SARAH KENDERDINE

Reenactment and Intangible Heritage

Strategies for Embodiment and Transmission in Museums

Intangible cultural heritage (ICH) is a field of research and cultural policy that has grown significantly since 2000, signalling a shift towards a holistic vision of cultural modalities.

These developments have spawned vigorous debate on the archiving of 'living heritage'. A key question often raised is whether something that is truly vital to cultural identity needs 're-vitalization', suggesting that archiving is an inherently dangerous process that 'freezes' culture within outdated notions of heritage as a non-renewable resource.[1] In parallel, the technical complexities of archiving the 'live' have made museums reliant on fixed point perspectives and linear approaches to representation, thus perpetuating 19th century conventions manifest today as audio-visual recordings.[2] By contrast, many humanists see the application of digital technologies to ICH as a 'green field' ripe for innovation while others envision a future for heritage libraries where digital assets from ICH will be part of augmented, virtual and mixed reality experiences.[3]

The 2003 UNESCO Convention for the Safeguarding of the Intangible Cultural Heritage defines living heritage as that which is transmitted through constant recreation and reenactment, implying that present-day forms of ICH are no less authentic than historical ones. As expertise developed through sensory education, 'reenacted' cultural performances share many attributes with the more classically defined notions of tacit knowledge and 'repertoires' of transmission.[4] Reenactment produces ontologically intensive knowledge in

1   B. Kirshenblatt-Gimblett, 'Intangible Heritage as Metacultural Production', *Museum International* 56: 1/2, 2004, p. 52-65.

2   M. Bonn, L. Kendall and J. McDonough, 'Preserving intangible heritage: Defining a research agenda', *Proceedings of the Association for Information Science and Technology* 53:1, 2016, p. 1-5 and L. Jae-Phil e.a., *Guidebook for the Documentation of Intangible Cultural Heritage*. Daejeon, 2011.

3   G. Cozzani e.a., 'Innovative technologies for intangible cultural heritage education and preservation: the case of i-Treasures', *Personal and Ubiquitous Computing* 21:2, 2017, p. 253-265; and S. Whatley, R. Cisneros and A. Sabiescu, 'Introduction', in: S. Whatley e.a. (eds.), *Digital Echoes*. Cham, 2018, p. 1-7; and A. Doulamis e.a., 'Modelling of Static and Moving Objects: Digitizing Tangible and Intangible Cultural Heritage', in: M. Ioannides, N. Magnenat-Thalmann and G. Papagiannakis (eds.), *Mixed Reality and Gamification for Cultural Heritage*. Cham, 2017, p. 567-589.

4   D. Taylor, *The Archive and the Repertoire: Performing Cultural Memory in the Americas*. Durham, 2003; D. Taylor, 'Saving the 'Live? Re-Performance and Intangible Cultural Heritage', *Études Anglaises* 69:2, 2016, p. 149-61.

which the 'actors' are placed in the world along with the things or beings being studied.[5] Reenactment not only challenges conventional understandings of heritage and authenticity but is also a vital tool for sustaining and transmitting culture.[6] It encompasses bodily practices that are profoundly experiential; replacing interpretation with action, experience and impact.[7] Reenactment is thus a space for immersion, made vital by its participants, transcending orthodox Western mind-matter dualisms to produce new agencies, materialities, intercorporealities, kinetic empathy, sympathetic imagination, haptic communication and dialogue.[8]

Cultural heritage is often described as being invested in places, objects or materials, however we know that it is bodies that are crucial to cultural transmission. The increasing popularity of reenacted cultural performances signals how sustained forms of sensory education might share common traits with classically defined notions of ICH that claim to be embedded in tacit knowledge and repertoires of transmission.

There is however little scope as yet for including embodied expressions of cultural heritage in museums, despite increasing engagement with audiences in immersive and interactive museological models. As such, the future of ICH in museums faces the risk of being caught between these two incongruous frameworks – that of the 19th century archival archetype, which preserves or fossilises rather than enlivening heritage, and that of the technological complexity of archiving the 'live'. As we will see in the course of this article, the next generation of immersive system designs has arguably transformed viewers into mobile agents and interactors, to fundamentally change the relative passivity of viewers in relation to the screen, transcending subject-object relations.

This article pivots on the interplay of different forms of intangibility (living heritage and reenactment heritage) and the way technologically enabled practices might reshape the role and transformation of ICH in museums. I introduce three cultural heritage digitisation research projects and their associated museological interventions that form part of the research at the Laboratory for Experimental Museology (eM+) at *École polytechnique*

5   S. Lash, *Intensive Culture: Social Theory, Religion and Contemporary Capitalism.* London, 2010.

6   E. Burkart, 'Limits of Understanding in the Study of Lost Martial Arts, Epistemological Reflections on the Mediality of Historical Records of Technique and the Status of Modern', *(Re)Constructions, Acta Periodica Duellatorum* 4:2, 2016, p. 5-30.

7   A. Boswijk, T. Thijssen and E. Peelen, *The Experience Economy. A New Perspective.* Amsterdam, 2007; B. Knudsen and A. Waade (eds.), *Re-Investing Authenticity. Tourism, Place and Emotions.* Bristol, 2010; S. Lash and C. Lury, *Global Culture Industry: The Mediation of Things.* Cambridge, 2007.

8   See M. Daugbjerg, R. Eisner and B. Knudsen, 'Re-Enacting the Past: Vivifying Heritage "Again"', *International Journal of Heritage Studies* 20:7/8, 2014, p. 681-687; and D. Jaquet e.a., 'Range of Motion and Energy Cost of Locomotion of the Late Medieval Armoured Fighter: A Proof of Concept of Confronting the Medieval Technical Literature with Modern Movement Analysis', *Historical Methods: A Journal of Quantitative and Interdisciplinary History* 49:3, 2016, p. 169-186; and L. Smith. 'All Heritage is Intangible: Critical Heritage Studies and Museums', in: R. Knoop, P. van der Pol and W. Wesselink (eds.), *All Heritage is Intangible: Critical Heritage Studies and Museums.* Weert, 2011, p. 6-35; G. Weissman, *Fantasies of Witnessing. Postwar Efforts to Experience the Holocaust.* Ithaca, 2004.

fédérale de Lausanne, Switzerland. The Laboratory focuses on the intersection of immersive visualisation technologies, visual analytics, aesthetics and cultural (big) data. One of the core research themes of eM+ pioneers 'whole of environment' encoding for ICH. The examples chosen for this chapter take up this new approach and include the living heritage of South Chinese martial arts in Hong Kong, and the ritual reenactments arising from the canonical Confucian performance manual *YiLi* from the Book of Etiquette and Rites.[9] Both projects were initiated in 2012 and are ongoing. The third project is an interactive re-performance of the poetic oeuvre of Edwin Thumboo, Singapore's leading living poet, created between 2013 and 2018 in two distinct environments/interfaces. Through use of multimodal encoding, algorithmic reenactment, recombinatory narrative and kinaesthetic digital interfaces, these three projects signal important new forms of museological experience arising from embodied cognition that have the potential to transmit ICH in museums.[10]

Hong Kong Martial Arts Living Archive

The Hong Kong Martial Arts Living Archive (HKMALA) was instigated in 2012 as an ongoing research collaboration between the International Guoshu Association, City University of Hong Kong, and the Laboratory for Experimental Museology (eM+) at EPFL. Thus far, the project has generated eight international exhibitions, including *Kung Fu Motion* at EPFL's ArtLab in 2018 and the Immigration Museum Melbourne in 2017, and *300 Years of Hakka Kung Fu* (2016) at the Heritage Museum and CityU Galleries, Hong Kong, China. This archival project responds to the decline of Southern Chinese kung fu in mainland China, where traditional martial arts practices have largely already vanished. Hong Kong nonetheless remains a significant hub for elite practitioners, where some of the most prominent martial artists in the world still practice. But Hong Kong's civil and political unrest, as well as rapid urban development, population growth and the aging of the masters are seriously endangering the last living vestiges of these ancient practices.

Recent scholarship has underscored the vitality of performative archives as living repertoires of memory, even though performance is not always

9   儀禮 *Yili* primary source for 'Remaking the Confucian Rites'（汉）郑玄注、（唐）贾公彦疏《仪礼注疏》五十卷，《文渊阁四库全书》本；《十三经注疏》本，中华书局，1957 年。(Han) Zheng Xuan, (Tang) Jia Gongyan, *Yili zhushu*, 50 volumes, Zhonghua Book Company, 1957.

10   S. Kenderdine, 'Embodiment, entanglement and immersion in digital cultural heritage', in: S. Schreibman, R. Siemens and J. Unsworth (eds.), *A New Companion to Digital Humanities*. Oxford, 2016, p. 22-41; and S. Kenderdine, 'Travelling Kungkarangkalpa', in: M. Neale (ed.), *Songlines: Tracking the Seven Sisters*. Canberra, 2017, p. 82-85.

Figure 1. Motion capture of Kung Fu master, City University of Hong Kong © HKMALA, Sarah Kenderdine & Jeffrey Shaw (2012).

considered as a legitimate means of authoring an historical account.[11] Yet Laurajane Smith underscores that, in contrast to the "Western idea of heritage" which assumes that the past can be "mapped, studied, managed, preserved and/or conserved", in other cultural contexts heritage can be "a multilayered performance (...) that embodies acts of remembrance and commemoration while (...) constructing a sense of place, belonging and understanding in the present".[12] Similarly, kung fu involves a person-to-person exchange that takes place between an expert and a novice.[13] Learning kung fu requires the imitation of movements of a master or an instructor.[14] The question of how to translate this embodied knowledge via 'motion as meaning' is central to the

---

11   M. Bal, 'Memory Acts: Performing Subjectivity', *boijmans bulletin*, 1:2, 2001, p. 8-18; and M. Bal, J. Crewe, and L. Spitzer (eds.), *Acts of Memory: Cultural Recall in the Present*. Hanover, 1998; B. Spatz, *What a Body Can Do: Technique as Knowledge, Practice as Research. What a Body Can Do: Technique as Knowledge, Practice as Research*. London, 2015; D. Taylor, *The Archive and the Repertoire. Performing Cultural Memory in the Americas*. Durham NC, 2003; and D. Taylor, 'Saving the "Live"? Re-performance and Intangible Cultural Heritage', *Études Anglaises* 69:2 (2016) p. 149-161; and B. Trezise, *Performing Feeling in Cultures of Memory*. London, 2014.

12   L. Smith, *Uses of Heritage*. New York, 2006, p. 3.

13   T. Komura e.a., 'e-Learning martial arts', in: L. Wenyunn L. Qing and WH.L, Ryson (eds.) *Proceedings of the 5th International Conference on Advances in Web Based Learning*. Berlin, 2006, p. 239-248.

14   J. Chan e.a., 'A virtual reality dance training system using motion capture technology', *IEEE Transactions on Learning Technologies* 4:2, 2011, p. 187-195.

Figure 2. Pose Matching in *300 Years of Hakka Kung Fu*, Hong Kong Heritage Museum, Hong Kong, China © HK-MALA, Sarah Kenderdine & Jeffrey Shaw (2016).

Hong Kong Martial Arts Living Archive project. Specifically, how embodied activity can 'migrate' from expert to novice without a living master of which processes of motion capture (Fig. 1).[15]

Multimodal participation is a core aspect of the project philosophy, which clearly comes into play in the HKMALA *Pose Matching* installation, created for the ArtLab exhibition *Kung Fu Motion* in 2018 (Fig. 2). It specifically deploys technologies of 'gamification' to pair the participant-actor with a human-scaled projection screen. Once having taken this position, the actor is tracked using sensors that 'motion capture' their movement and body position in order to 'match' these with a video sequence of poses presented on the screen, originally performed by a kung fu master. As the actor configures their body to match these poses, a corporeal conjunction is created, in which the somatic memory of the kung fu master is imprinted on the participant's body. The viewer's endeavour is simply to see how quickly they can configure their body to match these poses, and the 'reward' credo of the videogame constructs success or failure within a given time limit. In this way, the installation appropriates the videogame vernacular to create a corporeal conjunction between the body of the viewer and the body of the kung fu master, thereby imprinting the somatic memory of kung fu on the viewers' bodies. This pose matching installation moreover elicits the production of "embodied artifacts", as Trninic and Abrahamson underscore generally for these technologies (2012) in a generative process that enlivens the arguably crucial capacity of "novel

---

15   S. Kenderdine and J. Shaw, 'Archives in Motion. Motion as Meaning', in: O. Grau (ed.), *Museum and Archive on the Move: Changing Cultural Institutions in the Digital Era.* Berlin, 2017, p. 211-233.
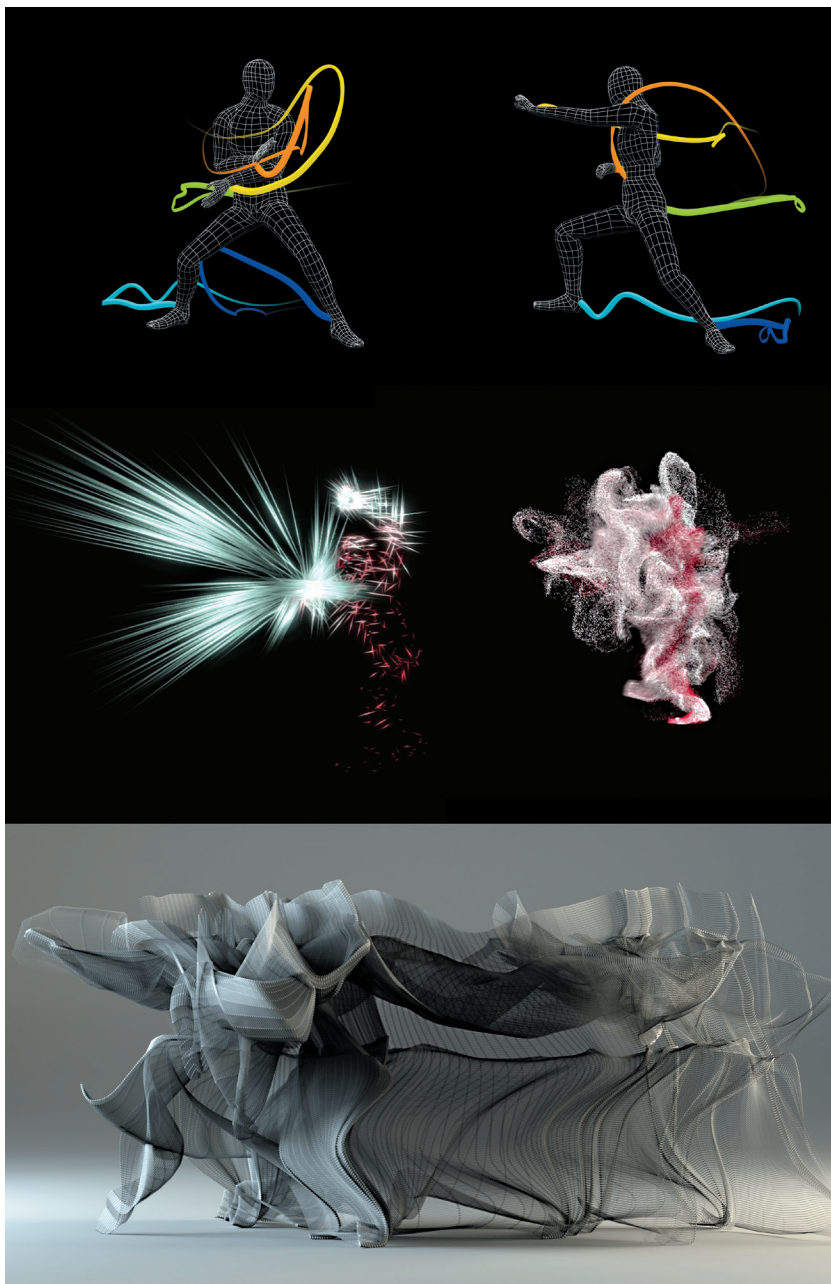
Figure 3. Visualisation and motion over time analytics from motion sequences © HKMALA, Sarah Kenderdine & Jeffrey Shaw (2016).

Figure 4. Reactor in *300 Years of Hakka Kung Fu,* Hong Kong Heritage Museum, Hong Kong, China © HKMALA, Sarah Kenderdine & Jeffrey Shaw (2016).

motion-sensitive cyber-technologies to both craft and leverage embodied artifacts as a means of fostering learning."[16] The result is both a cultural reclamation and reinstatement of an invaluable teaching and learning tool for current and future generations of kung fu practitioners. The difficulty facing this heritage remains critical, due to the ongoing challenge of ensuring this vitally 'live' archive can be performed, it continues to exist in and through the body.

Situated within a panoptic virtual reality environment – the eM+ Re-ACTOR system – *Kung Fu Visualization* reveals the intricate dynamics of the kung fu master's reenacted performances via serial 3D motion-captures from six different points of view, with an interactive control panel that allows visitors to select six different visualisation styles that elucidate the underlying dynamics of the master's movements (Fig. 3 & Fig. 4). This work brings together historical materials with creative visualisations derived from advanced documentation processes, including motion capture, motion-over-time analytics, 3D reconstruction, and panoramic video, which are re-interpreted and re-performed through the mediums of augmented virtual reality and interactive media art, as configured on the Re-ACTOR display.

16   D. Trninic and D. Abrahamson, 'Embodied Artifacts in Action and Conceptual Performances', in: J. v. Aalst et. al. (eds.), *Proceedings of the International Conference of the Learning* Sciences*: Future of Learning*. Sydney, 2012, p. 283.

Figure 5. Digital reconstruction of Lam Sai Wing in *Kung Fu Motion*, EPFL ArtLab © HKMALA, Sarah Kenderdine & Jeffrey Shaw (2018).

In the potential absence of masters the multiple modalities of the HKMALA archive's materials can act as a vital digital or multimedia prosthesis for memory, moreover as proxies that foreground the body as the principle site of the repertoire and the holder of knowledge. This goes beyond the knowledge of style 'sets' and movement itself and refers to tangible aspects of kung fu traditions and consideration of these practices as holistic philosophies and ways of life. In the context of cultural heritage, the benefit of interactive platforms combined with HKMALA's multiple forms allows for a mode of engagement that situates the public in the act of re-producing heritage – or what might be interpreted as the 'social production of heritage'.

Another original modality for re-embodied transaction is the *Digital reconstruction of Lam Sai Wing* (2018), a video extrapolated from an avatar created from a real kung fu master practitioner of south Chinese traditions in Hong Kong (Fig. 5). This virtual reconstruction builds on developments in Hollywood movie and game industries, which have perfected the manufacture of 3D human avatars, while animation brings these replicates to convincing life. Prior to this work, the same technique was applied to re-create a performance of Iron Wire Boxing by Lam Sai Wing. In this instance, the late master's facial and bodily features were digitally reconstructed with reference to old photographic portraits. These were mapped onto of his martial arts movements, simulated with data extracted from contemporary reenactments performed by his descendant, Master Oscar Lam. The result is both a cultural reclamation and reinstatement of an invaluable teaching and learning tool for current and future generations of kung fu practitioners. The difficulty facing this heritage remains critical, due to the ongoing marginalisation of this vitally 'live' archive, which must be performed in order to exist.

The installations deployed in HKMALA offer direct engagement with kung fu embodied knowledge. They constitute a specific operational and aesthetic strategy that sets out to overcome both the Chinese and global relegation of vital cultural practices to a position of 'past-ness'. By providing the circumstances for embodied knowledge transmission, digital strategies can help to sustain intangible heritage despite the difficulties associated with documenting the ephemeral, codifying the tacit, and mediating the embodied. With these new approaches HKMALA creates practical strategies for encoding, retrieving and reenacting intangible heritage in ways that allow these archives at risk to be 'alive' in the present, which in the absence of masters may be the only prosthesis for future memory.

Remaking the Confucian Rites

The *Remaking the Confucian Rites* project, which commenced in 2012, highlights the possibilities for the archiving and exhibition of ICH, and is an undertaking that continues through an international partnership between Jia Li Hall Digital Platform, Hong Kong, along with Tsinghua University Centre for Ritual Studies, Beijing, City University, Hong Kong, and eM+ at EPFL. This project utilises

Figure 6. Actors performing great archery meet in a green-screen film studio in Beijing © RCR (2016).

advanced digital techniques, including motion capture and augmented-reality annotation of movement as a new performance mode for the contemporary reenactment of Confucian rituals in conjunction with an analytical re-reading of the 1st century (CE) version of the *Book of Etiquettes and Rites* (*Yili* 儀禮). Once a core text on Zhou dynasty social behaviour and ceremonial ritual, central to the Confucian canon for thousands of years, *Yili* was violently rejected by modernisers at the end of dynastic China, precipitating a breakdown in cultural transmission. *Remaking the Confucian Rites* revives *li* studies as a system of awareness and embodied practice that also reflects recent rapid changes to Chinese people's sensibilities in terms of their physical bodies and embodied self through modernisation.

Beyond China, reenactment has been gaining widespread popular appeal. From witnessing battle scenes and historic European martial arts to watching the reperformance of performing art or ancient rites of passage, reenactment offers non-specialist audiences 'authentic' encounters with history.[17] Scholars now argue that reenactment engages in complex temporalities and that it produces ontologically intense knowledge by placing 'actors' in the same world as the cultural objects being studied.[18] Reenactment replaces detached interpretation with physical connection, action, experience and impact, and as embodied historiography it entails "a process of critical thinking" that permits us to "dig deeper" than in standard modes of historicol production and reception.[19] Yet, in order to transmit the past into the present through reenactment, mediation is required between reenactors and audiences. This mediation takes on diverse expressive forms such as pageant, theatre, performance, film, and more recently in the form of video games, which as a medium of history and of heritage production is defined by the archival properties of reception, storage and transmission.[20]

My own research has shown that immersive and interactive interface visualisations of codified reenactments can return historical forms of somatic practice to their anthropocentric and ontological status.[21] Tacit experience has proven to be particularly resistant to computational advances in data science and graphics modelling; technologies that have however been very

17   S. Gapps, 'Black-Facing for the Explorers', in: V. Agnew and J. Lamb (eds.), *Settler and Creole Re-Enactment*. New York, 2009, p. 208-220.

18   S.M. Lash, *Intensive Culture. Social Theory, Religion and Contemporary Capitalism.* Oxford, 2010; and R. Schneider, *Performing Remains. Art and War in times of Theatrical Reenactment.* New York, 2011.

19   E. Waterton and S. Watson, 'Framing Theory: Towards a Critical Imagination in Heritage Studies', *International Journal of Heritage Studies* 19:6, 2013, p. 546-561.

20   M. Mulhe, 'Mediality', in: V. Agnew, J. Lamb and J. Tomann (eds.), *The Routledge Handbook of Reenactment Studies.* London, 2020, p. 133-137.

21   See S. Kenderdine and J. Shaw 'Archives in Motion. Motion as Meaning', in: O. Grau, W. Coones and V. Rühse (eds.), *Museum and archive on the move: changing cultural institutions in the digital era?* Berlin and Boston, 2019; and S. Kenderdine and J. Shaw, 'The Museological Re-enactment of Lingnan Hung Kuen', in: Hing Chao (ed.), *Lingnan Hung Kuen Across the Century: Kung Fu Narratives in Cinema and Community.* Hong Kong, 2018, p. 137-159.

Figure 7. 'Remaking the Confucian Rites' in *Beyond the Globe - 8th Triennial of Contemporary Art, U3*, Moderna galerija, Ljubljana, Slovenia © RCR, Sarah Kenderdine & Jeffrey Shaw (2016).

successfully applied to material cultural heritage. From performance and dance through to intangible cultural heritage, scholars assert that the real revolution in digitisation of embodied knowledge is yet to come.[22]

The *Remaking the Confucian Rites* project integrates objects within live performances using advanced computer graphics to model architectures, costumes, ritual utensils, musical instruments and weapons. This method models archivable movements into a 4D motion library and develops machine learning for texture mapping and simulation. Its real-time methods inaugurate opportunities for highly accurate scholarly interventions in scenography, while reducing expensive speculation made on inaccurate models, and opening up scholarship based on reenactment to dialogue and intervention. Of the total seventeen Rites, three have so far been recorded, with elite actors from the Beijing Opera working alongside amateur performers. Of these, the Rite of 'Capping Ceremony of a Minor Official's Son' has been developed into an interactive application in which motion capture and augmented-reality annotation of movement enliven these re-envisioned performances. Another three-screen video offers a linear exposition of the 'Capping Rite', with an interactive application that offers the user a hyperlinked database, enabling deeper exploration of the layers of embodied knowledge and rich historical meanings (Fig. 7).

---

22   See A. Aristidou e.a., 'Style-based Motion Analysis for Dance Composition', *International. Journal of Computer. Games Technology* 34, 2018, p. 1-13; and N. Doulamis e.a., *Modelling of Static and Moving Objects*; and, Whatley, Cisneros and Sabiescu, *Introduction*.

With the objective of generating a historically-informed set of modelled characters, alongside ritual motion schemas, this project intends to configure an authenticated algorithmically-driven world of reperformable Confucian Rites. The asset library and its coding interface will form the basis of a new networked 'choreography' platform for scholars and, interactive museum installations for publics. It enables additionally embodied transfer by addressing the entire lifecycle of data curation, with theoretical implications for the historical transmission of tacit knowledge. Making this creative and conceptual leap will reframe interpretative and discursive practices, providing a new visual language tool through which to think across aesthetic, physical, socio-cultural and metaphysical meanings. The visualisation of these semantics could profoundly change the way we are able to conceptualise and thus access embodied knowledge via the digital. As it generates intelligent systems for 1:1 scale embodied interaction with the Confucian Rites, defined by algorithmically encoded parameters, the project's novel digital intervention offers the chance to reactivate the embodied Confucian repertoire from its current dormant status via immersive interactive interfaces that facilitate active bodily interaction. In doing so, this research project envisages new forms of embodied interaction and methods for transmission for ICH.

Figure 8. *The Infinite Line, in Twofold Exhibition*, Jeffrey Shaw and Hu Jieming, Chronus Art Center, Shanghai, China © Sarah Kenderdine & Jeffrey Shaw (2014).
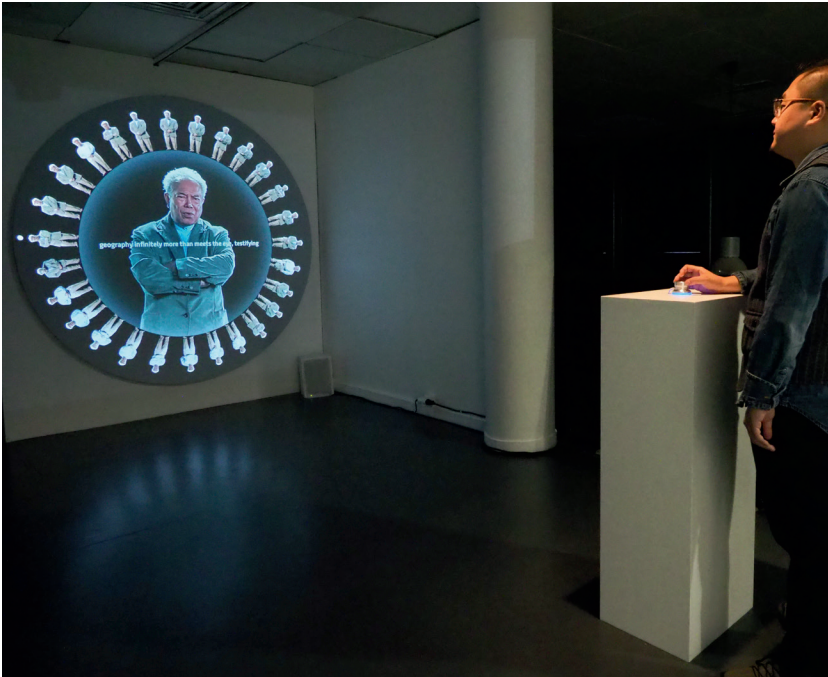
Figure 9: *Recombinatory Poetry Wheel, Thinking Machines, Passé Augmenté x Présent Augmenté*, Arts Center of Enghien-les-Bains, Enghien-les-Bains, France © Sarah Kenderdine & Jeffrey Shaw (2019).

Infinite Line

Presented in an immersive 360-degree projection theatre, *Infinite Line* (2014) proposes a new mode of spectatorship in the performance of poetry, as it provides visitors the opportunity to recombine the poetic ensemble of the preeminent Singaporean poet Edwin Thumboo. Having made video recordings of Thumboo reciting twenty-seven of the finest poems he composed throughout his career, the artwork's interactive design engages visitors with the surrounding twenty-seven life-sized video recitals performed by Edwin Thumboo which they can randomly access and intermix individual lines of Thumboo's poetry to create a spontaneous rereading of his texts (Fig 8).

The *Recombinatory Poetry Wheel* is an aesthetic and technical reformulation of this earlier installation. Instead of the cylindrical projection screen, it features a 200 cm diameter circular wall-projected image with a clock-like arrangement of twenty-seven figures of Edwin Thumboo (Fig. 9). The visitor uses a circular knob to rotate a white dot around the edge of the circle to select one of the figures and thereby trigger the poet's reading of a specific line, which continues until the dial is turned again and another figure is chosen. By moving the marker from one figure to another, the viewer interrupts the ongoing reading and cuts to the reading of another poem. Also displayed as printed texts across the centre of the screen, the resulting indeterminate assembly of Thumboo's poetry readings coalesce to form new poetic entities.

Both versions of *Infinite Line* and *Recombinatory Poetry Wheel* foster interactive performances that re-mediate the bodily and literary repertoire of Edwin Thumboo. The most immediate analogic antecedent and inspiration for the work is Raymond Queneau's magnificent *Cent mille milliards de poèmes* (1961), which was printed in such a way that every line could be separated and rearranged. The artwork also has lineages in the old parlour game of 'consequences', the Surrealist 'cadavre exquis' and the literary cut-ups of William Burroughs and Brion Gyson. Today's digital systems have provided powerful means for media artists to create modular, navigable and emergent narratives via interactively accessible audio-visual databases. And the recombinatory poetics of these two works provide the viewer with the opportunity to explore manifold possible amalgamations of these twenty-seven poems, thereby creating personal 'meta-poems' with emergent vectors of meaning. Despite the prospect of an unlimited unfolding of multi-temporal narrative conjunctions, their de- and reconstruction nonetheless maintain the unity of thought and form in the identity of Thumboo's authorship.

Conclusion

The three examples chosen for this chapter are examples of the possibilities of digital affordances for intangible cultural heritage and of novel embodied relationships with historical memory and its restaging in the museum. What is at stake is the critical attention paid to both the body being represented as well as the viewer's engagement with an affective simulation in an exhibition. Interactive, immersive displays and augmented, virtual and mixed reality experiences are moreover already transforming how we conserve and engage with ICH, including the prospect of fundamental advances for reenactment heritage and the transmission of tacit cultural knowledge via methodological, representational and theoretical breakthroughs in 'whole of environment' encoding. These examples reveal that there are vibrant futures for ICH documentation and exhibition through experimental museology, challenging conventional understandings of heritage and authenticity as well as offering vital tools for sustaining and transmitting culture.

As museums extend their traditional spaces and interpretative programmes to encompass these new modalities, there is an even more urgent need for them to ensure that technologies are made available for the analysis and transmission of tacit knowledge for curators and scholars, as well as for communities and publics. Yet, if the understanding that the digital 'remaking' of ICH is a fundamental means of safeguarding knowledge for the future can be combined with expert interpretation and communities of practice, these approaches could create crucial alternatives for cultural heritage in museums beyond orthodox preservation strategies.