



Scenographic engineer Josef Svoboda and Laterna Magika as a creative laboratory under state socialism

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ABSTRACT

Josef Svoboda's career was strongly linked to the exploration of new media and technological innovation. Svoboda realized his creative visions not only in domestic and foreign dramas and operas and artistic exhibitions, but also in the framework of a project on which he collaborated at the end of the 1950s – the multimedia theatre Laterna Magika. In this text, we analyze the stage design of Josef Svoboda for Laterna Magika from several perspectives. At the most general level, we are interested in his strategy of building Laterna Magika as an open creative environment and laboratory inside a restrictive socialist culture. Scenographically, we are interested in the role of film and television in his stage design and his experimentation and innovation in lighting design and stage kinetics, leading to virtuality and immersion as well as the reformulation of the concept of the screen on the stage. For Svoboda, Laterna Magika was an experimental space in which he planned to create a theatre with a fully variable stage that broke the line between actors and spectators and created a psycho-plastic space for the viewer.

Josef Svoboda's career was strongly linked to the exploration of new media and technological innovation. However, the circumstances of how these innovations emerged under the conditions of state socialism have not yet been fully examined. Svoboda realized his creative visions not only in domestic and foreign dramas and operas and artistic exhibitions (Albertová 2013), but also in the framework of a project on which he collaborated at the end of the 1950s – the multimedia theatre Laterna Magika, which was described by contemporaries as 'a synthetic dramatic art that incorporates the unity of specific arts – theatre, film, ballet, music, poetry etc., of which theatre and film, especially Polyekran, constitute its basic components' (Kliver 1970, 76).¹ Originally composed of individual, short skits as a variety show, Laterna Magika was established as a cultural and representative instrument of Czechoslovakia for Expo 58 (the 1958 Brussels World's Fair), and Svoboda participated in its initial conception together with the director Alfréd Radok (Figures 1 and 2).² The fusion of Svoboda's artistic visions, managerial skills, and creative authority in his later work for Laterna Magika allows us to thoroughly analyze the possibilities of artistic experimentation under the conditions of a restrictive socialist culture.



Figure 1. Photo from *Laterna Magika*'s first performance at Expo 58 showing Jiří Šlitr at the piano and Sylva Daničková as the Mistress of Ceremonies. Private archive of Josef Svoboda.

Expo 58, as the first post-war international exhibition of its kind, was an arena of Cold War rivalry (Reid 2017). Socialist Czechoslovakia participated in this struggle in conjunction with other countries of the Soviet bloc, with the cultural-political goal to introduce itself as a country with a rich history and playful culture, while following current international trends in industry, science and technology, and ready to trade abroad. The decision to participate in the Expo was related to changes in the second half of the 1950s, when the Soviet bloc countries reconsidered their cultural policies as a result of Khrushchev's critique of Stalin's cult of personality and, rejecting isolationism, resumed diplomatic contacts with foreign countries. It was the Expo as a show at which individual countries present their art, science and technology in national pavilions that provided the ideal opportunity to present 'modern' Czechoslovakia. The proposal to supplement the exhibition in the Czechoslovak pavilion with a non-stop program of *Laterna Magika*, prepared by Alfréd Radok, also ideally connected art with technological media. It was a performative art with a new technological principle of simultaneous film projection on several projection screens, something with which Western artists were also experimenting. Due to its success in Brussels, *Laterna Magika* established an independent existence and began touring to other locations and venues; new programs were prepared for other World Expos as well. The tour program was later supplemented with permanent performances in Prague.

Throughout its existence, however, *Laterna Magika* functioned as a showcase of socialism under political supervision. The theatre and cinema institutions to which *Laterna*

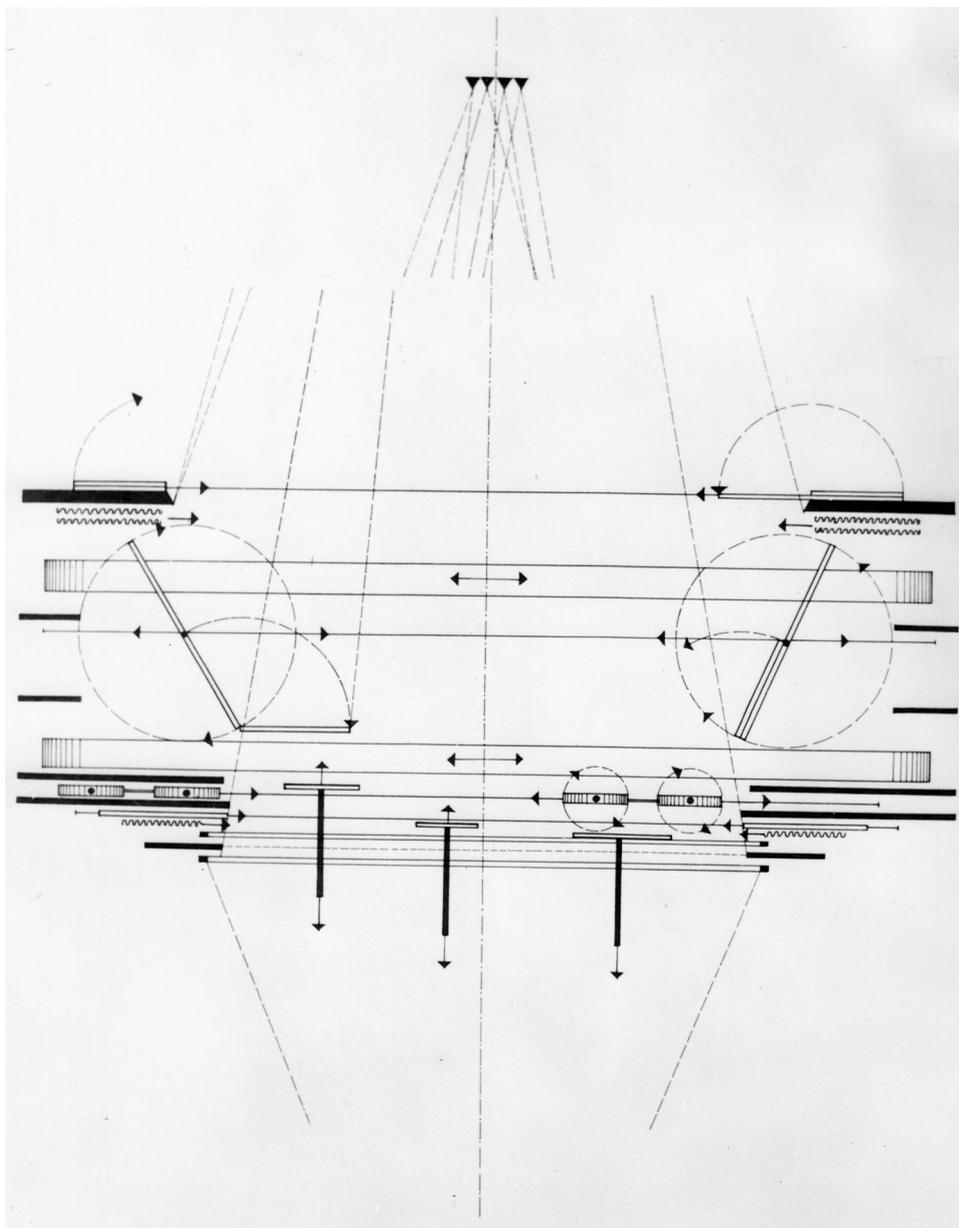


Figure 2. Technical design for *Laterna Magika*'s first performance by Josef Svoboda. Private archive of Josef Svoboda.

Magika belonged, under the supervision of the Ministry of Culture, perceived the initial success in Brussels as a promise of future cultural-political developments, while also recognizing its business potential. As in the case of other Czechoslovak foreign activities, *Laterna Magika*, as a tool of cultural representation, a tool of cultural diplomacy and a tool of trade and export of technological innovations, found itself in the challenging situation of being an experimental workshop under political supervision, influenced by both political and business interests. It was expected to fulfill ideas of cultural-political elites about

national representation, while at the same time remaining artistically and technologically competitive on an international scale. Josef Svoboda's appointment as artistic director of Laterna Magika in 1972, taking over from Radok, confirmed this long-term goal. Svoboda, as a member of the Communist Party and an internationally recognized artist, to a large extent connected all the promises associated with Laterna Magika: artistic and technological experimentation as well as cultural and political representation.

To say that Laterna Magika was, on the one hand, a state-subsidized tool for the cultural promotion of socialist Czechoslovakia abroad and, at the same time, an environment of theatrical, especially scenographic experimentation, may appear paradoxical at first glance. The experimental nature of Laterna Magika may seem contradictory to the direction of the socialist culture in which it emerged and operated, a culture that preferred uncomplicated and unambiguous norms and clear and precise forms, tending towards totalitarianism rather than perpetual experimentation. However, it was the experimental nature and plurality of forms that were dictated by the state. In 1956, the Ministry of Education and Culture commissioned the National Theatre in Prague to create a design for the Czechoslovak pavilion for the upcoming Expo 58 in Brussels, whose motto was 'A World View: A New Humanism'.³ In the same year, an independent state committee for Czechoslovak participation in the World's Fair was established and its financial and organizational aspects were supervised primarily by Minister of Culture František Kahuda and Deputy Prime Minister Ludmila Jankovcová. The pavilion was to introduce 'One Day in Czechoslovakia', comprised of 13 scenes that were to represent all aspects of contemporary life in the CSSR. By showcasing selected sectors of industry, arts and culture in their mutual interconnection, it was intended to prove the successes of heavy industry and agriculture as well as the overall harmonious flourishing of the country under Communist rule – a country ready to renew its pre-war business contacts. What is now known as Laterna Magika⁴ emerged from this proposal. Thus, from the very beginning, the inner paradox of Laterna Magika as both a political representation and an artistic experiment was present.

The paradox lies in the fact that we tend to perceive experiment as synonymous with a progressive approach to the world, keeping in mind its original avant-garde gesture which sought to reach new aesthetic paradigms and approach things from a different perspective. Historically, it assumed two very different and very contradictory forms.⁵ While one was linked to the 'experimentum' of technical character, which was based on science and allowed the experiment to be repeatedly conducted, the other was linked to experiments in the spirit of 'experiential', which approximates dialog and art forms, and converges with immediate experience, observation and exploration of different perceptions. This dual nature of experimentation was discussed by Jaroslav Volek, an influential art theorist and expert in aesthetics and musicology, during his seminar on experimentation in art in March 1966 (Volek 1966, 1–2). Volek explained that, while the former type of experimentation is inherent in science and technology and excludes a union with art, the latter type of experiment transcends into the realm of thought, and thus also art. In its essence, the experiment which is backed up by official ideology is very close to evidential experimentation as adopted from natural sciences, which is based on repetition, standardization and typification (Sochor 1964, 189). Rather than pioneering, uncertain results and constant trial, this type of experiment sought development, subsequent unification, the determination

of the average and its conservation as well as a revision of the socialist system and its culture. Experiments of this type were conducted in culture (socialist realism as such can be seen as an experiment in many respects) as well as in politics, economy and urban planning, often also being of a social nature.⁶

In the 1960s, *Laterna Magika* approximated the former type of experiment and was in sync with the technological progressiveness and optimism that were, at the time, fundamental. The transformation of content, structural changes and a shift towards the experiment of the latter type, i.e. that based on constant search, only emerged in the mid-1970s when Josef Svoboda became the artistic director of *Laterna Magika* and strove to seek new forms and formats for each production rather than simply staging new stories within existing mechanisms. *Laterna Magika* thus started to abandon what Ivan Sviták characterized in the 1960s as 'intellectual shyness', its 'promotion of feudal folklore and tourism', and began to explore the potential of its form, described by Sviták as 'a multiplication of optical impressions, analytical possibilities of representing objects in a multifaceted way, actual employment of deformation and cubist decomposition of objects, possibilities of the counterposition of actual events and significantly strong expositions of inner monologue' (Sviták 1963, 401). *Laterna Magika* was, essentially, an inheritor of avant-garde theatre, and the avant-garde gesture of perpetual experimentation was integrated within the structure of its intermedial performance. Radok and Svoboda directly referenced German director Erwin Piscator, and above all the original experiments of Czech avant-garde theatre directors Jindřich Honzl and Emil František Burian as well as scenographer Miroslav Kouřil. Burian and Kouřil's Theatregraph combined the principles of illusory and symbolist theatre with modern technology and avant-garde thinking to create a polyphonic composition, epic and lyrical at the same time. Svoboda shared the avant-garde principle of a theatre as a laboratory and developed it within the conditions of socialist culture of the 1970s and 1980s.

Svoboda took over the position of artistic director of *Laterna Magika* in 1972, at a time when the company's fame had significantly declined (Figure 3). Reviving an organizationally, financially and technologically demanding colossus in the era of emerging Normalization in the early 1970s⁷ required more than just a strong creative vision. Svoboda's position in the Communist Party and his status as an established state-sponsored artist with an international reputation certainly cemented his position. But Svoboda also proved to be an excellent manager who used his network of contacts to secure organizational, developmental-experimental and artistic levels of support for the project. He succeeded in maintaining state support for the financially demanding theatre with its costly productions.

Cultural exile

In many ways, *Laterna Magika* under Svoboda defied the traditional notion of socialist culture. It developed its artistic work in connection with research institutes (the Laboratory of Scenography, the Research Institute of Audiovisual Technology [VÚZORT]), traded with the West and, moreover, in the 1970s, made it possible for a number of creative artists in other media – filmmakers, writers and visual artists – who had been expelled from their previous positions to continue their careers in the theatre. This 'forced' interdisciplinarity then became another hallmark of *Laterna Magika*'s creative workshop. In the time of Normalization (i.e. in the time of prohibitions and restrictions on

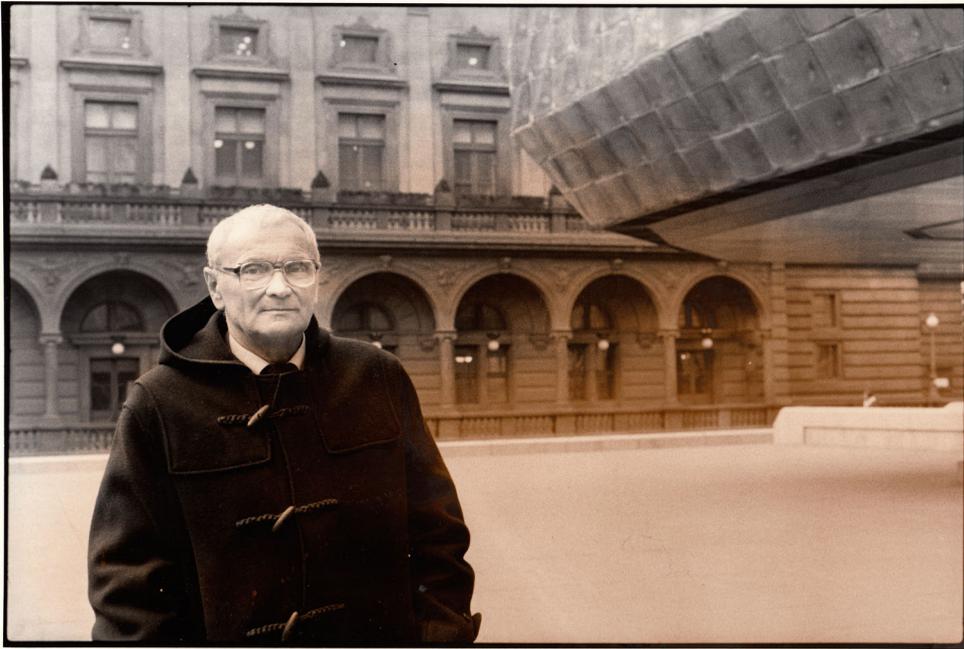


Figure 3. Josef Svoboda in front of the New Stage of the National Theatre, where *Laterna Magika* relocated in 1992. Private archive of Josef Svoboda.

experimentation and cultural growth), *Laterna Magika* became, paradoxically, a place of new experimentation and creativity a home of sorts for ‘cultural exiles’.

Svoboda and the company’s production manager Jaromír Kallista employed or involved progressive artists of the 1960s such as directors Antonín Máša, Miroslav Macháček and Evald Schorm, cameraman Jaroslav Kučera, visual artists Petr Sís and Eva and Jan Švankmajer, and (remarkably) writers Jan Skácel and Jiří Fried. While these artists could not fully focus on their professions and continue their own already-started projects (some had been banned completely), in *Laterna Magika* they created performances representing socialist Czechoslovakia abroad or for tourists, confirming the declared ‘progressive’ tendencies and the ‘high’ quality of contemporary Czechoslovak art. Their work was linked to the creative search for artists of the younger generation, such as architect Jindřich Smetana, musicians Michael Kocáb and Petr Eben, visual artist František Skála and dancers from the amateur ensemble Cramp Ballet Unit. This officially-supported theatre thus provided an ‘alibi’ for the engagement of these people.

Strong artistic personalities, however, brought with them their signature styles as well as specific routines and practices they exercised in their previous jobs. This fact strengthened the importance of the search for a common language of cooperation, which the authors of *Laterna Magika* found in the process of thorough testing and reworking of the original idea (the conditions for such a long examination of artistic methods were provided by the state background). This process also led to the redefinition of traditional technical documents facilitating the synchronization of individual components of the final work. Technical scripts for *Laterna Magika* were multilayered documents that

recorded detailed changes (in lighting, music, movement, projection, etc.) with precision in seconds (Figures 4 and 5). Many new works from the 1970s and 1980s benefited from recycling, recontextualizing and 'preserving' a number of experimental methods that were based on previous experiences that individual artists brought from their previous work.

There were a number of compelling shows at the time, including *Night Rehearsal* (1981), *The Black Monk* (1983) and *Vivisection* (1987). Examining these productions, it is clear that they were influenced by the creativity of blacklisted artists who disrupted standard production practices and re-energized the theatre, creating new content through formal experimentation. For instance, cinematographer Jaroslav Kučera, who worked on *The Black Monk*, used high-contrast film, typical for documentary cinematography, for the filmed components of the production (he used a similar procedure in realistically conceived scenes in a Czech new-wave fiction film, *Diamonds of the Night* (1964)). Instead of spatially separated screens, Svoboda concentrated several projections into a single spot, which produced a specific layering of different formats, rhythms and motives which worked in an internal dynamic and gradation within the spatial composition (Figure 6). In other productions (e.g. *Odysseus*, 1987, *Minotaurus*, 1990), Jindřich Smetana and Jaroslav Kučera used not only various reflections but also an additive composition of colors and a decomposition of monochromatic images,⁸ so that the shadows of dancers had sharp, multicolored outlines. (Similarly, Kučera previously worked with classical film material in post-production; he used the multiplication of film frames in an Oxberry optical printer in the manner of an animated

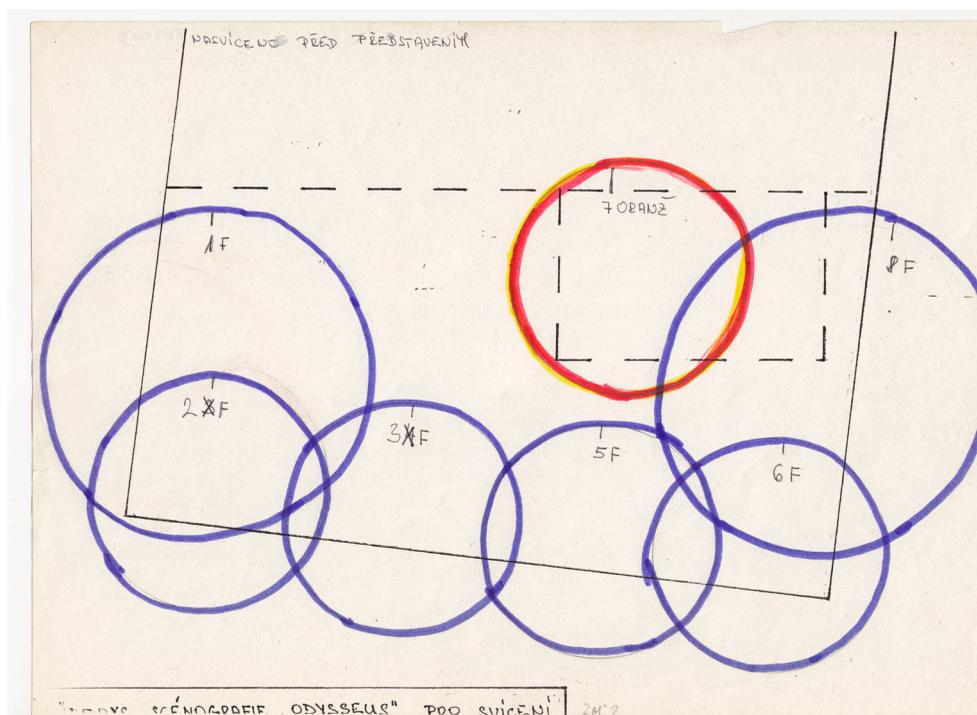


Figure 4. A stage lighting sketch for the tour rendition of *Odysseus*. Private archive of Jan Martinovský.

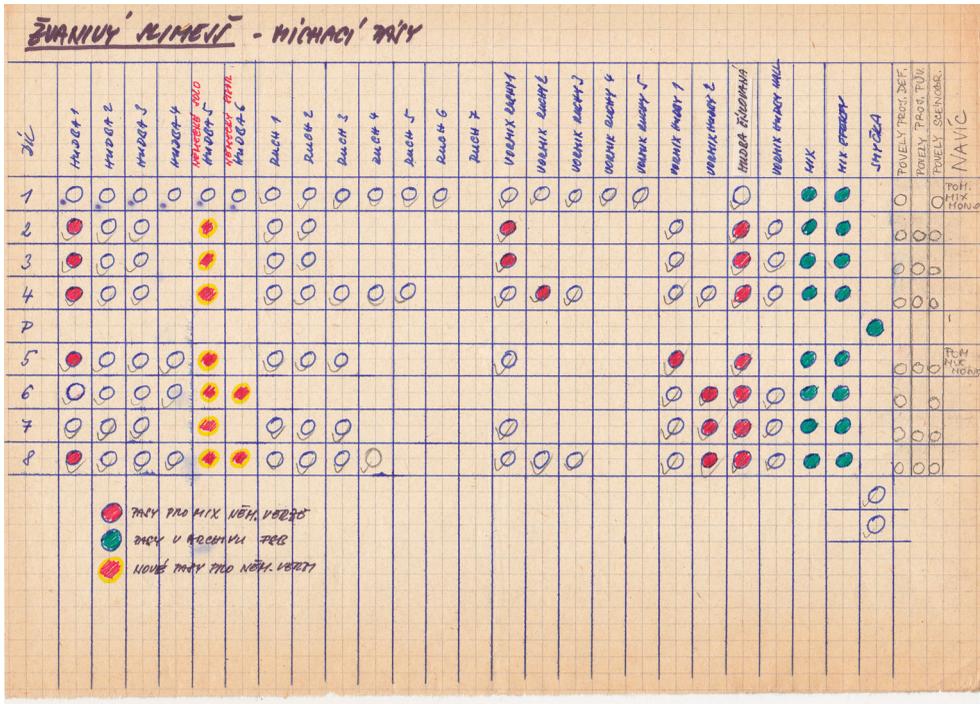


Figure 5. A chart of mixing tapes for the performance *The Garrulous Slug* (1984). Private archive of Ivana Slámová.

film and thus achieved a specific blurred or jerky motion for visually stylized films by director Věra Chytilová such as *Daisies* (1966) and *Fruit of Paradise* (1969).) At the same time, repetition of some of the older techniques and their use in a different context were combined with a number of new techniques and technologies – *Night Rehearsal* and *Vivisection*, for instance, made use of synchronous image transfer with television cameras. Both productions included television in the plot, multiple individual audiovisual inputs, and thematized the ‘side view’.⁹ In particular, *Night Rehearsal* employed several cameras in two inner television circuits. These cameras captured the events on the stage and behind the scenes, as well as theatre spaces accessible to the public. All these television recordings penetrated the performance (by revealing the events taking place behind the scenes, confronting the artists and the spectators, and showing close-ups of the actors) (Figures 7 and 8).

From the late 1970s and into the 1980s, the original content of individual parts of *Laterna Magika*’s ‘collage’ (non-mimetic and non-indexical) was enriched by a memory that was not historical – ‘footprints’ of original works by authors in ‘cultural exile’. Photographic fragments pointed away from their original place and time; they were able to cite, allude to and newly frame events and works of a time that was already banned and that was marked for revision by new works. For instance, they cited works of the Czech new wave – by directors Evald Schorm and Antonín Máša, actors Radovan Lukavský and Jan Kačer, or the above-mentioned Jaroslav Kučera, a cinematographer who was involved in many author-driven projects of the 1960s. State representation thus became imbued



Figure 6. *Laterna Magika* is based on the relations between various media that influence, transform and ‘infect’ each other. For instance, in *The Black Monk*, images are projected onto a theatrical curtain rather than the film screen. Source: Arts and Theatre Institute. Photo: Oldřich Pernica.

with a memory of the late 1960s experiment which had a different task than to represent reality after the Prague Spring, under a socialist regime.

With an emphasis on interdisciplinary collaboration, collective effort, development, search and experimentation, *Laterna Magika* approached the trends which, as John Beck and Ryan Bishop argue, characterize the establishment of Western art-technology laboratories:

The postwar emphasis on interdisciplinary collaboration and creativity in the human and physical sciences chimed with the broad contours of the historical avant-garde’s challenge to bourgeois art, namely through a rejection of individual genius and a stress on collective practice; a commitment to experimentation and process over outcome; a dismissal of medium specificity and a dismantling of the distinction between art and non-art, or, in other words, between art and life. (Beck and Bishop 2020, 5)

Laterna Magika, however, developed its interdisciplinarity under state socialism. The Czechoslovak pavilion for Expo 58 (of which *Laterna Magika* was a part), to a large extent, accentuated the synthetic concept and complex presentation of a certain theme in the exhibition space. The architects of the Czechoslovak pavilion František Cubr, Josef Hrubý and Zdeněk Pokorný emphasized that they wanted the collaboration among painters, sculptors and graphic artists to be projected onto the interior and exterior architecture of the exhibition pavilion so that a complex artwork could emerge. At the same time, they ‘tried to [...] make the collaborating artists understand that their artworks are to

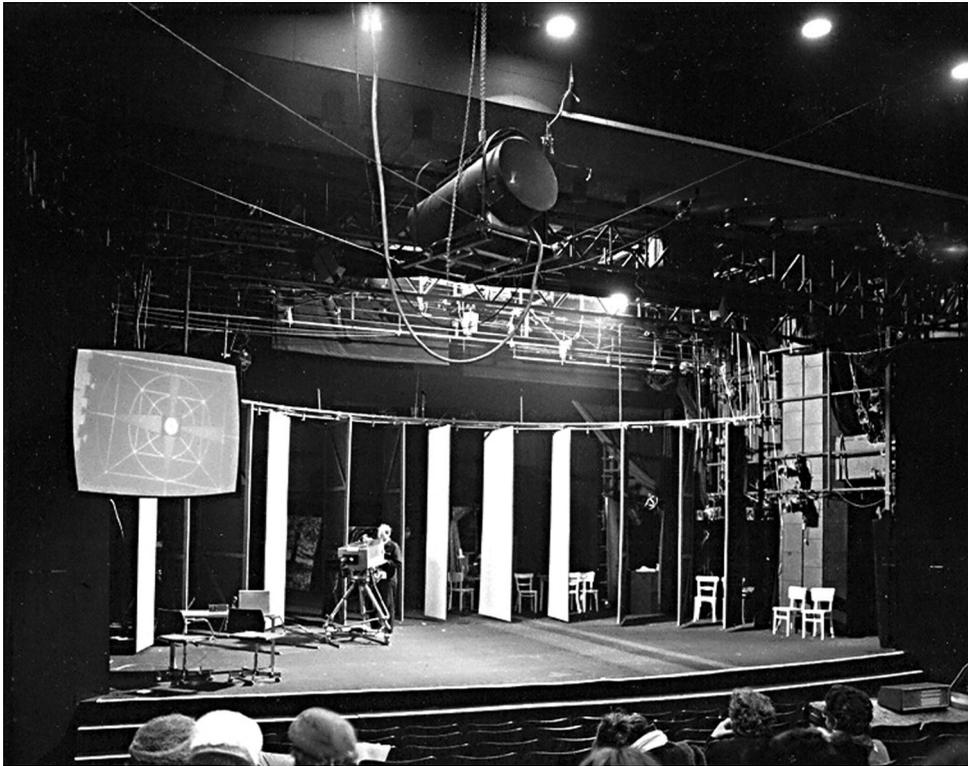


Figure 7. *Vivisection* (1987) employed live broadcast of images through television cameras. Source: Arts and Theatre Institute. Photo: Oldřich Pernica.

become vehicles of the thematic program of the entire [...] exposition' (Cubr, Hrubý, and Pokorný 1958–59, 264). Close interdisciplinary collaboration was also shown in the fact that the exhibits were selected not only by the exhibition curator, but also by screenwriters, visual artists, architects and technicians. *Laterna Magika* worked on similar cooperation and connections between technical and artistic professions. However, this basic concept of cooperation was not in line with the avant-garde gesture, denied in Czechoslovakia in the 1950s, but followed the idea of collective work of socialist realism and techno-optimism. The 'machine' of *Laterna Magika*, with its need to synchronize all individual components – film screenings, music, performing bodies and other technical and technological components¹⁰ – seemed to be an ideal instrument for socialist cooperation, usable in the framework of the scientific and technological competition during the Cold War.

We can say that in the era of socialist 'normalization', the reality of the everyday was 'disappearing' or deforming under the layer of norms. In this situation, both new and older experiments were able to 'rediscover' the new perspective on society and art, providing views from multiple sides again, restoring the essential polyvocality of everyday life. *Laterna Magika* with its constant experimentations, media paradoxes, searching for both vanishing formal devices and new expression, thus offered a completely specific, more complex experience. By twisting reality and authenticity, a totalitarian society creates demand for an alternative image-space with an open structure that invites



Figure 8. *Vivisection* (1987) employed live broadcast of images through television cameras. Source: Arts and Theatre Institute. Photo: Oldřich Pernica.

viewers to explore their inner, ‘psycho-plastic space’ (according to Josef Svoboda). This creates a place for imagination in the web of images, a space for memories in the process of forgetting, and multiplicity in its dynamic in contrast to the unfree, unified, normalized and regulated present. In this sense, *Laterna Magika* can be viewed as an ‘open’ work, with ruptures in its totality, as well as an implicit critique of socialist society. (One cannot claim that the critique was necessarily deliberate or planned, yet its very form – image-collage – and its qualities made it possible.) Perhaps this might be why *Laterna Magika*’s performances were so important at a time when there was little faith in reality.

Laterna Magika is not a fixed form, but rather based on the constant encounters of different media principles in a single space, on their competition and subsequent synchronization. The complicated nature of this fundamental relationship is suggested by scenographer Vladimír Soukenka in his description of the production of individual performances, which is rather different from the production of other artworks:

After preparatory stage rehearsals and completion of the set and film materials, the entire project would meet on the stage. Tests and adjustments would follow. We would get back to the original acts, change the choreography, reshoot the film, redo the stage design. What was especially time-consuming was the rehearsals where we could not freely rewind analog film. The visual materials were edited into the individual short loops typically used in dubbing. These short sections would be rehearsed individually. To stop the film strip, we had to remove the perforated strip from the mechanism of the projector, splice it, rewind it and put it back. (O. Svoboda 2015, 34–35)

The production and the mechanism of the resulting performance seem rather complicated as well as hierarchized, causally related and precisely designed. Nevertheless, from a theoretical perspective, the individual elements are not so clearly anchored, also

because the new form was born out of known media, i.e. sound film, synchronized color slide projection, theatrical stage elements and exhibition design (Baran 1978, 201). In mutual confrontation, individual influences and media change and their characteristics turn into their opposites. The film scenes often use theatrical elements, thus denying the realistic character of the film image. The moving images expand into space and can be seen as a peripheral zone in which time, space and the represented characters are not stable, which is not typical for the theatre stage. (Other elements expanding into space include cinematic techniques; for instance, editing organizes not only the narrative in the film scenes but also the entire performance.)

To achieve the interconnection of these units into a new whole – and thus to prevent complete disintegration – it was necessary to reconcile the disparate codes of the individual parts and their modes. This is one of the reasons why Svoboda's work for *Laterna Magika* was so often based on an experimental combination of two or more media for the purpose of synthesis, adapting themes characteristic of other media and employing intermedia references on the level of style or form. Because the technology of the period did not match the visions of the creators, who required a more and more grandiose visual spectacle to astonish spectators, the scenographers along with the scientific and technical community had to look for unusual solutions, employing all kinds of analogue 'inventions' (Interview with V. Soukenka by Jan Trnka, 6 May 2017). During the implementation of the individual images and scenes, the creators often employed algorithmic chains, seeking inspiration in various mechanisms used in other arts and media. For instance, the film scenes were edited into short loops similar to those used in dubbing; the changes in acting and stage design in *Wonderful Circus* (1977) were synchronized with the music score, as each change was signaled by a triangle strike included within the music; in *Snow Queen* (1979), the changes of the slat panels were controlled by the switches of a children's electric piano (Figure 9), and the entire course of the scenic transformations was transcribed into notes and controlled by stage managers who were able to read musical notation (Svoboda and Soukenka 2015, 34–38); the film images of dance in *Odysseus* (1987) were created by animating the individual edited film frames capturing the movement of the dancer who was stopped during the copying process in the manner of photography or slides and composed into a new abstracted and ornamental choreography (Interview with J. Smetana by Jan Trnka, 27 April 2017).

With the accent on the laboratory model, Svoboda created an atypical interdisciplinary space bringing together artists and craftsmen from various professions as well as engineers, chemists, physicists and optics experts. This variety, however, also caused complications, as it was a collaboration between creators who were not familiar with the working processes of artists from other art disciplines – theatrical people did not have detailed knowledge of film work, filmmakers had little clue about theatre, and artists were incapable of technological innovations. While each profession dealt with its task during the preparation of the performance, if the partial elements were not synchronized and adapted to the whole, the performance would fall apart. Very often, the creators had to make 'mistakes', in terms of their profession, so that their contribution was usable for the whole. The mechanism of *Laterna Magika* transformed all the components of the performance, which had to be constantly synchronized with the technical components. This was most evident in the work of the live actors on stage that was dictated by the movement of the machine rhythm.



Figure 9. The performance of *The Snow Queen* employed projection on rotary slat panels controlled by switches on a children's electric piano. Private archive of Josef Svoboda.

The need for such coordination also conditioned the ways of working within the Laterna Magika team. Josef Svoboda, as the artistic director of Laterna Magika in 1972, was able to develop this type of cooperation very successfully and, thanks to the functional interconnection of the organizational-administrative, technological and artistic components of the Laterna Magika mechanism, create a creative workshop connected to the international environment.

Josef Svoboda as manager

Josef Svoboda's activities as artistic director of Laterna Magika show that besides his artistic career, he was also a rather skilled manager. He managed to create and coordinate not only the creative core of Laterna Magika but also the administrative-organizational and technical-artistic sections.¹¹ One of the key levels of negotiations for the administrative and organizational component of Laterna Magika were the negotiations on technological development and the necessary equipment and components. The equipment for the Prague stage as well as the tour sets required a relatively large lump-sum investment, while securing materials and components was also costly and complicated. Negotiations with local national enterprises (especially Meopta Přerov which produced optical equipment and Mez Náchod which produced new selsyns¹²) were protracted, as these enterprises followed their own production plans and the development of equipment commissioned for Laterna Magika was not a priority for them. Moreover, a number of components, materials and apparatuses were not available in Czechoslovakia and their

import from the West was burdened by many bureaucratic obstacles. Besides Eastman-color film material, the products that had to be imported from 'capitalist markets' included speaker systems, electrostatic loudspeakers, xenon lamps, xenon slide projectors, projection screens and spotlights; the orders were hard to approve and took a long time to be executed.¹³ This model of diverse dependencies on domestic industry, state administration and foreign suppliers required a lot of contacts, managerial skills, the art of diplomacy, and the ability to look for alternative production and creative solutions if some of the negotiations failed. In this sense, *Laterna Magika* was helped by long-term cooperation with several research institutions and organizations, namely the Research Institute of Audiovisual Technology (VÚZORT) and the Laboratory of Scenography.

It is significant that Svoboda, besides working as a theatre set designer, designed numerous spatial solutions for various expositions as well (at Expo 58 he created the architecture for the exposition of historical glasswork, among others). His work was closely linked to the activities of the Laboratory of Scenography, founded in 1957 as part of the workshops of the National Theatre¹⁴ under the guidance of avant-garde scenographer Miroslav Kouřil. Although its main aim was to establish a platform for scenographic theatrical practice, it was by no means limited by the theatrical stage. On the contrary, it made use of the possibilities of light composition and kinetic interventions in space on a general level. While the laboratory naturally focused primarily on practice, it also dealt with a theoretical reflection, which it had developed primarily in its periodical *Acta Scaenographica*. Published by the laboratory, *Acta Scaenographica* reprinted texts by Czech avant-garde artists Zdeněk Pešánek, František Kalivoda and Arne Hošek, studies on light kinetics, cybernetics, the sculptures and objects of Nicolas Schöffer, and so on.¹⁵ The Laboratory of Scenography also gave rise to several projects focused on the development, testing and 'introduction' of various processes, techniques and technologies in accordance with the technician experimentation) popular at the time. In the early 1960s, the Luminiscent Theatre attempted to standardize a new, abstract theatrical genre based on the effect of photoluminescence. The Laboratory of Scenography analyzed the relationships between the viewer and the theatrical space, as well as between an actor and a costume or mask, and tested new materials (not only in terms of set designs) as well as sound and lighting technologies. It also included a reflective moment, as the viewers were able to go behind the scenes during the performance where its technological aspects and the craftsmanship of theatrical operation were revealed.¹⁶ Mainly thanks to these synergistic links between theoretical reflection, theatre practice, research and the experimental development of scenographic solutions, Czechoslovak scenography achieved international success at the São Paulo Biennial in the 1960s (Nekvindová 2018).

These efforts took on another dimension when the Prague Quadrennial was established in 1967 and the headquarters of the International Organization of Scenographers, Theatre Architects and Technicians (OISTAT)¹⁷ were settled in Prague at the initiative of the International Theatre Institute. In the following years, the Prague Quadrennial and OISTAT (despite the onset of Normalization) became platforms for the exchange of knowledge, experience, ideas and inspiration in the field of scenography across the Iron Curtain. Josef Svoboda regularly participated in the Prague Quadrennial as an exhibitor or judge, and held the position of general secretary at OISTAT from 1972 to 1984.

Not only thanks to Svoboda's engagements abroad, but also thanks to these ties between Prague and the international scenographic community, Laterna Magika remained in close connection with the international trends in theatre scenography in the 1970s and 1980s, and managed to build on previous foreign successes after several years of silence.

With the performance of *The Wonderful Circus*, it embarked on a new tour and also managed to sell some productions under a foreign license. In late 1976, Laterna Magika started negotiating the co-production of a children's performance playing with the motifs of classic fairytales, *The Lost Fairy Tale*, at the Young People's Theatre in Toronto.¹⁸ This experience formed the basis for a number of following negotiations and sales of licenses for Laterna Magika's performances. This was possible thanks above all to the international contact network of the OISTAT and of Josef Svoboda, whose colleagues actively approached Laterna Magika regarding collaboration. The contracts that went the furthest were those with Howard Burman, a theatre professional and representative of Cameo Entertainments in California. Although Burman was already captivated by the dramatic performance *Night Rehearsal* (1981), which employed live television broadcast techniques, as well as the original opera *The Garrulous Slug* (1984), for which he bought licenses, it was only the adaptation of Chekhov's *The Black Monk* that received an American premiere in October 1986.¹⁹ These examples show that the ambition of Josef Svoboda and the organizational team of Laterna Magika was able to expand abroad not only in the form of tours, but also in the field of purely business activities – the sale of licenses. However, it turned out that transferring these performances to other spaces was technically and financially demanding and that foreign theatres which did not have adequate technical or financial resources were not always able to provide the necessary technical conditions for production, unlike the state-subsidized socialist Laterna Magika.

The ideal theatre building – a laboratory of psycho-plastic space

The key weakness that Svoboda saw in the launched project was the long-term unsatisfactory building in which Laterna Magika was located. Svoboda and his collaborators published his long-developed plan for an ideal theatre space in the early 1980s. The project of an ideal theatre building for Laterna Magika, creating a psycho-plastic theatre space, presents another layer of ambivalence of Svoboda's innovations within socialist culture.²⁰ Although it wasn't realized, the project shows a highly progressive spatial vision for the Laterna Magika laboratory, which was discussed, thought out and developed in collaboration with several architects working in state-subsidized institutions.

Josef Svoboda attempted to create a technological 'Gesamtkunstwerk' in his design of the architectonic solution for the theatre of Laterna Magika. 'The new Laterna Magika building should represent an optimal studio, not limiting theatrical work as much as possible, which always represents an experiment, a studio that would allow all available means of meaning' (Koutský et al. 1981–82, 52). Svoboda's ideas were kindred to Erwin Piscator's reflections on theatre, whose aim was to create 'a technologically advanced, variable theatrical tool to satisfy the various requirements of diverse directors and enable the viewers' active participation in the action on stage to the highest degree, thus making it even more impressive' (Piscator 1971, 114).²¹ However, Svoboda aspired to go even

further, inspired by Kouřil's and Burian's projects of multifunctional theatre spaces interconnecting with various cultural activities, as well as by Gropius's total theatre and Edward Gordon Craig's and Adolphe Appia's ideas of art synthesis in Bauhaus. According to Svoboda, theatre should abandon traditional theatrical space and all that is 'killed' by its architecture, rather becoming a theatre-studio consisting of an external and internal cube with a system of hidden projection screens gradually revealing the real and projected objects (Liehm 2001, 84–85).²²

These designs introduced a fully variable space interconnecting the spheres of viewers and actors, with no walls, no ceiling, no proscenium arch, only the stage. It was not only the theatre's foyer that was conceived as a parallel dramatic space to 'prepare' the audience for a later experience; even the exterior architecture was designed in this way and was ready to use the street and the adjacent public areas. The interior space was to be so variable as to accommodate the character of the individual productions; it was supposed to have several movable galleries, each for 99 viewers. Placed on air cushions, the galleries could move and relocate arbitrarily during the performance, while the position of the seats could change as well. Thus, the viewers were supposed to be immediately involved in the dramatic time of the performance, literally 'carried away' in space and time, activating their senses which had been 'put to sleep by other media such as film, but mostly television' (Koutský et al. 1981–82, 63). The space of the production booth and the technical booth for lighting and projection was conceived with similar flexibility. Thus designed, the theatre was to become an instrument that would work from the very first rehearsal and which could be 'played' (Přihodová 2014, 67).

Svoboda's thinking about the building of the *Laterna Magika* was based on his more general reflections on theatrical space and the position of the spectator in this space and towards the production: 'We are giving up static space with its limited resources and instead creating a new space that is more in line with today's lifestyle and mentality of our viewers' (Svoboda 1969, 54–56). Because he wanted to create a space as a 'product of modern sensibility' with its own aesthetic value, he turned to technology to provide the viewer, accustomed to quickly sorting images, with several simultaneous events. He created new collages, a dynamic projection screen with discontinuities, ready for the viewer's input – i.e. *psycho-plastic space*. Entering the theatre, the spectator entered the drama, the stage, the image. This image was then not a static set of objects in space, but a dynamic network, the interplay of 'winding, unfolding and folding' (Petříček 2010, 94), a set of 'implications, complications, explications, applications and reduplications' (ibid.). The space-network consisted of a number of nodes interconnected by different types of associative connections. It was thus a dimensionless 'web of performers, where any other point can be reached from any point of the network' (Eco 2004, 157). The space filled with paintings 'waited' for individual interpretation. For Svoboda, production design was, in a way, 'scenographic engineering'; throughout his career, he closely watched current technological developments, using them to search for new architectural solutions and various inventions. He conceived *Laterna Magika* as an experimental space in which he planned to create a fully variable theatre that breaks the line between actors and viewers and creates a psycho-plastic space for the viewer. In his conception, *Laterna Magika* should function as an open creative environment, a creative laboratory in socialist culture.

Technological laboratory

Svoboda's work for *Laterna Magika* emphasized the fact that *Laterna Magika* emerged out of the tension between *experimentum* and *experientia*, between the norm and creative experimentation, between authorial invention and pragmatism, as accentuated by Zdeněk Merta, between conservatism and trailblazing,²³ as well as between official and authorial style. It underwent several dislocations – both the physical relocation of the artists and the translation of their professional habits into a completely different artistic context. While working on new works, the artists employed methods known from their previous activities, which contributed to the recycling, re-contextualization, spicing up as well as 'conservation' of certain experimental approaches (especially in image and dance which were embedded in new technological scenic solutions). The individual performances often remained open forms; during rehearsals, they thoroughly tested the concord between the stage and the screen, mutual synchronization, unity of rhythm and composition, and the effects of projection of differently shot and exposed film onto various surfaces and materials, deconstructing the traditional nature of the screen. Nevertheless, the openness of the art form, along with the openness of human resource policy and the openness to new impulses, transcultural loans as well as techniques and technologies, had its limitations, and in the conditions of the regulated culture of state socialism, it often tended towards repetition and emptying. The entire evolution of *Laterna Magika* was affected by these tensions.

Notes

1. This, and all subsequent translations, are by the authors unless otherwise indicated.
2. In this article, we draw in part from our research, which we presented in a book on *Laterna Magika*, *The Dictator of Time* (Česálková and Svatoňová 2019).
3. The Brussels World's Fair was held 20 years after the last pre-war international fair took place in New York. Its central motto reflected the current political situation and hope for a peaceful future, cooperation and solidarity. However, despite the proclaimed visions, the event was marked by the competition of the two biggest superpowers, the United States of America and the Soviet Union. For more on the history of Expo 58, see Kramerová and Skálová (2008, 14–87).
4. For more, see Kratochvílová (1985), Albertová (2013), Janeček and Kubišta (2006), Stehlíková with Cieslar et al. (2007), Private archive of Alfréd Radok, Malý (2010), Grym (1967).
5. The contradictory and contrary nature of the term 'experiment' is discussed in Wollner (2015); in relation to camera techniques, it is partially elaborated in Svatoňová (2016).
6. For instance, the experiments seeking ideal housing. For more, see Zikmund-Lender (2014), Žáčková (2014).
7. Normalization refers to the period following the invasion by Warsaw Pact troops of Czechoslovakia in August 1968 during which restrictions were placed on cultural activities as part of a larger effort to restore the conditions existing before the Prague Spring.
8. In the case of *Minotaurus*, Kučera used a graphic computer and computer animation to create a basic film composition, to multiply figures, to reduce or enlarge and distort them, or to deform time and movement.
9. This draws on Mieke Bal's concept of 'sideways view' explored in the literary works of Gustave Flaubert and in the paintings of Edvard Munch (Bal 2017).
10. Musical and performative elements of *Laterna Magika* are discussed in detail by Černíček (2019) and Španihelová (2019).

11. Proof of Svoboda's effort to make the collaboration between the individual segments more effective by organizational and coordination changes as well as changes in job descriptions within *Laterna Magika* can be found in the partial reorganization based on his experience with rehearsing individual performances. For instance, see the Proposal for reorganization of *Laterna Magika* (February 1988), NA, f. National Theatre Archive, c. 16 (Correspondence 1986–1992). This topic is also mentioned by Baugh (2013, 84).
12. Selsyns are three-phase motors in a phase-locked loop. As part of the electric shaft, they enable synchronization of the projection device.
13. National Film Archive, Jiří Marek's letter to František Kahuda, 20 August 1960, f. CSF (unprocessed), c. R12 / BII / 3P / 9K.
14. In 1963, the laboratory became independent and was renamed the Institute of Scenography while the management remained the same. It was active until 1972. For more, see Lukáčová (2016).
15. Czechoslovak exhibition design, its history and period quality are discussed by Kramerová and Skálová (2008, 188–199).
16. For more, see Lukáčová (2016).
17. It was initially the International Organization of Scenographers and Theatre Technicians (OISTT). Architecture was added to the name around 1985.
18. National Theatre Archive, f. *Laterna Magika*, c. 10A *The Lost Fairy Tale*, folder Canada – Toronto.
19. National Theatre Archive, f. *Laterna Magika*, c. 15A *Black Monk*, folder IV.
20. Svoboda planned this ideal theatre at the turn of the 1980s together with Karel Koutský, Jan Kozel and Jindřich Smetana, but the design was never realized. At that time, an extensive reconstruction of the National Theatre was carried out according to the plans of the architect Karel Prager, where *Laterna Magika* found its stage (Šnejdar 1983, 243–277).
21. These endeavors are naturally not the only ones. The visions and concepts of French theatre director Jacques Polier, who had contemplated a mobile, total theatre since the late 1950s, may be best known. In the Czech context, the revolving stage in *Český Krumlov*, designed by Lithuanian-German scenographer Joan Brehms in the 'Brussels' year (1958), is closest to these visions. For more about various experiments with the kinetic stage and technologically controlled theatre space, see Salter (2010).
22. Miroslav Kouřil had a similar notion of theatre in various projects created at the Laboratory of Scenography.
23. A. Radok, 'O letadlech, věčných otázkách a Laterně magice' [typescript], National Museum, f. Alfréd Radok, k. 38, p. 7.

Disclosure statement

No potential conflict of interest was reported by the authors.

Funding

Kateřina Svatoňová's work on this text was supported by the European Regional Development Fund project "Creativity and Adaptability as Conditions of the Success of Europe in an Interrelated World" (reg. no.: CZ.02.1.01/0.0/0.0/16_019/0000734).

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References

- Albertová, H. 2013. *Josef Svoboda – scénograf*. Prague: Institut umění – Divadelní ústav.
- Bal, M. 2017. *Emma & Edvard Looking Sideways: Loneliness and the Cinematic*. Oslo and Brussels: Munch Museum and Mercatorfonds.
- Baran, L. 1978. *Audiovizuální prostředky: Technika, tvorba, využití*. Prague: SNTL.
- Baugh, Ch. 2013. *Theatre, Performance and Technology*. Basingstoke: Palgrave Macmillan.
- Beck, J., and R. Bishop. 2020. *Technocrats of the Imagination: Art, Technology, and the Military-Industrial Avant-Garde*. Durham, NC: Duke University Press.
- Černíček, J. 2019. "Hudební historie Laterny magiky." *Illuminace* 31 (3): 61–88.
- Česálková, L., and K. Svatoňová. 2019. *The Dictator of Time. (De)contextualizing the Phenomenon of Laterna Magika*. Prague: Národní filmový archiv – Filozofická fakulta UK.
- Cubr, F., J. Hrubý, and Zdeněk Pokorný. 1958–59. "Úspěch československého umění." *Tvar* 10 (9–10): 264.
- Eco, U. 2004. *Meze interpretace*. Prague: Karolinum.
- Grym, P. 1967. "Křižovatky experimentu." *Divadlo* 3: 29.
- Janeček, V., and Š. Kubišta. 2006. *Laterna Magika aneb "divadlo zázraků"*. Prague: Laterna Magika.
- Klivar, M. 1970. *Eстетika nových umění*. Prague: Svoboda.
- Koutský, K., J. Kozel, J. Smetana, and J. Svoboda. 1981–82. "Nová dílna pro Laternu magiku." *Interscéna* 2 (2–3): 52–72.
- Kramerová, D., and V. Skálová, eds. 2008. *Bruselský sen: Československá účast na světové výstavě EXPO 58 v Bruselu a životní styl 1. poloviny 60. let*. Prague: Arbor vitae.
- Kratochvílová, J. 1985. *Vývoj a charakteristika Laterny magiky jako specifické kulturní instituce*. Prague: Filozofická fakulta Univerzity Karlovy.
- Liehm, A. J. 2001. *Ostře sledované filmy: Československá zkušenost*. Prague: Národní filmový archiv.
- Lukáčová, K. 2016. "Úkoly Scénografického ústavu." *Theatralia* 19 (1): 159–180.
- Malý, S. 2010. *Vznik, rozvoj a ústup multivizuálních programů*. Prague: AMU Press.
- Nekvindová, T. 2018. "'Svět chce bienál': České a slovenské umění na velkoformátových výstavách v letech 1965–1970." *Sešit pro umění, teorii a příbuzné zóny* 25: 9–46.
- Petříček, M. 2010. "Věda a umění ve věku nových médií." In *Mosty a propasti mezi vědou a uměním*, edited by M. Giboda, pp. 93–97. České Budějovice: Tomáš Halama.
- Piscator, E. 1971. *Politické divadlo*. Prague: Svoboda.
- Příhodová, B., ed. 2014. *Scénografie mluví: Hovory Jarky Buriana s Josefem Svobodou*. Brno: MUNI – Josef Svoboda – scénograf o.p.s.
- Reid, S. E. 2017. "Cold War Cultural Transactions. Designing the USSR for the West at Brussels EXPO '58." *Design and Culture* 9 (2): 123–145.

- Salter, Ch. 2010. *Entangled: Technology and the Transformation of Performance*. Cambridge, MA: The MIT Press.
- Šnejdar, J. 1983. *Národní divadlo 1983 (Rekonstrukce a dostavba okolí)*. Prague: Pozemní stavby n.p.
- Sochor, K. 1964. "Experimentální neboli pokusné sídliště." *Naše řeč* 47 (3): 189.
- Španihelová, M. 2019. "Mezi dominancí a absencí. Tanec (s médii) v Laterně magice." *Iluminace* 31 (3): 47–60.
- Stehlíková, E., ed., with J. Cieslar et al. 2007. *Alfréd Radok mezi filmem a divadlem*. Prague: Academy of Performing Arts – National Film Archive.
- Svatoňová, K. 2016. *Mezi-obrazy: Mediální praktiky kameramana Jaroslava Kučery*. Prague: FF UK – MasterFilm – Národní filmový archiv.
- Sviták, I. 1963. "Cesty filmového experimentu." *Film a doba* 8: 401.
- Svoboda, J. 1969. "Nuoviluoghi a Nuovimateriali." *Sipario* 24 (284): 54–56.
- Svoboda, O. 2015. *Vladimír Soukenka*. Prague: Institut umění – Divadelní ústav.
- Volek, J. 1966. "O experimentu v umění." In *Experiment v umění: Sborník materiálů ze semináře 8. a 9. března 1966, Zámek Štířín*. Prague: Městský výbor socialistické akademie.
- Wollner, J. 2015. "Hranice experimentu." *Sešit pro umění, teorii a příbuzné zóny* 8 (18): 7–24.
- Žáčková, M. 2014. "'Byl sice jistý plán ...': Výzkumný ústav výstavby a architektury (VÚVA) a experimentální bytová výstavba přelomu padesátých a šedesátých let dvacátého století." *Sešit pro umění, teorii a příbuzné zóny* 7 (17): 20–49.
- Zikmund-Lender, L. 2014. *Experimentální sídliště Invalidovna*. Prague: Právý úhel.