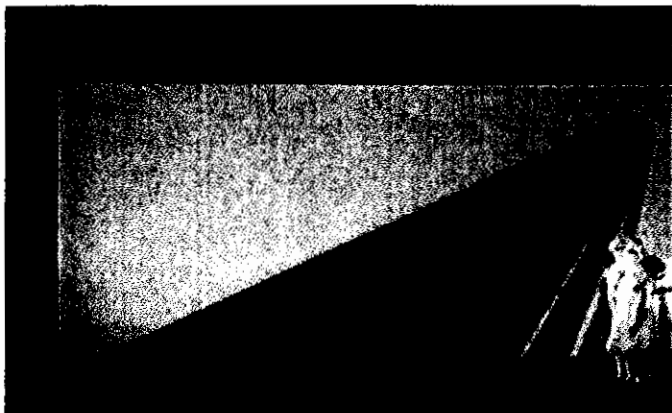


Vít Havránek

Laterna Magika, Polyekran, Kinoautomat

Media, Technology and Interaction in the Works of Set Designers

Josef Svoboda, Alfréd Radok and Radúz Činčera, 1958–1967



From the moment of its inception, it has not been clear whether Laterna Magika (LM) is film, theater or a brand-new media performance show. First introduced in the Czechoslovak pavilion at the 1958 World Expo in Brussels, this entity combined ballet, theater, several film projections, and sound background.

An unexpected media effect LM had on its contemporaries came from the dialog conducted between a live performer and the virtual world of film. On a mechanical basis, and through perfect synchronization of a dancer with a film image, LM created the impression that the two were interacting. At the start of the show, the spectators were convinced they were watching an improvised act of true interaction. And in that lies the clinch: The magical phenomenon in which actor and dancer were able to create the impression that the film medium was "real," that it must have "come to life" because it reacted to real events. If we turn to the past and ask what was magical about the historical "Magical Lantern," we read in Furetière's *Dictionnaire universel* (1690): "Lanterne magique est une petite machine d'optique qui fait voir dans l'obscurité sur une muraille blanche plusieurs spectres et monstres si affreux, que *celui qui n'en sait pas le secret croit que cela se fait par magie*" (author's italics). Three hundred years later, the effect of Laterna Magika had a similar effect on the spectator who did not realize how the show was being created. The magical part was that film came to life. It was not pre-taped, rigid, or mechanically repeatable. It seemed that at the start of the show a

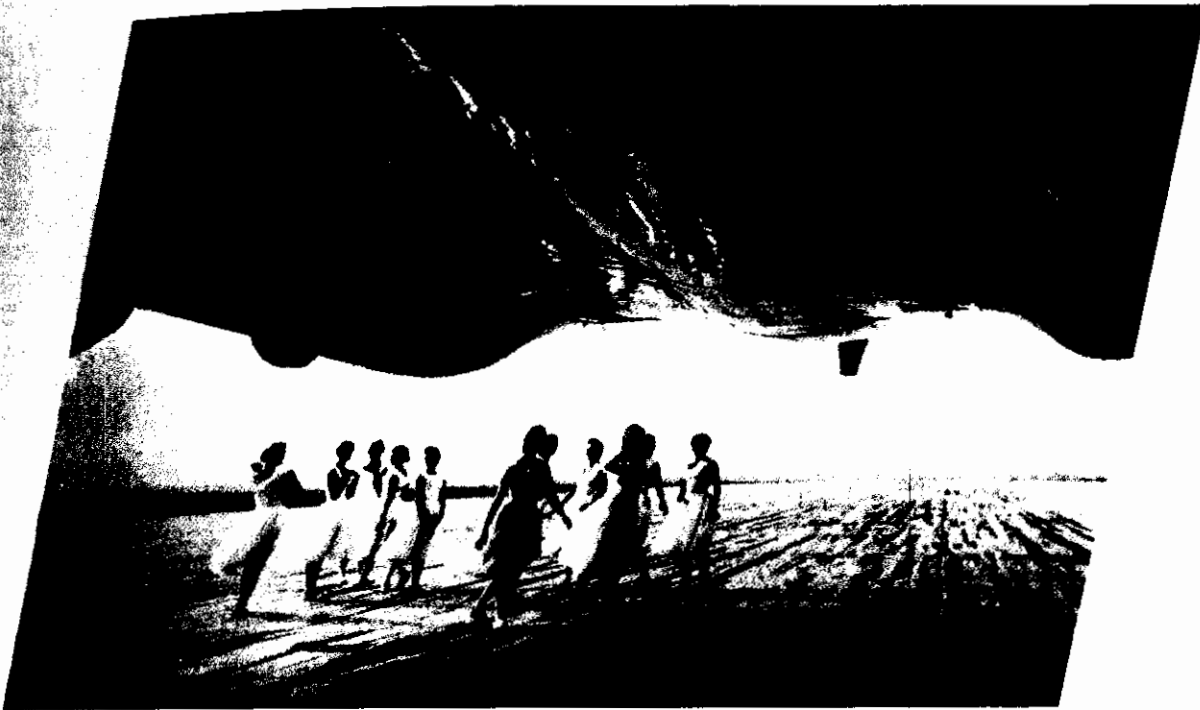
magician waved a magic wand, removing a constant characteristic and granting the film the ability to interactively react to its surroundings.

According to the experience of the creators of LM, neither principle – the live actor or the film – dominated the other. That was what made the form difficult to label. Because each component was leading at a given moment, it was neither a real performance nor a virtual game using reality elements. In *Rhythms*, a real pianist played a rhythmical composition to a backdrop of a blown-up shot of a passenger plane as it taxied down the runway at Prague airport. Both components reacted to each other in counter-positions – of the real and virtual worlds. Both worlds retained their specificity.

LM transformed the concept of virtual and physiological time. The medium of virtual time included a real actor with whom the spectator could identify and thus gain a direct paradigm on which to model his own behavior, should his physical body ever find itself in a virtual interactive space.

The Show Hostesses, Rhythms, Slavonic Dances

Laterna Magika was not an easily described entity. The synthesis of film and theater was multilayered. It was a highly synchronized program, coordinated to the last detail, with everyone having his exact spot in a precisely marked space. That was how the performance made an impression of interactive improvisation. Of course, the improvisation was exactly timed: the action had its rhythm and dramaturgic time.



Alfréd Radok, Josef Svoboda
Laterna Magika,
Rhythms and Slavonic Dances
 program
 1958
 screen projection with
 live performance on stage
 Czechoslovak Pavilion,
 Brussels Expo
 © Sarka Hejnova

Not only did the actor or dancer here enter the virtual world of film that picked up a plot begun on stage (like the discussion between a real show hostess and her virtual colleagues in the *Show Hostess*.) The film and the staged plot stood in diverse dramaturgical positions: a dramatic contrast (*Slavonic dances*), dialog, or coexistence within multilayered parallelism (*Rhythms*).

The director built the plot in a sequence of situations – “signs” to evoke an “emotional convention” in the viewer. The director of the performance, Alfréd Radok, commented on his method: “The term ‘sign’ could best be traced from the rules that gave birth to what we call ‘film language.’ Film works with certain devices. To be precise: with the artificial reality of film. Its basis was created by filming simple signs. Later, when differentiating between the dimension of these signs and the sum of at least two signs we could obtain from a certain logical or spatial significance ... signs evoke in the viewer an ‘emotional convention.’ Emotional convention would be in our multi-stage scenic unit: a staging element with meaning reaching beyond logic an ever-increasing the psychological dimension.”

As Radok’s description explains, *Laterna Magika* was built on “emotional convention,” that is, on certain archetypal situations. Among them were compressed essential fragments of film, photography, theater, ballet and music, which all met together during an intense theater piece. It was no coincidence that Svoboda and Radok recruited the collaboration of a

young director, Milos Forman,³ who later became a leading figure in the New Wave of Czech film.

It seems that the LM principles have gradually been integrated into fields outside the theater, such as video art, computer art, Performance, Virtual Reality, VJ-ing, and so on. In *Laterna Magika*, as in *Polyekran*, Svoboda treated film shots in the same revolutionary way artists later did in video projection. The difference between cinema and video with respect to the spatial factor largely involves the field of projection. The confined two-dimensional nature of cinema may be overcome in Video Art by several means: by increasing the number of screens in use (Carolee Schneemann and Michael Snow),⁴ by contrasting simultaneously the physical representation and virtuality of the cinematographic image (Valie Export, Birgit and Wilhelm Hein), by dividing the screen into several areas in which images are re-grouped in a series of matching or contrasting combinations (Keith Sonnier), and finally by analyzing the mechanisms of the basic projection process (Anthony McCall).⁵

An important part of the LM aftermath was Svoboda’s artistic development. The principles of LM, which had already cropped up in his set designs prior to 1958, were deployed frequently after the success of LM at the Expo. It was more than mechanical repetition. Svoboda’s work with the medium perhaps advanced most when he designed, in collaboration with the MIT and Boston Public TV’s Channel 2, the set for the Opera Group of Boston’s 1965 production of the Luigi Nono opera *Intolleranza* (1960).

This multi-stage scenic unit might be, for example, the *Laterna Magika*.

The creator was Zdeněk Liška

Man on the Moon (1999), *The People vs. Larry Flynt* (1996), *Amadeus* (1984), *Hair* (1979), *One Flew Over the Cuckoo’s Nest* (1975), *Taking Off* (1971), *Fireman’s Ball* (1968), *Loves of a Blonde* (1965).

Compare Svoboda’s *Diapolyekran* with what follows. Also his audiovisual system *Symphony and Textile Container*, Montreal Expo, 1967

Frank Popper, *Art of the Electronic Age*, Thames and Hudson, London, 1993, p. 56

Svoboda had worked throughout his career on scores of theater productions.



Alfréd Radok, Josef Svoboda
Laterna Magika,
Hostess program
 1958
 multiple screen projection with
 live performance on stage
 35mm film
 b/w, sound
 Czechoslovak Pavilion,
 Brussels Expo
 © Sarka Hejnova



Alfréd Radok, Josef Svoboda,
Laterna Magika,
Musical Joke
 1958
 projection on a portable screen
 with live performance on stage
 Czechoslovak Pavilion,
 Brussels Expo
 © Sarka Hejnova

"There were three screening areas on stage. The film in the middle was linked to the stage plot. On the sides there were twelve monitors and two TV projectors (6 x 4 meters) projecting live action shot by cameras in two studios far from the theater, at a Boston street, in front of the theater, in the theater hall, and on the stage. We filmed the texts, photos, and ads in one studio, choruses and walk-ons in another, the audience in the hall, and the actors on the stage. The image collage made sense after being put together in the TV director's cabin. There, a train of images was created and projected by two giant monitors on stage. This immensely complex apparatus helped the choruses in the studio outside the theater sing under the direction of the conductor on the monitor, a live conductor conducting an orchestra in the theater. The viewer could simultaneously watch the action in front of the theater on the street. But the basic significance of the system was in its ability to pull the spectator unexpectedly and with full intensity into the play. During a protest song sung by a black singer, the camera filmed the theater audience, projecting their image onto a screen. People enjoyed seeing their own faces. At a certain point we changed the picture from a positive to a negative so that the screens were suddenly showing a black audience. Some spectators were upset. We filmed and played that as well. We even used a great moment and made the demonstration that was taking place in front of the theater a part of the show."⁷

This staging marked a peak of Svoboda's media experiments. In 1965, he incorporated in it several parallel real-time broadcasts followed by projections on screens and monitors from different places. Through industrial TV, he thus created real (and not just

fictitious LM-style) links between the projections and musicians, and feedback between the audience and its image.

It was primarily the link of image with real audience reactions, facilitated by cable television, that was a novel inspiration, not only in the media field but also in the context of performance and video art: "Acting in the context of the visual arts is relevant only inasmuch as it performs the elementary procedure of perceiving the network of relationships between performer and perceiver, both being simultaneously the subject and object."⁸

In an analytic, focused manner we encounter similar problems in Dan Graham's work. In video installations like *Present Continuous Past* (1974) or *Public Space / Two Audiences* (1976), he coldly presented the viewer as an "object," using the broadcast of his image followed by a video projection. These works resonate in a number of theoretical postulates clearly linked to Svoboda's ideas and the effects of real-time entrances onto the latter's set "design" for *Intoleranza*:

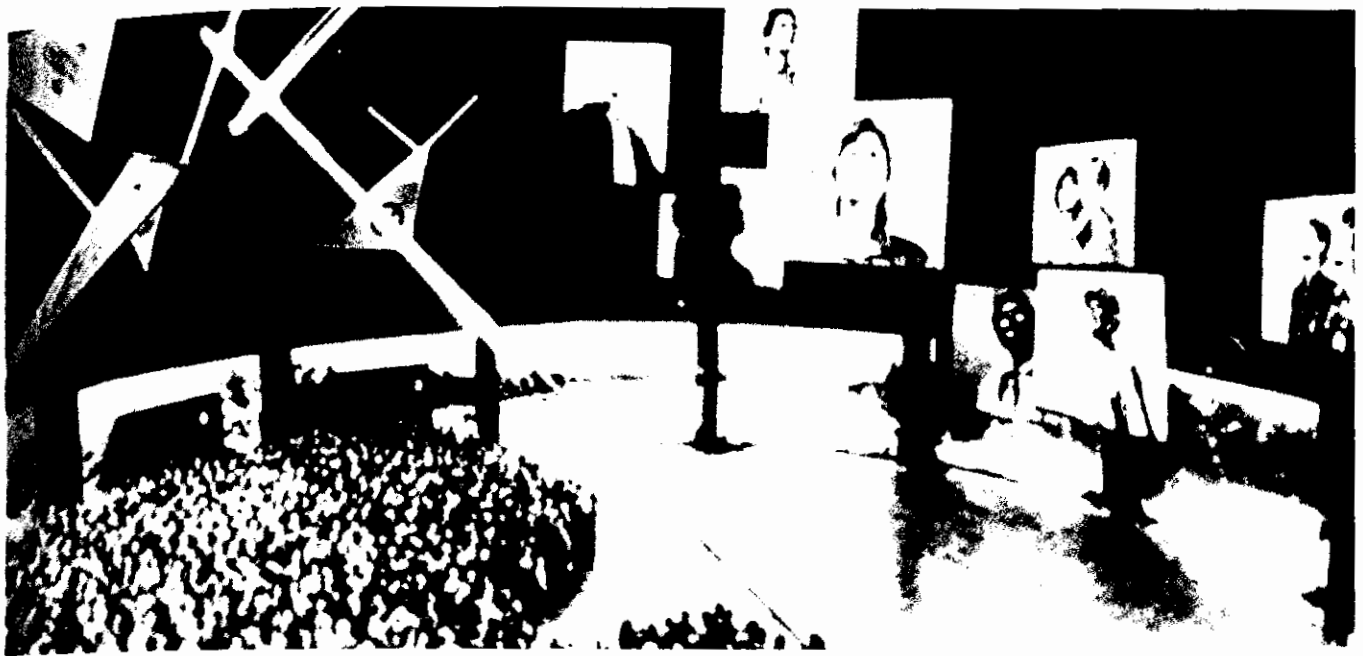
"There is no distinction between the subject and object. Object is the viewer as art, and subject is the viewer, as art. Object and subject are not dialectical opposites but a single self-contained identity: reversible interior and exterior termini. All frames of reference read simultaneously: object 'subject'."⁹

"I had the idea of a reciprocal interdependence of perceiver (spectator) and the perceived art-object/the artist as performer (who might in the case of Nauman present himself as/in place of this 'object'). In this new subject-object relationship, the spectator's perceptual processes were correlated to the compositional process (which was also inherent in the material... Thus a different

7 Josef Svoboda, *Tajemství divadelního prostoru*, [The Mystery of Theater Space], Prague, 1990, pp. 112-113.

8 Benjamin H. D. Buchloh, "Moments of History in the Work of Dan Graham," 1978, in *Neo-Avantgarde and Culture Industry*, The MIT Press, Cambridge, MA, 2000.

9 Dan Graham, "Sol LeWitt-Two Structures," in *End Moments*, Dan Graham (ed.), New York, 1969, p. 15, cited from note 14, p. 196.



Emil Radok, Josef Svoboda
 Polyekran,
A Mirror of My Country
 1959
 audio-visual program
 Brno Expo
 © Sarka Hejrova



Emil Radok, Josef Svoboda
 Polyekran,
A Mirror of My Country
 1959
 audio-visual program
 detail
 Brno Expo
 © Sarka Hejrova

idea of 'material' and the relation of this material-ity to nature (al) processes was also developed). This change in the compositional process came from developments in music and dance – where the performer or performance was the center of the work, executed and perceived in a durational time continuum.”¹

Polyekran

The principle of Polyekran – simultaneous film projections – first applied in the adjacent pavilion at the 1958 Expo in Brussels, was based on rhythmical links between sound, film and the real space of the stage. “The fundamental idea of the system was the effort to create space through film projections on several areas, placed throughout the space in a visually satisfying way ... The set design for *Prague Musical Spring* allowed the director (Emil Radok) to work with eight screening surfaces placed in black space. They had trapezoid and square shapes. Even though the viewers were not very far from these surfaces, they were

able to take them in all at once. The entire small hall was filled with a stereo soundtrack coming from loudspeakers and the whole place reverberated with sound. On the projecting areas alternated moving and static pictures from seven projectors and eight slide projectors.”¹

The rhythm of the multi-screening was determined by the relationship between film and slide projections, and also by the soundtrack. Similar to LM, it was a multi-layered, clipped and fragmented entity.

The effectiveness of multi-screening came from its effect on the senses – especially sight and hearing – by offering eight parallel films at once. When television was first starting out, this parallelism must have been striking. Even today, the “zapping” with which we respond to the parallel broadcasting of television programs enables us to watch only one channel at a time. “TV installations” – walls of TV screens in electronics store windows irresistible to the shopper – take full advantage of their effect on viewers. They create the unlikely possibility to visualize a spatial parallelism of

¹ Len Gronow in a letter to the author, August 1976

² Josef Svoboda on art p.189



world events, to participate in at once several realities, actions, stories and environments. The sophisticated multi-screen areas, like supermarket installations, give their viewer-visitor a magical feeling of entering several spheres at once. The installations are governed by their own logical timing that creates a distance and a loss of interest in one's own physiological time, while transporting human perception to a metaphysical zenith. Anti-synchronization, so difficult to apply on multiple levels in literature (as, for example, in Joyce's *Ulysses*), is natural and sincere in video and especially in the order of parallel projection. We could compare such experience with Cage's pure sound installation *Imaginary Landscape No. 4* (1951), in which the resulting experience comes from mixing sounds from twelve radios simultaneously tuned to different stations.

Photographs tell us that today we would use the term "video installation" for Polyekran (simultaneous film projection). As I said above in regard to *Laterna Magika*, simultaneous projection is a typical byproduct of the development of video art. Another nodal point connecting simultaneous projection, *Laterna Magika* and video art is the specific treatment of time within these media. "The fundamental difference between cinema and video, even at the experimental level, lies in their respective treatment of the time factor. Video can, and does, represent real time which in cinematic projects such as Léger and Andy Warhol, emerges as a self-contradictory element."¹² As Hermine Freed¹³ notes, early realizations of video art newly articulate their topical character: The video medium was identified with directness and immediacy of the opportunity to replay filmed material without delay, connected from the start to using several cameras and projectors at once.

It is obvious that the concept of parallel film projections through a concrete space onto projection surfaces placed in a visually calculated way has now been integrated into the operational apparatus commonly used in video studies departments of art colleges. This development has been brought about by the work of artists like Bill Viola and Tony Oursler and others who experimented with the composition and form of projection surfaces. Svoboda's simultaneous film projection was the direct forerunner of their work.

Kinoautomat

The organization of the Czech representation at the Expo 67 in Montreal placed Radúz Činčera in the interactive field. Činčera suggested the realization of his creation, the Cine-automaton. The Kinoautomat came up with the novelty of handing over to the audience the decision about plot. Using a voting machine (yes/no) built into the seats, the filmmaker gave the viewers several opportunities to decide on the further plot development. The show included appearances by the film's lead actor Miroslav Horníček; live on stage, he created a bridge between virtual narration and the real breaks between viewing segments in which he offered comments. The host always concluded his lively film commentary by offering the viewers a choice of the next development. The Kinoautomat was indeed "interactive." The projectionist had in his cabin all the possible versions the viewers among which the viewers could choose. The film, an ironic tale of life in an "ordinary block of rented apartments," was a delightful example of the outstandingly rich Czech New Wave of the 1960s.

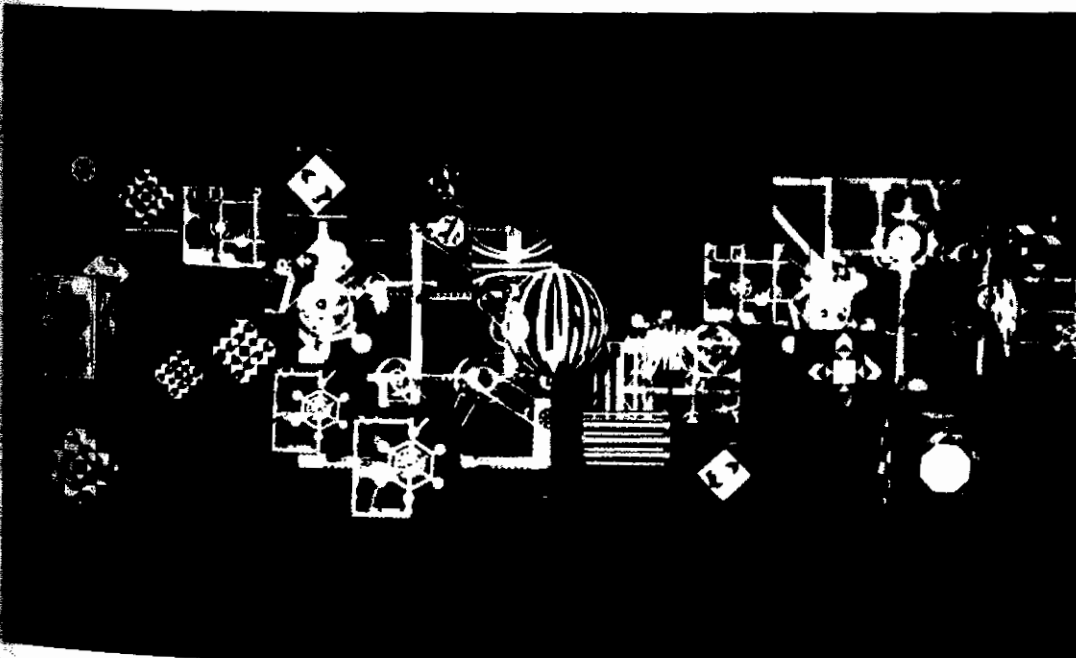
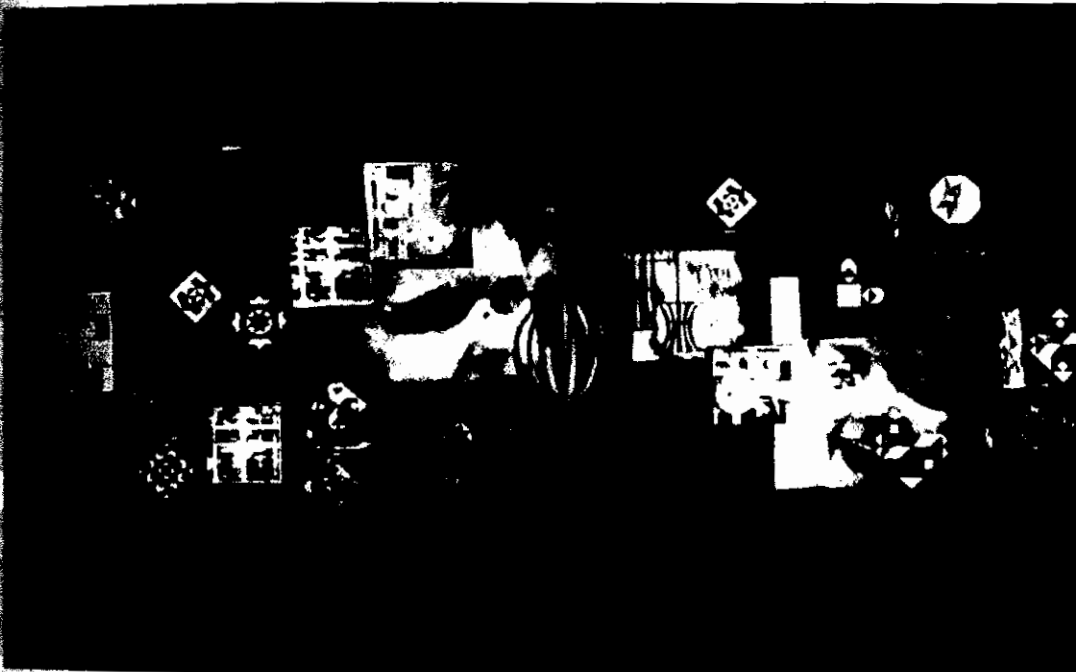
The Kinoautomat made the passive viewer active, and offered him the opportunity to become what we might today call a film "user." Haptically, a control system helps to materialize a true entrance into the virtual world of film that the viewer can form through the aid of primitive mechanical tools. The often overlooked haptical phenomenon is significant. This precedent has shown that simple human instruments allow even a casual spectator and user to intervene, form and edit a medium so highly elusive as film. In a time when DVD technology makes it possible to edit and work on a film (be it a holiday video or the biggest Hollywood blockbuster) with a personal computer, a return to the Kinoautomat is meaningful.

¹² See Frank Popper, op. cit., note 13, p. 56.

¹³ Hermine Freed, "Time of Time" in *Arts Magazine*, June 1975



Alfred Radck, Josef Svoboda
 Polyekran
 1958
 audio-visual program
 Czechoslovak Pavilion,
 Brussels Expo
 © Sarka Hejnova



Josef Svoboda
 Polyvision,
 Textile Condition program, and
 Symphony program
 1967
 multiple-projection cinema
 set-up
 35mm film and slides projected
 on moveable geometrical
 objects, projection screen
 color, sound
 Montreal Expo
 © Sarka Hejnova