Predictive Engineering² is a multichannel video and audio installation conceived for computer operation which is large in scale, critical in content, and narrative in theme. The sculpture offers an insight into contemporary information culture and investigates the space information technology creates and occupies. Julia Scher's installation of surveillance equipment is vital and contentious: she playfully tests the intelligence of communication media and digital technology. Presented at a moment that coincides with a crisis in culture induced by public disclosure of private matters, the artwork critically apprehends the world of surveillance and technological dominance that

might otherwise, in its ubiquity, remain invisible.

Throughout the twentieth century. modern artists have with industrial production, and the postmodern artist. more particularly, with consumer culture. Predictive Engineering² collects and circulates images and

identified their work

texts in methods reflecting those of the information industry where statistics are gathered and returned as data to markets that the industry itself formulates. Scher's madcap use of real-time and pre-recorded imagery, provocative spoken-word commands, and original graphical notation turns the instruments of surveillance outward to the museum as a social and authoritative agency, yet ultimately and humorously in on itself.

The controlled environment is a ground for prevarication and a rich field of inquiry for art. Air-travel advisories warning travelers that unattended bags will be confiscated and held by airport personnel, or similar voices announcing caution at the end of moving walkways might not provide society the safety and security it presupposes but rather in Scher's view the technological presence excites the experience.

Contemporary life is conditioned largely by forms of surveillance and remote interactions including familiar

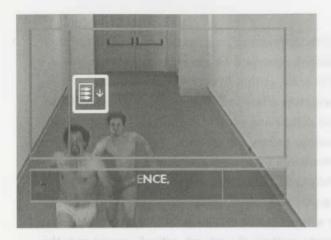
PREDICTIVE

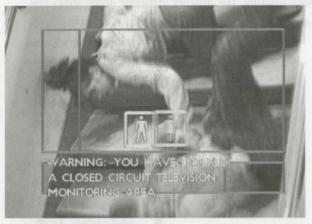


ENGINEERING²

October 23, 1998-January 12, 1999









warnings, telecommunication contrivances, television transmission, and computerized transactions. *Predictive Engineering*² characterizes these conditions. The artwork saturates the museum with new and established forms of surveillance technologies to heighten our perception of controlled environments, regulated space, and the artifice of its mediation through electronic devices. As themes in the artwork elaborate, these same conditions simultaneously transfer leisure time to work, confuse consumer with producer, and identity with identification.

Scher immerses the art museum visitor into a world of synthetic pleasures, using the control and voyeuristic functions of surveillance as her subject. She indoctrinates the viewer with an immediate experience of virtual worlds—the intangible network of social interaction and electronic exchange prevalent in contemporary life—and suggests the actual horror of cool system miscalculation anticipated by media theorist Marshall McLuhan: The true nature of technology is expressed best in its failure to perform as predicted.

The museum building, lobby, exhibition, circulation, and storage spaces are included in the composition of the artwork, inspiring an unexpected subjectivity about the hidden aspects of the information age. Constructed in seven zones of image and sound that compress the building's architecture into the frame of the video image, the installation tracks the activities of the museum inhabitants through eight surveillance cameras placed in locations throughout the building. Scher emphasizes in her work that the intention of surveillance is not solely to watch but more significantly to record.

Synonymous with the infiltration and intelligence policies that characterized cold-war agencies, surveillance devices were, as they are today, a means to obtain and collect information for spurious purposes. Data collected in fact-finding reconnaissance is measured and interpreted following predetermined criteria through which perceptions of events or images are molded. Scher explores the intelligence conventions dictated by surveillance systems exposing in her work the more prurient and seductive aspects of these conventions.

The surveillance industry, Scher suggests, has achieved the remarkable goal of reflecting society's disposition while permeating the individual imagination so deeply as to provide an occupation for it. Scher uses the medium of surveillance in her work to stimulate voyeuristic intrigue as well as to antagonize incongruent social conditions she perceives: indifference to search and disclosure surveillance tactics and attraction to customized forms of surveillance. The application of surveillance to the techniques of the observer has generated forms of surveillance that elicit a calculated response by appealing to the subject. Surveillance, as Scher demonstrates, has both soft applications and hard targets.

The lavishly conceptualized installation arbitrates the worlds of art and the industries of cold data, stiff statistics, and consumer seduction. The artwork is assembled in MAX (Macintosh Object Oriented Programming Environment for Music and Multimedia) for the retrieval and recirculation of imagery and audio commands and a MIDI (Musical Instrument Digital Interface) program for sensor control and space recognition with RS-232 communications protocol operation for DVD (digital versatile disc) player control and image relay system. The title of the installation is drawn from relation-

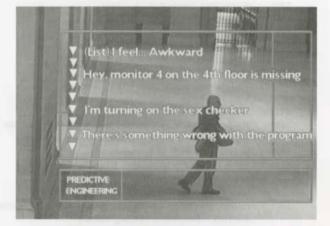
ships between two of the artist's compelling concerns: risk-filled speculation and mechanical engineering. Machine-like in its precision, *Predictive Engineering*² represents a social transformation and reflects modes of logic induced by communication media. The application of a predictive method in social or scientific research creates evaluative standards. Predictions can thus be substantiated on the basis of experiments or observation. Once quantified and repeatable, the predictive value is established. Compiled data is characterized in a model to test the theory of its application or use in simulation. The theoretical principle, once proven, is widely accepted as something of substance. *Predictive Engineering*² is simultaneously a catalyst and a critique of this method of informed projection.

The paraphernalia of security systems ironically open the social environment of the art museum to a critical situation. The commonality Scher perceives between the surveillance industry and the art museum is dynamic: an examination of these two institutions and the observation of the self within the social space they create as the subject of her work reflects the philosopher Michel Foucault's

observation in the essay "Panopticism" in *Discipline and Punish* (1974). Foucault asserts that surveillance alone presumes its lasting effect on the individual to inflict self-imprisonment. Those subjected to surveillance would, he claims, internalize the external imposition of regulations and create in turn a life of inhibition prescribed by that image.

The role of the contemporary artist in relationship to mass-communication media is often defined by such a rhetorical inversion. The materials Scher repositions from the surveillance industry to visual art include the patterns of mechanical thought each instrument of the information age reflects. She invokes in their use a cautionary message of control inherent to their design: the operating systems of computers, data analysis programs, and machine language instruction each dictates as a result of its design is essential to the meaning of the artwork. In confronting behavioral design—a discipline that determines the compatibility of tools with their operators and predicts their application—Scher capriciously crosses the line and transforms the industry of surveillance into art.

Predictive Engineering² evolved against the backdrop of emerging and discarded technology and has advanced in its form from its original presentation at the San Francisco Museum of Modern Art—the work had its premiere in the 1993 exhibition *Thresholds and Enclosures*—to its current production in the new museum facility. The logic of the operational system Scher creates is made explicit to the viewer within the space of transmission it represents and the condition it reflects. Predictive Engineering² anticipates the problems of obsolete data in the context of the new: the work chronicles the lasting effects of instant obsolescence, the presence of invasive information systems, and the codes of a mechanical language translated to digital technology. Materials from the original work were retained in electronic archives, restored in emulator programs, and now recirculate in the current environment as a means to recognize the rapid advancement of information technology over a five-year span and to draw attention to the phenomenal speed of its development.







Robert R. Riley Curator of Media Arts

JULIA SCHER PREDICTIVE ENGINEERING²

multi-channel video and audio installation, high and low power electrical cable, mirror, architectural and technical plan dimensions variable, expansive data generation processes

Courtesy of the artist and Andrea Rosen Gallery, New York.

JULIA SCHER

Born in Hollywood, 1954. Lives and works in New York City.

SELECTED INDIVIDUAL EXHIBITIONS

1989	Occupational Placement (O.P.), The Wexner Center for the Arts,
	Columbus, Ohio
	Security by Julia, The Collective for Living Cinema, New York
1990	Security Site Visits, Walker Art Center, Minneapolis
1991	I'll Be Gentle, Pat Hearn Gallery, New York
1992	Buffolo under Surveillance, Hallwalls, Buffalo, New York
1993	Mystery Meat, Galerie Metropol, Vienna
1994	Don't Worry, Kolnischer Kunstverein, Cologne
1995	Massimo De Carlo, Milan
1996	American Fibroids, Andrea Rosen Gallery, New York
1997	Security World, Galerie Ghislaine Hussenot, Paris
1998	Wonderland, Andrea Rosen Gallery, New York
	The Komputer Kings, Schipper & Krome, Berlin

SELECTED GROUP EXHIBITIONS

	SEFECIE	D GRODE EXHIBITIONS
	1989	The Desire of the Museum, Whitney Museum of American Art, New York
		1989 Biennial, Whitney Museum of American Art, New York
	1990	Le Choix des Femmes, Le Constorium, Dijon, France
	1992	Galerie Rudolph Zwirner, Cologne
		Spielhalle, Frankfurt
		The Speaker Project, Institute of Contemporary Art, London
	1993	Internet, Neue Galerie am Landesmuseum Joanneum, Graz, Austria
		Backstoge, Kunstverein in Hamburg, Germany
		XLV Venice Biennole, Aperto '93
		Le Principe de Réolité, Villa Arson, Nice, France
		Thresholds and Enclosures, San Francisco Museum of Modern Art
	1994	Cocido y Crudo, Museo Nacional, Centro de Arte, Reina Sofia, Madrid
		Temporary Translation(s), Delchtorhallen, Hamburg, Germany
		Soggetto Soggetto—Una nuova relazione dell arte di oggli,
		Castello di Rivara, Museo d'arte contemporanea, Torino, Italy
		Toponimias, Fundaçion "La Caixa." Madrid
		L'hiver de l'amour, Musée d'Art Moderne de la Ville de Paris
	1995	The Telemotic Room I, Neue Gesellschaft für Bildende Kunst, Berlin
		Art with Conscience, Newark Museum, Newark, New Jersey
		Els Limits del Museu, Tapies Museum, Barcelona
		Das Ende der Avantgarde, Kunsthalle der Hypo-Kulturstiftung, Munich
		Fantastic Prayers, Dia Art Foundation, New York
		Press Enter. The Power Plant, Toronto
	1996	Against: Thirty Years of Film and Video, Anthony d'Offay Gallery, London
		So You Wanna Be a Rock and Roll Star: Artists Interpret Popular Music,
		Museum of Contemporary Art, Chicago
	1997	The Art of Detection: Surveillance in Society, Massachusetts Institute
		of Technology List Visual Arts Center, Cambridge, Massachusetts
		Performance Anxiety, Museum of Contemporary Art, Chicago
		Surveillance, Massachusetts Institute of Technology, Cambridge,
		Massachusetts
	1998	Performance Anxiety, Site Santa Fe, Santa Fe, New Mexico

Patchwork in Progress 3: La Nuit L'oubli (en souvenir de Gilles Dusein),
La Fondation Mamco and Le Musée d'art Moderne Contemporain, Geneva

Fast Forward: Body Checks, Kunstverein in Hamburg, Germany

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Dunkin, Theresa. "Julia Scher's Wonderland." ArtByte 1. no. 4 (October-November 1998): 40-41.

Griffin, Tim. "Julia Scher: American Fibroids at Andrea Rosen Gallery." *Time Out New York* (27 March–3 April 1996): 24.

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Messler, Norbert. Artforum (November 1992): 119-20.

Miller, Paul D. "Julia Scher Interviewed by Paul D. Miller." ArtByte 1, no. 4 (October–November, 1998): 42–47.

Nesbit, Lois E. "Julia Scher." Artforum (February 1992): 118.

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Penley, Constance. "Some Thing to Watch Over You: The Surveillance Art of Julia Scher."

Mondo 2000, no. 9 (February 1993): 34–39.

Schefferine, William. "Julia Scher: Playground Monitor." Flash Art (January/February 1993): 76–77.

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Welchman, John. "Para Metrology: From the White Cube to the Rainbow Net." Art + Text, no. 53 (January 1996): 58–65.

GRANTS AND AWARDS

GIMMIO	AND AWARDS
1987	Art Matters, Inc.
	Jerome Foundation
1988	Artists Space, Individual Artist Grant
	Art Matters, Inc.
1989	Art Matters, Inc.
1992	National Endowment for the Arts
1993	Art Matters, Inc.
1996-97	Bunting Fellowship at Radcliffe/Harvard University, Cambridge, MA, Art

Visit Julia Scher's Web-specific project, produced in conjunction with this exhibition, at www.sfmoma.org.

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