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### Interaction between technology and theatrical Architecture Aya Kamal El Din Amin MOHAMMED

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#### **Abstract**

The modern theater architecture presented architectural solutions and technical alternatives that changed the concept of theatrical scenes to achieve a closer and closer relationship with the viewer in order to improve the presentation and reception conditions based on the use of technological means and related settings to enable the possibility of introducing all elements of theatrical presentation to discover new horizons In the field of architecture and influences. Building technology in theatrical architecture (and exploitation of advanced mechanical capabilities, electronic techniques and applications) has enabled the ability to achieve the attractions and enriched them with the technical possibilities, which helps to build huge landscapes that have the ability to move and make major changes in the form of platforms or even The seating of the viewer's so as to enable the vertical or horizontal movement or rotation and the use of machinery and engines to enable the technological systems of continuous movement, and the integration of performances to the circus with theatrical technology developed to reflect the contemporary lifestyle, including (Theater architecture - advanced possibilities of theatrical scenes, effects and lighting - the audience of theatrical performance) in order to create an unexpected shock to the public to connect the idea of theatrical performance through the use of the possibilities were not used from Before.

#### **Keywords**

Interaction, Technology, Theatrical Architecture, Egypt





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#### Introduction

The interaction between technology and theatrical architecture began with the audience needing to get out of the framework of the real theater by experimenting with new architectural forms that were not used before or were not used for their original function so that they would be able to go beyond what is presented from the traditional theatrical forms to present an advanced idea of what is It already exists and this type transcends all that is familiar and brings new and chooses the constants in a way that is represented in Download architecture the possibility of shaping through the dismantling of the stage or even the seating places of the spectators, thus creating a wider lighting for the performance in cooperation with lighting and movement and considering the audience as the actor and the scenography tool. The theater historians considered Wagner as the one who has a pioneering influence on the interaction between technology and theater architecture, and the overall artistic vision of the total artistic work has had a lasting and profound effect on the following theories and practices, i.e. the performance of the twentieth and twenty-first centuries. In 1919, the artists demanded a complete mobilization of all artistic forces to create a "total artistic work" ... and they demanded that all materials be included, and they demanded that all theaters of the world be reviewed. "

Prampolini's concept demonstrated the dynamic, flexible scenographic system for the dynamic of colored lights that led to the existence of a theatrical architecture with the technique of the dynamism of colored lights that create a stage architecture, with the stylization of the plasto, dynamic marionettes and imagine Pramiolini, who was directly influenced by modern technologies of electricity and mechanics, using illusions and painted scenes, and instead of the rear curtain of the theater.





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Imagine a new type of colorless electro-mechanical architectural component equipped with color emission from the Enrico Prampolini Colorless Electromechanically Architectural Structure, and this composition or construction will erase centuries of beams. Representative any shape It is called realism from the stage and the most important thing is to satisfy the performance with the same dynamic that is now considered realistic through the machines, as well as the concept of multidimensional space, i.e. breaking the horizontal plane barrier and rhythmic flexible presenting shapes or multi-dimensional patterns, but Pramiolny decided to go further, calling, to get rid From the human performer - the actor, dancer, or singer, and replacing it with what I call: the diagnosis of place / space - as a dynamic and interactive element between the scenic environment and the scenes so that any dynamics of the place can bypass the material. Anon, such as Malevich, Alexander Redchenko, and Ademir Tatlin began to view performance as a tool that clarifies their ideas about three- dimensional materials that help any form of The dynamic space., moreover, Malvitch considered the possibility of using theater as a true three-dimensional spatial expression on the basis of cubist drawings of art and the ability to create a creation that is not dependent on the relationship of shape and color nor on the foundations of the aesthetic subject, i.e. the formative aesthetic, but on the foundations of weight, speed and direction, so that the shapes give life.





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Which were represented by architectural elements made of real materials such as metals, wood, and iron, which hung any corners of the neighborhood or drooping any void that appeared to counteract gravity, and like Malevich, Tatlin also wanted any drawing out from his flat two- dimensional surface to restore the lost relationships between painting, sculpture and architecture from By discovering that my volume is new with the foundations of objectivity, namely materials, volume and construction, and with the triad of construction methods, and texture of the material(The process of creating and organizing the material), and it was transforming reality by expressing the elements of the material in terms of line, color, space, size, surface and light and using these elements on a psychological functional model of the theatrical place while limiting the traditional elements of theater decor such as curtains or scenes drawn and displaying all Technological mechanisms on the audience and announcing the birth of a new industrial element through the physical components of these environments, and many performances, and theatrical experiments still emphasize the realization of the visual aspect of theatrical performance and draw the audience's attention to the mix between technology and theater architecture, Even if theatrical events are shown, in order to develop methods of theatrical communication by exploiting theatrical media and their interaction with the space, so that it is changed according to the change of the relationship of the elements of the presentation with the spectator as a result of the movement of the elements, the person addresses the spectator's senses in order to develop the most important recipient of the theatrical presentation to subject the viewer to influence The sensory or emotional based on exploiting very subtle developments, i.e.





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Architectural technology, to achieve the final theatrical scene in which the lines between architecture, event and scenes dissolve as a dynamic language to create an expressive image. Architectural drama was not an architectural performance without actors (A sign against humanity) the existence of the living viewer denies that. The deficiencies and visions of the electromechanical theater presented from materials include the preparation of theatrical frames that move, transform, return back and forward prominently that can be transformed into another form using compressible and capable surfaces of transformation such as curtains that fold or Expanding or contracting, moving and rotating, and the lines turn into surfaces and the static materials turn into kinetic materials according to their physical composition, and the exploitation of the relational theory of (Frederick John Kiesler) which is a theory concerned with the relationship between two or more groups of variables (thetheory of variables) (To know and test a new direction of construction and design and to explore the dynamics of the continuous interaction between man and his natural and technological environment.

#### **Results**

Some theatrical experiences at the beginning of the twenty-first century resulted in the creation of performances of a new nature that allow viewers to participate in forming their vision of the theatrical show, bypassing the vision of the director, thus facilitating the process of communication between them and the elements of the scenography by mixing modern theater architecture with digital effects as one of the elements of the scenography to create a new relationship Between the performers and spectators inside the theater show. The venue for theatrical performances must be reconsidered and reformulated anew by blending technology and theater architecture to transfer the scenery from mere translation to the concept of visions and innovation to make it effective in the language of theatrical performance.





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#### **Recommendations**

The most important theater environment as a place for a cultural revolution, which is represented in a set of methods, and that the performance is not limited to the events of the linear narration, and that the performance is not limited to the events of the linear narration, and that it depends on the development of the forms of the stages of the stage and re-formulated again to present new visions that present themselves strongly and discover the vocabulary of these spaces and their configurations to adapt And the attempt to break the closed state that occurred you, with all its themes, hatred and formation, is appropriate. It is necessary to searchand explore new architectural forms and configurations that take from the formable spaces their material and present it to the public. These formations restore the ability to present multiple visions that allow the theater group By achieving their selfreading of the elements of the theatrical performance and putting them on the audience to reach the forms that express the dynamic and visual relations in order to show the emotional responses of the audience so that the attraction is the essence of the theatrical Preparing theatrical scenes in spaces of unusual proportions that include modern theater architecture based on the exploitation of subtle developments and modern technological means to achieve the final theatrical scene in which the lines between the event and the scenes disappear in order to ensure continuous interaction instead of the presence of a negative audience to form environments that represent the community on Expansiveness as a politician within which the individual moves, and monitoring the audience's interaction with this type of performances by exploiting the capabilities inherent in the human body Which, in turn, created a dynamic environment based on the use of large projection screens.





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