

Between Expanded Consciousness and Expanded Bodies: Spectatorial Engagement with Invisible Architecture

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In the age of spectacle, buildings frequently turn into powerful visual signs that demand unflinching attention. From Robert Venturi's reflections on the blatant symbolism of façades in Las Vegas to the seemingly endless reverberations of the Bilbao effect triggered by Frank Gehry, architecture has been under the impact of sensational icons. While spectacular buildings may initially have a disruptive effect, they gradually anesthetize viewers as the image becomes the object of commodification. Once an icon becomes ubiquitous, its visibility decreases. Pervasive as the effects of visual spectacle may have been since the 1960s, architects and artists have repeatedly tried to unmask its role in bringing society under increased control.

The Pepsi Pavilion designed by E.A.T. (Experiments in Art and Technology) for the Osaka Expo of 1970 (Figure 1) and the Blur Building designed by Diller + Scofidio for the Swiss National Expo of 2002 (Figure 2) called into question the aesthetics of spectacle by impeding visibility and challenging visitors to rely on multisensorial perception and social interaction in order to retrieve a sense of orientation. They had a temporary character and were enveloped in fog hissing from thousands of nozzles embedded in their structures.¹ Their images seemed to elude replication since their boundaries constantly shifted depending on weather conditions. Both the Pepsi Pavilion and the Blur Building were the result of a collaborative process of design and both responded to the environment in which they were located. Despite the wide range of similarities between the two display spaces, these projects were significantly different in terms of the type of spectator participation envisioned by their designers. This essay focuses on the critique of visual spectacle implicit in the Pepsi Pavilion and the Blur Building. While E.A.T. em-

phasized the individual dimension of sense experience and the expansion of consciousness, Diller + Scofidio highlighted the interconnections between participants and the prosthetic expansion of bodily communicative abilities.

In 1968, David Thomas, the Vice President of Pepsi-Cola Company, approached artist Robert Breer about creating an art project for his company's pavilion at the Osaka Expo.² Initially, Breer was skeptical about becoming involved in the project precisely because of its corporate dimension. Before making a decision, he consulted with members of E.A.T., a group of artists and engineers founded in 1966 that created technology-based art projects.³ Breer thought that this commission needed to be undertaken collectively by E.A.T. to facilitate negotiations with Pepsi-Cola Company and avoid compromises during the planning process.⁴

The pavilion structure had already been built by the time E.A.T. started working on the Osaka Expo project. The artists were given the task of designing its interior space in order to create an environment for art events. They disliked the architecture of the pavilion that poorly imitated the aesthetics of a geodesic dome covered with polyvinyl chloride facets. Hence, everyone welcomed the idea of making the pavilion disappear under a veil of fog at the suggestion of artist Forrest Myers. Not only did E.A.T. members conceal the exterior of the building, but they also did their best to mask its structure on the inside. Visitors gained access to the pavilion through a tunnel (Figure 3) that led them to a lower level called the Clam Room, a dark shell-shaped environment where krypton laser beams were projected. They migrated from a futuristic exterior to a cave-like setting resembling the space of a primeval womb. Except for the projections, the only light source in the Clam Room was a rather narrow glass

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¹ E.A.T. member Fujiko Nakaya developed the sustainable mechanism for creating the fog environment of the Pepsi Pavilion. She also served as a consultant to the Blur Building project.

² Pepsi-Cola Company was initially planning a series of rock concerts for the Osaka Expo because it was trying to attract young audiences. However, the budget was too low and the allocated space too small for this purpose. The pavilion was already under construction at the time when E.A.T. signed the contract with Pepsi-Cola Company. Takenaka

Komuten Company designed the architecture of the pavilion, which was supposed to function as the Pepsi headquarters in the Kansai area.

³ E.A.T. was founded in 1966 by artists Robert Rauschenberg and Robert Whitman and engineers Billy Klüver and Fred Waldhauer. Executive director of E.A.T. Klüver stated that the organization was meant "to act as a matching agency, through which an artist with technical problems or a technologically complicated project could be put in touch with an engineer or scientist who could collaborate with him." See Billy Klüver, "Experiments in Art and Technology," *MoMA, Members Newsletter*, no. 3 (January–February, 1969): 5.

⁴ Despite these optimistic expectations the relation between E.A.T. and Pepsi-Cola Company was fraught with tension over financial and programming issues.

disk through which light entered from the upper room. In the midst of the large crowds of people rapidly moving from one pavilion to another at the Osaka Expo, this space held the promise of a temporary dwelling. Two flights of stairs connected the Clam Room to the Mirror Dome, the main core of the pavilion where light and sound events were staged (Figure 4). This hemispherical environment was constructed out of Melinex sheets sprayed with aluminum and attached to a birdcage-like structure. The reflective surface was supported by negative air pressure. Artist Robert Whitman, who had been experimenting with mirrors for some years, proposed the concept for this room. Executive director of E.A.T. Billy Klüver was no stranger to the use of materials with mirror-like qualities since in 1966 he had helped Andy Warhol design *Silver Clouds*, an installation of free-floating helium-inflated cushions constructed out of Mylar.

In the Mirror Dome, one would presumably lose sense of the material boundaries of his/her body and of the fixed coordinates of the space s/he inhabited. The floor was subdivided into several concentric sections covered with materials of different textures, such as grass, wood, or gravel. Visitors could listen to audio signals coming from the floor with the help of handheld devices. The compelling visual effects engendered by the hemispherical mirror environment were paralleled by complex tactile and audio stimuli that contributed to an intricate multi-sensorial experience.

Diller + Scofidio's Blur Building built on Lake Neuchâtel in Yverdon-les-Bains also called forth quasi-synesthetic forms of perception. As visitors advanced through its all-encompassing fog, they became highly aware of the tactile dimension of the atmosphere. Just as in the case of the Pepsi Pavilion, the support structure of the Blur Building was inspired by geodesic domes because it was based on a tensegrity (tensional integrity) structure composed of a mesh of intersecting tensile rods that rested on four main pilasters (Figure 5). According to the initial plan, visitors were supposed to respond to a survey before entering the blurry atmosphere of the pavilion.⁵ This would have been the equivalent of a personality test. Based on participants' answers, the computer would have generated a profile, which could then be used to establish affinities between different users of the media environment. If Diller + Scofidio's original plan had been concretized, participants would have received *braincoats* (Figure 6) that would turn red when they encountered a person who shared their interests and green when they met someone who had opposite preferences.⁶ The prosthetic raincoats would have extended the bodies of users and helped them intuitively communicate with others. They also would have guided them throughout the exhibition

⁵ The survey would have included a wide range of questions concerning music preferences, hobbies, phobias, and so forth. The participants' answers would have been entered in a virtual database that would have then transmitted the information via a wireless system to the *braincoats*, which were raincoats with embedded audio-visual technologies that visitors were supposed to wear upon entering the pavilion environment.

space, serving as headphones. Under these circumstances, visitors would have acquired a double body and a double consciousness that endowed them with new cognitive and perceptual abilities.

The space of the Blur Building had no walls except for the canopy of vapor. Visitors followed an invisible path to a media platform where people could hear radio signals associated with messages displayed on an LED signboard. This space also served as a location for encounters between participants. At this site, they could more easily observe each other and congregate in affinity groups. They could also choose to find their way out from this immersive environment by climbing to a suspended deck from whence they would have a panoramic view of their surroundings. On this platform, Diller + Scofidio designed a bar where people could drink water from different geographical regions, virtually indulging in the contents of their fog surroundings (Figure 7).

The Blur Building was both utopian and dystopian. It satisfied visitors' fascination for otherworldly places in which they could easily connect with others, but it also evoked apocalyptic scenarios in which the planet submerges and social relations are regulated by digital surveillance systems. The Pepsi Pavilion also encapsulated critical attitudes towards visibility. In the context of the 1960s, artists started to question ocularcentrism by constructing mixed-media environments that revealed the relativity of vision. E.A.T. artists Robert Rauschenberg and Robert Whitman combined acoustic and visual stimuli to stage interactive multi-sensorial experiences. In the Mirror Dome visitors became conscious of the boundaries of their perceptual field. This reflective environment defied spectacular iconicity due to the unpredictable and temporary character of visual and audio effects that depended on the movement of visitors and the changing programs operated by the E.A.T. artists. Both the Pepsi Pavilion and the Blur Building returned viewers to what Maurice Merleau-Ponty would call a pre-objective state⁷ in which they questioned the visible and abandoned their preconceived knowledge about their surroundings. Participants' attention was focused on the construction of perception and the impact of their corporeal presence upon the environment.

In *The Production of Space*, Henri LeFebvre contended that spectacular spaces exacerbate visibility in order to dissimulate replication and subordinate viewers. He maintained that such environments are "made with the visible in mind: the visibility of people and things, of space and of whatever is contained by them."⁸ The discussions over the design of the Pepsi Pavilion anticipated LeFebvre's critical stance. E.A.T.

⁶ Due to budget constraints, this media component of the Blur Building was not created.

⁷ See Maurice Merleau-Ponty, "Pre-Objective Being: The Solipsist World," in *The Visible and the Invisible: Followed by Working Notes*, ed. Claude Lefort, trans. Alphonso Lingis (Evanston, IL: Northwestern University Press, 1968), 156-162.

members expressed their anxieties towards the prevalence of visual spectacle. Breer wanted to avoid the enactment of a dazzling multimedia environment⁹ and Rauschenberg suggested that they should focus more on non-visual effects in order to frame “an invisible environment.”¹⁰ The previous world expo held in Montreal in 1967 had been criticized due to the large number of visual projections exhibited in pavilions. Arata Isozaki, who was part of the design team for the Osaka Expo, also envisioned an exhibition with more subdued visual effects. He called for developing “invisible cities,”¹¹ in which architectural spaces would have a nomadic quality, their configuration shifting from one period to another, thus challenging fixed iconic values. E.A.T. concealed the image of the dome by enveloping it in fog, yet also signaled its presence from afar. Visual stimuli were by no means suppressed in the Clam Room and the Mirror Dome, but they were rendered highly elusive due to their constant transformations. Many optical effects were perceptible only over a short period of time or were so subtle that one could barely notice them unless s/he spent a longer period of time within the pavilion.

Just like E.A.T. artists, architects Elizabeth Diller and Ricardo Scofidio hold negative views regarding the spectacularization of culture. In their projects, they unveil the inextricable ties between spectacle and surveillance. Diller and Scofidio were conscious of the fact that they could not completely debunk the Blur Building of its iconicity. Its veil of fog could be contemplated from afar and became a symbol of its environment (Figure 8). Nonetheless, when visitors entered its amorphous space, they could no longer rely on their visual sense. Diller and Scofidio stated that the interior of “Blur is an anti-spectacle.”¹² Similarly to E.A.T., they did not completely dispense with visual stimuli. Vision still had a significant role since visitors were supposed to discover their affinities with others by noticing the changes in color of their *braincoats*. Their location in space was given by acoustic and tactile stimuli. The correlations between different senses and their observation of others helped them advance through the dense fog.

Both projects exhibited signs of chronophobia, a fear of the impending acceleration of time that becomes more

prevalent in the cybernetic age. Pamela Lee argues that in the 1960s numerous artists became intent on slowing down perceptual processes and altering the temporal flow of technologically produced images.¹³ E.A.T. members wanted to disrupt the rapid circulation of exhibition visitors who tried to see as much as possible in a limited amount of time. The astounding reflective effects of the Mirror Dome invited visitors to pause and ponder over their perceptual experience. Similarly, the dome-capped cylindrical sculptures designed by Breer for the pavilion terrace moved at such a slow pace that Pepsi-Cola Company executives asked the artist to increase their motor speed so that their movement would be more easily perceptible. The artist called this attitude a sign of “motion anxiety”¹⁴ and refused to accelerate their speed. Since chronomania or the obsessive desire to simultaneously experience multiple sensorial stimuli over a short period of time has escalated in recent years, the slowing down of perception and movement becomes increasingly frustrating and disquieting. Diller and Scofidio strategically counteracted these impulses by negating access to a spectacular icon that lies beyond the hazy cloud. By emphasizing sensorial ambiguity and delay, they hindered goal-oriented experience. For the same purpose, they slightly prolonged the duration of the hissing sound heard when the pressure of the thin water drops spurting from the nozzles increased.¹⁵

Despite these similarities, E.A.T. members and Diller + Scofidio do not share completely the same views about participatory behavior. Engineer Billy Klüver described the Pepsi Pavilion as “an experiment in individual experience,”¹⁶ and art historian Barbara Rose called it “a secular temple of the self, dedicated to the individual, both as part of and as separate from the crowd.”¹⁷ The ultimate sign of this self-focused experience (Figure 9) was a raised berm that extended from the sloping edge of the floor. By walking along this platform to the center of the pavilion, viewers could gain unique visual access to their reflections in isolation from others. By contrast, Diller and Scofidio primarily envisaged collective modes of spectatorship. Social awareness and engagement were supposed to supersede individual introspection. If the *braincoats* concept had been set in practice, visitors to the Blur Building would have felt compelled to affectively relate

⁸ Henri LeFebvre, *The Production of Space* (Oxford: Blackwell Publishing, 1991), 75.

⁹ Breer argued: “the usual result of multimedia is scattered razzle-dazzle without articulation and form.” Quoted in Nilo Lindgren, “Into the Collaboration,” in *Pavilion*, ed. Billy Klüver, Julie Martin and Barbara Rose (New York: Dutton & Co., 1972), 5.

¹⁰ Quoted in Calvin Tomkins, “Outside Art,” in *Pavilion* (see note 9), 114.

¹¹ Quoted in Hajime Yatsuka, “Architecture in the Urban Desert: A Critical Introduction to Japanese Architecture after Modernism,” in *Oppositions Reader*, ed. Michael Hays (New York: Princeton Architectural Press, 1998), 265.

¹² Quoted in Michael Shamiyeh and DOM Research Laboratory, *What*

People Want: Populism in Architecture and Design (Basel: Birkhäuser, 2005), 383.

¹³ See Pamela Lee, *Chronophobia: On Time in the Art of the 1960s* (Cambridge, MA: MIT Press, 2004).

¹⁴ Quoted in Tomkins, “Outside Art,” 159.

¹⁵ Normally the signs of this change in water pressure would not have been noticeable since it took no more than a second for the system to re-adjust.

¹⁶ Billy Klüver, “The Pavilion,” in *Pavilion* (see note 9), x.

¹⁷ Barbara Rose, “Art as Experience, Environment, Process,” in *Pavilion* (see note 9), 99.

to others upon observing the color markers indicating potential affinities. They would have been constantly reminded that they share more than just a physical space. The stimuli transmitted or received by the *braincoats* would have escaped individual control. Within the Blur environment, one would have been inevitably affected by encounters with others. The chameleonic transformations of the *braincoats* would have betrayed interconnections between contrasting social groups. Foucault remarked that we cannot discuss individual freedom without considering its dependence upon social organization and spatial configuration, which equally contribute to our self-definition.¹⁸ The Blur Building was meant to unveil the pervasive correlations that exist between anonymous individuals. The fog dissolved not only the spatial boundaries, but also the distinctive features that stand at the basis of binary oppositions. Ultimately, participants would have never known what exact interests or preferences represented a determining factor for their affinity to another person unless they engaged in conversation.

The different participatory options envisioned by E.A.T. and Diller + Scofidio indicate the transition from a primarily individual experience to a primarily socializing experience. Under the impact of the World Wide Web, artists and architects design environments that stimulate beholders to watch each other or act together to chart invisible topographies. New technological possibilities considerably mold viewers' expectations and participatory behavior. E.A.T. members were dismayed by the fact that visitors to the Pepsi Pavilion did not easily adopt performative roles in the Mirror Dome. They observed that instead of actively manipulating their reflections, viewers took more interest in inspecting the floor area and the control console operated by the artists (Figure 10). From the very beginning, E.A.T. members wanted to avoid scheduling too many formal performances¹⁹ that could inhibit visitors' performative gestures. They found that some of the participants started to playfully react to their mirror images only after observing the performative behavior of other people. On the opening night, engineer Larry Owens was surprised to see one of the Japanese project engineers imitating the gestures of the hostesses by waving three silk scarves and improvising a new choreography. As sociologist Nicole Sault pointed out, our body image is both an indi-

vidual and a social construct: "despite the fact that we have material objects to show us reflections of ourselves, we are also social mirrors to each other, and we rely on the reactions of others to learn how we look and who we are."²⁰ In the space of the Mirror Dome, acts of social mirroring proved to stimulate performativity as visitors imitated the behavior of others.

The Pepsi Pavilion and the Blur Building reveal transformations in interactive modes stimulated by multimedia environments, as well as changes in the way we define mental and bodily representations in relation to technology. In 1970, the Mirror Dome stood for a metaphor of the human mind. E.A.T. members called the inverted holographic images that appeared on the hemispherical ceiling "real images."²¹ By using reflective surfaces they wanted to stimulate viewers to transgress bodily boundaries and enter a psychic universe. For most E.A.T. members, the real images were the ones you saw in your mind's eye, not the ones you visually perceived in front of you. This is also the reason for which they took a vivid interest in creating a programmed acoustic environment.²² They probably felt that the propagation of acoustic stimuli more directly replicated the propagation of ideas whereas mirror images were more strongly dependent on the physical dimension. In *Expanded Cinema*, Gene Youngblood argued that in the 1960s and 1970s artists manipulated new media in order to simulate the actual workings of the mind.²³ This tendency is symptomatic of the desire to prove the superiority of human consciousness over technology. In describing the Pepsi Pavilion, Youngblood observed: "Although it developed from the synergetic technologies of computer science and poly-vinyl-chloride (PVC) plastics, it is triumphantly non-technical as an experience."²⁴ In Youngblood's description, the presence of the machine was completely concealed as visitors became immersed in the open-ended synesthetic environment. The Mirror Dome clearly solicited the body as much as the mind. Yet, Youngblood's account discloses a tendency towards suppressing the presence of hardware as if this would detract viewers from discovering their individual mental abilities.

While in the late 1960s artists were prone to stage psychic experiences through the use of electronic or mirror interfaces, Diller + Scofidio construct spaces that challenge

¹⁸ In an 1981 interview, Michel Foucault argues that "it is somewhat arbitrary to try to dissociate the effective practice of freedom by people, the practice of social relations, and the spatial distributions in which they find themselves. If they are separated, they become impossible to understand. Each can only be understood through the other." See Michel Foucault, "Space, Knowledge, and Power: Interview with Paul Rabinow," in *The Foucault Reader*, ed. Paul Rabinow (New York: Pantheon Books, 1984), 246.

¹⁹ Remy Charlip prepared the choreography of *Homage to Loie Fuller*, a performance that displayed a wide range of interactions with reflections as dancers raised balloons and waved colorful silk scarves.

²⁰ Nicole Sault, "Introduction: The Human Mirror," in *Many Mirrors: Body Image and Social Relations*, ed. Nicole Sault (New Brunswick, NJ: Rutgers University Press, 1994), 1.

²¹ The term "real images" is used to refer to the inverted holographic images in Barbara Rose's "Art as Experience, Environment, Process" and in Elsa Garmire's "An Overview," in *Pavilion* (see note 9), 60-104, 173-206.

²² The Mirror Dome was a site of light reflections, as well as of sound reflections. David Tudor set up eight acoustic channels that transmitted sounds of varying frequency through speakers located in different parts of the dome.

²³ See Gene Youngblood, *Expanded Cinema* (New York: Dutton & Co, 1970)

²⁴ *Ibid.*, 416.

the artificial divide between reason and the senses. The Blur Building blurred the materiality of architecture, but not the physicality of human presence. The transmission of visual and audio information between *braincoats* would have still been conditioned by physical mobility. New media critic Brian Massumi defines affect both as “a body movement” and “a thinking movement”²⁵ that resides in a zone of perceptual and conceptual indetermination. The Blur Building highlighted the affective dimension of human experience. If the *braincoat* devices had been created, seemingly telepathic encounters between people would have turned into social interactions that would have implied much more than a mere exchange of virtual messages.

The Pepsi Pavilion and the Blur Building revealed the shifting balance between mental and bodily processes under the influence of changes in interactions with technology.

Their temporary synesthetic environments represented an alternative to the powerful visual icons of the society of spectacle. Almost forty years after the construction of the Pepsi Pavilion, we seem to have come to terms with our hybrid human condition and the inherent technicity of our minds and bodies. As Diller and Scofidio’s Blur Building shows, artists and architects are envisioning affective ways of connecting multiple viewers via technological interfaces that lay bare the complex relations between physical and psychic experiences. In the digital age, we become better aware of the fact that we experience the world through expanded bodies and expanded consciousness, negotiating between states of perceptual visibility and invisibility.

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²⁵ Brian Massumi in Mary Zournazi, “Navigating Movements: An Interview with Brian Massumi,” *21c Magazine*, no. 2 (2003), <http://www.21cmagazine.com/issue2/massumi.html> (accessed August 30, 2009).



Figure 1. E.A.T., The Pepsi Pavilion terrace, Osaka Expo, 1970. Photo by Shunk-Kender © Roy Lichtenstein Foundation.



[above] Figure 2. Diller + Scofidio, *Blur on a Windy Day*, The Blur Building, Exposition Pavilion for Swiss Expo, Yverdon-les-Bains, Switzerland, 2002. Courtesy of Diller Scofidio + Renfro.



[right] Figure 3. E.A.T., *Entrance to Pepsi Pavilion*, 1970. Photo by Shunk-Kender © Roy Lichtenstein Foundation.



Figure 4. E.A.T., The Mirror Dome, Pepsi Pavilion, 1970. Photo by Shunk-Kender © Roy Lichtenstein Foundation.

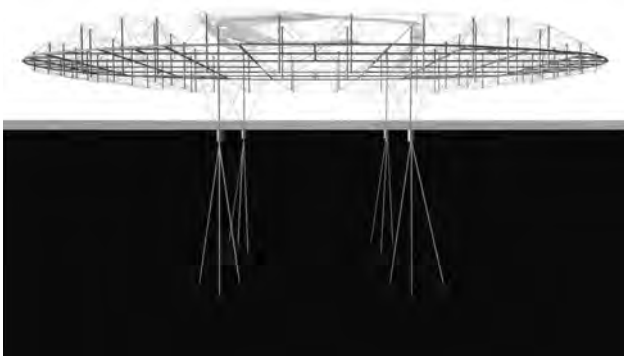


Figure 5. Diller + Scofidio, Tensegrity structure, 1999, early rendering of the Blur Building. Courtesy of Diller Scofidio + Renfro.



Figure 6. Diller + Scofidio, *Braincoats*, 2000, rendering of media component of the Blur Building. Courtesy of Diller Scofidio + Renfro.



Figure 7. Diller + Scofidio, Water Bar, 2000, rendering of the bar area of the Blur Building. Courtesy of Diller Scofidio + Renfro.



Figure 8. Diller + Scofidio, Blur at Night, The Blur Building, Exposition Pavilion for Swiss Expo, Yverdon-les-Bains, Switzerland, 2002. Courtesy of Diller Scofidio + Renfro.



Figure 9. Visitor taking a photo of herself in the Mirror Dome, Pepsi Pavilion, 1970. Photo by Shunk-Kender © Roy Lichtenstein Foundation.



Figure 10. Control console in the Mirror Dome, Pepsi Pavilion, 1970. Photo by Shunk-Kender © Roy Lichtenstein Foundation.