JARKA M. BURIAN

Josef Svoboda: Theatre Artist in an Age of Science

s he approaches his fiftieth birthday, Josef Svoboda is in mid-career and at the height of his powers as an architecturally trained stage designer.¹ Although he is without a doubt the most productive, celebrated, and sought after designer in Europe today, he is known in America primarily by vague reputation, which is rather ironic in view of the substantial element of modern technology that he employs in much of his work.² A consideration of the main features of his creativity and an account of a few of his most striking scenographic techniques may help to place in perspective the special combination of talents that identify him as a truly distinctive theatre artist in an age of science.

The sheer quantity of his productivity is in itself remarkable: in less than twenty-five years he has designed almost three hundred and fifty productions, roughly split between the operatic and dramatic repertoire, for most of the major theatres of Europe. During much of this same period he has been chief designer and technical director of the National Theatre in Prague, a repertory complex that produces between fifteen and twenty new productions annually and performs an average of thirty different productions monthly. Although he himself designs only three to five productions for the National Theatre annually, he is responsible for all technical and scenic elements on its three stages and supervises the activity of the several hundred technical personnel of the theatre and its workshops.

He has, moreover, taught at various times, and is currently Professor of Architecture in the College of Fine and Applied Arts in Prague. Still another branch of his creativity is his exhibition work at major international expositions. At Brussels, in 1958, for example, he won three medals for his work displayed in the Czechoslovak pavilion, and his several kinetic and film projects were among the most popular attractions at Expo 67, Montreal. Other international

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¹ Svoboda was born on May 10, 1920, in Čáslav, a small city about fifty miles from Prague. His liberal arts education was interrupted by the German occupation in 1939. After the war, he completed a five-year, university-level architectural study in Prague, while concurrently functioning as chief designer of the largest theatre in Prague, the Smetana.

 2 Svoboda has designed one production in the United States: Luigi Nonno's opera, Intoleranza, for the Opera Group of Boston (February 1965). Two other productions failed to materialize: Robert Graves' adaptation of the Iliad for Lincoln Center in 1967, and Strauss's $Salom\acute{e}$ for the Civic Opera in Chicago, 1968.

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honors have included the gold medal award of the Sao Paolo Biennale in international stage design (1961), an honorary doctorate from England's Royal College of Art (1969), and the Sikkens Prize of the Netherlands in architecture (1969), a previous winner of which was LeCorbusier.

Although Svoboda's name is chiefly associated with a full-scale exploitation for stage purposes of the latest mechanical, electronic, and optical devices (many of which he has developed himself), with the so-called kinetic stage, and with wide-ranging use of sophisticated lighting and projection techniques (including new theatrical forms uniting film and stage), the role of the technical in his scenography is slightly ambivalent and requires elucidation. It is true that he welcomes the contribution of the latest techniques and devices and is able to derive maximum benefit from them, but their use or non-use is really not essential. Underlying his scenography is a basic pragmatism:

What is essential is the approach to the job: I would be delighted to create a setting of *cheese* if it best suited the play. You have to use expressive means that precisely *fit* the production concept. And that's where the true beauty of my work lies, for me.*

Nevertheless, forming the background of Svoboda's scenography, both at its boldest and its simplest, is his profound, scrupulous respect for the frequently painstaking technical experiment and research that precede its ultimate appearance before the public. Many critics and artists sincerely believe that science, technology, and systemization are inherently hostile to art and creativity. Svoboda is emphatically not of their number. He has, if anything, a rage for order, for precision, for the laws that define his work because, as he puts it, "it means that the given element has been mastered and can be used as an instrument." * His feelings about music are significant in this respect:

I admire its order, its purity, its cleanness—this is what I would like to establish in scenography. I know it's impossible but at least I want to aim for it. I'd like to eliminate dilettantism and make theatre truly professional. I've been pursuing an ideal for twenty-five years: precision, systemization, perfection, and control of the expressive means available to scenography, even the ordinary means. Why shouldn't this age make the most of its technical developments as previous eras did? that is, the machinery of the baroque era, the electric light at the turn of the century.*

Off-setting what may seem to be an excessive pre-occupation with the technical in such statements, especially when they are taken out of context, is Svoboda's more characteristic observation that the technical is solely a means: "My dream would be not to have it there; but I have to use it now because certain things would not otherwise be possible. In five years there may be other means and other results." * Perhaps most directly to the point is Svoboda's simplest assertion, "Knowledge of the technical makes creativity possible." *

Trying to classify Svoboda's scenographic mode as primarily symbolistic, constructivistic, expressionistic, or even illusionistic, is ultimately a fruitless exercise. The fact is that his work exhibits instances of each of these modes as well as combinations of them. Svoboda's comment is characteristic: "Style is a matter of solving each work by the given conditions, which means not only consideration of the specific author, but also the given director, the theatre building itself,

the main actor or actors: each element is unique, and you have to consider the features special to each one. Theatre is a synthetic, componential phenomenon that ideally needs balancing—if it's short here, say in acting, you add there, in the scenography—or the opposite." *

What underlies all of his scenography, however—with the exception of the made-to-order literalism or monumentalism that was evident in it during the Stalin era—is his search for the intangible essence of a work and his attempt to express it in the most appropriate manner, on the stage, in theatrical terms, which, for him, implies a synthesis of expressive elements. Almost without exception, moveover, he sees dynamism as fundamental to any work of theatre art; if nature abhors a vacuum, Svoboda abhors a fixed, static stage, which strikes him as being a perversion of the essence of theatre. Quite inadvertently, perhaps, it is as if Svoboda approached his work with the attitude of a classicist basing his position on Aristotle's repeated dictum that action is the very heart of the drama; not, of course, in any crude sense, but in the sense that drama means responsiveness, change, and movement when conceived in its broadest sense:

I don't want a static picture, but something that evolves, that has movement, not necessarily physical movement, of course, but a setting that is dynamic, capable of expressing changing relationships, feeling, moods, perhaps only by lighting, during the course of the action.*

The last phrases are very important, for it is all too easy to assume that Svoboda is obsessed with sheer movement, an assumption that is somewhat encouraged by the term "kinetics" that has been applied indiscriminately to his scenography in general. As he likes to point out, perhaps only thirty of his nearly three hundred and fifty productions have involved material, tangible movement. But most of his productions, if not indeed virtually all, have indeed involved a subtler form of kinetics that accompanies the action as an expressive, responsive reinforcement, perhaps most often through lighting—"lighting as a dramatic component, not merely illuminating the scene or providing atmosphere." *

Suggestive is perhaps as close as one can come to a single term that describes the fundamental scenographic effect intended by Svoboda, which is to say that he steers clear of both illusionism and alienation. In this as in many other respects, Svoboda avoids extremes, instinctively preferring to reinforce theatre's inherently evocative, metaphoric power with as much leeway as possible in the specific scenic mode that would seem most appropriate to a given production. What remains constant, however, is Svoboda's conviction that the setting must not foreshadow the action or provide a summary illustration of it; it is as if Svoboda took offense at a setting, no matter how impressive otherwise, that seems to announce the heart of the play in one brilliant image: "Theatre means dynamics, movement; it is a living thing; therefore, scenography should not be fixed and tell at once, as expressionistic design tends to do." *

The setting should evolve with the action, cooperate with it, be in harmony with it, and reinforce it, as the action itself evolves. Scenography is not a back-

ground nor even a container, but in itself a dramatic component that becomes integrated with every other expressive component or element of production and shares in the cumulative effect upon the viewer. It is, of course, an essentially imaginative, poetic process, one that demands an innate capacity for synthesis and metaphoric thinking:

The relationship of scenic details, their capacity for association, creates from the abstract and undefined space of the stage a transformable, kinetic, dramatic space and movement. Dramatic space is psycho-plastic space, which means that it is elastic in its scope and alterable in its quality. It is space only when it needs to be space. It is cheerful space if it needs to be cheerful. It certainly cannot be expressed by stiff flats that stand behind the action and have no contact with it.³

Developing this general principle further, Svoboda subsequently noted the analogous relation between this approach to scenography and the element of acting:

The goal of scenography cannot merely be the creation of a tangible picture . . . and in itself [scenography] is not a homogenous totality. It separates into a series of partial elements, among which certainly belong form, color, but also tempo, rhythm—in a word, the elements that are at the disposal of an actor. And it is precisely by means of these elements that the scene enters into close contact with the actor, becomes capable of dynamic transformation, and can advance in time just as a stream of scenic images created by the actor's performance. It can transform itself synchronously with the progress of the action, with the course of its moods, with the development of its conceptual and dramatic line.4

Briefly, the underlying premise of Svoboda's approach is the belief that theatre is distinguished from all other arts precisely by what Svodoba emphasizes as its intangible forces: time, space, movement, non-material energy—in a word, dynamism. And it is precisely to the enhancement and intensification of this end that all of Svoboda's technical resources are dedicated. Several aspects of the general principle of dynamism may be illustrated in a brief examination of a few of the scenographic techniques that Svoboda has distinctively evolved: kinetic scenery, mirrors, and projections.

Variations in the use of kinetic scenery and mirrors are evident in Svoboda's productions of Romeo and Juliet, Insect Comedy, and Hamlet. Romeo and Juliet (Figs. 1, 2, and 3), as presented by the National Theatre in Prague (October 1963) under the direction of Otomar Krejča, was a milestone production in which Svoboda fused his principle of dynamism with his profound sense of architecture. The result was a kinetic architecture that provided a definitive example of the creation of one kind of psycho-plastic space: stage space that is fluidly responsive to the emotive demands of the action.

The setting extended over the orchestra pit and consisted of a remarkably homogeneous, intricately balanced group of architectural components—platforms, frames, walls, plinths, stairs—representing various objects and locales as well as purely architectural supplements. Essentially neutral in form, except for a few pieces (such as the scenic pièce de résistance, a graceful Renaissance

³ Svoboda, "Scéna v diskusi," Divadlo (May 1963), p. 3.

⁴ From a speech by Svoboda, printed in Zprávy Divadelního Ústavu, No. 8 (1967), pp. 28-29.

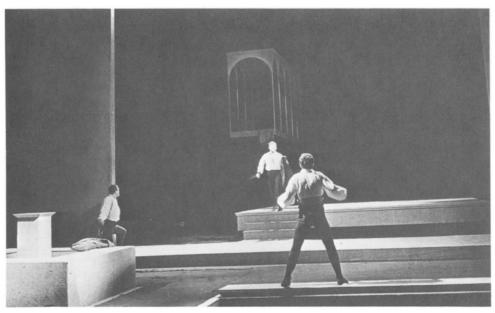


Figure 1. The Prague production of Romeo and Juliet (1963), showing several basic scenic elements. Downstage right an elevatable unit of two sections that functioned variably as fountain, bed, table, or catafalque. The arcade unit at upstage center "floated" forward and backward. The downstage figure (Romeo) stands on a unit that could be elevated to a height of seven feet and thereby represent either a bench or a wall. (Photo by Jaromír Svoboda)

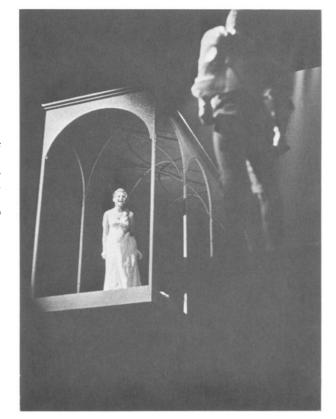


Figure 2. The balcony scene from Romeo and Juliet, showing the arcade in its forward position and Romeo standing on the elevatable wall unit.

(Photo by Jaromír Svoboda)

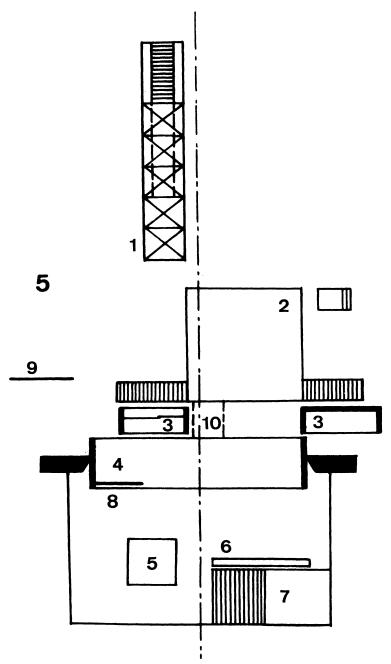


Figure 3. Groundplan of Prague production of Romeo and Juliet, showing the disposition of the scenic units for scene 5. (1) movable arcade-balcony unit; (2) acting platform elevatable to height of approx. eight feet; (3) laterally movable slats with heavy, deep-set frames, the one at stage right with a maskable window unit; (4) specially constructed proscenium frame; (5) trapdoor with separately movable vertical elements, elevatable and sinkable; (6) vertically movable wall, from floor level to a height of approximately seven feet; (7) stairs leading into orchestra pit; (8) acting area built over orchestra pit; (9) laterally movable, suspended flat; (10) elevatable unit sometimes used as a ledge in conjunction with (2).

Figure 4. The Capeks' Insect Comedy, Prague, 1965, showing the two large, segmented mirrors leaning asymetrically behind the turntable, creating a kaleidoscopic, multiple-image effect with the rotation of the turntable. (Photo by Jaromír Svoboda)

arcade that seemingly floated along an upstage-downstage axis at a height of ten or twelve feet above stage level),⁵ the architectural elements were covered with a rough canvas that in turn was covered with a thin burlap, the final suggestive effect being that of the structural facade of a Renaissance palace. The separate elements could form a seemingly infinite number of static spatial compositions or else go into an orchestrated series of movements: rising, sinking, advancing, retreating, or moving laterally. Particularly impressive was the dramatic quality of the movement, especially in its counterpoint to the movement of the actors during scene changes, which became, in Svoboda's words, "dramatic caesuras in the action, a new type of 'curtain' without curtains, like a cinematic crossfade, reinforced by carefully plotted, expressive lighting." * Finally, the mobile architectural scenography created a paradoxical impression of lyric grace and menace: the delicate, airy arcade suspended in air offset by the irresistible meshing of solid structures: a remarkably suggestive projection of the antagonistic forces within the play.

Svoboda has designed two productions of the modern Czech classic, *The Insect Comedy*, by the Čapek brothers; the first production, in 1946, was his première project for the National Theatre. The second production, which concerns us here, occurred almost twenty years later (January 1965), again in the National Theatre. An episodic, satiric parable of mankind viewed in the image of an insect world, the play is an open invitation to a designer's creative fantasy. Svoboda's scenography represented a fusion of a basic image or concept of the play with expressive scenic principles, in this case special application of two of Svoboda's recurrent but variable techniques: kinetics and mirrors (Fig. 4).

The problem was how to project on the stage the dominant image of the play: "the sheer multitudinousness of man, the sheer numbers that make one question the difference between insects and people." *

The final set embodied the answer: two large mirrors (about 25' x 25') set at special angles at the rear of a turntable. No flats or scenic decor were used, but the floor of the rotating turntable became a positive motif when covered with vari-colored carpets, a different one for each scene. Only the floor was lit: we thereby gained light via reflection and also avoided the technical problems of directly lighting the mirrors. In fact, we created space by means of the overhead view provided by the mirrors: two mirror surfaces in themselves would multiply the image reflected, but their honeycombed segmentation is what chiefly created the effect of space and multiplicity here. The six-sided shape of the segments had the added advantage of being a biological key sign and being easy to assemble. The sheer size of the mirrors was made feasible by a new process that enabled us to put a silver coating on lightweight plastic. It was an example of scenography precisely expressing the play, of a design hitting the nail on the head one-hundred percent; there were no holes in the conception or execution. It was also an example of the technical being absolutely in the service of the total production, and not obtrusive. It wins the spectator over; not until later does he wonder how it was done. . . . Today, using newer techniques, we could do even more—especially with flexible, pneumatic mirrors that could alternately shrink and enlarge each image and increase the number of objects mirrored.* 6

⁵ Actually, the arcade was supported by a narrow black plinth that slanted obliquely toward the rear, thereby being virtually invisible from the audience.

⁶ Such mirrors have now been developed and Svoboda is planning to use them in a production of Prokofiev's *Fiery Angel*, scheduled for La Scala, Milan, in 1970.

The production of *Hamlet* in Brussels (January 1965) featured an audacious interpretation of the play by its director, Krejča, along with scenography by Svoboda that not only embodied the underlying production concept but positively supplemented it. The set itself, at first glance, suggested a massive wall composed of rectilinear elements, both solids and cavities (Figs. 5 and 6). But then elements of the "wall" began to move: parts slid forward to form platforms and staircases, while others receded and intermeshed to reveal still further configurations. Most striking of all, however, was the multiplication of this extraordinary effect by the mirror that hung over the full width of the set at an angle of forty-five degrees and provided a reflection of the set as seen from above. One's initial impression might well have been of cubism and constructivism run riot, with the mirror acting as an intensifier of the basic effect. Actually, however, the mirror was the starting point and essence of the scenography. Svoboda's reflections on the production indicate the main points of the entire creative process:

It all started with Krejča and his key to the production: the ghost as an alter-ego of Hamlet; not Hamlet's father, but a fiction created by Hamlet to gain support of the people and turn them against the usurper. In effect, then, Hamlet talks to himself, he makes the dialogue, and persuades himself. To concretize the alter-ego concept, a mirror was the only answer; it became the principle of the play. Its technical problem was the control of its reflections by lighting; sometimes we wanted a reflection, sometimes we didn't. The final step came about as a result of my poking at the model of the set one day after gazing at it for a long time without being quite satisfied. I pushed one piece and suddenly saw the reflection of the movement in the mirror. And suddenly I saw Elsinore as a certain spiritual world, a microcosm of Hamlet's world, one which must change psycho-plastically along with the development of the action. It became a world that grinds and weighs on man; it suggested the atmosphere of the middle ages, a castle without feeling, anti-human. In short, we represented Elsinore ultra-flexibly, plastically. The photographs suggest a sheer mass of cubes, solid and fixed, but in performance only selected portions were visible as a result of controlled lighting and movement. The set was extremely playable, not as puristic and austere as the photos suggest. In fact, it became an instrument with many possibilities; another good example of the technical becoming an instrument, a means.*

The scenography as a whole bears obvious kinship to that of *Romeo and Juliet* in creating psycho-plastic space by means of three-dimensional kinetics: the movement of solid masses in space; and to *The Insect Comedy* in the combined use of mirrors and scenic movement. All three productions, moreover, classically embody Svoboda's idea of movement being the manifestation of the duality of matter and non-material energy, an interesting variant of the Appian idea of movement unifying the arts of time and space.

Another scenic dimension is revealed in Svoboda's creative work with slide and film projection in a seemingly endless variety of combinations with stage action and scenery. A few examples of the projection techniques in a relatively pure form as well as their subsequent integration with traditional scenic elements will suggest the evolution of the techniques and also their underlying consistency in the service of a metaphoric, poetic vision.

Central to Svoboda's use of projection techniques in whatever form are his theatrically oriented concerns with space and synthesis: "We in theatre are

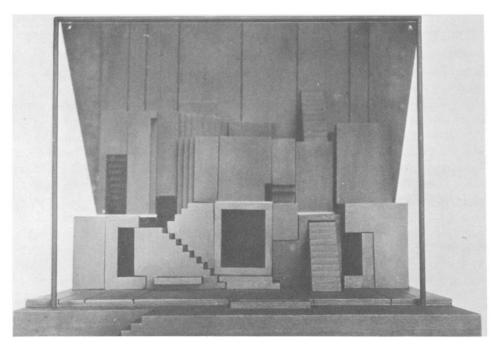


Figure 5. The model for the Brussels Hamlet (1965), indicating the simultaneous front and top view of the architectonic set, an arrangement that became particularly striking with the introduction of movement of the specific scenic units.

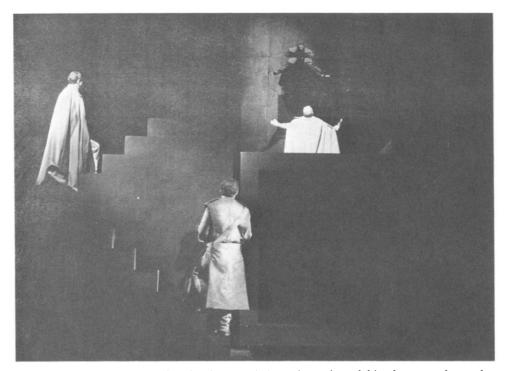


Figure 6. The Brussels Hamlet, showing Hamlet's confrontation of his alter-ego; also to be noted is the sharply controlled lighting that reveals only a small portion of the mirror that ran the full width of the stage.

(Photo by Jaromír Svoboda)

constantly aware of space, and we can enhance it by many means, whereas film can only transcribe space. In fact, in theatre we can enhance space by the use of film; that's why theatre is the art of greatest synthesis." ⁷

Of the two primary projection systems or forms devised by Svoboda, Laterna Magika and Polyekran, the latter is relatively simpler, and although its evolution is difficult to disentangle from that of Laterna Magika, it was Polyekran that contributed to the final form of Laterna Magika, rather than the other way round, according to both Svoboda and Alfred Radok, Svoboda's creative partner. For these reasons, Polyekran (literally, "multi-screen") will be described first.

Polyekran (Fig. 7), one of Svoboda's contributions to the Brussels World's Fair of 1958, is fundamentally a pure projection form; it is not combined with live acting or scenic elements. Its origin was related to Svoboda's response to the development of various wide-screen techniques of the 1950's; in contrast to such techniques, all of which attempted to eliminate the impression of a screen and to give the spectator the sensation of being part of the picture, Polyekran deliberately emphasizes the presence of the screen, or, rather, screens. Its principle is a simultaneous and synchronous projection of slides and film on several screens during which the images on the individual screens are in dramatic interplay with each other in the creation of a total, organic composition. Svoboda adds:

Polyekran offers the possibility of free composition, a free shaping and creation on several screens. Images of real objects and people are projected, but the relationships among them are not realistic, but rather supra-realistic, perhaps surrealistic. Essentially, it's the principle of abstract and pure collage, which is an old and basic technique of theatre. "Op art" is perhaps simply a more recent name for it. In any case, the contrast of varied things on stage is basic to theatre; the objects thereby acquire new relationships and significance, a new and different reality.*

Technically, the elements of the Brussels production consisted of seven screens of different size and shape suspended at different angles from horizontal steel wires in front of a black velvet backdrop. Eight automatic slide projectors and seven film projectors, synchronously controlled by electronic tape, threw images upon these screens. The visual collage was accompanied by stereophonic sound (also carried on the electronic tape), the total ten-minute performance being thematically unified by its depiction of the context of the annual Prague Spring Music Festival.

In describing the relation between Polyekran and Laterna Magika, Svoboda says:

In comparison with Polyekran, which is totally a film spectacle and technically a concern of film, Laterna Magika is theatre with living actors, singers, dancers, musicians. . . . On the one hand we used familiar scenographic techniques such as slides and film projection. New expressive possibilities were added by panoramic film and projection with multi-exposure on several screens at once. A second feature is the use of mobile screens that are joined to the performance of a live actor.8

⁷ Svoboda, quoted in "Entretien sur la Laterne Magique," *Théatre en Tchecoslovaquie*, ed. V. Jindra (Prague, 1962), p. 53f.

⁸ Svoboda, quoted in "O světelném divadle," Informační Zprávy Scenografické Laboratoře (Sept. 1958), p. 5.

Commenting on the essential non-autonomy of each medium, film and living actor, in Laterna Magika, Svoboda added, "The play of the actors cannot exist without the film, and vice-versa—they become one thing, a synthesis and fusion of actors and projection. Moreover, the same actors appear on stage and screen, and interact with each other. The film has a dramatic function." *

Laterna Magika becomes, in effect, a new, hybrid medium, the potential force and expressiveness of which are perhaps suggested best in some remarks by Marshall McLuhan made without reference to Laterna Magika, when he spoke of "true hybrid energy": "The hybrid or the meeting of two media is a moment of truth and revelation from which new form is born. . . . The moment of the meeting of media is a moment of freedom and release from the ordinary trance and numbness imposed on them by our senses." ⁹

Like Polyekran, Laterna Magika (Figs. 8 and 9) was devised for the Brussels Fair of 1958, where it enjoyed a spectacular success. It consisted of three film and two slide projectors, synchronously controlled, plus a device that enabled deflection of one projection beam to any desired spot, including a moving screen. In a stage space measuring approximately 50′ x 24′ x 20′ were arranged eight mobile screens with special, highly directional reflecting surfaces; they could rise, fall, move to the side, fold up, rotate, appear and disappear in precise rhythm with the actors. The stage itself was provided with a moving belt and special scissor traps to accommodate the need for virtually instantaneous live action in response to the film. One of the screens, moreover, was equipped with a diaphragmatic framing curtain that could alter both the size and shape of the screen. And the total presentation was enhanced by multi-speaker stereophonic sound.

Jan Grossman, himself a theatre director as well as a critic in Prague, was involved with the theoretical groundwork of Laterna Magika; his remarks on the new form elaborate some of its potentials:

Laterna Magika offered the dramatist, film scenarist, poet, and composer a new language: a language that is more intense, sharply contrasting, and rhythmic; one which can captivatingly project statistics as well as ballet, documents as well as lyric verse, and is therefore capable of absorbing and artistically working over the density and dynamics, the multiplicity and contrariety of the world in which we live." 10

Alfred Radok, director of Laterna Magika, suggested its special quality in this way: "Above all, Laterna Magika has the capacity of seeing reality from several aspects. Of 'extracting' a situation or individual from the routine context of time and place and apprehending it in some other fashion, perhaps by confronting it with a chronologically distinct event." ¹¹

That Laterna Magika was not without its special problems, however, became evident even while it was experiencing its greatest success. For example, the

⁹ McLuhan, Understanding Media (New York, 1966), p. 55.

¹⁰ Grossman, "O kombinace divadla a filmu," *Laterna Magika*, ed. J. Hrbas (Prague, 1968), p. 76.

¹¹ Radok, quoted by Grossman, p. 77.

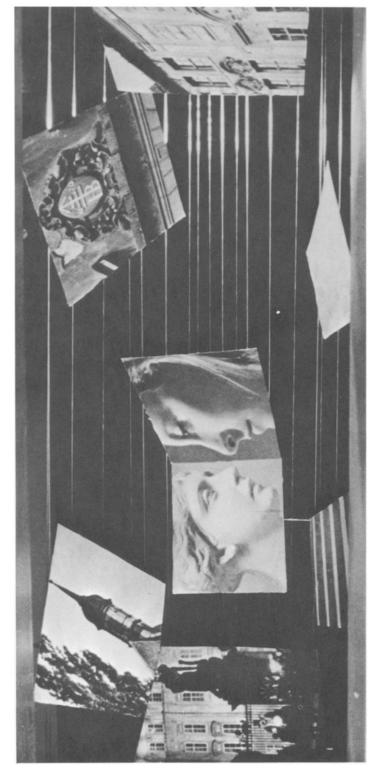


Figure 7. Polyekran as shown at the Brussels Fair (1958). The variously angled screens were static and in essentially the same plane.

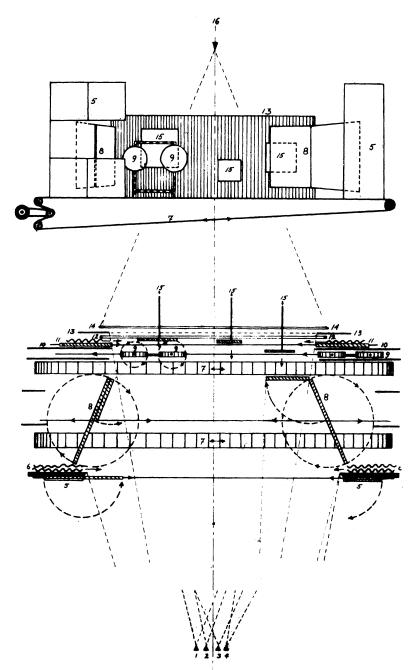


Figure 8. Groundplan and elevation of Laterna Magika in its Prague edition, 1959. (1) slide projector; (2, 3, 4) film projectors synchronously connected; (5) movable, hinged screens; (6) curtains, scrim and velvet; (7) treadmills; (8) hinged and rotatable screens; (9) mechanized disks; (10) laterally movable screens; (11) curtain; (12) wide screen; (13) wide screen, vertically vented to allow passage for actors; (14) screen for rear projections; (15) movable screens; (16) film projector for rear projections, synchronized with front projectors. (Drawing prepared by David Fuller from an illustration in Josef Svoboda, a catalogue published by the National Theatre, Prague, 1961)

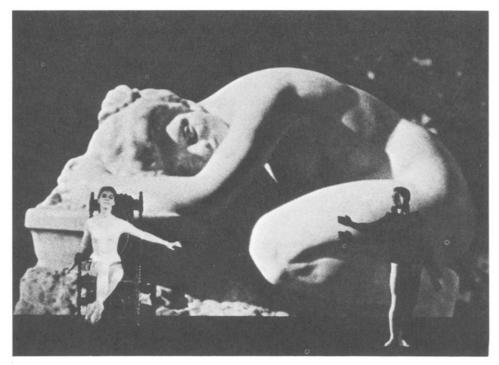


Figure 9. Laterna Magika: a simple juxtaposition employing only the wide screen. Few photographs exist of the more complex, multiple image sequences.

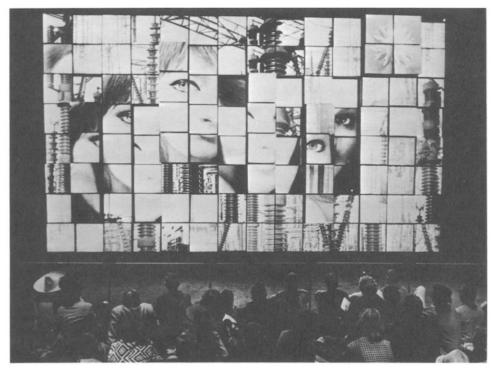


Figure 10. Diapolyekran as exhibited at Expo 67, Montreal. The photograph indicates the size of the wall of screens and provides one example of the complex collage effects readily attainable.

filmed portions had to be prepared far in advance of their integration with the live performers, which meant that many artistic decisions had to be made and became binding long before there was any way of knowing how they might work out months later. A more profound problem was that the film virtually enslaved the live performer, whose margin of variability in performance approached zero because the film was a prefabricated element to which the performer must inflexibly adapt. Svoboda put it this way: "It means that Laterna Magika is to a certain extent deprived of that which is beautiful about theatre: that each performance can have a completely different rhythm, that the quality of a performance can be better or worse, that a production can expand its limits." ¹²

Again, on a more fundamental level, Laterna Magika never experienced the ultimate test of presenting a work that was written especially for it; that is, a work other than revue or cabaret entertainment. In its original version, as an entertaining propaganda piece for Czechoslovakia, it was a success. Its original creators had hopes of eventually using the form for Shakespeare or explorations of challenging contemporary realities, for example the Eichmann case, but managerial and administrative elements viewed Laterna Magika in terms of economics and politics, as a source of profit and an instrument of propaganda, with the result that its subsequent artistic career was aborted; its several sequels rarely rose above tourist level entertainment.

One other noteworthy and recent variant of Svoboda's projection techniques is the Diapolyekran system, which had its first public exposure at the Montreal Expo 67 as a ten-minute feature entitled The Creation of the World (Fig. 10). It, too, employs a multi-screen, multi-projection (only slides) technique reminiscent of Polyekran in its pure film, non-actor features, but in a tighter, shallower, and more stable form. As the illustration suggests, the projection screens form a wall composed of cubes, one-hundred and twelve in all. Each cube has two automatic slide projectors mounted at its rear, capable of flashing five images per second, even though the actual rate was considerably slower; a total of thirty-thousand slides were used, and the whole operation was computerized. Moreover, each cube was capable of sliding forward or backward approximately twelve inches, thus providing a surface in kinetic relief for the projections. The basic technique is of course a collage or montage that allows for a great range of visual effects: the entire wall of cubes may unite to present one total, conventionally coherent picture, or else literally distintegrate that picture into fragments, or, indeed, present a surrealistic collage of disparate images. And all of this occurs in a dynamic, rhythmic flow ideally suited to projecting process as well as startling, abrupt confrontation. The original presentation was an eloquent, sensitive expression of wonder at the miracle and mystery of creation, evolution, and civilization.

12 Svoboda, "Problémy scény Laterny Magiky," Laterna Magika, p. 103. Svoboda managed to overcome this problem to some extent in a few subsequent productions by employing live TV transmission onto screens during the course of the performance: e.g., Nonno's Intoleranza (Boston, 1965) and Orff's Prometheus (Munich, 1968).

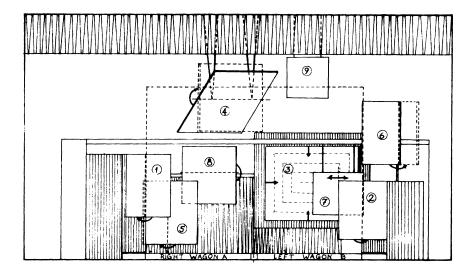
Within a year after the introduction of Laterna Magika and Polyekran at Brussels, Svoboda began to apply their techniques to conventional theatre production. Polyekran became the basic scenographic principle in the National Theatre's production of a new Czech play, Josef Topol's *Their Day* (October 1959) (Figs. 11 and 12). The play, a study of the aspirations and disenchantments of youth in the late 1950's, was notable for its impressionistic, episodic manner.

In Brussels, the Polyekran system was based on fixed, stable screens; in *Their Day*, Svoboda added a Laterna Magika technique: mobile screens that appear and disappear in rhythmic connection with the movement of other scenic elements; namely, three specially prepared stage wagons that transport scenic objects such as furniture and properties. The basic principle, however, remained that of Polyekran, this time nine screens distributed in space, in different planes, with two slide projectors covering each screen; three of the screens, moveover, had film projectors assigned to them; the result was a great flexibility in the choice and blending of pictures at will. Svoboda's subsequent remarks on the production point up its chief characteristics:

Why Polyekran for this production? The play presents a mosaic of city life, a mosaic that evolves with the action of the play. We deliberately avoided a simultaneous scene because you can't get rid of its scenic elements when you don't want them, no matter how sharp the lighting. Besides, here we wanted changes in the dimensions of space as well as rapid shifts of scene. Because we could project various images at various angles, we could create space and spatial relations at will. My essential point in using projections is the creating of new stage space, not as a substitute for decor or establishing a locale. We could use all the screens or only one, not merely to describe a locale, but to establish different relations. The result is real psycho-plastic space created by transforming the dimensions of space in response to the nature of the scene. The basis is a confrontation of selected realities: actions, objects, people, plus the accenting of things. For example, an object or projection functions and then disappears, very much like the film techniques of cutting and transitional blending. The method is essentially more persuasive, because more theatrical, than all the painted sets and usual stage constructions. The larger point is the creation of a total instrument to be used on stage like a concert piano. I've been pursuing this goal for twenty years. Krejča [the director of Their Day] says that so far it's an instrument that can only play a child's nursery tunes. But eventually it may be much more. I think, for example, that The Last Ones and The Soldiers show progress. We must keep on learning to play the instrument.*

The Last Ones (Fig. 13), a dramatization of a Gorki novel produced by the National Theatre in Prague (September 1966) under the direction of Alfred Radok, gave particular satisfaction to Svoboda. It was the first work he had done with Radok in several years, and it featured, in Svoboda's words, "a revision, a refinement of Laterna Magika." *

The Last Ones indicts a whole era and regime in depicting a family dominated by a tyrannical, insecure career officer. The deterioration of values, the shabbiness of life, the compromises and stupidities, the cruelties inflicted and endured, all of these social deformations are mirrored, with frequent irony, in the family's material and spiritual bankruptcy. The inherent duality of the subject, the family and its larger social frame, blended superbly with the modified Laterna Magika form, the very nature of which is rooted in a juxtaposition and interplay of elements: the dramatic integration or counterpoint of screened image and



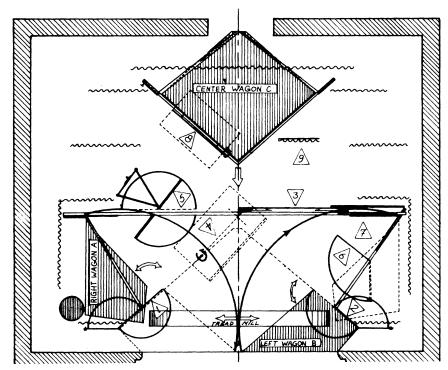


Figure 11. Groundplan and elevation of Their Day (Prague 1959). The dark border of screen #3 was a diaphragmatic curtain by means of which the projection surface could be diminished or enlarged at will; screen #7 moved laterally across the stage and could "select" partial images from a full stage projection cast against a black backdrop; all the other screens could disappear or become invisible by being rotated, folded, or raised out of sight.

(Drawings prepared by David Fuller from an illustration in Le Theatre en Tchecoslovaquie, Prague, 1962)

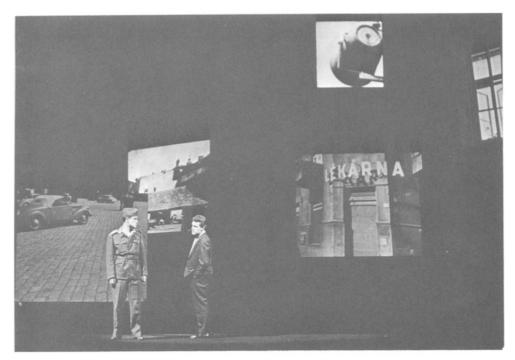


Figure 12. Their Day (Prague 1959): a production that integrated several aspects of Polyekran and Laterna Magika in order to create a variable sense of stage space and multiple impressions of locale.

(Photo by Jaromír Svoboda)



Figure 13. Gorki's The Last Ones (Prague 1966), illustrating the evolution of the Laterna Magika technique; only one screen is used and the emphasis is on stage composition in depth rather than laterally.

(Photo by Jaromír Svoboda)

live actor, of the same character on film and on stage, and the powerful, implicitly ironic comment of the one on the other.

Svoboda's observations on the production suggest its significance for him:

In effect, we rehabilitated the Laterna Magika principle after its discreditation by business interests. [Svoboda refers to its use in connection with commercial enterprises.] This production expressed our credo, an honest application of Laterna Magika, with certain changes and the addition of new techniques. Originally, Laterna Magika operated with a lateral format of images and stage action, but in The Last Ones we changed this to a depth principle in order to create a cumulative effect, to increase the impact rather than disperse it, to intensify. We stacked things, people, scenes behind each other; for example, action around the wheelchair downstage, above that a girl in a tub being stroked by twigs, "in front" of her a boy being flogged on the screen; then, suddenly, a drape covering part of the screen opens and we see a small, live orchestra playing a waltz, with pomp-an image of the regime. A space collage using a tryptich principle, truly a dramatic poem—what I want to do. A clear spatial aesthetic is formed by the contrast of stage action, flat projection, and live orchestra behind the screen on which the images are projected. It's all structured like music, and a law is present. Break it and a new one is set up. This is what attracts me-leitmotifs and repetitions, then sudden contrast; plus tempo indications. Themes disappear only to crop up again later. Radok is especially good at this. Why the crumpled projection screen? I wanted to prove that you can project on a relief surface with a depth of more than fifteen centimeters and create the effect of a smooth surface; and then, too, the surface at other times suggests the deteriorated conditions depicted by the play.*

The Soldiers (Figs. 14, 15, and 16), a contemporary German opera by Zimmermann that had its première in Munich (March 1969) is the latest product in the evolution of the Polyekran and Diapolyekran forms; it follows the latter more closely in that its screens are, with one dramatic exception, immobile and rather tightly clustered together in parallel planes. They depart from the Diapolyekran model, however, in being far fewer (thirteen), much larger (up to 18' x 12'), and in several planes. Another distinctive feature is the placement of two box-like spaces in the midst of the screens; spaces which may be used as interior acting areas or curtained off to form two screens. Rear projection is employed on all of the screens, and the two acting areas just mentioned have front projections as well. Black and white slides form the basis of projection, with film projection being available for three of the screens.

A striking example of the evolutionary process in Svoboda's creative work with a given form is the kinetic variant of the Diapolyekran principle employed at the climax of the opera: the total cluster of the screens literally disintegrates, the screens separating from one another and moving offstage. As they sink below stage level, rise up out of sight, or move off laterally, a huge, futuristic "war machine" grinds forward toward the footlights, accompanied by a pulsating, increasingly blinding light and ear shattering dissonant music:

With the help of improved instruments and materials, and with new placement and composition of the screens, I was able to create a concentrated, massive visual impact, a collage of military life from Rome to the Franco-Prussian war in confrontation with World War II and Vietnam. Especially effective was the juxtaposition of Goya's etchings with photographs depicting intolerance and martyrdom today. The sheer size of the stage and auditorium [the Munich Staatsoper] was another factor: aiming at psycho-plastic space, I designed everything with the proportions of the theatre in mind.*

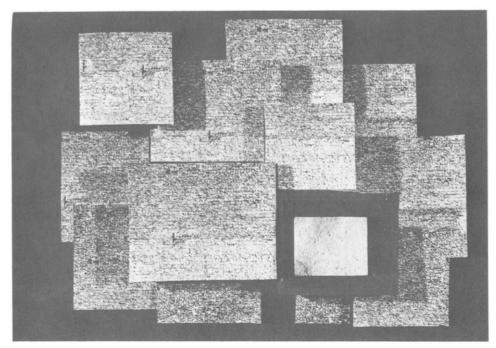


Figure 14. A model of The Soldiers set (Munich 1969), indicating the arrangement of screens in several planes as well as one of the acting spaces; the second acting space is immediately stage right of the one shown here.



Figure 15. The Soldiers, illustrating the relative size of the total set (see the live actors silhouetted in the two acting spaces), and one of the varied projection techniques: combined slide (negative) and film projection (the facial closeup, and the rear of the two acting spaces).

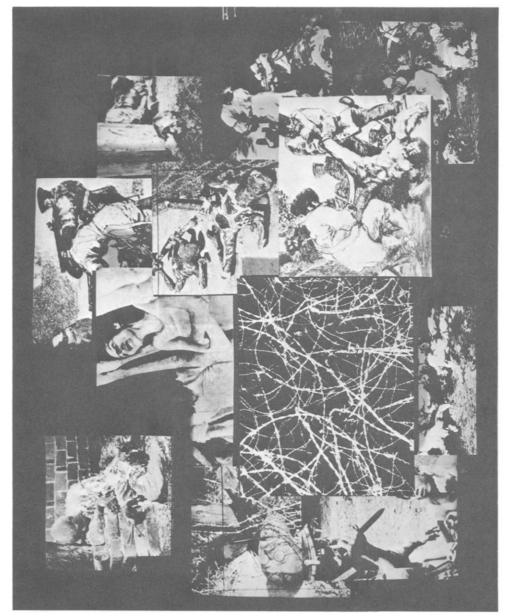


Figure 16. The Soldiers, a juxtaposition of varied images Goya, World War II, Vietnam. Both acting spaces screened over.

What is especially interesting is that Svoboda does not feel that he has yet found the right dramaturgic material for the Diapolyekran system: "The form has yet to be employed with a congenial artistic-poetic text, at least not in the same sense that other forms or devices reached full realization, for example the use of mirrors in *Insect Comedy*, or Laterna Magika in *The Last Ones*." *

Common to all of the projection forms here briefly discussed, as well as to virtually all of Svoboda's work, is a vivid sense of separate elements imaginatively combined to express new insights into reality. It is a principle that may take a variety of forms, including, for example, cubism, especially as defined in the following remarks by Marshall McLuhan, remarks that suggest yet another aspect of Svoboda's work:

Instead of the specialized illusion of the third dimension, cubism sets up an interplay of planes and contradictions or dramatic conflict of patterns, lights, textures. . . . [It] drops the illusion of perspective in favor of instant awareness of the whole. . . . Is it not evident that the moment that sequence yields to the simultaneous, one is in the world of the structure and of configuration? 13

These few examples of the kinetic, mirror, and projection forms in Svoboda's scenography suggest the fundamental characteristics of his work as a whole: a synthesis, a sophistication, and a masterful application of the theories and practical experiments that are considered the coordinates of modern stage design and production. Svoboda's scenography bears obvious kinship to that of such giants of modern theatre theory and practise as Appia, Craig, and Piscator, as well as the Soviet avant-garde of the twenties. Nevertheless, such comparison requires qualification in order to define the essential features of his talent. He is less of a theoretical visionary than either Appia or Craig but surpasses them in his mastery of sophisticated materials and techniques as well as in sheer practical experience. Although many of his productions recall the emphasis on scenic dynamics and stage-as-mechanism evident in the early post-revolutionary work of the Soviet theatricalists, Meyerhold and Tairov, Svoboda's greater technical sophistication and more suggestive approach provide a richer, more emotive experience. Similarly, although some of his most audacious work in the fusion of film and stage relates to the earlier work of Piscator, he has carried the work to a much higher, more complex level that amounts to the creation of a new, hybrid medium combining actor and screened image.

More than anyone else in contemporary scenography (one is tempted to say, uniquely), Svoboda embodies a fusion of artist, scientist, and professional theatre worker. Technically a master of his complex medium, and thoroughly conversant with the realities of theatre production—the pressure of deadlines, budgets, personnel supervision, and inter-artistic cooperation—he is above all a superb theatre artist whose approach to each production challenge is that of a poet in its exercise of creative imagination applied to the fundamentals of space, light, and movement.

13 McLuhan, p. 13.