

MOBILITY AND ART

Algorithmic Art: Shuffling Space & Time

Art-Science Dialogues and a Techno-Saga

Linda Chiu-han Lai

Why are art-science dialogues important, and how should they take place? How do our everyday culture and institutional constructs define and delimit such possibilities? Why do contemporary art lovers still presume they are immune to and from scientific knowledge? How should a visitor of a media art event make sense of the machine work? *Algorithmic Art: Shuffling Space & Time (AA)* directed these questions to technical experts, artists, art lovers, and the public through a series of themed discussions and a six-hundred-square-meter indoor playground of machines and computational installations. *AA* also sought to key in on the question of survival. What mark has the struggling existence of the twenty-year-old School of Creative Media at the City University of Hong Kong left to Hong Kong's (media) art history? The school remains the only pedagogic research center in Hong Kong where conceptual issues of new media art creation and how to "live" in an age of big data are interrogated through scholarship and practice.

STEAM (science, technology, engineering, art, and math), a movement championed in the United States, is meant to ensure a future for innovation by placing art/design at the center of science and technology's research activities. The STEAM rationality thus augmented the ease of art and the sciences sitting together, which then provided the basis for the opening up of media art's "black box." I conceived *AA* to assert new standards for media art exhibitions by, first, selecting artists whose understanding and mastery of technology is central to their creative process and, second, to stretch the vocabulary of art and media art for the nonexpert visitors through a magical playground of machine and computational art. The assumptions behind the exhibition are that what makes media art interesting is the process of mediation—that is, the machine processes that lie between the maker's deliberation and what visitors perceive and experience—and that knowledge of these processes enhances appreciation and understanding of machine-made art. It was *AA*'s commitment to bring machine work and computational thinking into the domain of common knowledge, through venue and display design, and by conceiving most works as a mini museum in which the processes,



in the form of drafts, sketches, and background objects, were integral to the final display.

AA also sought to provide a historical argument premised on media archaeology. It plotted a genealogy of media art in Asia, elliptical as it might be. Hong Kong's first exposure to kinetic art with China-born, US-based Tsai Wen-ying's solo at City Hall in 1979 and the Japanese artist Toshio Iwai's 1985 cinematic toy of optical illusion marked two earlier moments. Except for the two 2017 works from Korea (Kim Yunchul) and Australia/Japan (Elena Knox + Watanabe), all other works by local artists were commissioned and premiered for AA. They included three adaptations of Taiwan short sci-fi into art machines, on dream surveillance, genomes, and reincarnation; and three works of data visualization using machine learning (AI), to explore the spatial construct of Chinese ideograms, motion in Chinese swordplay films, and collaborative generative drawings using neural networks. The history of art explored here is also the history of technological objects, underpinning how our curiosity for the mysteries of the universe and our urge to overcome our physical and perceptual limitation have driven the evolvement of technics, and how the imagination of a desired medium often preceded its actual birth and naming. The connective histories of the fourteen works in the show reach back to the remote past: 2.6 million BCE (the Oldowan, earliest known stone tool industry), 20,000 BCE (tally stick, an ancient memory aid device to record numbers and messages), 14,500 BCE (stellar data visualized on walls of caves), 6000 BCE (obsidian mirrors in Anatolia), and so on.

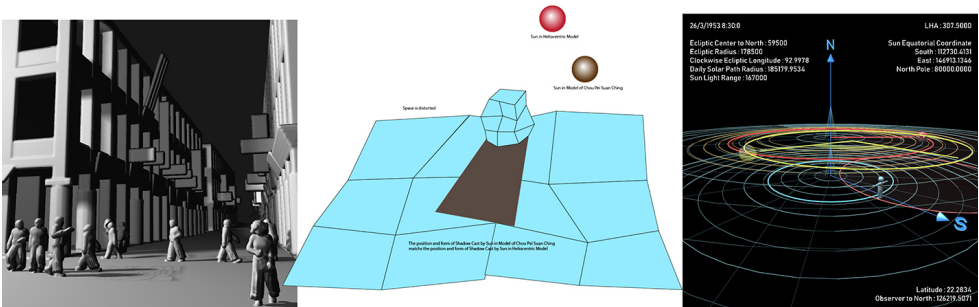


Figure 1: *Sun Shines 83500km* (2018) (© Adam Wai-keung Hui). This application projects sunlight based on an ancient Chinese cosmology onto a Hong Kong street in the 1950s, resulting in a dreamlike reality. *Chou Bei Suan Ching* (1046–226 BCE), a collection of mathematical texts with 246 problems, subscribed to one of three early Chinese models of the universe, the *Gai Tian* (hemispherical dome) model, substantiated by proofs that resemble the Pythagorean theorem. Driven by his curiosity for potential virtual views of the world based on mathematical proofs, the artist “visualizes” the proven error as moments of distorted topography, his artistic playful intervention.

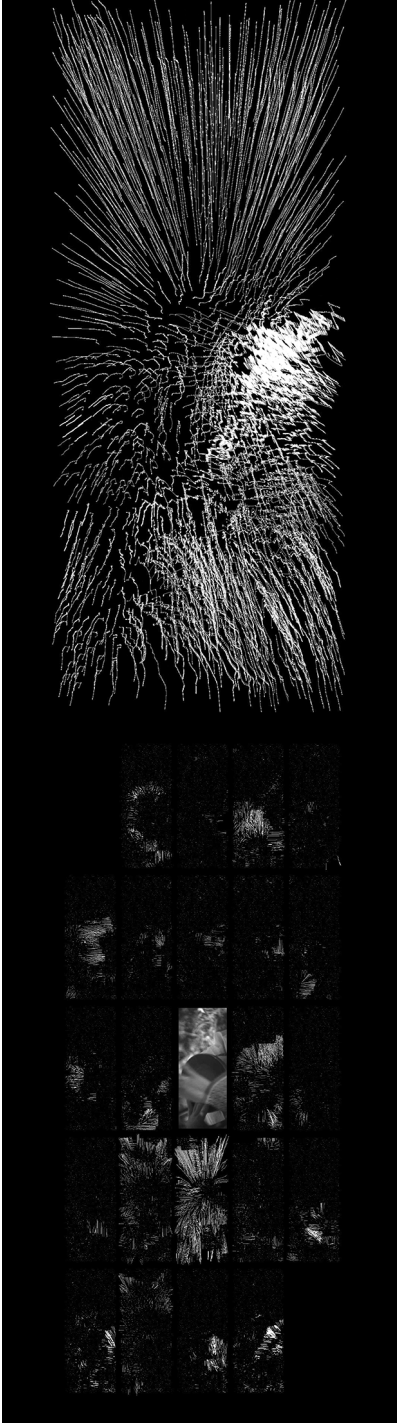


Figure 2: *Errant: The Kinetic Propensity of Images* (2018) (© Linda Chiu-han Lai). Hector Rodriguez used unsupervised machine learning to “teach” his software to read motions on multiple levels resulting in the visualizing of *shi* (勢 propensity or dynamism), a concept in Chinese landscape painting by which stillness and motion are not binary opposites but always part of each other. The resulting work of *Errant* is a double projection, whereby selected shots from Hu’s films (left screen) are transformed “live” into an animation-like vector visualization of frame-to-frame motions. The calling of attention to the different levels of motions is a critique of fiction film’s over-conditioning us to plot. This is particularly important in understanding late director King Hu’s swordplay films, in which the main attention is the choreography of motions.

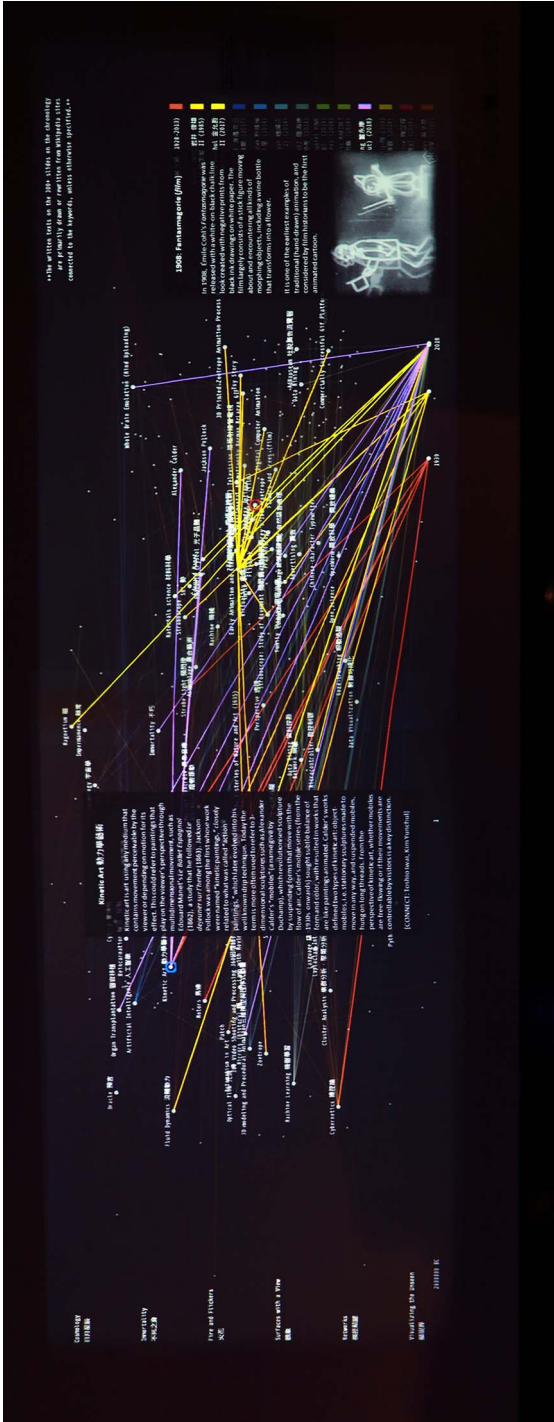


Figure 3: Object-Subjectivities: A Techno-art Saga (2018) (© Linda Chiu-han Lai). Curator/artist Linda Lai turned one version of her curatorial statements into an artwork. An eight-meter-long experimental interactive chronology brought the fourteen works by the twenty-three artists onto a grand map of connectivity, visualizing their possible linkage to the past and intersection with other works. The x-axis timeline reaches all the way back to 2.6 million BCE, the earliest traceable tool industry. The y-axis marks different level of desires and consciousness, from “visualization of the unseen,” “networks,” “surfaces with a view,” “fire and flickers” to “immortality” and “cosmology.” The story of art is thus told as the history of technology, of hypothetical relations, desires that drove technics and curiosity for the mystery of the universe, as *longue durée* (long duration). The work allows visitors the freedom to concentrate on tracing the genealogy of individual artworks, to see how they crisscross each other in their conceptualization and purposes as well as to reveal the hidden lives of objects and technics for inquiry via four hundred slides and an interactive console the research team prepared.



Figure 4: *Time Stratum II* (1985) (© Linda Chiu-han Lai). In *AA*, *Time Stratum II* marks a pre-digital moment of media art in Asia, and asserts a connection between new media and the moving image arts. Iwai remade a pre-cinematic optical toy, the zoetrope, using new (electronic) technologies. One hundred twenty paper figures, each wearing a TV head, are mounted on a motorized spinning disk three feet in diameter. As they oscillate and at the same time spin and rotate, strobe lights come from above by a blinking monitor, which results in a highly choreographed moving image.

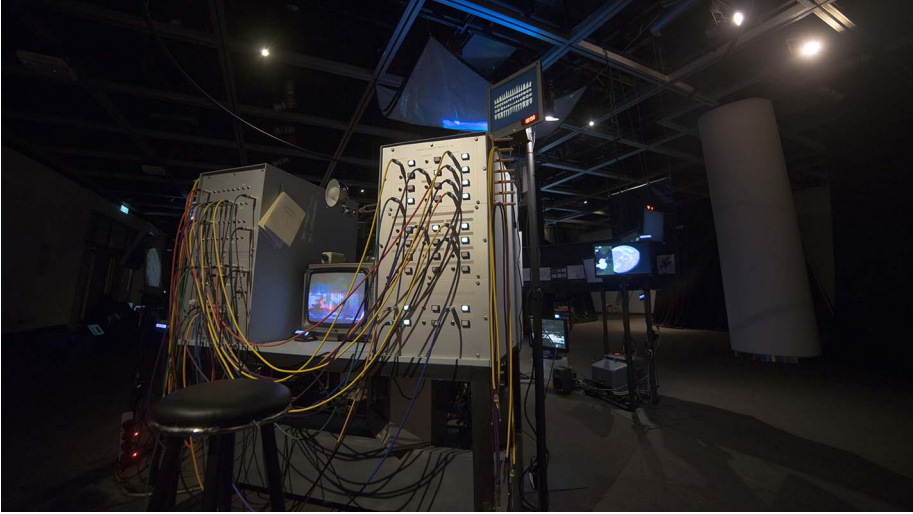


Figure 5: *Dream Machine* (2018) by the Dream Team L306D (© Linda Chiu-han Lai). A machine-based collage installation occupying a circular floor space of five meters in diameter, *Dream Machine* is a second-order cybernetics system, inspired by a sci-fi short story from University of Pittsburg's data science professor Chang Shi-kuo's *Nebula Suite* (1980), which literally means "the romance of a snipped dream." The *Dream Machine* has five modules (subsystems), each an assemblage of old and new electronic/digital mediums. The first, a household module, references the original story's depiction of how dreamers with a subscription plug themselves into the network from home. Second module is a surveillance panel, which allows users to listen to the censored dreams. The third and main module is a control room, the central processor of the installation, from where dreams are distributed (or delivered) to the many installed monitors and screens. The panel features an analog-patching machine that connects with a video mixer. The fourth and fifth modules are dreamscapes visualized via projection or on a rig of television monitors. The visitors' plugging in to a dream console corresponds to the original story's critique of consumption and mass social media service.



Figure 6: Ambient view of the exhibition *Algorithmic Art: Shuffling Space & Time* (© Linda Chiu-han Lai).

Linda Chiu-han Lai is a Hong Kong-based academic, artist, and historian working at the intersections of experimental moving images, contemporary and media art, the history of everyday life, and media archaeology. Her videography has been shown at the Internationale Kurzfilmtage Oberhausen, the Experimental Film and Video Festival (Seoul), and the Open City London Documentary Film Festival. Since 2012, she has published several large-scale mixed media installation works, including a commissioned work at the 9th Shanghai Biennale and solo shows in Singapore and Hong Kong. She is Associate Professor in the School of Creative Media at the City University of Hong Kong.

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Note

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