

## ARCHITECTURES FOR THE SENSES: CULTURAL HERITAGE IN THE AGE OF EXPERIENCE



Professor Sarah Kenderdine researches at the forefront of interactive and immersive experiences for galleries, libraries, archives and museums. In widely exhibited installation works, she has amalgamated cultural heritage with new media art practice in the realms of interactive cinema, augmented reality and embodied narrative. She is considered a pioneer in the fields of digital heritage, digital humanities and big data visualisation and is a regular keynote speaker at related forums internationally including the World Economic Forum. Her laboratories work on the application of high fidelity data acquisition technologies, new virtual environment design (portable and permanent installations), computer graphics, data mining, high-speed networking, visual and sonic analytics and knowledge visualization—to reframe engagement with tangible and intangible heritage. Her virtual environments and applications are also increasingly adopted by the sciences to provide solutions for research in the era of big data.

Sarah is Professor at University of New South Wales Art & Design where she is the founding director of the transdisciplinary Expanded Perception and Interaction Centre (EPICentre), pioneering new visualization infrastructures and projects across the arts and sciences. In addition she is the Director of the Laboratory for Innovation in Galleries, Libraries, Archives and Museums (iGLAM), Deputy director for the National Institute for Experimental Arts (NIEA) and Head of Special Projects for Museum Victoria since 2003.

Sarah's recent Awards include:

- Council for Humanities, Arts and Social Sciences Prize for Distinctive Work in 2014
- The International Council of Museums Award (Australia)
- Inaugural Australian Arts in Asia Awards Innovation Award in 2013.

In 2016 Sarah was elected President of the Australasian Association for Digital Humanities.

In 2017 she will take up the position of professor in digital museology at École polytechnique fédérale de Lausanne (EPFL), Switzerland.

A sample of Sarah's recent projects follow:

*Pure Land: Inside the Mogao Grottoes at Dunhuang* (2012-2016): this seminal series of augmented and virtual reality installations seen by millions of people worldwide, allow visitors a 1:1 scale experience of being inside the extraordinary world heritage site of the Dunhuang Caves, at the nexus of the Silk Road. Crafted by Buddhist monks over a period of 1000 years, it is a sublime art treasury like nothing else on the Chinese Buddhist world. Five distinct virtual and augment reality systems continue to tour to festivals and exhibitions. Figs 1-2.

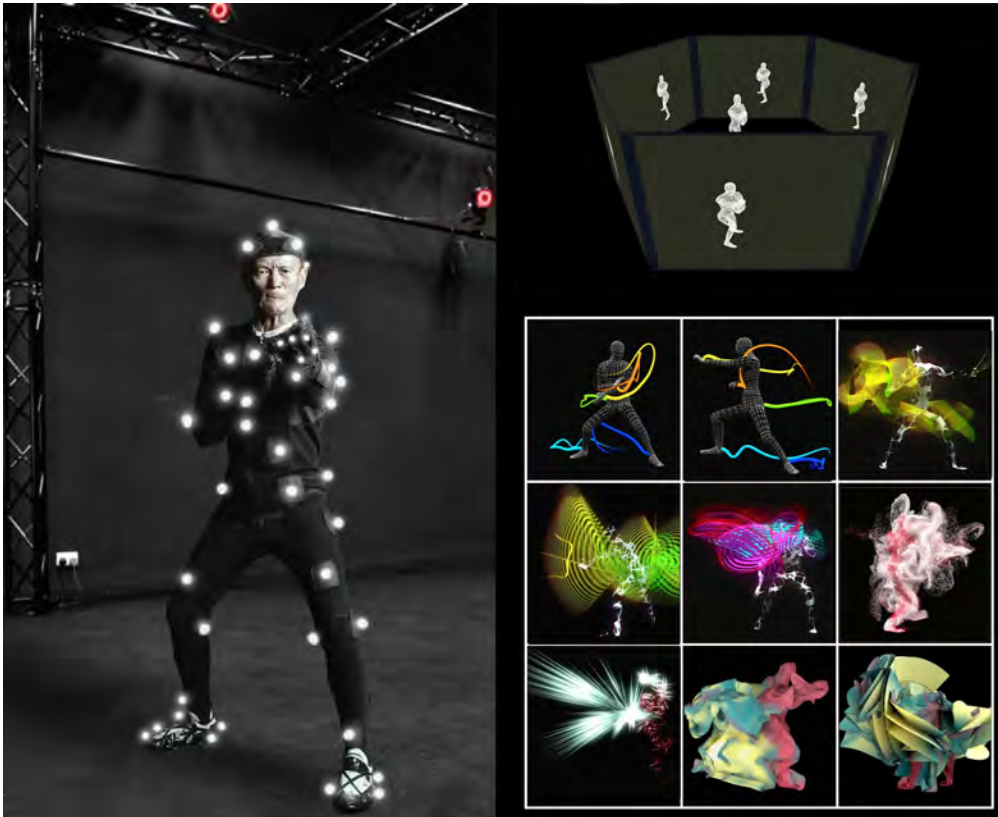


Pure Land Fig 1



Pure Land Fig 2

*300 Years of Hakka Kung Fu* (2016): after three hundred years of development, Hakka kung fu has become one of the most distinctive, important and representative martial art systems of South China. This archive and exhibition series engages new strategies for the archiving and transmission of embodied knowledge systems using extensive motion capture, high-speed video and virtual reality technologies. Figs 3-4



Kung Fu Fig 3.



Kung Fu Fig 4.

*Look Up Mumbai* (2016): Mumbai's architectural heritage is unrivalled in India. The city has one of the largest representations of the grand neo-Gothic style of architecture, numerous examples of Indo-Saracenic architecture, and one of the world's largest number of Art Deco buildings. The exceptional architectonic heterogeneity of Mumbai is the subject of *Look Up Mumbai* for the Chhatrapati Shivaji Maharaj Vastu Sangrahalaya, Mumbai, India. The work is staged in DomeLab, the world's highest resolution touring fulldome system, digitally transforming 80 gigapixel fisheye images taken all over the city. Figs 5-6, 6a



*Look Up Mumbai* Fig 5.



Look Up Mumbai Fig 6.

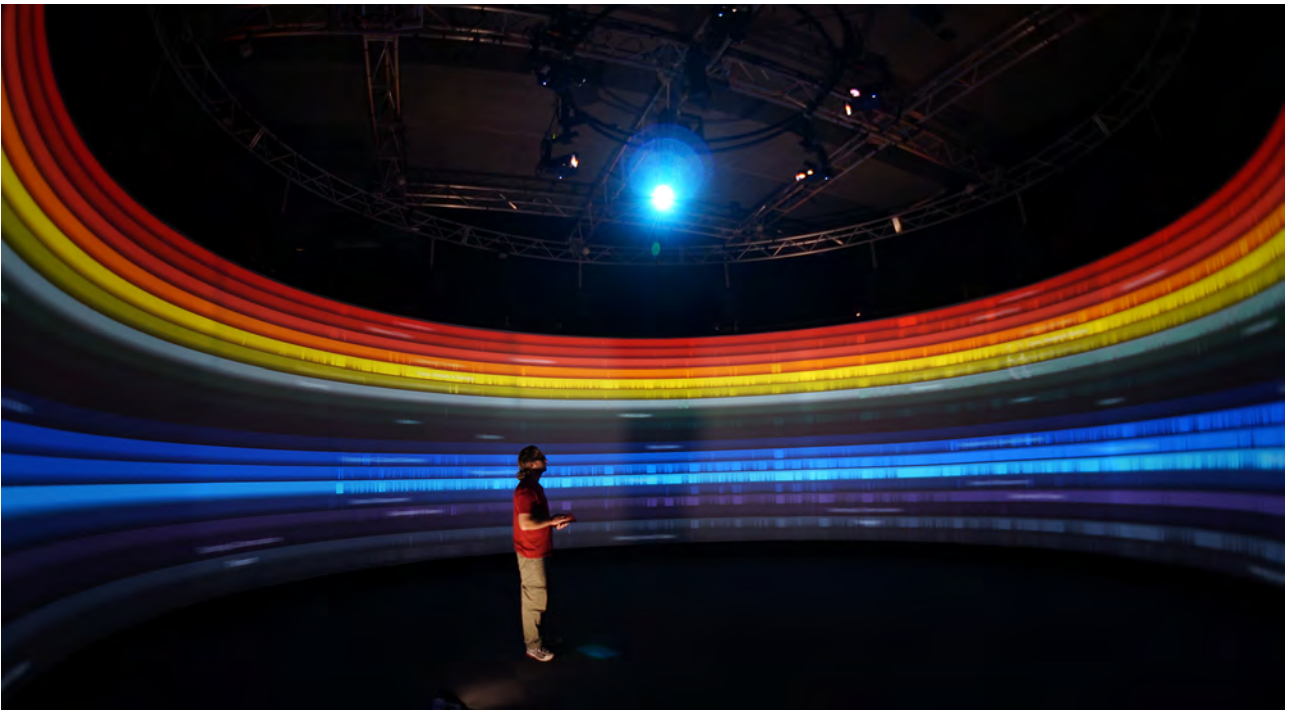


Look Up Mumbai Fig. 6a.

*mArchive* (2015): this digital browser for over 100,000 objects gives visitor a real-time curating machine for Museum of Victoria's extensive collections. With many museums are only able to exhibit a small percentage of their collections (at Museum Victoria it's 0.8%; at the British Museum it's 0.4%) this immersive cinematic experience has the potential to revolutionise traditional gallery going and museum practices. Figs 7-8



mArchive Fig. 7.



mArchive Fig.8.

*PLACE-Hampi* and *Kaladham PLACE-Hampi* (2006-2012): focused on Vijayanagara, in Karnataka, south India, Hampi is both a monumental world heritage precinct and a vibrant centre for contemporary pilgrimage — where history, the natural environment, mythology and everyday cultural practices are closely interwoven. The artwork and the museum at Hampi allow visitors to engage in sensorial and experiential encounters with Hampi as an historic place and a living cultural landscape. The *PLACE-Hampi* museum was established in 2012. Figs 9-10



PLACE-Hampi Fig. 9



PLACE-Hampi Fig.10

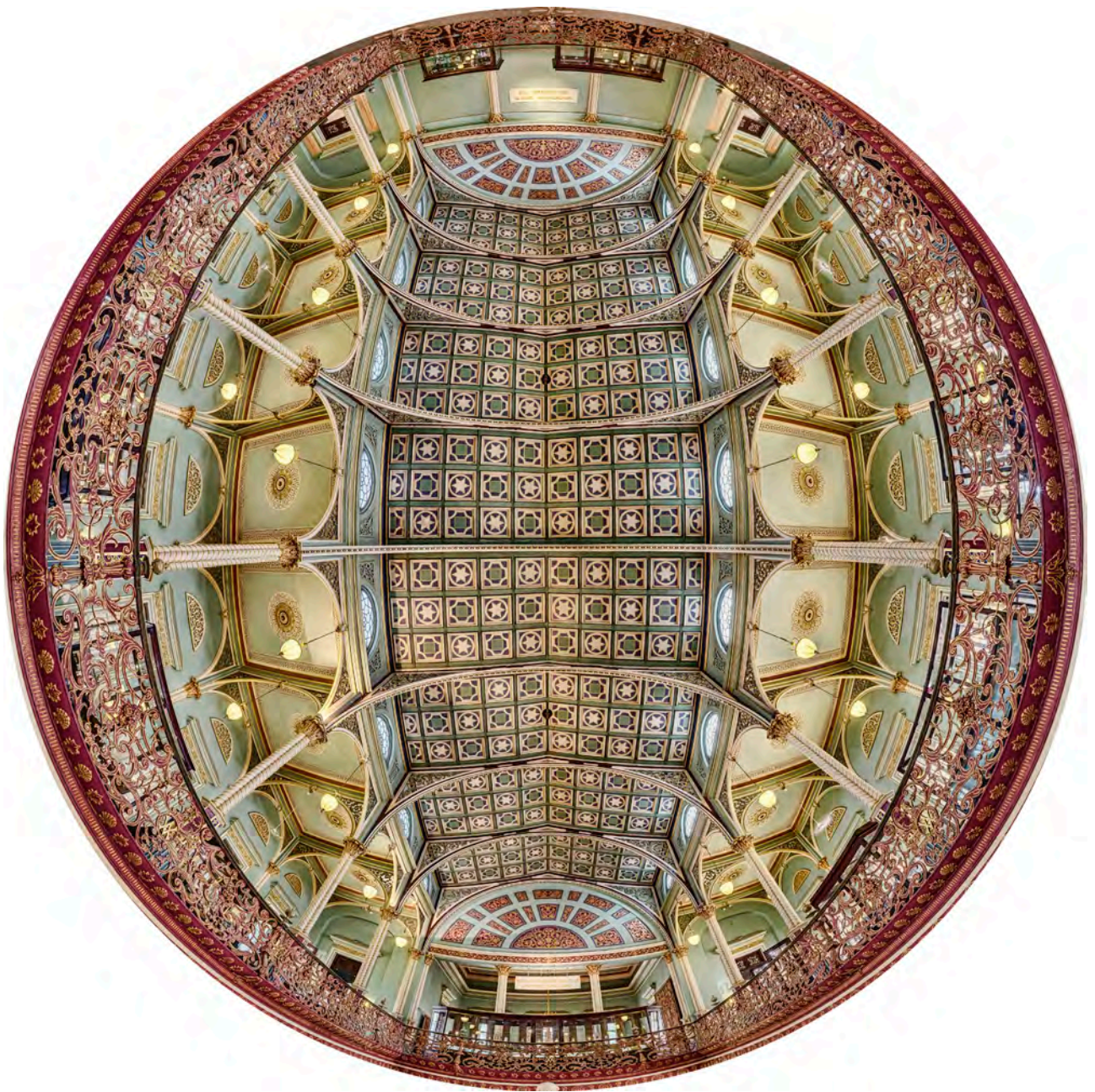
Here follows a selection of gigapixel fisheye images



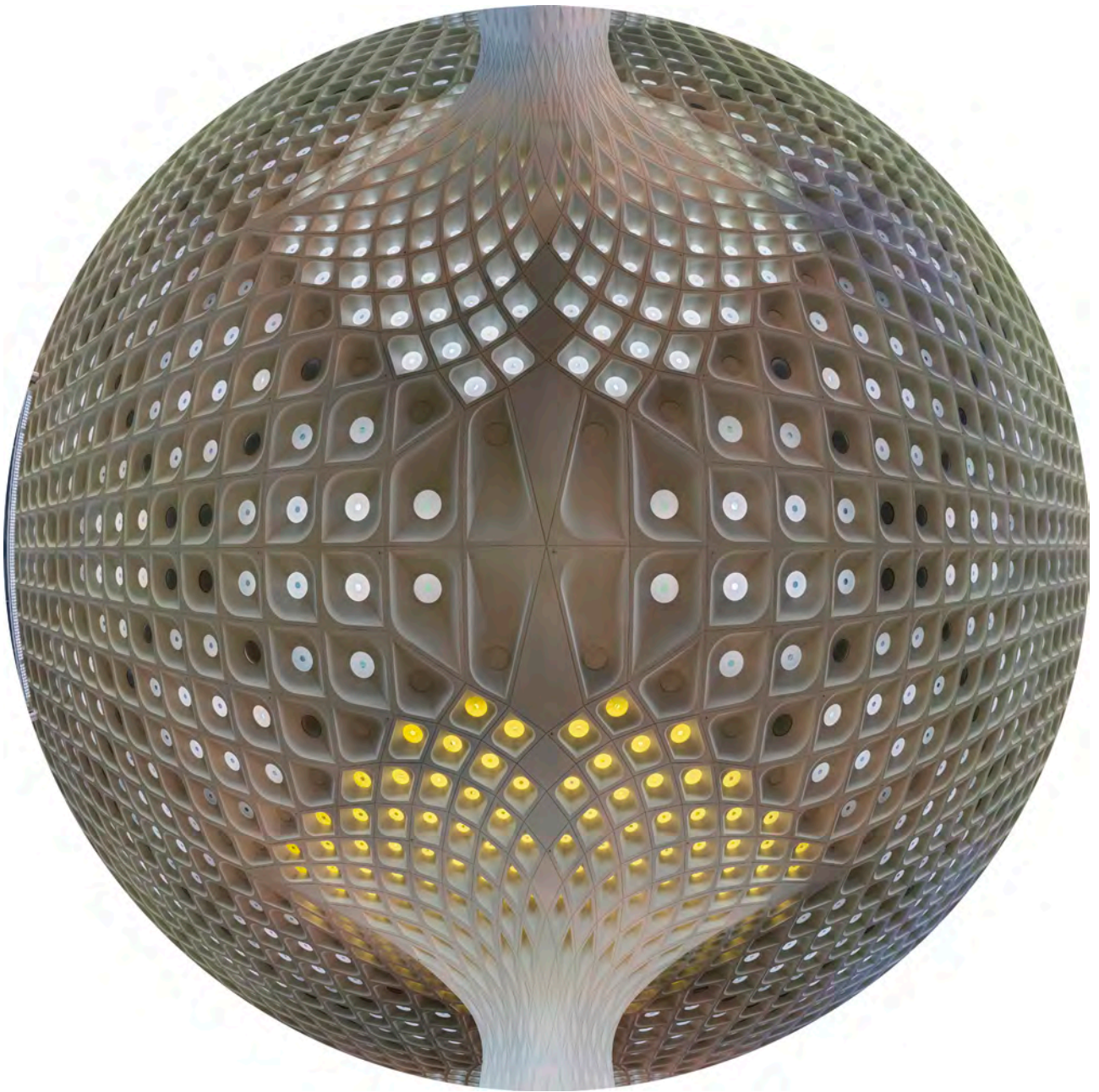
Holy Name Cathedral



Chhatrapati Shivaji Terminus



Dr Bhau Daji Lad Museum



Terminal 2 Mumbai Airport