showcase the unique soundscapes and cultural significance of the bronze bells. Through this blend of the ancient and the contemporary musical components, the project aims to offer an interactive, audio-visual educational experience that promotes the transmission of Chinese history, culture and aesthetics, cultural identity, and contributes to the development of China's "new soundscape" through storytelling approaches.

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Supervision, coordination, and execution of project activities at BNBU

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