

Title of Work: Fold-the-Interfashionality: A Dialogue between Modernity and Tradition in the Era of AI 折间时尚: AI时代当代与传统的对话

Material of Work:

One outfit (70*30*200): 3D-printing, 3D-printed fabric and textiles, silk, double space knitting
4 pieces of sample (15*15*15): 3D printing (resin, thermoplastic, TPU, silk)

Brief Introduction of the Work: (for publishing the works collection, 200-300words)

Mixing new technology with traditional craft, PhD researchers from the Royal College of Art (RCA) in London, Mingjing Lin and Tsai-Chun Huang, utilise the newest developments in 3D printing, algorithm-based modelling and traditional Eastern pleating to create a never-before-seen costumes for an exclusive performance of 'Farewell My Concubine' by Beijing Opera performers at the RCA.

Since 2018, the project has been exhibited/performed internationally at occasions in including V&A Museum (UK), Burberry Material Futures Research and Intelligent Mobility Design Centre (UK), London Design Festival, Taiwan Design Expo, Barcelona Design Museum, China Art Now (UK), Formnex 17 (German), China Silk Museum, International Conference on Intelligent Textiles and Mass Production (ITMC), Smart Textile Salon (Belgium). It also won awards such as Reshap18 smart textile and intelligent fashion competition, nominated as Creative Application Finalist by TCT 3D Printing Award 2018, Best Design and Art Creation of the Year by 3D Printing Award 2018.

This research project examines the future of bringing together 3D printing, AI modelling technology with pleating and the performance of traditional Beijing opera by creating new pioneering costume. These keep the same shape and form of traditional costumes, but offer more subtlety by using monochrome colours and less embellishment, in keeping with contemporary aesthetics. The 3D-printed parts have been printed using a ground-breaking SLS (selective laser sintering) technique from 3D printers Sinterit creating pleated and woven garments that are as soft and pliable as textiles. The garments are designed using a parametric algorithm to generatively translate a traditional pleating structure which can be applied to print the clothing. In contrast to popular 3D printed fashion that is often rigid and acts like body architecture, the costumes created using this new digital system are soft and moveable. Thus, softness and fluidity offer a new dialogue between garments and movement.

Our aspirations are that this project will evoke new thinking. Cultural exchange is at the core of this research. We are focused upon conversations between the East and the West, modernity and tradition, technology and handicraft in the coming era of artificial intelligence. We aim to radically challenge cultural thinking about fashion, textiles and its performance through modern digital technology.

【新技术-新形态】本研究将会透过先进 3D 打印科技与手工折纸工艺的结合重新演绎传统文化。

同时，借京剧与手工艺深厚的传统来启迪新科技、新技术。虽为学术项目，但仍得到了业界的大力支持。波兰 3D 打印公司 Sinterit 的支持与赞助。与常规桌面级别 SLS(选择性激光烧结技术)不同，Sinterit 公司研发的材料，结构更精细、类橡胶质感。通过数字参数化设计并融合传统折纸结构的折叠多变，材料呈现出传统纺织、手工艺难以达到的形态效果。

【新结合-新形式】

在保留传统京剧最为精髓的演唱和动作的基础上，团队对演出服、剧场设计以及音乐音效做出了新的尝试。服装与场景仍然保存传统京剧具有符号与标志化的设计，例如服装整体造型、脸谱、妆容等，但在颜色和细节的处理上更倾向于当代化黑白灰的朴素设计。

【新诠释-新内涵】文化的对比与碰撞仍然是此次 3D 折纸京剧的核心。延续 2016 年 Interfashionality 项目的文化互置思想，今年 Fold the Interfashionality 则将东西方文化、手工与科技、传统和现代以京剧代表作品霸王别姬表达。

随着历史的变迁，霸王别姬故事本身不断演绎升华，被历代文人骚客赋予各自不同的时代意义。特别是进入现代，表演艺术大师梅兰芳的演绎使得这一传统剧目深入人心。时至今日，每一种重塑都为这一故事本身披上更丰厚的时代衣裳。

主创蔺明净与黄才骏提出，“我们期待看到代表传统的折纸与代表未来的 3D 打印科技的相互融合，希望这样的合作能激荡出一种新的艺术形式：一种面料褶裥对比的变化、一种 3D 层叠的互换、一种对中国文化的重新思考。以此体现我们服装和面料设计者对于历史的崇敬和对未来的憧憬。这是否会为古今东西的对话增加新内涵？我们现在没有答案，也许作品的呈现会是我们最好的回应。”