



Shadow Play

**The Participative Art
of Scott Snibbe**

Scott Snibbe aspires to an art that aids people to abandon their bodily inhibitions and ‘get out of their sense of their selves’. Lucy Bullivant profiles the work of this Californian artist and computer scientist, who is realising the potential of the ancient Chinese tradition of shadow play through an interactive digital media.

Our contemporary society relies on digital technology to facilitate on a virtual level all manner of everyday communication, transactions and play. This ‘virtuality’ takes the user beyond the former constraints of time and space, allowing him or her to exist in a condition that is perpetually online, and now widely wireless in nature. Digitally driven surveillance systems identify and track people through their physical presence and movement. In modern warfare it is through digital means that perpetrators can maximise distance from their targets. It is rather more rare for this 21st-century human-control weapon – or prosthesis – to demonstrate its capacity to bring about a physical sense of connection, let alone a critical awareness of the social versatility of electronic interfaces.

Yet, in the view of Scott Snibbe, the award-winning San Francisco research artist and computer scientist, electronic media has huge scope to directly engage the body of the viewer to create engaging time-based interactions. The thematic territory of Snibbe’s user-friendly work is direct physical perception and the nature of the self explored in a near childlike way through the use of electronic media. It is popular because each participant’s body constitutes the image, an amusing focal point if ultimately a set of mutable traces across a screen, but while in motion akin to an existentialist form of slapstick silent comedy.

Snibbe (now 37) trained as an experimental film-maker and animator as well as in computer software design, and set up his company Sona Research, now known as Snibbe Interactive, in 1997. Through the repetitiveness of projected shadow effects he stimulates a sense of first-hand unmediated visual memory. ‘My artistic vocabulary relies on subtle changes in timing that unfold as projections or mechanical objects reacting to viewers,’¹ he explains. ‘These changes in timing are encoded not as frames of film, but as computer instructions that constantly reinterpret and update the temporal conditions of the work.’² The repetitiveness of the shadow effects in each of his works stimulates a visual memory and immediate, visceral sense of presence.

The very reductive nature of Snibbe’s approach helps at the same time to induce explorations that shed light on the mediated nature of our bodies. In his works, the physical body

of the viewer challenges the screen by pushing it out of view – it causes the light of the screen to absorb the body’s form or the shadows to eat away at the light, turning them into full-body ‘motion paintings’ or even becoming a character within a narrative. ‘Snibbe’s work radically questions familiar notions of interfaces, expanding their functionality and revealing their social impact,’ says Christiane Paul, Adjunct Curator of New Media Arts, Whitney Museum of American Art.³

Aware of their popularity, a growing number of bodies have invited the artist to present installations. Apart from the Whitney, with its long-standing credentials in exhibiting media art, these have included New York galleries The Kitchen and Eyebeam, the city’s Hall of Science in Queens, Telic in Los Angeles (an interactive art gallery) and other institutions in the US, the Tokyo Intercommunications Center, London’s Institute of Contemporary Art, Ars Electronica in Austria, La Villette in Paris and South Korea’s Seoul Media Art Biennial. Most of these are museums and galleries, but increasingly Snibbe’s work, which manages to be both cerebral and experiential, is appearing in everyday public places such as office foyers and shopping centres.

Snibbe portrays the centrality of human interdependence by giving bodily interactions the role of main protagonists in his works. ‘Many of my works do not function unless viewers actively engage with them – by touching, breathing, moving and so on – so that viewers are essential to the work’s existence as art.’⁴ Using technology that mimics nature, his work explores the interdependence of phenomena with their environments, even if they seem independent. The dynamic experience it creates is predictable, yet infinitely variable. Most of his work is installations, but some are online projects that are often sketches for them. His installation *Cabspotting*, for instance, shown at the ISEA Festival in San Jose in 2006, traces the pulsing circulatory system of San Francisco’s taxi cabs as they travel through the Bay area in time lapse.

The artist’s focus on the interdependence of seemingly independent phenomena with their environments is partly influenced by his Buddhist beliefs, a trait he shares with many of the Abstract Expressionist artists who adopted a similar search for the non-objective. Buddhism places emphasis on the interdependence of phenomena – no object, physical or mental, has an inherent existence in isolation from the rest of reality, whether it be parts or causes of a phenomenon, or the mind that exists and labels them as a discrete entity. Like many contemporary architects, Snibbe also draws on social psychology and complexity and network theories. The human body, he maintains, is interdependent, being composed entirely of ‘non-self’ elements including parents’ genetic material, food and water in continual exchange with the environment and with others. Similarly, human mental structures and processes emerge from interactions with other individuals and with society.



For more than 10 years the projects Snibbe has developed have invariably incorporated the viewer's body within a dynamic cinematic projection generated using a computer, projector and camera pointed at a floor or wall surface. 'I'm trying to expand the notion of cinema into an interactive experience, rather than a one-way delivery of story and emotion.'⁵ Shadow play has been a staple part of installation art in the past, and the disruption of the visitor, or the disrupting power of the projection (in the case of Krzysztof Wodiczko's projections on to buildings that address their

status as power symbols) a standard element. Earlier media art tended to appropriate technology in order to colonise it, but often not to turn the concept of the work into an elastic one the visitor could transform by his or herself, alone or with others. However, Snibbe's particular application of technology allows the visitor's intervention to be fully folded into the concept of the work rather than just momentarily disturbing or playing with something otherwise mainly impermeable.

Boundary Functions, an early work designed and developed in 1997, and first shown at the annual Ars Electronica



Festival, Linz, Austria, in 1998, was later selected for the permanent collection of the new Zaha Hadid-designed Phaeno Science Museum in Wolfsburg, Germany. As people walk around a large gallery floor, the artwork projects lines between them, describing their personal space. As more people appear on foot, and perhaps with pushchairs or in wheelchairs, the spaces form a mosaic of 'tile' shapes that continue to change dynamically. When people touch, the line between them momentarily disappears, allowing them to connect without borders. This dynamically changing diagram

emphasises the reality that personal space has an interpersonal and involuntary definition.

'What I hope for most of my pieces is to have people get out of their sense of their selves.'⁶ His work is based on the transfer of bodily responses towards informing a work of art, transforming each in the process and as such adhering to phenomenological principles. As the architecture and design theorist Malcolm McCullough reminds us, phenomenology responds to mechanised abstraction with a renewed focus on presence.⁷ Snibbe wants people to experience his work 'body first', he explains, with a strong visceral sensation later followed up by thought and reflection. They accordingly construct the meaning of works through a process of physical awareness. This philosophy has spurred him in 2007 to realise a public mission, to set up the Social Media Institute for Learning Experientially (SMILE), dedicated to learning through the body and through social experiences, a body operating under the aegis of Snibbe Interactive.

'None of my work is commenting on technology, but on the tradition of experimental and abstract film going back to Chinese shadow play and Plato's cave'

Drawing on his training in this field, the history of experimental film is a major theme in Snibbe's work. 'None of my work is commenting on technology, but on the tradition of experimental and abstract film going back to Chinese shadow play and Plato's cave.'⁸ Snibbe places his work in a cultural lineage based on aspirations to demediate the media of film by encouraging the moving body to assert its primacy within the art-making process. Figures such as film-maker Len Lye, who created 'direct cinema' by putting marks on celluloid film with his body, and veteran avant-gardists Oskar Fischinger, Hans Richter and Moholy-Nagy, have been strong influences on Snibbe. What they had in common, he believes, was the ability 'to create sophisticated, time-based, emotion- and meaning-laden work without resorting to representation'.⁹ What they all share is a desire to turn linear cinema narration into a more organic, post-linear form of performance.

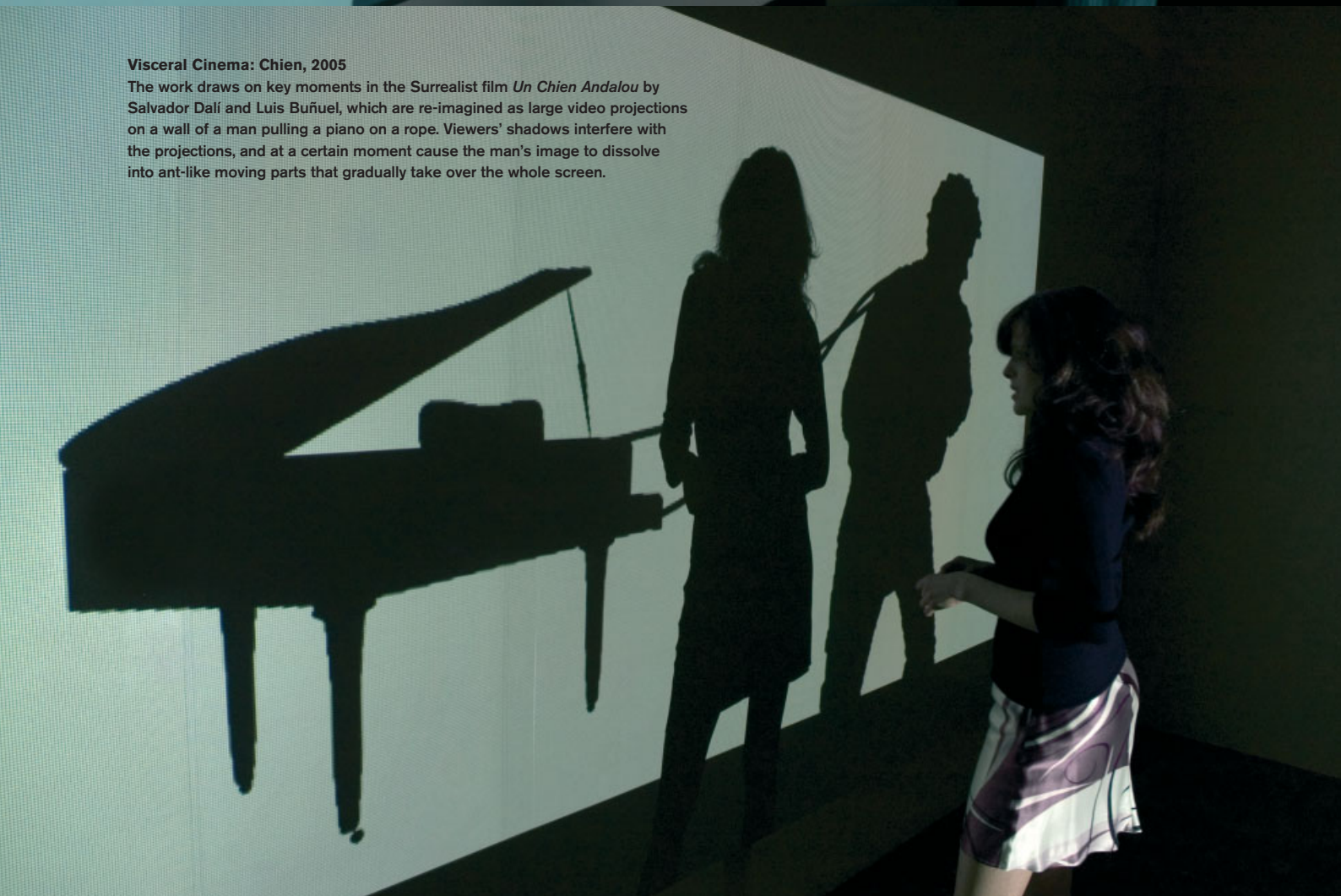
Boundary Functions, 2004

Using a projector, video camera, computer, retroreflective floor and Snibbe's custom software, this installation projects lines on a raised square floor, dividing each person from the others on it. As they each move, the line diagram shifts to maintain their zone of personal space in relation to the whole.



Visceral Cinema: Chien, 2005

The work draws on key moments in the Surrealist film *Un Chien Andalou* by Salvador Dalí and Luis Buñuel, which are re-imagined as large video projections on a wall of a man pulling a piano on a rope. Viewers' shadows interfere with the projections, and at a certain moment cause the man's image to dissolve into ant-like moving parts that gradually take over the whole screen.





More recently Snibbe's work has taken an increasingly narrative slant, part of his agenda to create a new medium. *Visceral Cinema: Chien*, a wall projection that re-imagines the Surrealist film *Un Chien Andalou* made by Salvador Dalí and Luis Buñuel, was Snibbe's first successful stab at a narrative work. Shown at Telic in 2005 and at the ICA, London, in 2006, it presents viewers with a large ghostly video projection of a man pulling a grand piano towards them – a poetic motif from the film that is both funny and visually arresting. When they walk between the projector and the projection, viewers' own shadows interfere with the man's actions, making his job harder. If they move between the man and the piano, the piano is pushed back, causing the man to strain harder and lose ground. If they intersect the man's shadow for long enough, he metaphorically dissolves into streams of ants that rapidly 'eat' his silhouette and gradually take over the whole screen. The two-dimensionality of the projected images is not only confronted by the physical interventions of onlookers, but the perceptual tensions arising from the interplay between the two prompt multiple readings of the work, ranging from meditations on impermanence, renewal and the notion of existential questing.

In the moment, however, the work encourages childlike engagement. 'On the experiential level, I enjoy seeing audiences get lost in the process of interaction to lose their sense of themselves and become completely intertwined with

their bodies' engagement with the work and with other viewers,' says Snibbe. 'I hope that at the conceptual level the audiences will understand the inversion of media that is embodied in the works and also have some sense of their body in relation to cinema. It is the fact that we normally become completely detached from our bodies while watching cinema that I wanted to invert. I wanted to see viewers experiencing cinema body-first, and losing the sense of cinema as illusion, seeing it instead as tangible, reactive light.'¹⁰

Snibbe's works induce a strong spatial awareness. While the minimalist environmental art installations of the 1960s and 1970s – most notably Robert Irwin and James Turrell – explored how subtle changes in an environment can make deep impressions on the viewer, Snibbe's own constructed environments are far more pliable and mutable in relation to visitors' presence and engagement. They appear almost like literal projections of the mind, and in fact Snibbe's early encounters as a child with Turrell's work, for instance *Danae* (1983), in which a room was saturated with ultraviolet light, convinced him that the work is created primarily in the mind, not in the environment. It was the fact that it was a fabrication in which light was powerful but only the trigger for perception that fascinated him the most. Going one step further his gently playful works offer a form of perceptual transaction. Referring to *Chien*, but applicable to any of his works, he says 'it's very clear how you're affecting it'.¹¹

Make Like a Tree, 2006

Employing a computer, projector, video camera and retroreflective screen and custom software, the work allows viewers' shadows to intervene in a misty forest landscape, provoking surreal humour as well as a sombre scene of the continual fading of human forms.



In each case, making an installation is for Snibbe a research process. For 'Thread: A Growing Network', a group exhibition at the ArtSpace gallery in New Haven in the US staged in 2006 on the theme of how people connect, which included online dialogue between artists and their public, Snibbe created Make Like a Tree. Visitors walking in front of a screen found their silhouettes interfering with the projected image of a misty forest. The mingled images provoked surreal humour, as a leg emerged from a tree trunk, then faded and dematerialised behind trees and into the background of layers of previous visitors' shadows, and visitors could see themselves becoming part of this now sombre yet strangely cartoon-like landscape.

Snibbe feels that his works' cultural specificity produces a respectful reaction from the public. On the other hand, they also allow people to forget their inhibitions, experiencing with their bodies what they would be unlikely to in many other public contexts. Chien has encouraged people to parade past, doing silly walks and even swaying along in conga lines. One visitor to the work expressed his relief that 'here was a machine that is not your enemy or your superior'.¹² To the more progressive curators at science museums, Snibbe's work is disarming. At the same time they support his view that a 'pure artwork' can offer a sense of the metaphysical, complementing perhaps more prosaic or text-based science exhibits that promote learning and engagement. Audience involvement is nevertheless heightened due to the appealingly simple interactive, conceptual operation of Snibbe's work,

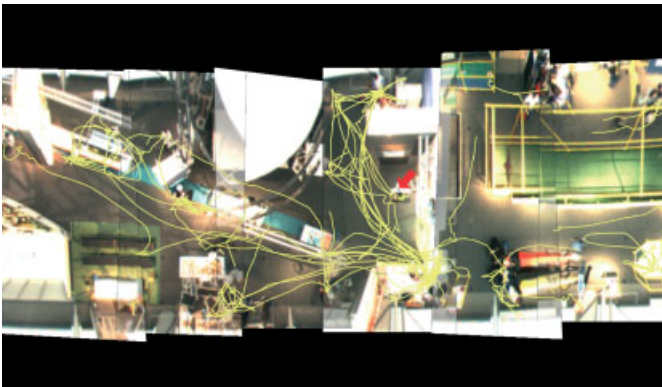
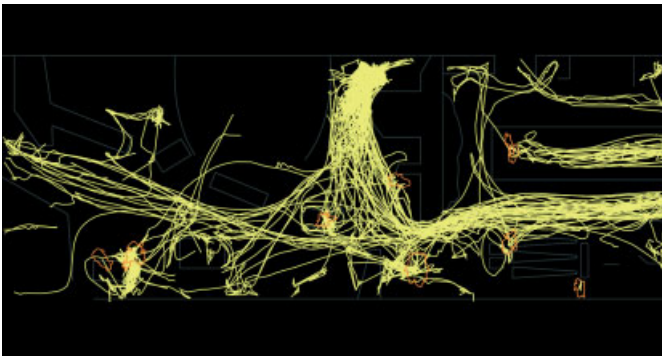
drawing people into a subtle game with the projections that offers intrigue, a challenge to notions of representation, and emphasises his key point about interdependence. The projects work largely because they comment on ephemeral artifice while managing to avoid either ritual or moral superiority.

Concentration, made in 2003, functions on a similar conceptual basis to Boundary Functions while formally it is like the other shadow pieces. It is part of the 'Screen' series of works, each of which features a white rectangle with which the visitor's body interacts, and explores the relationships between bodies, light and shadow through various manipulations of light. In this case, it stands for energy, concentrating all the light from the projector around a visitor's body, creating a body-shaped spotlight. When other visitors arrive, only the first person remains lit. As a result they enter into a struggle to capture the halo of light, but it can only be taken by physically 'digging' deep into the heart of another visitor's shadow. There is also some kind of competition for control in Compliant (2002), another 'Screen' work, shown at the Beall Center for Art and Technology at UC Irvine, where the impact of the bodies of visitors distorts the soft white rectangle, and it continually slips away from the visitor's vain attempts to stop it, becoming part of a game that defies its purely screen-based nature. 'We push, stretch, and sculpt this amorphous non-dimensional vision, altering its size and edge with hand motions, as if light is plastic, compliant as three-dimensional clay,' wrote one visitor to the Beall Center.¹³

Concentration, 2003

Computer projector, video camera, video capture card, retroreflective screen, custom software – one of seven works Scott Snibbe made that involve interaction with a pure white rectangle of light. The light from the projector is concentrated around one person entering the projection frame. When another person enters the space, he or she is not highlighted until the individual touches the first person, when the light expands to encompass both of them. The glow can be transferred from one person to another, provoking competition to 'steal' the light by digging deep into the centre of the person's shadow.





You Are Here, 2004

The project was commissioned by the New York Hall of Science. Technically Snibbe's most ambitious work to date, it uses six networked firewire cameras to track the movements of museum visitors over a 930-square-metre (10,000-square-foot) area. The paths of the last 200 visitors are shown projected on a large overhead screen. With a trackball, visitors can scroll back in time to see where they came from juxtaposed with the live video image.

In *You Are Here*, his most technically ambitious work to date, commissioned by the New York Hall of Science in 2004, Snibbe used six networked firewire overhead cameras and a computer to track and display the paths of visitors moving through a public space more than 930 square metres (10,000 square feet) in size. On a large screen the aggregate paths of the last 200 visitors are shown, along with the movements of people currently being tracked. The visitor's own location is highlighted with a large red arrow, a typical indicator that 'you are here'. Using a trackball, the visitor can scroll back in

Unlike surveillance systems being installed in public places, which record that reality but do not show it, this one does not collect data for security purposes.

time to see where other people came from and also look at the live video image from the networked cameras above. Snibbe's aim was to dramatise the interconnectedness of visitors to the space, giving them a sense of the accumulated presence of people over time. Unlike surveillance systems being installed in public places, which record that reality but do not show it, this one does not collect data for security purposes. The custom tracking software integrates the cameras' disparate views into a single composite data stream by correcting any lens distortion, and then transforming each image into a common coordinate system.

Snibbe feels the work makes a benevolent point about surveillance. 'It provides a visceral understanding of surveillance systems' capabilities and a sensual, visual representation of information that is normally only accessible as dry statistics.' He also explains that it 'lets you move through time as it creates time lapses like waves, giving a sense of people moving as a natural force.'¹⁴ This exemplifies his use of technology as a medium, used to reveal the way in which it is used in the divergent mechanisms employed in experimental film and surveillance, which Snibbe harnesses to explore a social agenda.

Encounter, a challenging work about homelessness for NeoCon, an interior design trade fair in Los Angeles, gave a political edge to the moment of visitors' 'interference' with shadows as they walked back and forth in front of a wall. Entering an opulent setting with tiled walls and gold cushions, they saw ahead of them silhouettes of homeless people in downtown LA made from film footage of actual people on the streets. Inevitably they found their own shadows mingling among them, and when theirs touched those of the street people, the homeless disappeared, just as easily as their plight slips from the minds of the privileged.

Other works are overtly play mechanisms that generate a lot of excitement, often in contexts that offer few alternative facilities of this kind. The user-friendliness visitors commented on at Snibbe's 2006 exhibition at the ICA, London – which extended into the bar area with an overhead screen projecting people's shadows – is an asset when audiences are less culturally aware of media art or not in the mood for a formal artwork in the first place. *Shadow Mosaic: Four by Five*, a permanent installation, is positioned on the wall in a public area of the California headquarters of Yahoo! in between the company's staff café and its games room. It records people's



Encounter, 2006

The work was made in collaboration with Gensler Architects and uses a computer, projector, video camera, video capture card and retroreflective screen. In a plush setting with gold cushions and tile walls, Snibbe's photographs of the homeless on the streets of downtown LA strike a dramatic note. On the far end wall are shadow images of these sad figures. When people intersect with them, the shadows disappear.

shadows as they pass by a camera installed there. As soon as they leave, everything they did plays back repeatedly in the form of anonymous silhouettes in one of 20 small rectangles. While fast trajectories past the camera are the norm, some workers come in their breaks to let down their hair and perform along with their work mates.

Perhaps fortunately for them, after a few minutes everything that has been recorded disappears as new people's movements build up on the screen. The intervention of Snibbe's works into busy everyday environments puts pressure on the simple trickery of the interface to support waves of short-term film entertainment created not by directorial intervention, but by people's movements. As his body of work proliferates, Snibbe is increasingly aware of the artistic challenge to offer a clarity of cause-and-effect in such a context, but also sufficient conceptual depth to each piece in order to induce the visitor's engagement with the work, without resorting to excessive repetition.

Like other media such as video, television or photography, which each create their own type of space, Snibbe's interactive works bring into being a mode of experience that is particular to each work. The process of experience is still the psychological and physical inhabitation that Marshall McLuhan recognised media induced.¹⁵ What is being privileged in the process is also still 'a kind of mental involvement in process that makes the content of the item seem quite secondary'. Instead of inviting the audience to construct their own messages and challenge the authority of official media constructions, by means of new visual metaphors, as in the work of artists such as Nam June Paik, Snibbe's work is 'relational',¹⁶ initiating encounters between onlookers. It also treats customised digital interfaces as a viable artistic element, a



Shadow Mosaic: Four by Five, 2006

Commissioned by Yahoo!, this installation sits in a communal area of the company's premises, between the staff café and games room, recording the moving shadows of people who walk by. It plays them back continually as small movies made directly by each person's body.

medium with a versatility similar to light, which conceptual artists have long since co-opted, but also different from it.

The clear narrative cues to perform in this 'participation art' may overlook the fact that some may do so more willingly than others. Nevertheless, the installations are a fresh mix of sophisticated techniques, an accessible and performance-orientated lyricism rooted in an informed awareness of 20th-century avant-garde cinema and art. Their traces of presence may be short-lived, and the screen may need to be joined by another kind of arena if this body of work continues to expand, but what is revealed in the process – as reflections on the real – is the message. **D**

Notes

- 1 Interview with the author, London, 14 May 2006.
- 2 Ibid.
- 3 Author of *Digital Art*, Thames & Hudson (London), 2003.
- 4 Interview with the author, London, 14 May 2006.
- 5 Telephone interview with the author, 15 October 2006.
- 6 Ibid.
- 7 Malcolm McCullough, *Digital Ground: Architecture, Pervasive Computing and Environmental Knowing*, MIT Press (Cambridge, MA), 2005
- 8 Telephone interview with the author, 15 October 2006.
- 9 Quote from Snibbe's written statement, 15 July 2006.
- 10 Interview with the author, London, 14 May 2006.
- 11 Telephone interview with the author, 20 November 2006.
- 12 Sarah Boxer, 'Art that puts you in the picture, like it or not', *New York Times*, 27 April 2005.
- 13 Roberta Carasso, 'Shedding a light on art', *Irvine World News*, 20 November 2003.
- 14 Telephone interview with the author, 15 October 2006.
- 15 Marshall McLuhan, *Understanding Media*, Sphere Books (Chicago, IL), 1967.
- 16 As defined by Nicolas Bourriaud in his book *Relational Aesthetics*, Les Presses du Réel (Dijon), 1998 (English edition, 2002).

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