**TIME STANDS STILL: MUYBRIDGE AND THE INSTANTANEOUS PHOTOGRAPHY MOVEMENT**


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In 1872, when Leland Stanford (1824–1893) first approached Eadweard Muybridge (1830–1904) with a request that he use photography to study the gait of galloping horses, Muybridge declared himself “perfectly amazed at the boldness and originality of the proposition.” Ten years of turbulent collaboration ensued. Their relationship ultimately deteriorated as a result of Stanford’s publication of a lithographic compendium, The Horse in Motion, which Muybridge claimed did not properly credit him for his contribution to the motion studies. Listed as one of the many technicians involved with the project, the photographer sued his former patron, lost his case in court, severed his ties with Stanford, and launched an independent career in Philadelphia, where he worked as a guest of the University of Pennsylvania. Time, in this case, did not stand still. Rather it has worked in Muybridge’s favor. Contemporary researchers invariably credit Muybridge with conceiving the first photographs used to freeze rapid action for analysis and study.

The exhibition “Time Stands Still: Muybridge and the Instantaneous Photography Movement” presents another perspective. Rather than interpreting the Stanford and Muybridge collaboration, guest curator Phillip Prodger places their joint legacy within the photographic movement. The cinematic illusion of motion was not time, but a re-creation of the discrete moments that Muybridge and others labored to capture photographically.

Prodger wisely chose to guide the viewer through various stages of motion study topically. The opening sections introduce the diverse methods employed, and it is here that we meet the early photographers, an international group. Dazzling, well-preserved pieces by Carleton Watkins (American), Roger Fenton (English), Gustave Le Gray (French), Nadar (also French, pseudonym of Gaspar-Félix Tournachon), Oscar Gustave Rejlander (Swedish/British) and others of equal reputation illustrate the range of experimentation encouraged by the new technologies. Examples explicitly illustrate that photographers needed to think about (and balance) chemistry, light, environmental conditions, optical quality, focal length, aperture, shutter possibilities, distance and perspective.
As a whole, these opening pieces convey the complexity of the tasks necessary for excellence. We perceive that early innovators might employ a clever camera angle to mask blur or resort to outright fakery to achieve goals. Several prints highlight common "tricks," ranging from the use of composite printing to pose figures so that they appear to capture motion, to re-touching (to correct eyes, hands or blur), and even the wholesale re-drawing of large sections of an image followed by a photograph of the re-drawn image. Multiple examples of certain motifs (e.g. the sea and ice-skating) illustrate how the artistic mind approached solving problems using 19th-century technologies.

Agitated seas, for example, were fascinating, owing the difficulty of accurately photographing turbulent waves, which move quickly. Overcast skies associated with rough weather added to the challenge, for they provided less light. The efforts of these photographers struggling against the physical limitations of cameras and chemistry attest to their abiding interest in deriving solutions that would resolve the multifaceted problems posed by the sea. Ice-skating, too, was a popular subject. In this case the reflective quality of light reduced exposure time. Faced with the array of stimulating efforts of these photographers, we must imagine the sequence of images that would resolve the multifaceted problems posed by the sea.

A chronophotography section follows Muybridge’s California motion studies. On display are seldom-show works by Thomas Eakins, Etienne-Jules Marey, Ottomar Anschütz and Albert Londe. All of the works here are exquisite and well-executed. Marey’s albumen self-portrait, Self-Portrait Wearing a Turban Made with a Spinning Plate (c. 1886), was perhaps the most striking to my eye. The final sections turn to Muybridge’s later work. Here we are treated to a nearly complete set of the celebrated Animal Locomotion Collotypes that Muybridge made at the University of Pennsylvania in 1887, together with hand-annotated proofs and glass plates. Particularly impressive was the one series taken from an oblique angle, a challenge that Muybridge went to great lengths to achieve. It was surprising to see how much more organic and three-dimensional was the impression conveyed through this small change in viewing angle. Ending with the reconstruction of Muybridge’s zoopraxiscope (his first motion-picture projection apparatus), the show conveys that photography might stop time but, nonetheless, it moves on in our imaginations and with the evolution of our tools.

No doubt Time Stands Still will appeal to Leonardo readers with a passion for historical evidence of the art, science and technology confluence. Within the museum environment, the curator’s decisions encourage the viewer to repeatedly ask how an artist/scientist who employs technology differs from a person who is better defined as an excellent technician. Questions raised by the art and technological devices also repeatedly compel the viewer to wrestle with how combinations of art, science, and technology inform an active, evolving practice. Photographic artifacts, printed materials and devices on display throughout the hall constantly reinforce the questions of this exercise. I found the detail brought the show to life, as did the experience of seeing so many items that have never been exhibited before (or are rarely seen). This includes the re-built zoopraxiscope. Introduced in 1879, the zoopraxiscope was originally used to demonstrate the correctness of the sequential motion studies, which the machine did by adding motion to the still images. Also on view are Prussian-blue cyanotype proofs made by Muybridge in the 1880s (recently discovered at the Smithsonian Museum). Other items never before seen in the West include the unique photographs and drawings from Eastern European collections. Numerous early photographic projection devices and machines that add to the viewing experience further enhance our engagement with 19th-century photographic innovation and experimentation. Particularly noteworthy are a multiple lens camera, a Zoetrope, a Phasmatrope, lantern slides, inter-positives and Francis Galton’s fascinating attempt to incorporate Muybridge’s studies into his pseudo-evolutionary theories.

As I walked through the installation contemporary projects often came to mind. For example, Digital Muybridge (see <http://www.cs.berkeley.edu/~bregler/bodies.html>), as the name suggests, is dedicated to Eadweard Muybridge. This project is about the analysis and synthesis of human motion from video streams (or photo plate sequences, as in Muybridge’s motion studies). Digital Muybridge focuses on articulated full-body motions and capture videos sequences of people walking, running and dancing, among other physical gestures. Impressive web sites also animate the sequential stills of the 19th-century projects, permitting us to appreciate the studies as stills and to perceive their capacity to convey motion when activated. I was delighted to find Nadar’s 12-frame self-portraits cycling online on the Chronophotographical Projections site (see <http://web.inter.nl.net/users/anima>). The range of this page is a true aid to chronophotographical study. Included are Muybridge’s early experiments with Stanford’s horses, content on the zoopraxiscope and examples of various photographs included in Time Stands Still. The Chronophotographical Projections site is a must for enthusiasts of this topic who are unable to visit the exhibition.

Although it is conceptually different, the Nadar self-portrait also brought to mind Kiki Smith’s circular self-portrait My Blue Lake (1995, photogravure and lithograph). Nadar’s work consists of 12 small black-and-white frames that depict him turning around. We can assume he shook the back of his head and shoulders, turned by 30º, and then shot his image again in a sequential series of poses. Since he proceeded sequentially until he returned to his original position we can imagine him producing the work, much as we see it re-created on the Chronophotographical Projections website. Smith’s contemporary piece is also of her head and shoulders and similarly suggests a 360º image. Her work, however, was actually produced in the round with a camera unknown in Nadar’s time, from the conservation department at London’s Victoria and Albert Museum. Smith’s print is then exhibited flat. Thus, rather than the representational series Nadar presents, where time is stopped and we must imagine the sequence moving in space, Smith’s rendition resembles some kind of exotic map of 3D space translated to a flat, 2D surface.

Those who cannot make the Stanford venue might wish to visit the show at the Cleveland Museum of Art (U.S.A.), where the material will be up from 16 November 2003 through 25 January 2004. The catalogue, scheduled for publication in May 2003, provides yet another option. Although Phillip Prodger, who is the Associate Curator of Photography at the Saint Louis Art Museum, is the primary au-
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Audio Compact Disc

/SWANK


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Interface is a duo (Curtis Bahn and Dan Trueman) that started in 1995 at Princeton as an improvisation group playing acoustic violin and bass. In the following years they have integrated successive layers of electronics into their pieces. After some time, the buttons and controls of the electronics became a hindrance, so they set out to search for a more direct way of controlling the synths and the computers.

With Perry Cook, who was teaching Human-Computer Interaction at Princeton, they built a series of new instruments, combining digital generating and processing of sound with direct muscular control: the Sensor Bow, the R-Bow and the Bowed Sensor/Speaker Array. “Combined with the new possibilities of MSP, these gestural interfaces allowed them to make a more direct and immediate musical interaction, uniting improvisation and electronics with the nuance of a small ensemble acoustic music.”

So, what you will be hearing when you listen to this CD is basically a pair of 21st-century musicians with instruments that superficially resemble the old violin and bass but whose bowels and bones are used to finely tweak and modify the hoots and cries and squeaks

and burps of a set of sophisticated musicmaking computers.

Now, this sounds as though it is inten-
tended to ridicule. It is not meant to do

so. Not by far. Bahn and Trueman

prove that they are undoubtedly skilled

and sensitive musicians who want to

explore new sounds as well as build up

a rich and surprising listening experi-

ence. (I assume they enjoy playing as

much as experimenting.)

The record has eight tracks, called

“spism,” “spogo,” “scrb,” “sedan,”

“sdo0,” “sdrone,” “swank” and “sdude.”

Most of the time, one doesn’t recognize

the source of the sound, except in

“sdo0,” where Perry Cook himself

joined them on DigitalDoo, which is a
didgeridoo with sensor/speaker inter-
face, but that is not important. The

music is mysterious, surprising, funny,
delightful, subtle and sometimes res-
olutely irritating, which is nice.

Books

Introduction to Art Image Access: Tools, Standards, and Strategies


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The dilemma of our information age: how to transfer huge holdings of paper files and documents to digital formats. (Photo © Chris Cobb)