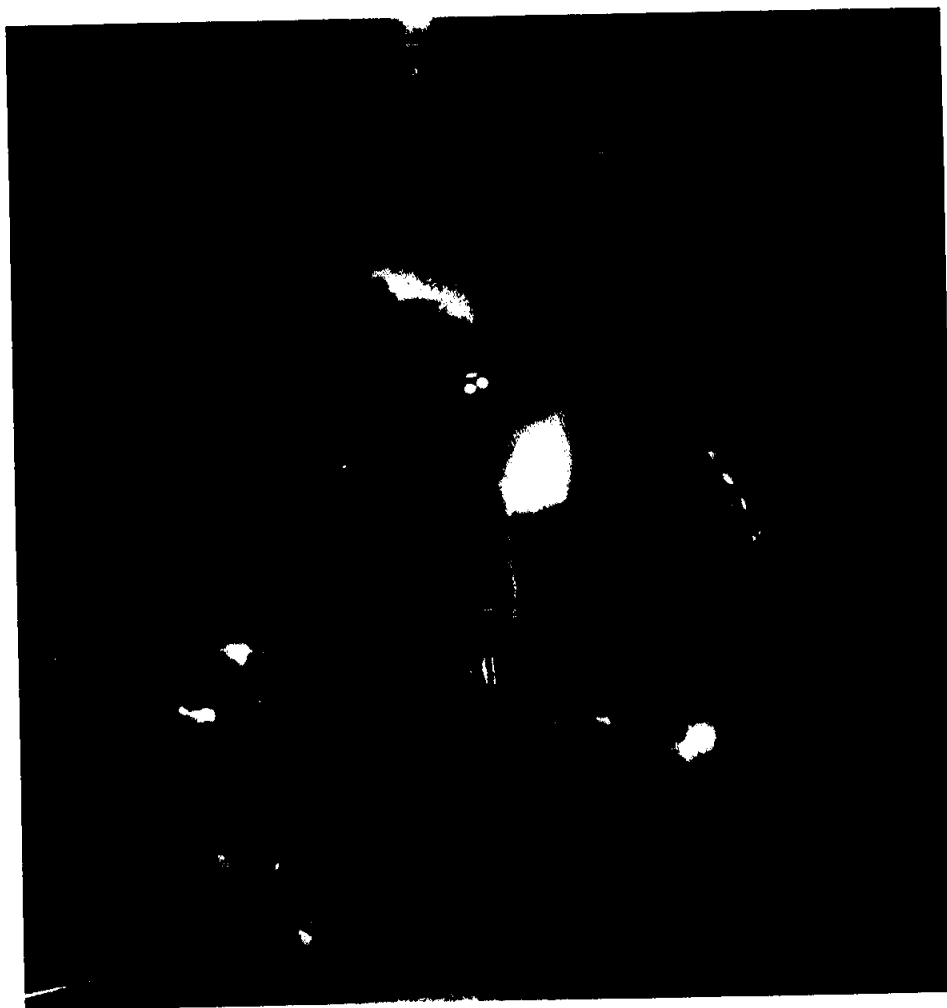


Randall Packer  
**The Pepsi Pavilion:  
Laboratory for Social Experimentation**



*Pepsi Pavilion*  
Osaka Expo, 1970  
"real" image reflected  
in the Mirror Pavilion  
© E.A.T.  
photo © Harry Callahan  
courtesy E.A.T.

"An unprecedented structure with unprecedented capabilities for visual, aural, and theatrical experience, the Pavilion is unlike any other performance arena, in that performers were as entirely absorbed into its shimmering mirrored surface as the audience — their reflections and activities merging with those of the spectators."

Barbara Rose, "Art as Experience, Environment, Process," in *Pavilion*, Billy Kluver, Julie Martin and Barbara Rose (eds), E.P. Dutton & Co., Inc., New York, 1972.



Billy Klüver performing in Claes Oldenburg's *Hay Gun Theater*  
 © E.A.T.  
 photo © Robert R. MacEloro;  
 courtesy E.A.T.



Robert Rauschenberg (second from left) and Billy Klüver (right) working with engineers during *9 Evenings*  
 © E.A.T.  
 photo courtesy E.A.T.

There is a long history of artists aspiring to build worlds of the imagination as exalted space, multi-sensory "magic theater" that would transcend the physical laws of the real world. Of course the caves of Lascaux, the European gothic cathedrals, or the great palaces such as the Moorish la Alhambra are prime examples, but lesser known are the theatrical experiments of the avant-garde. Many of these latter efforts – pure experimentation, research, and idealism – called for live performance as a vehicle for artistic and social transformation. For example, the *Profatory Action* of the Russian composer Alexander Scriabin, although never performed, was conceived for color organ, lights, sound, and thousands of choral voices "at the foot of the Himalayas ... an orgy of the arts and senses."<sup>1</sup> Bauhaus director and architect Walter Gropius had ambitious plans to create a new theater architecture, rethinking the configuration of performance space as a means to alter the perspective of the viewer. His ideas influenced László Moholy-Nagy's research at the Bauhaus Theater, who wrote:

"It is time to produce a kind of stage activity which will no longer permit the masses to be silent spectators, which will not only excite them inwardly but will let them take hold and participate – actually allow them to fuse with the action on the stage at the peak of cathartic ecstasy."<sup>2</sup>

Further experimentation in live performance subsequently had a profound impact on the changing relationship between the viewer and the artwork, with the intent to heighten individual, subjective experience. This tendency took root in the performance art of John Cage, who staged seminal events with Robert Rauschenberg and Merce Cunningham at Black Mountain College in the early 1950s. As Cage had asked: "What'll art become? A family reunion? If so let's have it with people in the round, each individual free to lend his attention wherever he will."<sup>3</sup>

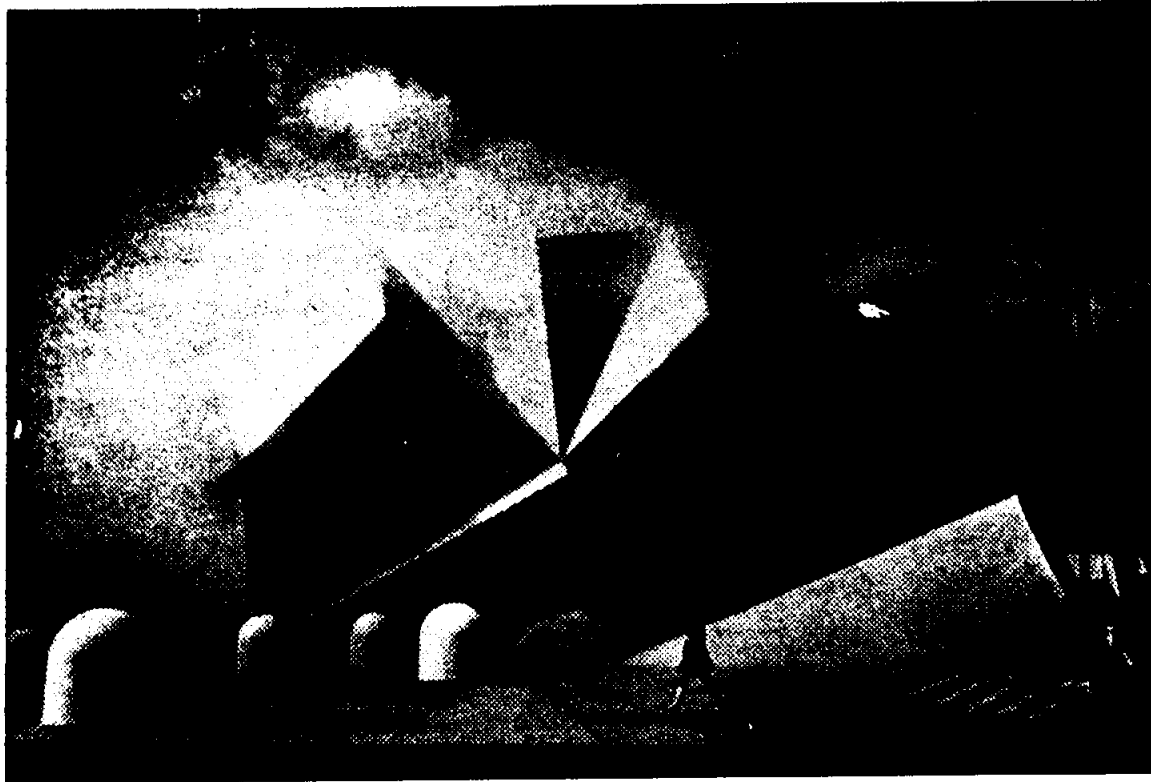
By the 1960s, Allan Kaprow, Claes Oldenburg, Jim Dine, Red Grooms, and Robert Whitman were exploring new forms that would collectively engage audiences in environments and situations that dissolved all traditional distinctions between performer, stage, set and audience. Paramount in their concern was subverting hierarchical social structures through live performance. According to Whitman, "[o]ne of the problems of traditional theater is that you tell somebody what to see, where to sit, what to do, when to come, when to go – I don't think that's acceptable. What one wants to do is make a theatrical situation that can be available at any time."

Billy Klüver, the Bell Labs scientist who sparked broad interest in art and technology during the 1960s, participated in many of the experimental perfor-

<sup>1</sup> Fabian Bowers, *The New Scriabin: Enigma and Answers*, St. Martin's Press, New York, 1973.

<sup>2</sup> László Moholy-Nagy, "Theater, Circus, Variety" [1924], in *Multimedia: From Wagner to Virtual Reality*, Randall Packer and Ken Jordan (eds.), W. W. Norton & Co., New York, 2001.

<sup>3</sup> John Cage, "Diary, Audience 1966" [1966], in Packer, Jordan, op. cit.



from left to right  
*Pepsi Pavilion*  
 Osaka Expo, 1970  
 "floats" and geodesic dome  
 enshrouded in fog  
 © E.A.T.  
 photo © Harry Shunk;  
 courtesy E.A.T.

*Pepsi Pavilion*  
 "real" reflections of viewers and  
 the floor in the Mirror Dome  
 © E.A.T.  
 photo © Fuliko Nakaya;  
 courtesy E.A.T.

*Pepsi Pavilion*  
 at night with xenon lights  
 framing dome  
 © E.A.T.  
 photo © Harry Shunk;  
 courtesy E.A.T.

mance events that took place in lofts and storefronts of New York City, among them Oldenburg's 1962 *Ray Gun Theater*. Oldenburg, who claimed that "theater is the most powerful art form there is because it is the most involving," kept audiences small in an open gallery space to heighten the intimacy of the experience.

Klüver had also developed a close association with Robert Rauschenberg, resulting in several collaborative art and technology projects that helped to catalyze the New York art scene, — including Yvonne Rainer, Cage, Cunningham, Andy Warhol, Jasper Johns, among others — to incorporate the new technologies in artworks and performance events. One such event was the *9 Evenings: Theatre and Engineering* in the fall of 1966 at the cavernous 69th Regiment Armory in New York. Klüver and Rauschenberg organized works involving artists, composers, and dancers in collaboration with engineers from Bell Labs. As a result of *9 Evenings*, Klüver, Rauschenberg, Whitman, and the engineer Fred Waldhauer founded E.A.T. (Experiments in Art & Technology) in late 1966, encouraging activity in art and technology across the U.S.

The culminating project carried out by E.A.T. was the *Pepsi Pavilion* — an extraordinary effort involving over 75 artists and engineers — a landmark public sculpture and performance installation commissioned by Pepsi-Cola for the Expo '70 in Osaka, Japan. The artists and engineers who created the Pavilion synthesized the tendencies of the 1960s, bringing together the currents of social interaction, collaboration, electronic media, Happenings and performance art, immersive environments, and mind-altering "realities" in this transformative "theater of the future."

The *Pepsi Pavilion* was first an experiment in collaboration and interaction between the artists and the engineers, exploring systems of feedback between aesthetic and technical choices, and the humanization of technological systems. Klüver's ambition was to create a laboratory environment, encouraging "live programming" that offered opportunity for experimentation, rather than resort to fixed or "dead programming" as he called it, typical of most exposition pavilions. Secondly, the Pavilion evoked and celebrated aspirations for heightened, non-hierarchical social dynamics built on the aesthetics of agency and transformation brought about through the collective participation of the audience, the artists, and the engineers. The Pavilion's interior dome — immersing viewers in three-dimensional real images generated by mirror reflections, as well as spatialized electronic music — invited the spectator to individually and collectively participate in the experience rather than view the work as a fixed narrative of pre-programmed events. The Pavilion gave visitors the liberty of shaping their own reality from the materials, processes, and structures set in motion by its creators.

Klüver's commitment to "live programming" and the active role of the viewer is best expressed in this statement: "The initial concern of the artists who designed the Pavilion was that the quality of the experience of the visitor should involve choice, responsibility, freedom, and participation. The Pavilion would not tell a story or guide the visitor through a didactic, authoritarian experience. The visitor would be encouraged as an individual to explore the environment and compose his own experience."<sup>5</sup>

As an intermedia work, the Pavilion was an ambitious exploration in collaboration and community

<sup>5</sup> Billy Klüver, "The Pavilion," in Klüver, Martin, Rose, op. cit.



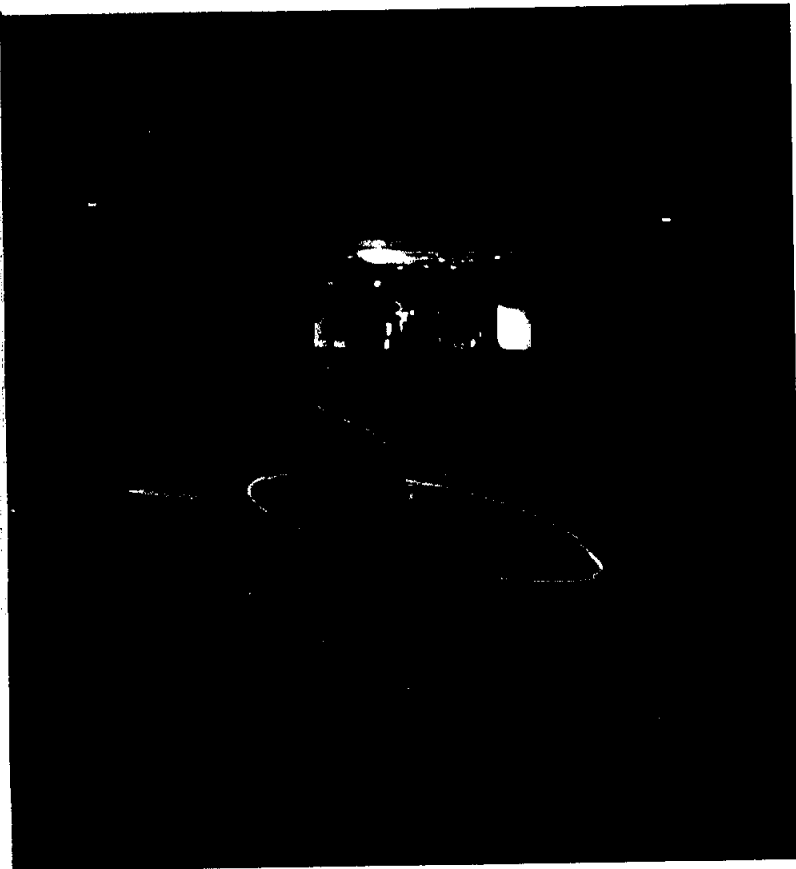
Among a diverse group of visual artists, composers, choreographers, scientists and engineers. Breaking with the post-renaissance notion of specialization and the artist as "auteur" – single-handedly creating the work – the interdisciplinary nature of the Pavilion required the collective effort of a large group of artists and engineers who had the challenging task of integrating and building ideas born from the group process. At the same time, there was considerable space for individual creative thinking, each artist assigned a component of the overall project. Nevertheless the sum total of the individual parts had to reach a common goal and coalesce into the whole, striving towards the *Gesamtkunstwerk* or total artwork. The Pavilion represents a realization of such dreams, due to the fact that the collaborating artists, architects and engineers were committed to the process of interaction that would help to solve complex design problems and bring about new ideas and forms.

After receiving the invitation from Pepsi, Klüver assembled a core team of artists, along with Whitman, that included Frosty Myers, David Tudor, and Robert Rieker. Together they conceived the key elements of the Pavilion: the spherical, 90-foot diameter, 210-degree mirrored dome, inflated inside a geodesic shell, generating real-image, three-dimensional, upside-down reflections of audience and performers; a fully programmable surround-sound system enabling composers to direct sound in various spatial trajectories via thirty-seven speakers arranged in a rhombic grid; handsets held by the viewer emitting pre-recorded "natural" sounds as the audience traversed loop coils installed beneath the floor of the mirrored dome; 800-pound kinetic sculptures (*Floats*) orbained the terrace outside the Pavilion at a speed of

approximately two inches per minute, broadcasting sounds and gently deflecting off of unaware spectators; and four towers with powerful xenon lights generating a well-defined beam between each tower, dramatically framing the dome at night.

Additional artists later joined the team including Gordon Mumma, Lowell Cross, Tony Martin and Fujiko Nakaya, among others, who were responsible for the laser deflection system that responded to audio input, bathing spectators in pulsating streamers of color as they entered the Pavilion's lower Clam Room; a programmable, retractable lighting system generated spectacular blossoming effects in the mirror; and a man-made fog sculpture generated by hundreds of tiny water nozzles enshrouded the exterior dome in a fine mist, interacting with the weather conditions. The sum total of the *Pepsi Pavilion* was a fluid, multi-sensory experience of light, sound, touch and movement, constantly changing in response to the viewer's presence and actions, and to the natural forces of the environment.

Seen by millions of visitors, the Pavilion brought into sharp focus the active role of the viewer through the project's embrace of open, responsive systems. For the artists and engineers, it became a study in the dynamics of viewer interaction. Although the artists – including Pauline Oliveros, Remy Charlip, David Tudor, and Tony Martin – who performed in the space had prepared extensive proposals for performances and environments, they were instead encouraged to freely experiment with the multi-dimensional audio-visual system and to consider the response of the spectator in the development of their evolving ideas. Prior to their arrival in Japan, it would have been impossible for the artists to pre-determine the



*Pepsi Pavilion*  
Osaka Expo, 1970  
laser projections bathing the  
visitor in light in the Clam Room  
© E.A.T.  
photo © Harry Shunk,  
courtesy E.A.T.

*Pepsi Pavilion*  
draped balloon and reflections  
in Mirror Dome  
© E.A.T.  
photo © Harry Shunk,  
courtesy E.A.T.

nearly infinite possibilities of the Pavilion as a space for live performance. Klüver was committed to the ideal that the Pavilion's advanced technological systems support the artists' ideas, creating an open field of possibilities in which they could choose and do whatever he or she could imagine.

According to Barbara Rose, the art critic who accompanied the artists to Japan, "[b]asic to this system of values was social interaction, control of technology toward fulfilling human needs, respect for the natural environment and its potentials and limitation, and a belief in the ability of individuals to take responsibility in democratic, non-coercive, non-hierarchical situations."<sup>15</sup> This notion of establishing an environment for audience participation, enables, according to media critic Pierre Lévy, "interpretation to enter the loop with collective action."<sup>16</sup> This view of the artwork as a field of interaction between artist and viewer echoes Situationist Guy Debord, who wrote *Society of the Spectacle* just three years before the opening of the Pavilion: "The spectacle is not a collection of images, but a social relation among people, mediated by images."<sup>17</sup>

The Pavilion was a response to the idea of freeing the spectator to make his or her own connections in the experience of the work, or as Henry David Thoreau

poetically intoned, "[o]bey the spur of the moment ... Let the spurs of countless moments goad us incessantly into life."<sup>18</sup> Here the artists built a world, without controlling it, in order that the spectator exist in that world as a willing and equal partner in forming the experience, in shaping their own reality. Art then functions as a transformative agent, without imposing pre-conceived patterns of thought, which might prevent the viewer from freely experiencing the artwork according to their own unique perspective.

We could surmise that the Pavilion articulated a vision of social sculpture, in the spirit of Joseph Beuys, who was concerned with "how we mold and shape the world in which we live: sculpture as an evolutionary process, everyone an artist."<sup>19</sup> The Pavilion was a public sculpture for constructing worlds of the imagination that defy the constraints of physical laws, of everyday reality, revealing to us, in the most extravagant manner, what our reality might be, given the tools and minds to reshape it.

"If art was going to be of any use, it was going to be of use not with reference to itself, but with reference to the people who used it." – (John Cage)

<sup>15</sup> Barbara Rose, "Art as Experience, Environment, Process," in Klüver, Martin, Rose, op. cit.

<sup>16</sup> Pierre Lévy, "The Art and Architecture of Cyberspace," in *Collective Intelligence: Mankind's Emerging World in Cyberspace*, transl. Robert Bononno, Plenum Trade, New York, 1997.

<sup>17</sup> Guy Debord, *Society of the Spectacle*, (first English translation), Black & Red, Detroit, 1970.

<sup>18</sup> Henry David Thoreau, *A Writer's Journal*, Laurence Stapleton (ed.), Dover, New York, 1960.

<sup>19</sup> Joseph Beuys, "Introduction" [1979], in *Joseph Beuys in America: Energy Plan for the Woolly Man*, Carrn Kuoni (ed.), Four Walls Eight Windows, New York, 1990.



Pepsi Pavilion  
Osaka Expo, 1970  
© I A I  
courtesy Billy Haver  
photo © Harry Shunk  
courtesy I A I

David Baker with banks of tape  
recorders in control room  
© I A I  
photo © Harry Shunk  
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