



ULBS

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THESIS SUMMARY

**THEATER AND MULTIMEDIA IN THE DIGITAL AGE:
EMOTION, DISTANCING, CREATIVITY**

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Preamble. Technology, theater, and life

Contemporary theatrical performance is subject to an ever-present influx of hi-tech technology. The integration of these means of expression - be they dedicated or borrowed and adapted - gradually transforms the pool of the ways of expression of the directorial or scenographic concept procedures and even the acting technique and expression. This trend is by no means anchored in the present. Since its birth as a recognized art form, theatrical performance has sought, through its creators, to impress, to fascinate by creating, in the apparatus of the stage, mechanisms designed to reveal to the viewer a special world, a world of illusion. The ancient Greeks invented the systems of cranes and pulleys that brought the deities on the stage, creating a sensation of flight, of floating. The construction of ancient amphitheatres and their acoustic qualities are still a subject of study for the acoustic engineers.

Theater and performance have always used special effects based, more or less, on technology. Music, light, smoke, hidden hatches, platforms, counterweight bars, conveyor belts – all made their way onto the stage, improving as technology advanced. Music has moved on from live performance to today's surround systems. Actors wear wireless microphones that amplify their voices. Smart spotlights and digital light consoles look back ironically to the gas lamps that were used long ago. Today smoke can be a fine mist or clouds of heavy smoke, and the mechanics of the stage is electronically assisted, the hatches are hydraulic, the platforms are autonomous, being remotely controlled and the counterweight bars are equipped with motors.

Theater has always kept up with technology, always borrowing and using the elements it considered useful in the spectacular endeavor. Therefore it comes as no surprise that video technologies have permeated theatrical performance almost since their early development. The ability of the filmed image to open the stage space to a whole universe of possibilities of expression (not only scenographical) has always encouraged theater creators to use it. Lubberly at first, the technology of this field has gradually evolved, with a spectacular evolution, especially in recent years. Today it is a natural part of the stage apparatus' gear.

The filmed material brings with it not only its intrinsic quality but a whole artistic baggage of expression and symbols – that of the film universe. Therefore, by adopting and incorporating multimedia techniques, a new step is created in the evolution of the show. In addition to the art of music and color, theater adds a new art – a very powerful and versatile one – to its semiotic "orchestra".

A detailed analysis of the phenomenon of tuning the theater performance to the technological evolution of society would be extremely useful. Thus, this research was not intended to be exhaustive. In the elaboration of the work, we tried to scan the relationship between the stage and the means of latest generation, highlighting, on the one hand, some very important moments in the evolution of the phenomenon and in its practical applicability. On the other hand, we focused on the social mechanisms that influence technological evolution and the way in which they determine certain changes in society and its mentality. Thus it can be concluded that theater obeys the same rules and that the evolution of technology in contemporaneity shapes its means of expression to a greater or lesser extent. A dual relationship is thus created. Theater, the art form that draws its juice from the mirroring of society, cannot ignore in its discourse the over-technological accents of the contemporary world, and likewise, the advantages that technology offers to the show cannot be neglected.

Chapter I. Multimedia technology: fulfillment or threat to the dramatic act

Throughout the first chapter of the work, we turned our attention to the evolutionary course of the technological input in the theater performance. The *deus ex machina* of antiquity was followed by the less happy years of the Middle Ages – in terms of culture and its manifestations – and theater, of all the arts, was the most affected. But even the itinerant stages of this period, whether they were presenting mystery shows, commedia dell'arte performances or fairground theater, were not devoid of technological assets meant to enrich the show.

The first buildings dedicated to hosting theater or opera performances appeared during the Renaissance, first taking inspiration from the architecture of the ancient theaters, and later gradually approaching its current forms. After the baroque period, which enriched the hall with boxes and balconies - for reasons not so much related to the plays, but social, the mundane show of the nobility being much more important than the performance itself – there seemed to be a greater care for the show itself, thus looking for the best solutions and technical means to serve artistic creation. Richard Wagner was a revolutionary in the domain's architecture. He managed to impose his vision on the construction of the *Bayreuth Festspielhaus*. Thus, the theater he built, by arranging the seats, by hiding the orchestra pit, by using high resonance capacity wood or even by using a collar, meant sending the music of the orchestra towards the actors on the stage first and only then towards the audience, which manages to give the viewer a complete experience.

The architecture of modern theaters is subject to the same principles, all its elements being dedicated to the show. The technology that serves them is no longer one borrowed and adapted, but one dedicated to the field and its specificity.

We sought to discover in the history of the multimedia theater the most eloquent moments of its development. Innovation in terms of stage effect and the use of technological means begins with the Industrial Revolution. *Grand Theater Morieux de Paris*, an itinerant theater that travelled through Europe in the 19th century, impressed through its panoply of dioramas, mechanical characters and animated sets. In America, in 1914, Winsor McCay created the first documented intermedial show, interacting with an animated character.

The discovery and development of the cinematographic art will influence the theatrical performance from the early years. But the one who will accompany almost all his performances with cinematographic screenings will be Erwin Piscator, one of the pioneers of the multimedia theater. A huge innovator of the stage technique, in addition to the video image, his performances excelled in the use of engineering means, giving way to a new level in the evolution of the theatrical performance. This is why a review and analysis of his most representative works was necessary.

The relationship between artists and servants of the exact sciences has always been seen as an antagonistic one. That is why the importance of *the E.A.T (Experiments in Art and Technology)* organization is of major importance. These consisted of bringing together some of the best performing artists and some of the most recognized engineers and scientists to work and develop a technological base dedicated to the performance, using the latest innovations and discoveries of the time. The experiment led to the creation of nine performances brought together in a micro-festival in October 1966. Each of these concluded in an applied demonstration of the research period.

Of course, when we talk about multimedia theater, we cannot ignore the trend's opponents. And the clearest manifestation of this opposition crystallizes in the performances and ideology of the Grotowski theater laboratory. This supports the idea of poor theatre, reduced to the essence and dedicated to a direct and vivid experience of the spectator with the dramatic act. Also, adjacent additions, especially video inserts, are seen as harmful, having a destructive potential for actor-audience communication.

We also brought to the reader's attention some of the theatrical experiments of the *Institute for Exploration of Virtual Realities*. Since 1995, it has experimented within the field

of virtual theater, creating a series of innovative shows, based especially on the merge of direct stage experience and the digitally created 3D virtual world. Inspired by the possibilities offered by the field, Robert Wilson resumes his collaboration with Philip Glass and creates *Monsters of Grace*, a show that combines the two processes – live theater and digital 3D projection. Although the shortcomings of the technology of the time left their mark on the creation, the moment remains a reference in the history of multimedia theater.

Technological achievements have inspired theater creators throughout time, sometimes giving rise to extreme, strange manifestations. Thus, for example, Company in Space's *CO3* performance in Melbourne consisted of the live internet transmission of a choreography created and performed in Australia by Hellen Sky which, captured by motion sensors, was then modified in real time by John McCormick, who was in Florida. Stelios Arkadiou (Stelarc) took the actor-technology relationship to the extreme in 1994. He set forth a show in which online viewers could transmit electric currents to electrodes mounted on his body, thus causing a grotesque dance.

I then analysed the Romanian theatrical phenomenon, from the point of view of the relationship with technology. Although the first theatrical production containing video projections dates back to 1911 (Aristide Demetriade's show *Înșir-te mărgărite* from Bucharest National Theatre), the two wars and then the years of communism, led to a stagnation in the process of integrating technology into the theatre. Afterwards, the use of multimedia means was mostly excessive and exaggerated, an intense burning of the missed moments in the route of the world theater. It is only after the 2010's that one could consider the fact that these procedures belong, in a committed and justified way, to a theater performance.

Chapter II. The digital insert, between emotion and the distancing effect

The involvement of the multimedia phenomenon in the art of theater, in addition to its valence as an artistic means of expression that complements the show itself, must also be

analysed from the point of view of its mediation and transport properties. Thus, a theater show can nowadays also include technologically mediated performances. From this point of view, the show will suffer a substantial depreciation, the act of intermediation leaving it widowed by the magic created in the theater, by the direct actor-spectator communication and by the act of participating in an artistic happening alongside the community.

We also wondered how much the introduction of pre-prepared elements, of sequences that do not change from one performance to another, degrades the live condition of the theatrical performance. And we think the answer lies in the law of measure. A preponderance of footage, as happens in some multimedia performances, will compromise the performance's life, but finding the right ratios will enrich the theatre-maker's arsenal of means.

When theater theorists want to emphasize what makes stage art superior to other forms of art. They bring two major arguments to the table: firstly, the direct, immediate communication between actors and spectators and secondly, the quality of the theatrical performance to include within a single artistic act all other arts: literature, music, dance, visual arts, architecture and film. Why wouldn't digital arts find their place in addition to all this, in line with the development of society?

We also wondered if the stage and scenographic effects, which are increasingly better developed, as well as the staging of the filmed image – knowing the power of impression that the film montage has on the viewer's mind – are not able to diminish the affective participation of the spectator in the artistic act by reducing his imaginative spectrum. The impact of the video image on the human mind is a major one. The image is the primary reference in the human response to external stimuli. It is possible that a *trompe-l'oeil*-istic representation largely nullifies the ability to use the imagination, impressing only on a technical, illusionistic level. From this point of view, theater should remain an open art, which does not manipulate the viewer – as cinematography can do through montage, close-up shots, etc. – and all the technologies used should serve either at a documentary level or in support of metaphor and symbol.

The multimedia intermediary is increasingly present in everyday life. In almost all fields of activity, a monitor or a video interface is gradually making its way. Concerts, sporting events and even religious services use projection screens or broadcast media channels. In our daily life we use smart phones or laptops. We find an app for almost everything. We schedule our vacations, buy goods, research the weather forecast or navigate the streets or the seas, even

make our diet plan or consult virtual doctors. Some, visionaries or not, buy virtual domains and invest in them. Libraries and museums are digitizing, offering literary databases or virtual tours. During the pandemic, theaters have moved online, some making 3D experiences available to the viewer. We are increasingly digitized, and the world of theatre-making needs to take this evolution into account, as well as the incorporation of digital technology, which is almost mandatory, both at the stage apparatus level and at the level of the means of delivery. We believe, at this point, that watching a theater performance must necessarily consist of a social, group experience. But who knows if the future won't be able to create a perfect illusion of live participation in a performance, for both the audience and the actors?

Chapter III. Multimedia in the theater, a consequence of the "overly technological" contemporary environment

Although the technological progress forces the current theater performance to align from this point of view, both in terms of the stage apparatus and at the level of the representation of contemporary society, there is a dose of timidity in this approach, especially from the point of view of creators of dramatic writing. The theater writer avoids, deliberately or not, the introduction of technological elements into the concept, leaving this decision to the director or producer. Richard Palmer identifies five possible reasons for this custom. The first would be economic constraints, a dramatic author not wanting to condition the staging of a play on a certain material basis. The second consists of the existence of an amount of technophobia, present over time in the collective mind, based mainly on the idea that a technological aid has the potential to diminish or damage certain human abilities. Closely related to the first two, comes the ideology of the poor theater, embodied in the work of Grotowski, who, in support of a pure, austere form of theater, considers even the dramatic text only a vehicle meant to help explore true senses and meanings. The fourth reason is a scholastic one: playwrights usually have a traditionalist training and follow some rules that have been established over the years in the field. And, last but not least, the habit of postmodern rewording of the text. A trend that has dominated and still dominates the contemporary theatrical world, which puts dramatic writing on a lower level, acquiring more of a value as a basic document from which directorial creation starts, and in other cases reduces its importance to the level of cultural quotation.

We turned our attention to the development of technology in relation to contemporary society and implicitly to its mirror, theater. The science and development of technological

artifacts are subject to the principle of constructivism, the accumulation and confrontation of a sum of methods and solutions in solving a problem and the response of users. As in the mundane example of the transformations undergone by the design of the bicycle, influenced by all external factors to create a product as reliable as possible, so the theater performance will arrive at the most appropriate solutions in its current representation, depending on direct experiences, the opinion of the spectators, etc.

At the opposite end, the theory of technological determinism states that society and its development depend on and are subjugated by the evolution and discoveries of the field. Therefore, the social course and its culture have an evolution determined by technological advance. The most important turning points in history are marked by discoveries and applications of technology: metalworking, gunpowder, the steam engine, fossil fuels, electricity, the telegraph, nuclear fusion, and today the internet and the digital world. Technology decides which nations are dominant and which dominated. And technology creates more technology. According to this theory, the technologization of the performing arts must occur, as a general social effect, which does not necessarily depend on our power to choose.

Since the beginning of the 20th century, John von Neumann advanced the theory of the technological singularity, videlicet the increasingly rapid evolution towards a time when the advance of technologies will exceed the will of man, a time when technology will self-reproduce and improve, independent of the human mind. We are already intrigued by the capabilities of what we call AI - artificial intelligence, and if we take the graphic curve of development in recent years into consideration, which is approaching a vertical position, we can already take a glimpse of a horizon where it will become completely autonomous and infinitely more informed than the human mind. The moment of the technological singularity will come as a major turning point in the evolution of the human species. And the future of humanity will be able to take three possible paths: either this artificial intelligence will serve us, offering us everything necessary for a wonderful life – a kind of heaven on earth – out of respect for its creators, or the human species will be annihilated – suddenly or gradually – no longer necessary for the evolution of the technological super-being, either man and machine will merge, creating a new species that combines the human mind and the intelligence and intercommunication made available by technology. One way or another, man and humanity will change, and what seems normal to us today will cease to exist. Will there be theater at this stage of development? Of course, we cannot answer this question. But given the resilience and adaptability of this art, we tend to believe that it will find its form even then.

Chapter IV. Case studies

The last chapter is dedicated to the detailed study of three theater performances that define three different ways of approaching the multimedia addition. Far from being defining and generally valid, the three relationships of directorial creation with the digitally created space largely cover the current trends in approaching this kind of theater.

In the show *Viața lui Bess (Breaking the Waves)*, Radu Alexandru Nica, through the video creations of Daniel Gontz, creates an almost permanent metaphorical reflection of the stage demarche. The video projection accompanies the moments of the show like music, accentuating, sublimating, highlighting the experiences of the characters or adding sometimes poetic and sometimes aggressive accents. Thus, the video universe becomes an extension of the characters, a projection of their emotional spectrum.

Thomas Ostermeier uses video projection in *Hamlet* as a means of highlighting, of drawing attention to a certain point of view. The video camera whose images are shown to us is also Hamlet's eye, his subjective angle of vision, but also an intermediary, an interface through which the prince interacts and relates to the outside. We are also suggested the casuistic value of the images – Hamlet gathering material that will serve as evidence in his act of justice. Also, the projection of the image captured live on stage can transform one character into another. Claudius becomes the ghost of the father and Gertrude turns into Ophelia. Likewise, the video image becomes a tool of postmodern detachment, in many situations it offers both the tight frame, the effect, loaded with symbols, and at the same time it allows the viewer a detached look at the mechanism of the achievement of the trick (for example, the scene of Ophelia's death).

In the case of *Hamlet/Collage*, a show signed by the Canadian director Robert Lepage, the video projection, accompanying the set mechanics, is what draws the play space, scene by scene. A pinnacle of technological creation and imagination, the multimedia space of the show is both scenography and playing partner – an actor who supports Evgheni Mironov masterfully. The fluid architecture of this virtual space represents Hamlet's world of madness. The entire dramatic process takes place in the prince's mind. Consequently, the video projection makes the same leaps as the thoughts, transporting the performer from one place to another or bringing the characters of this dream into the space of the stage.

General conclusions

Therefore, this thesis aimed towards a radiography of theater's relationship with technology and an analysis of the ways in which the two fields evolve together. Theater is the mirror of the world and changes with it. How else? It cannot remain anchored in a dogma that would only remove it from life. And technology is, more than fully, one of the most important and defining characteristics of contemporaneity in a hypermodern age where man and digital landmarks coexist in an unsuspected symbiosis. We cannot ignore this reality any more than we can ignore rain or gravity. In the most natural way, multimedia means have already established their place abundantly in the theatrical performance. What cannot be lost sight of is the most important meaning of theater, as an art of living: the message. The message, which must reach the audience, the spectators, their souls and consciences, clear and strong. The message transcends the medium. It humanizes him. It is what the scene holds as eternal truth, beyond time and ages.

Keywords: *theater; multimedia; stage technology; technological show; video projections.*