



## Performativity of Theatre Architecture

**Mehmet Kerem Özel**

*Mimar Sinan Fine Arts University, Istanbul-Turkey*

*mehmet.kerem.ozel@msgsu.edu.tr*

### ABSTRACT

Due to the increasing interest in performance as a design paradigm in the last 25 years, the term “performative architecture” can be defined very broadly within an expansive context from technology (structure, thermal energy, acoustics, etc.) to cultural theory, from socio-economic to environmental issues. This paper will try to make a synthesis between spatial performance and spatial performativity in order to use this synthesis as the critical framework for its analysis. Judith Butlers’s notion of performativity has entered into the vocabulary of architecture to explore the interrelation between subjectivity and place and has been used to think through how subjectivity is enacted in place and how place itself is enacted in the process of performance. On the other hand, performative architecture has a capacity to respond to changing social, cultural and technological conditions by perpetually reformatting itself as an index of emerging cultural patterns. In performative architecture, space unfolds in indeterminate ways, in contrast to the fixity of predetermined, programmed actions, events and effects. In this sense this paper aims to reread and reinterpret some examples of the 20<sup>th</sup> century theatre architecture in light of performance and performativity in order to answer the question: Can any black box theatre be called as an example of performative architecture?

**Keywords:** architecture, performativity, performance, theatre, black box.

### INTRODUCTION

The last version of the theatre architecture is the black box theatre which is also be called as “experimental”, “flexible” or “adaptable” theatre in the literature of the theatre architecture. By and large it is a rectangular, flat and all-sides black space, where the relationship between the acting and spectating areas is not fixed in advance and could be defined over and over again in each new production.



It emerged especially as a reaction to the proscenium theatres which was the commonly preferred theatre type till the end of the 19<sup>th</sup> century. Its theoretical background was laid in the first quarter of 20<sup>th</sup> century, however we had to wait until 1960s for its materialization. Approximately thirty years after Artaud's direction toward the hangars for a theatre space without a boundary between the actors and spectator areas, found spaces like garages, barns, warehouses became principal places used by avant-garde theatre groups. Approximately forty years after Craig's demand for an empty space with only a roof, a floor and wall which provides temporary spatial arrangements for each new type of play (Wiles 2003, 246) and Appia's request of a bare and empty space for modern experimental plays (Wiles 2003, 246), architects specifically started to design theatre buildings of these kind. Therefore when we speak of black box theatre we mean two kinds of architecture: the first one is found spaces relating to the approach of Artaud and the other one is from-scratch-designed architecture in parallel to the ideas of Craig and Appia. Through the 20<sup>th</sup> century we came across both of these types, more often the former than the latter.

In this paper the aim is to try to reread and reinterpret black box theatre architecture, which is commonly considered as an anonym, neutral and versatile space without a definite character. In order to do this, the theory of performativity through the lens of performance will be used.

Concerning the extensive literature of black box theatre examples it is necessary to set two restrictions to the analysis. Firstly, not found-and-transformed but from-scratch-designed buildings will be analyzed, because found spaces, even if they are usually exposed to transformation by their users -like in the case of Peter Brook's intervention to Bouffes du Nord (Todd & Lecat, 2003) or of Arianne Mnouchkine's approach to Cartoucherie (Mnouchkine, 1991)-, already have and to a degree sustain their former identities. As to the second restriction: In the black box architecture generally there are two ways of creating flexibility and changeability; one is by means of movable podiums, and second is by means of the movable surfaces. The former can be called as the secondary component because these elements, the movable podiums, are not basically constitutive of the architecture; they can be put on and off independently from the architecture, every kind of arrangement can be made with them, however the architecture itself doesn't actually change. In this regard designs like Robert M. Little & Marion L. Manley's 1950 Miami University Experimental Theatre which was regarded as the first example of black box theatre, Tovi Korhonen 1962 Tampere University Experimental Theatre and Weber & Rubinov's 1965 Studio of the Budapest National Theatre which was one of the best known examples of flexible theatre examples are

excluded from this scrutiny (Figure 1). On the other hand the latter, the surface, is one of the three essential components of the architecture along with space and mass, since without its surfaces like floor, ceiling and walls, the architecture couldn't be constituted. Thus, the scrutiny will contain only the black box theatre examples where the components of the architecture itself were used, just like the distinguished linguist John L. Austin, the founder of the concept of performativity, considered only certain utterances performative which are actions in themselves, and which are actions of a distinctively linguistic kind (Loxley 2007, 2).

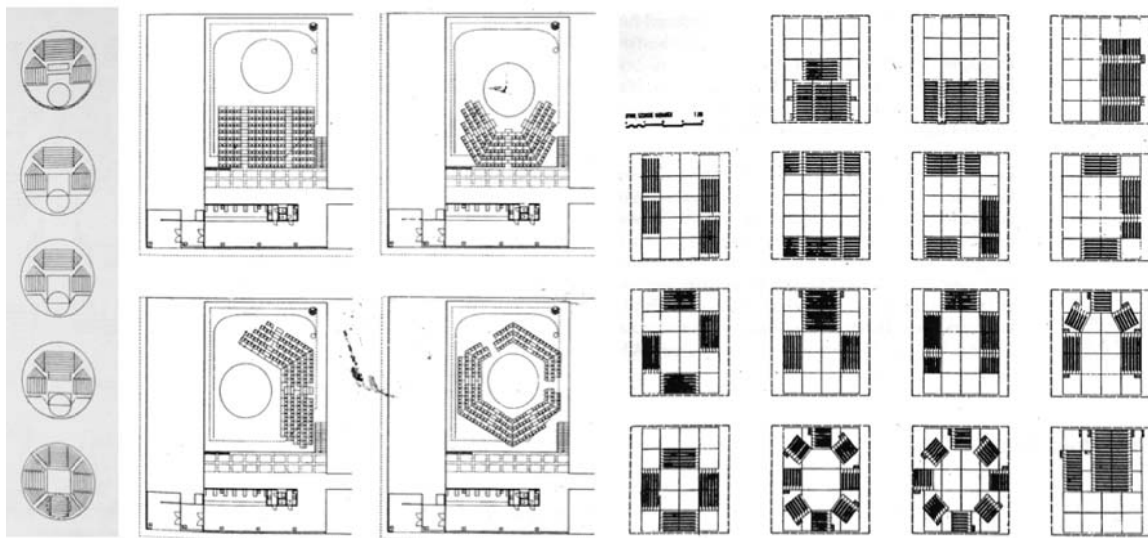


Figure 1. Left: Miami University Experimental Theatre plan configurations (Schubert 1971, 66). Middle: Tampere University Experimental Theatre plan configurations (Schubert 1971, 21). Right: Studio of the Budapest National Theatre plan configurations (Schubert 1971, 21).

## PERFORMATIVITY

As widely known, according to Austin's speech-act theory language does not merely describe things, at the same time it makes them exist: "to say something is to do something" (Austin 1962, 12). Austin called this perlocutionary force of the speech-acts as "performative". Language is performative because its speaking produces what it claims. As Jen Harvie (2009, 46) points out, "this idea that the doing (or performance) of something produces an effect has been crucial to theories of performativity beyond linguistics, because it establishes that other acts too can have force."

Employed as a heuristic principle to understand human behavior the concept of performative turn posits that all human practices are 'performed', so that any action at whatever moment or location can be seen as a public presentation of the self. The



performative conceptualizes how human practices relate to their contexts stressing the active, social construction of reality as well as the way that individual behaviour is determined by the context in which it occurs instead of focusing solely on given symbolic structures and texts. In the 1960s it entered the art and provided a basis for the phenomenon of performance.

Whilst performance “denotes primarily a unique event occurring within time limitations and frequently involving a situation-based ad-hoc action”(Steiner 2010, 35) in the context of performance studies, it is assumed as a bodily practice between social actors or between a social actor and his or her immediate environment that produces meaning in the context of cultural studies.

### **PERFORMATIVE ARCHITECTURE**

Judith Butlers’s notion of performativity opens out for exploring the interrelation between subjectivity and place and for thinking through how subjectivity is enacted in place and how place itself is enacted in the process of performance (Smitheram, 2011). If we try to adapt this notion into the vocabulary of architecture we could claim that the interrelation between moving bodies and the spaces which determine and manipulate these movements, in other words, between the act and the architectural environment of its context is inherently bounded. Furthermore the language of performativity also enables architecture to escape the confines of its “identity” as a stable object by understanding architecture, and our relationship to architecture, as performative—the “in-betweeness” of relations(Leach 2006). In this sense, as Kolaveric (2005, 205) argued, the space inperformative architecture has the capacity to respond to changing social, cultural and technological conditions by perpetually reformatting itself as an index, as well as a mediator of (or an interface to) emerging cultural patterns. It unfolds in indeterminate ways, in contrast to the fixity of predetermined, programmed actions, events and effects.

David Leatherbarrow (2005, 7) who argues for a shift of orientation in architectural theory and practice from what the building is to what it does, asks: “In what ways does the building act? What, in other words, does the architectural work actually do?” (2005, 8) “Is there “action” in architecture’s apparent passivity, in its steady and static permanence? Is the application of the term “behavior” to architectural elements anything more than a pathetic fallacy, or do buildings perform in some way?” (2005, 9-10) Leatherbarrow stresses two principles, one that the performative architecture has the “capacity to adjust itself to foreseen and unforeseen conditions” (2005, 13), and the second that “with the different dimensions of the building’s contingency in mind, architecture’s performative labor has no end, for it is a task that continually presents

itself anew" (2005, 16).

Parallel to Leatherbarrow's arguments is the architecture office as-if berlinwien's approach to designing the New Exhibition Building of the Museum of Contemporary Art in Leipzig by incorporating performativity. As a key thinker of the building's concept, art historian and curator Barbara Steiner (2010, 36) states that in this building performativity is defined in terms of spatial praxis: "The facilities, their layout, and fittings heighten our awareness of their perpetual movability and potential functions, but also emphasize the spaces' physical boundaries". She adds that it does not mean that the visitor is supposed to physically move the walls, but rather s/he is constantly aware of the walls' potential movability. So, the building is based on a changeable spatial concept, allowing a range of different uses and functions. Large partitions could be sliding and doors could be revolving; as Steiner (2010, 36) stresses "[these abilities] make it possible to connect or divide the spaces as required, to create different spatial configurations, exhibition layouts and correlations of meaning. The spaces are to be experienced by means of movement: constantly changing, unpredictable views and connections confront the gaze".

So, Steiner describes the operational concept of the building as a "constant redefinition and shifting functions" (Steiner 2010, 36). In order to achieve this, the design doesn't fix any part of the building with a definite function. Every part of the building could be used in any way (Figure 2).

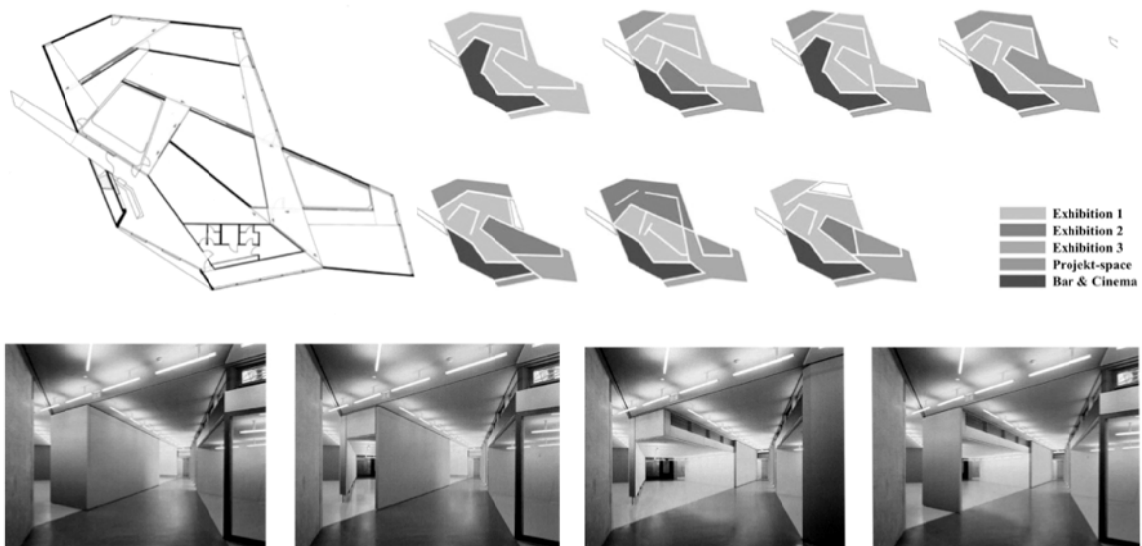


Figure 2: New Exhibition Building of the Museum of Contemporary Art in Leipzig. Top left: Plan (Grundei, Kaindl, Teckert, & Steiner, 2010, 18). Top right: Diagrams of configurations (Grundei et al., 2010, 85). Bottom: Sequential photos of the



differentiation of one of the sliding partitions (Grundei et al., 2010, 92-93).

Thus, one of the most important features that performativity brings to architecture is its transformation from a static object which was accepted for a long time, to a movable, contingent and fluid object in reciprocal relation with its users not only in design but also in reception process. According to Leatherbarrow's remarks and as if Berlinwien's project we could sum up two main characteristics which make that shift of the architecture possible. One is the movability of the essential elements which constitute the spaces and second is the undefinedness of the spaces by predetermined functions.

### **ANALYSIS**

As parameters for the analysis the two inferences will be used which are deducted from the critical framework of performativity discussed above through the lens of performance: 1- Movability of the elements of the space, 2- The undefinedness of the spaces by predetermined functions. As mentioned earlier the analysis will be restricted to the examples of black box architecture whose constitutive elements are movable.

### **MOVABILITY OF THE SPACE WITH DEFINED PREDETERMINED AREAS**

Although one part or the whole of the theatrical space, which was comprised of the acting and the spectating areas, is movable, the pre-determinedness of these areas weakens the performativity of the space. The reason for this is that even if total or partial movement of the areas provides constant change and redefinition of the interrelation between actors, spectators and the space, the spatial arrangements which can be made through these movements describe the former types of actor-spectator relationship like in proscenium, arena or thrust theatres.



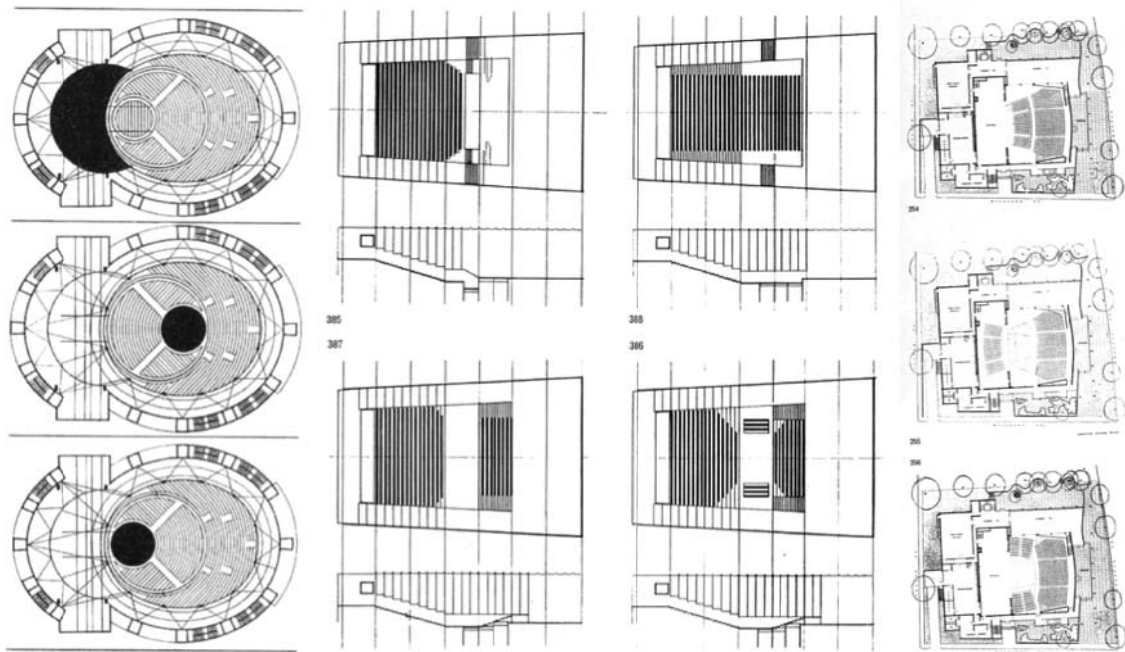


Figure 3. Left: Total Theatre plan configurations (Schubert 1971, 17). Middle: Mannheim City Theatre Small Stage plan configurations (Schubert 1971, 118). Right: Harvard University Loeb Drama Center plan configurations (Schubert 1971, 68).

The most famous example for this situation is the collaboration of a theatre director and an architect, Erwin Piscator and Walter Gropius: 1927 Total Theatre. Other examples which can be mentioned in this regard are: Gerhard Weber's 1957 Mannheim City Theatre Small Stage and Hugh Stubbins & Charles Izenour's 1960 Harvard University Loeb Drama Center (Figure 3).

Moreover in some cases, the movement doesn't change or redefine the above mentioned interrelations. Some examples of this kind are Oskar Strnad's 1918 Theatre Project, Reijo Ojanen's 1959 Tampere Open Air Theatre and Jacques Polier's 1960 Paris and 1968 Grenoble théâtre mobile projects. So this kind of theatre architecture can move but this movement doesn't cause them to embody the performativity.

Another parameter we could add to the movability of the predetermined acting and spectating areas could be that this movement would be happening during the performance. In that case the performativity of the space is enhanced because not only the movement but also the interrelation will be experienced in real time. Gropius' Total Theater with a seating capacity of 2000 was the first example of this approach whilst the realized versions are Pierre Sonrel's 600-seat Maison de la Culture (Amiens, 1966) and Tuncay Cavdar's 280-seat LCC Theater (İstanbul, 1968).

## MOVABILITY OF THE SPACE WITH UNDEFINED PREDETERMINED AREAS

What is in common in this kind of designs is that the space is divided into a modular grid whose parts are vertically movable. There are two sub-categories of this kind: One is that only the floor is movable, and the second is that not only the floor but also the ceiling is movable. According to Werner Ruhnau the first example of this kind of space is the performance space in Hellrau which was created by Adolphe Appia and Heinrich Tessenow in 1911 where the stage was not divided from the auditorium (Lehmann-Kopp, 2007). Ruhnau continues: "Boxes, 16 centimeters high and a square metre in size, the so-called "Praktikablen" made it possible to construct varying topographies of stage and auditorium." In his 1958 competition entry project for Dusseldorf Schauspielhaus Ruhnau designed a flexible spatial arrangement system which he called "Podienklavier"(Figure 4).

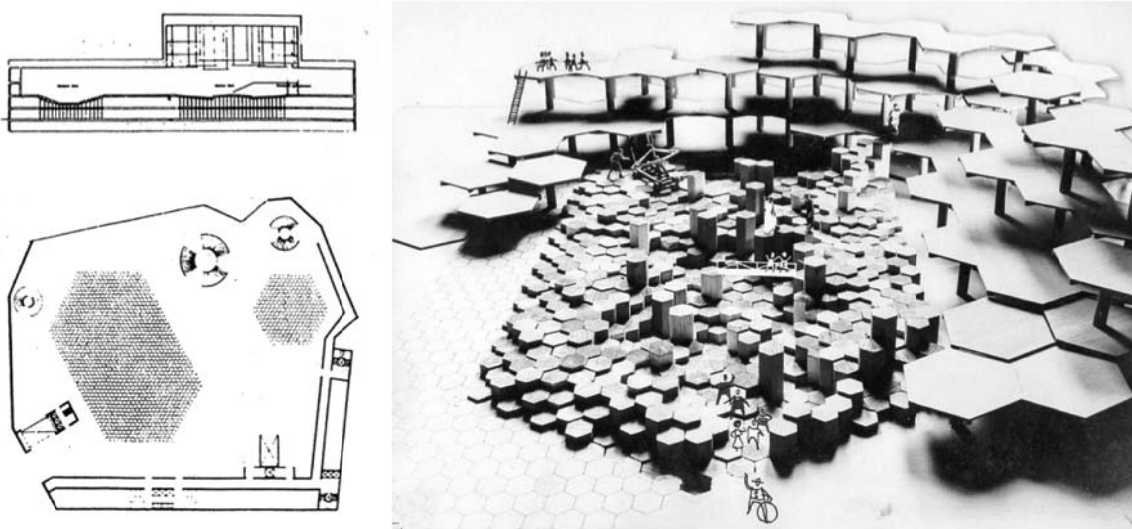


Figure 4: Dusseldorf Schauspielhaus Competition Entry Project. Left: Plan and section (Schubert 1971, 19). Right: Model photo (Lehmann-Kopp 2007, 66).

Each module of the grid was hexagonal in shape and a square metre in size. This system enables to create any topography and arrangement of seating and performance area that the theatre people wanted. Ruhnau (Lehmann-Kopp 2007, 67) stresses that the future of the theatre is not that the play is presented "in" the space but "with-in" the space and for that a variable and flexible architecture is needed. In 1968 he wrote the manifesto "Social form, theatre form – theatre form, social form" with the artist Ferdinand Kriwet calling for an open theatre architecture which is the requirement of an open society and open forms of drama (Lehmann-Kopp 2007, 72).



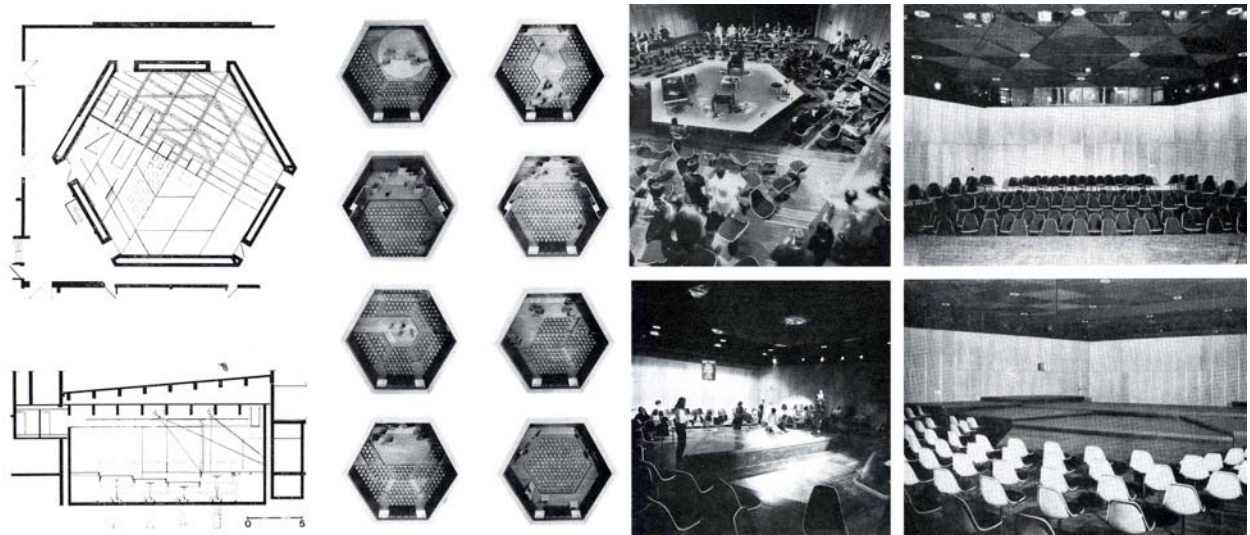


Figure 5: Studio "Podium" Ulm State Theatre. Left column: Plan and section ("Nouveau Théâtre Municipal d'Ulm," 1970, 74). Middle left column: Photos of model for plan configurations ("Nouveau Théâtre Municipal d'Ulm," 1970, 74). Middle right and right column: Photos of the realized project ("Nouveau Théâtre Municipal d'Ulm," 1970, 74).

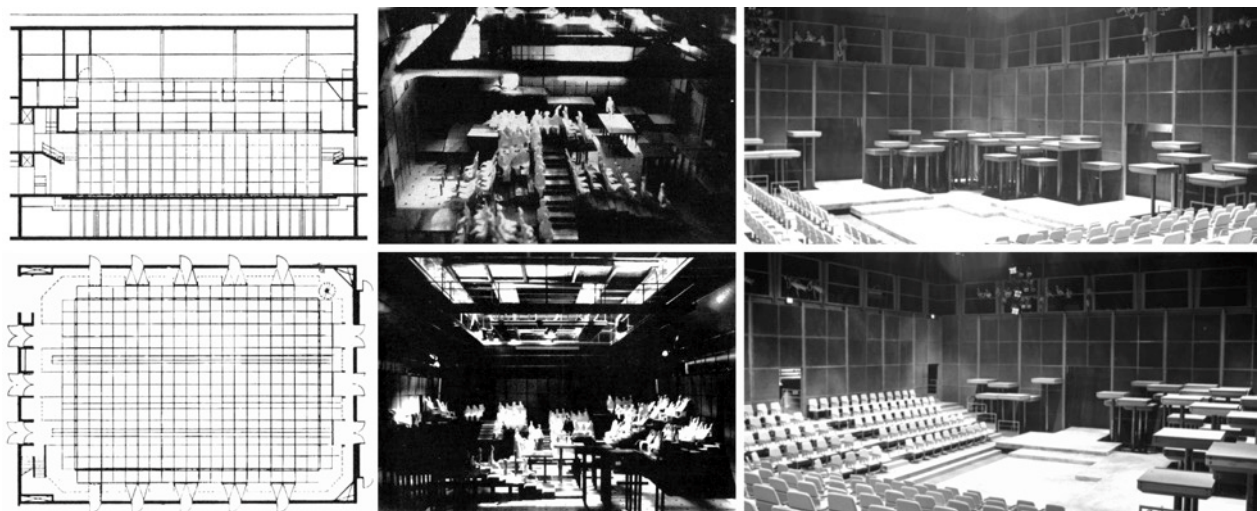


Figure 6: Californiya Arts Institute Modular Theatre. Left column: Plan and section ("Théâtre Modulaire," 1970, 86). Middle column: Model photos ("Théâtre Modulaire," 1970, 86). Right column: Photos of the realized project (URL-2).

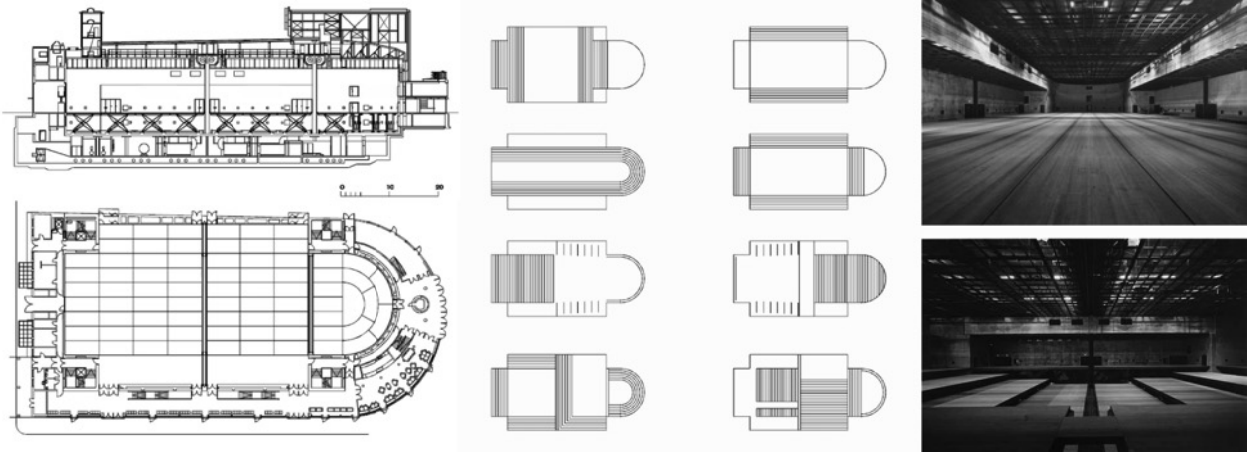


Figure 7: Schaubühne. Left column: Plan and section (Anonymous 1981, 77). Middle columns: Plan configurations (Anonymous 1981, 78). Right column: Photos of the realized project (Anonymous 1981, 79).

The other important and realized examples of this kind are Fritz Schaefer's 200-seat 1969 Studio "Podium" of the Ulm State Theatre with a grid of 18 hexagon modules, 2 of which are stable and 16 of which are movable 90 cm upward and downward (Figure 5), Thornton Ladd & John Kelsey's 1973 Californiya Arts Institute Modular Theatre in Valencia USA with a grid of square modules which can move 125 cm upward and downward (Figure 6), and Jürgen Sawade's Schaubühne which was converted in 1981 from Erich Mendelsohn's Universium Cinema which dates back to 1928, with 76 rectangular hydraulic modules each 3 x 7 m., movable 3 m. upward and downward (Figure 7).

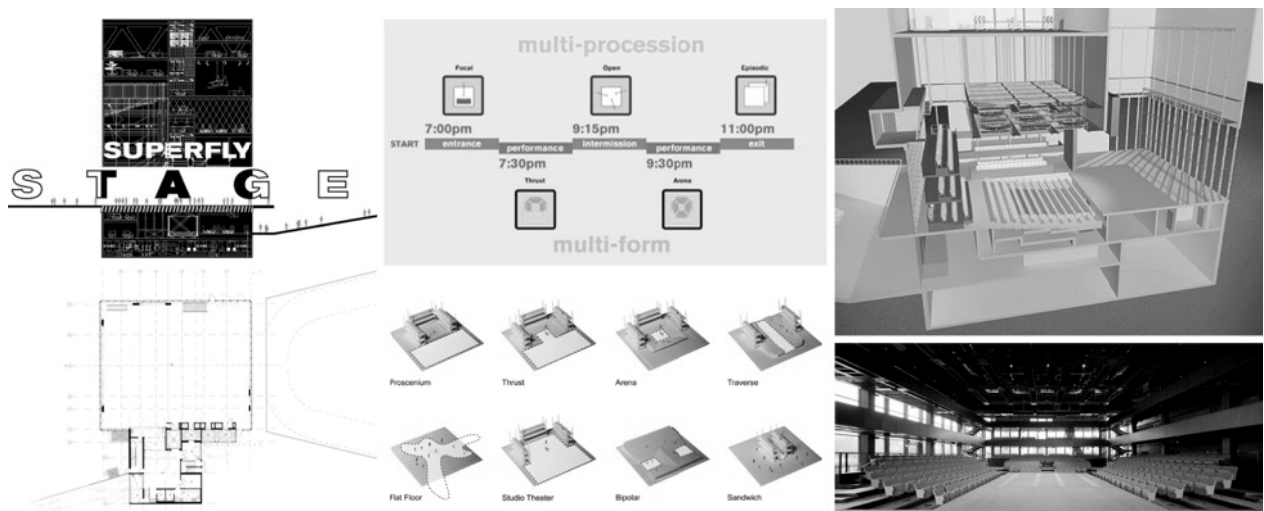


Figure 8: Dee and Charles Wyly Theatre. Left column: Plan and section (URL-3). Middle column: Top: Concept diagram (URL-4), Bottom: Plan configurations diagram (URL-5). Right column: 3D model and photo of the realized project (URL-5)



The recent approach to this kind of theatre architecture is 600-seat Dee and Charles Wyly Theatre in Dallas designed by Rem Koolhaas (OMA) and Joshua Prince Ramus (REX) in 2009. Thanks to the advanced technology which shortens the duration for changing from one arrangement to another, different spatial arrangements could be installed for each act of a one-night performance, thus the interrelation the actor, spectator and space could be defined over and over again during one performance. This particular design has also the capability to establish a relation with its surrounding context by means of its totally transparent façades (Figure 8). Thus, this feature enhances its performativity regarding Barbara Steiner's (2010, 36) remark on Leipzig Gallery's performativity: "perceiving the street, neighboring houses, and park through windows extending from floor to ceiling, makes the architecture appear to interlock with its urban surroundings." So, "[t]he building is conceived of as contingent and fluid. Outside and inside merge, demarcation lines dissolve" (Steiner 2010, 36).

Most probably the first project in the theatre architecture literature which took Ruhnau's concept of the floor-grid with movable modules forward is Maurizio Sacripanti's 1964 New Cagliari Theatre Competition Project which extends the grid system to the ceiling, enabling the composition of possible topographies in the theatrical space not only on the horizontal but also on the vertical plane. There are two similar designs to this concept, however they are designed much later in time: the projects of Wolf Pannitschka and Norbert Wörner within the scope of the competition "Theater für morgen" organized by German theatre journal "Theatre heute" in 1968 (Job 1970) (Figure 9).



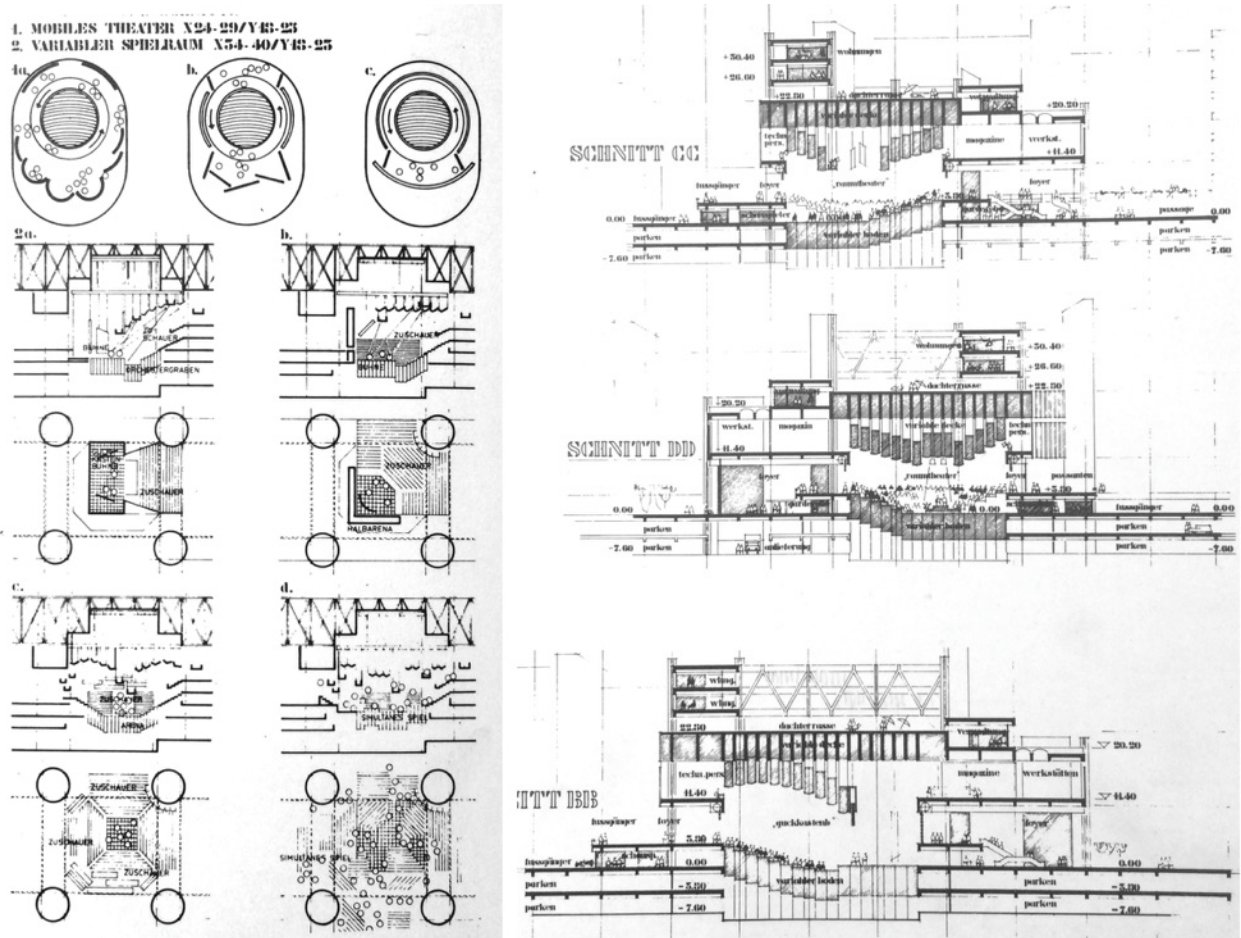


Figure 9 (from left to right): Pannitschka's competition entry project plan and section diagrams (Job 1970, 46), Wörner's competition entry project sections (Job 1970, 58).

In his architectural manifesto "Citta di frontiera" (Frontier City) Scaripanti (1973, 22) mentions that he attended a performance of the Merce Cunningham Dance Company at the Teatro La Fenice at the 32nd Biennale in Venice in 1964 and his impressions of this event became the source of inspiration for the new theatre architecture with the concept of "theatre in motion". Scaripanti (1973, 22) describes a ballet by John Cage which was interwoven with music, choreography and Robert Rauschenberg's "non-stage set" with moving objects communicating solely through the compositional compatibility of mobile planes, the painted bodies of dancers, the play on materials and conveyor belts" instead of a stage set with fixed object, as a dynamic and stimulating composition reflecting "a complex mesh of relations of movement, space (props), music and time, thus highlighting above all the communicative aspects of the elements among each other" (Krejci 2006, 18).

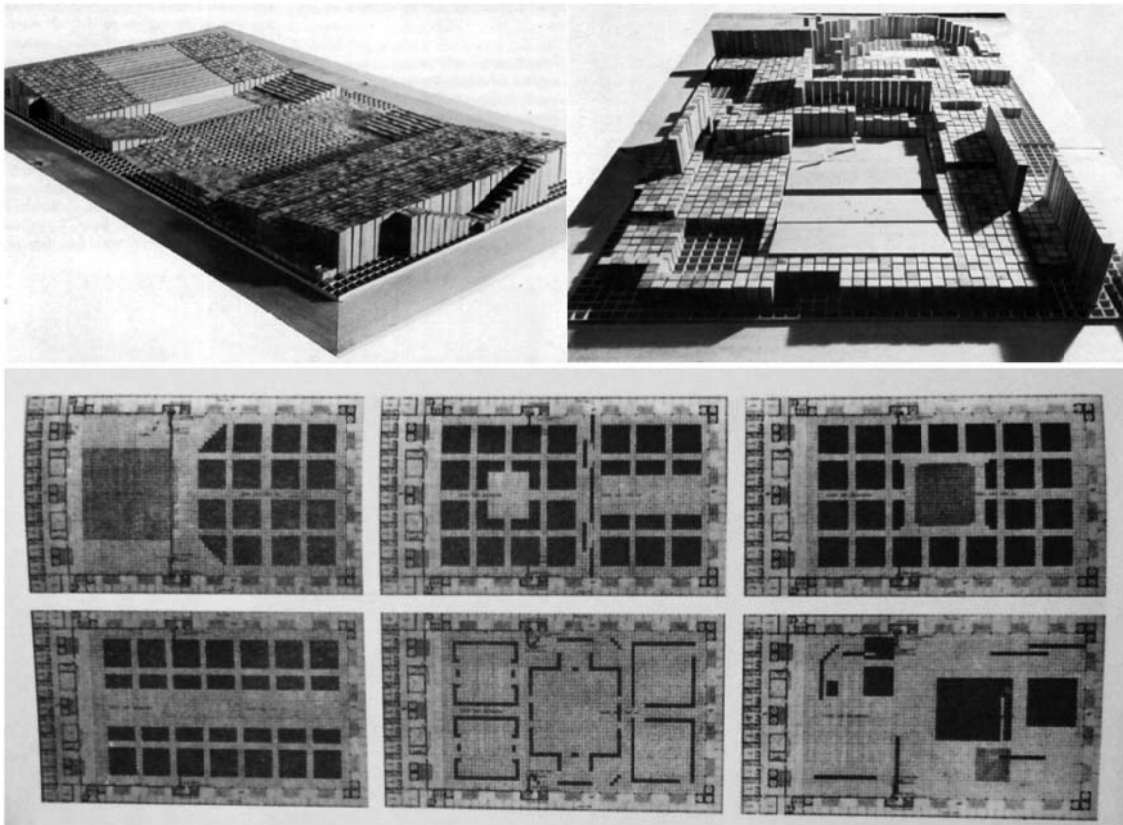


Figure 10: New Cagliari Theatre Competition Project. Top: Model photos (Pessler and Krejci, 2006, 55). Bottom: Plan configurations (Pessler and Krejci, 2006, 54).

Sacripanti (1973, 22) continues observing that the confined space of the stage where the spectacle calling for a boundless gesture was presented made it impossible for the stalls and the stage to become one (Figure 10). In the light of this observations he explains the guidelines for his idea: "... [I]t avoids the fixed image, thus giving rise to research which results, structurally, in the plan of the "total" theatre. This is theatre in motion which is a freely flowing construction in which nothing is confined to a fixed place" (Sacripanti 1973, 11). In this sense Sacripanti (1973, 22) conceived "an auditorium stage which is a single entity, the whole being maneuverable and transformable to meet the demand of the spectacle" by means of the vertical displacement of individual blocks defining the entire floor and ceiling areas. Thus, it becomes possible to create not only topographies as in the case of Ruhnau's Project but also various extended hollow spaces inside the building (Figure 11). While the floor is at once stage, auditorium and prop as Krejci (2006, 19) points out, the ceiling exhibits a corresponding "elasticity" defining an enveloping space or a repelling space as Sacripanti (1973, 22) stresses.

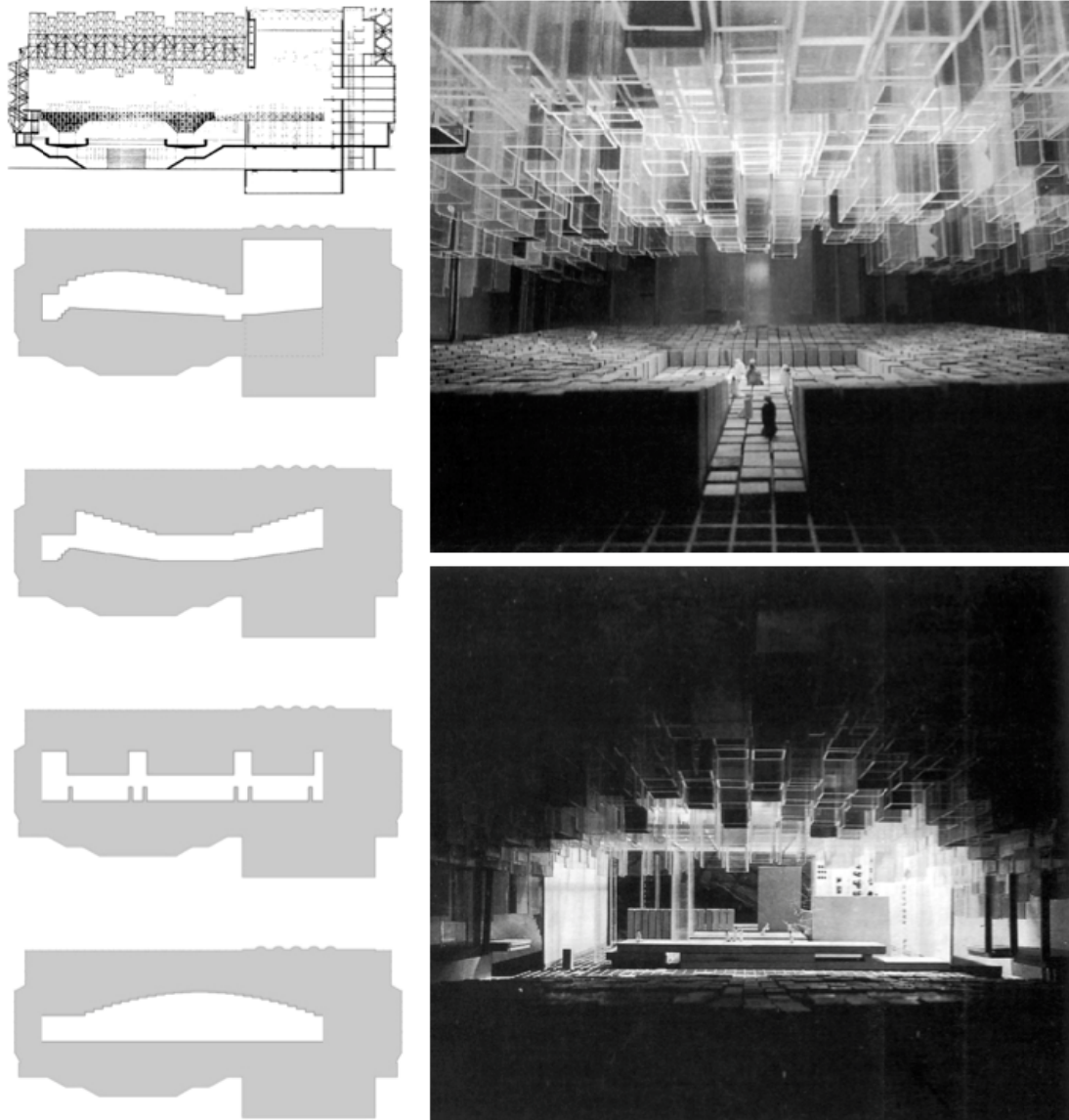


Figure 11: New Cagliari Theatre Competition Project. Left column: Section (Pessler and Krejci, 2006, 54) and section configuration diagrams (Odo 2014). Right column: Model photos (Pessler and Krejci, 2006, 52-53).

He continues: "Its composition is analogous to the stalls, but it uses larger and longer prisms which, with the application of various kinds of interchangeable panelling, complete the functional inventions of the theatre, from the covering, and modify the acoustic, spatial, psychological and functional conditions" (Sacripanti 1973, 22). Thus Sacripanti's design approach which proposes human and her/his behavior in space as the most important factor and gives rise to the basic conditions of her/his perception of architecture as a time-in-space model that deals with real movement and change, enables us to interpret his New Cagliari Theatre Competition Entry Project as an exquisite example of performativity in theatre architecture.



Ultimately, what if, not within the delimitations of a conventional architectural inner space as given examples up to this point but the building itself as a whole would be the physical manifestation of performativity? Once more a collaboration between a theatre person and an architect, between Joan Littlewood and Cedric Price gave a perfect answer to this question: The Fun Palace (1964) is an open, extendable overall structure with no fixed ground plan (Figure 12).

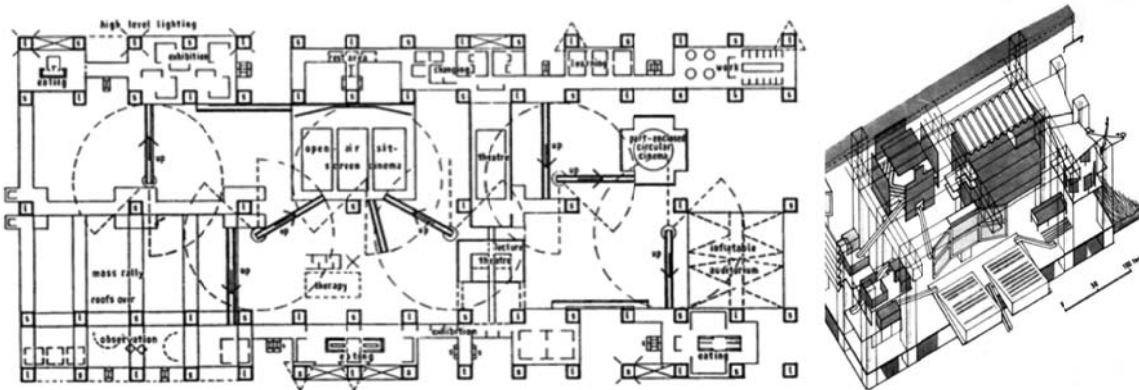


Figure 12: Fun Palace. Left: Plan (Mathews 2005, 77). Right: Axonometric section (Mathews 2005, 76).

Avant-garde theatre producer Littlewood's dream was to create a new kind of theatre of pure performativity and interaction (Mathews 2005, 75). Price's solution was an improvisational architecture endlessly in the process of construction, dismantling, and reassembly with infinite variation and flexibility (Mathews 2005, 74). As Stanley Mathews (2005, 79) explains the Fun Palace was "not a static and solid 'building', but a new kind of active and dynamic architecture which would permit multiple uses and which would constantly adapt to change. It would be a network of multiple events, a space of oscillation between incongruous activities simultaneously played out like some Dada performance. Spaces should be endlessly varied in size, shape, lighting and accessibility." Another important characteristic of the Fun Palace is that "since [its] program which would be ad hoc, determined by the users, ..., its behaviour would be unstable, indeterminate, and unknowable in advance" (Mathews 2005, 81).

## CONCLUSION

As can be noticed, most of the revolutionary theatre projects which are discussed in the analysis in the context of performativity, are un-built architecture. In this sense, rereading and reinterpreting black box type theatre architecture from performative perspective could be stimulating for the future of theatre architecture. Peter Brook



(1968, 65) who stated that he have had many abortive discussions with architects building new theatres, asks in his seminal book "The Empty Space": "The science of theatre-building must come from studying what it is that brings about the most vivid relationship between people – and is this best served by asymmetry, even by disorder? If so, what can be the rule of disorder?" The clue to the answer to Brook's question may be the performativity of architecture in the theatrical space among the performances of the actors and of the spectators.

## REFERENCES

- Anonymus. (1981). *Der Mendelsohn-bau am Lehniner Platz – Erich Mendelsohn und Berlin*. Berlin: Schaubühne am Lehniner Platz Theaterbetriebs GmbH.
- Austin, J. L.(1962).*How to do things with words*.Oxford: At The Clarendon Press.
- Brook, P. (1968).*The Empty Space*. New York:Touchstone.
- Grundeis, P., Kaindl, S., Teckert C., &Steiner, B. (Eds.) *Negotiating Spaces: The New Exhibition Building of the Museum of Contemporary Art in Leipzig by as-if berlinwien*. Berlin:Jovis Verlag.
- Harvie, J. (2009).*theatre & the city*. Hampshire: Palgrave Macmillan.
- Job, H. (1970). *Theater für morgen*. Stuttgart: Karl Kraemer Verlag.
- Kolaveric, B. (2005). Towards the performative in architecture. InB. Kolarevic & A. M. Malka (Eds.), *Performative Architecture: Beyond Instrumentality*(pp. 203-213). New York: Spon Press.
- Krejci, H. (2006). Maurizio Sacripanti – Planning Variability. In M.Pessler & H. Krejci(Eds.), *Maurizio Sacripanti*(pp. 15-22). Vienna: Schlebrügge Editor.
- Leach, N. (2006).*Camouflage*. Cambridge MA: The MIT Press.
- Leatherbarrow, D. (2005). Architecture's unscripted performance.InB. Kolarevic & A. M. Malka (Eds.), *Performative Architecture: Beyond Instrumentality* (pp. 5-19). New York: Spon Press.
- Lehmann-Kopp, D. (2007).*Werner Ruhnu: der Raum, das Spiel und die Künste*. Berlin: Jovis Verlag.
- Loxley, J. (2007).*Performativity*, London and New York: Routledge.
- Mathews, S.(2005). The Fun Palace: Cedric Price's experiment in architecture and technology. *Technoetic Arts: A Journal of Speculative Research*, 3(2), 73-91. doi:10.1386/tear.3.2.73/1
- Mnouchkine, A. (1991). Ein leerer Raum für Inspiration. In G. Breton, *Theater* (pp. 16-17). Stuttgart: Kral Kraemer Verlag.
- Nouveau Théâtre Municipal d'Ulm (1970). *L'Architecture d'Aujourd'hui*, 152, p. 74.



- Odo, E. (2014). *Il teatro in moto di Maurizio Sacripanti*. Retrieved December 15, 2016 from: <https://www.behance.net/gallery/15895771/Il-teatro-in-moto-di-Maurizio-Sacripanti>
- Sacripanti, M. (1973). *Citta di frontier – Frontier City*. Rome.
- Schubert, H. (1971). *Moderner Theaterbau: Internationale Situation, Dokumentation, Projekte, Bühnentechnik*. Stuttgart: Karl Kramer Verlag.
- Smitheram, J. (2011). Spatial Performativity/Spatial Performance. *Architectural Theory Review*, 16(1), 55-69. doi:10.1080/13264826.2011.560387
- Steiner, B. (2010). Performative Architecture as the Basis of the Performative Museum. In P. Grundei, S. Kaindl, C. Teckert, & B. Steiner (Eds.) *Negotiating Spaces: The New Exhibition Building of the Museum of Contemporary Art in Leipzig by as-if berlinwien* (pp. 35-40). Berlin: Jovis Verlag.
- Théâtre Modulaire (1970). *L'Architecture d'Aujourd'hui*, 152, p. 86.
- Todd, A., & Lecat, J.-G. (2003). *The Open Circle: Peter Brook's Theatre Environment*. London: Palgrave Macmillan.
- Wiles, D. (2003). *A Short History of Western Performance Space*. Cambridge: Cambridge University Press.
- (URL-1) <http://flavorwire.com/266146/an-a-z-guide-to-nordic-design/9>, Retrieved December 20, 2016.
- (URL-2) [http://www.fda-online.com/project\\_detail/28/california-institute-of-the-arts--modular-theatre/](http://www.fda-online.com/project_detail/28/california-institute-of-the-arts--modular-theatre/), Retrieved December 15, 2016.
- (URL-3) <http://www.archdaily.com/37736/dee-and-charles-wyly-theatre-rex-oma>, Retrieved December 20, 2016.
- (URL-4) <http://www.archdaily.com/12521/wyly-theatre>, Retrieved December 20, 2016.
- (URL-5) <http://www.rex-ny.com/wyly-theatre/>, Retrieved December 20, 2016.