

# **C R O S S CONTAMINATION**

**architecture and theatre as contaminant agents**

**RESEARCH  
REPORT**

***Explore Lab Graduation Studio 24***



# abstract

Title

## **Cross-Contamination**

*Architecture and Theatre as contaminant agents. Scattering and mixing their roles, tools, space and knowledge, letting them interact with the environment, and translating it into a spatial intervention.*

This graduation project is about merging together two of my interests and passions and making an architectural project out of it. But also much more than that.

Being involved in Theatre and Architecture as two distinct fields has led me to the point I wanted to merge the them to allow the possibility of fueling each other from different backgrounds and points of view.

## Keywords

Cross-contamination, Interdisciplinarity, theatre, architecture, social roles, ephemerality, performance, unconventional.

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*Framework of my research*

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# 1.1 background

*how and why architecture and theatre*

As a method to create interaction between these two disciplines I thought about the concept of contamination, borrowed from the field of chemistry. While I was exploring this concept, I found a more complex version of it: cross-contamination, which seems more adapt at this case because it entails the reciprocity of the process. Is not a one way or one directional process, because there are many elements that are influencing each other. Analysing the definitions given by the Oxford dictionary, contamination is *"The action or state of making or being made impure by polluting or poisoning"* while cross-contamination is *"The process by which bacteria or other microorganisms are unintentionally transferred from one substance or object to another, with harmful effect."*

My intention is to apply this concept at the interaction of these two disciplines, and investigate how they could challenge and enrich each other, to operate on the cutting edge of theater, architecture, visual art and design.

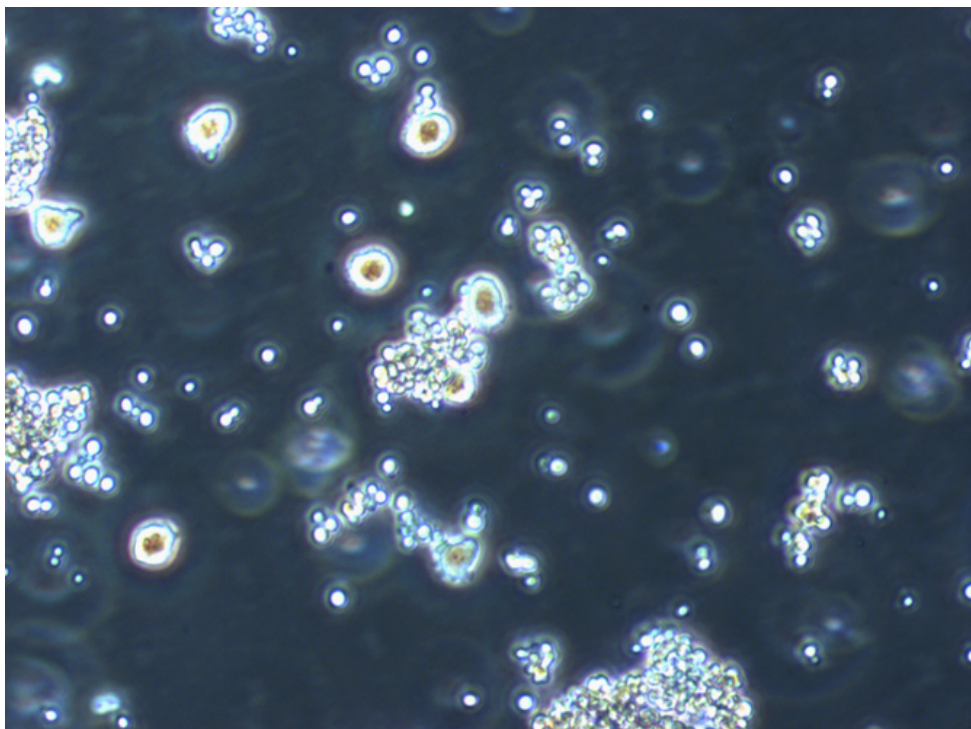
"Taking the complex relationship between theater and architecture as a starting point to try to create an 'architectural dramaturgy': architectural settings that allow for a theatrical performer-spectator interaction."

TAAT

My aim is to challenge the existing conventions about what is the Theatre-Architecture dichotomy.

Mainly to be able to create a manifold where the roles are all shifted and the positions are ambiguous between the elements: performer - audience - background - play - environment.

To be able to shift the roles, create ambiguity, and play with conventions I am going to explore the performative aspect of architecture, I am going to explore the concept of performance in order to use it for entities that are not the mere performers.



In the picture below you can see a heavily contaminated suspension culture (U937). In this case yeasts.

## 1.2 *research question*

At the beginning of the research I started with one question, but going on, I felt the need to re-adjust and re-define the question, since it was very broad and with no particular direction, indeed the material I found made me understand the possibilities of these fields and the direction I could take.

Here below the evolution of the research question in 3 phases.

**1.5** *To what extent architecture and theatre can blend to the point there is no clear distinction?*

**2.5** *To what extent architecture and theatre can cross-contaminate each other and get cross-contaminated by the environment ( to the point a process of never ending renewal is triggered ) ?*

**3.5** *To what extent architecture and theatre can subvert the hierarchies and the conventions they are based on, and to what extent the edges of the disciplines can be blurred, contaminate and being contaminated by the users and the environment?*

## 1.3 *aims of the design project*

To achieve the goals I aspire to in the research question, I believe that I could start imagining the project with certain aims:

- space as a theatre play
- space a journey
- play with perception
- project to be open for changes over time
- shifts of roles between main character and background
- usable by everyone but also a space for performance
- a (provocation) contamination on new insights for society
- interact with the local community
- possibility of adapting to different environments / locations
- possibility of using only one material: wood

## 2.0 *METHOD*

Dealing with three different disciplines, Architecture, Theatre and Performance, and therefore being interdisciplinary, I found the need to, since the beginning, to use different methods of research.

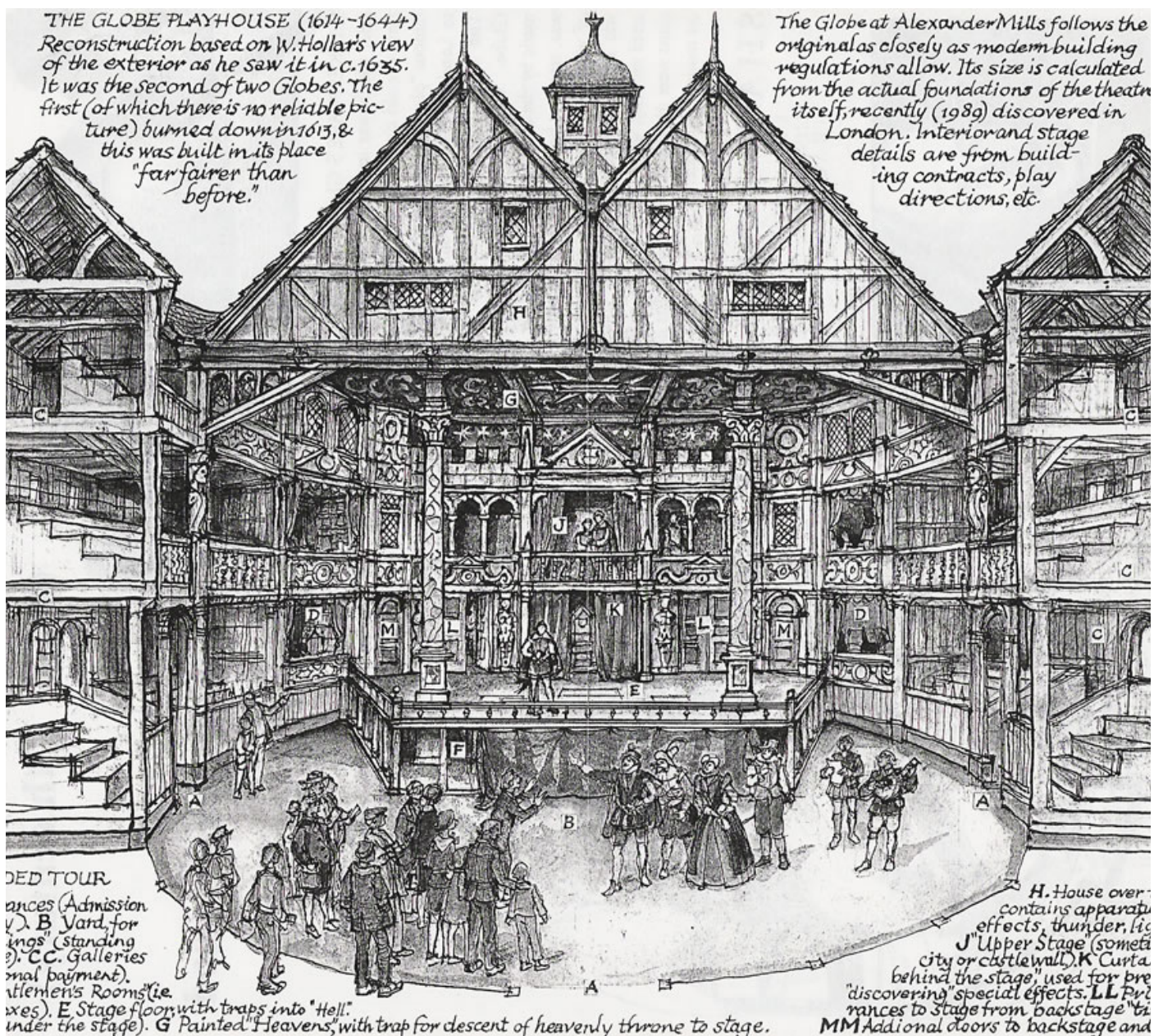
At the beginning I used the method of **literature review** to explore the history of Theatre as a space in chapter 3.1, the definitions of theatre, architecture and performance in chapter 3.2, performative architecture in chapter 3.3 and the interaction between the two disciplines in chapter 3.6

At the same time I also used the method of **interview** when I spoke to some specialists of the field in chapters 3.5 and 3.6

Afterwards I kept on researching what was already done in this field with the method of **case studies** in chapter 4.0 where I divided the chosen projects in unconventional spaces for performance and performing spaces.



### 3.1 graphic history of theatre as a space





# GREEK THEATRE

## PANEL 1/10: history of theatre as a space

The history of theatre dates back to the year 534 before Christ where an annual festival named "The City of Dionysia" was instituted. In honor for Dionysus, Greek god of fertility and wine, a chorus of about 50 men dressed alike (Greek. Dighyramb) were singing a hymn in which symbolic gestures of the chorus dance were closely related to the subject of the song. The orchestra or dancing place was set at the foot of a hill where the ritual was practised in front of a temple. (fig.1)

Later on, the festival called for an annual competition for the best tragedy to be performed. This shaped the advent for the Greek founding father of drama 'Thespis'. It is claimed that Thespis travelled on a cart with plays which indicates that he performed in several Greek towns. (fig.2) In the fifth century the 'City Dionysia Festival' became very popular in Athens. In the fifth century before Christ, tragedy reached its peak in Athenian society. Temporary wooden benches were built on the side of the Acropolis to comfort the audience. The podium for the orchestra was often shaped rectangular.

During the festival a rectangular building, called the *skene*, meaning tent or hut, was erected behind the orchestra, where the actor, who played several roles, could change his costume and mask. Additionally, scene-painted panels and cloths were stored and organized throughout the plays. The advent of the *skene* served to represent an imitation of the original scene of the plays, usually set in front of a temple or palace. Typically, there were two or three doors in the *skene* that led out onto the orchestra through which the actors would enter and exit. Only later on - in the fourth century before Christ had the *skene* been built of a permanent stone structure. This itinerant theatre typology is kept up until long after the middle ages. (fig. 3 and 4)

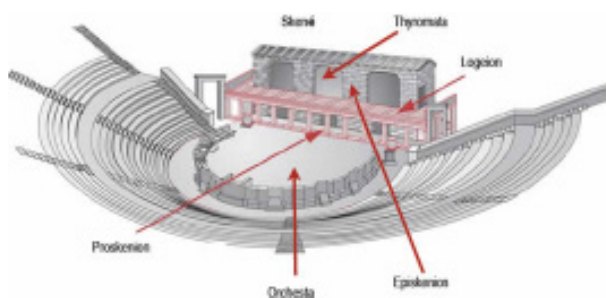


figure4: setup of the 'City Dionysia Festival' with the rectangular building "skene" at the back



figure1: 534 BC. Celebration of Dionysus, greek god of fertility and wine with a thymelae (altar) in the middle.



figure2: 538 BC. Thespis, founding father of Greek drama, which is claimed to have travelled on a cart with plays.

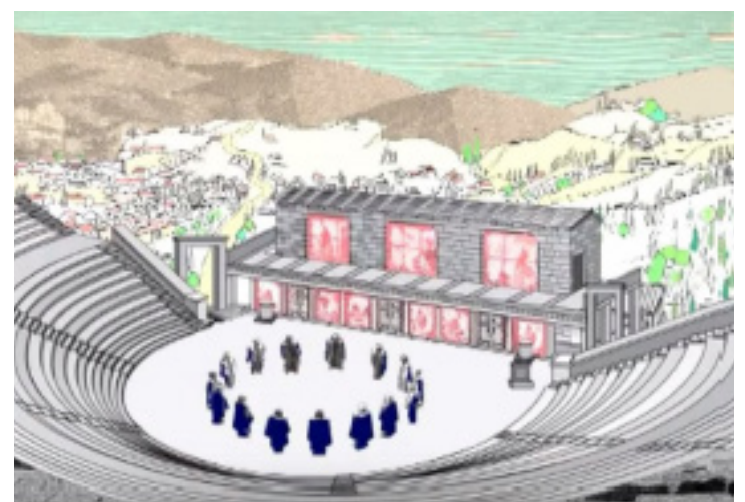
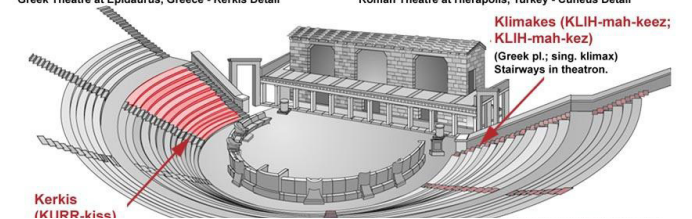
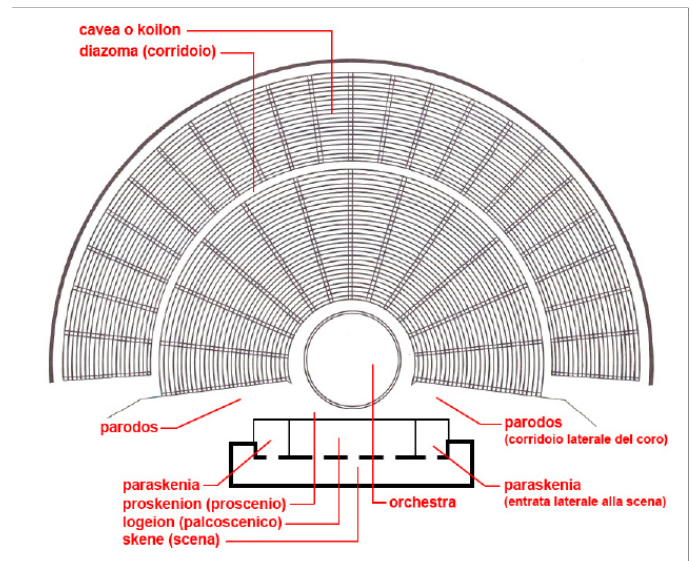


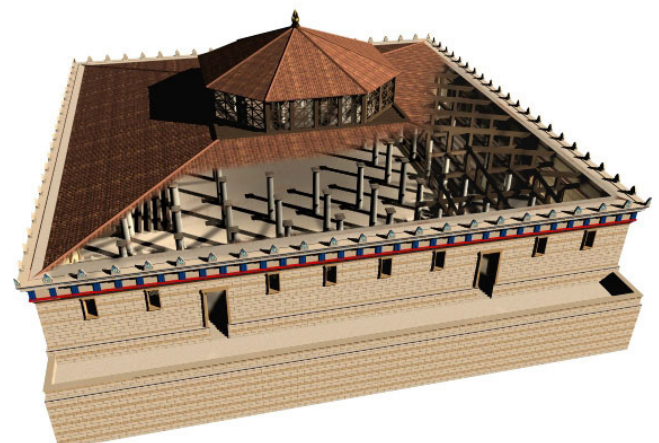
figure3: theatre with skene (imitation of a temple, palace or house) where actors would change costumes throughout the play.

# GREEK THEATRE

PANEL 2/10: history of theatre as a space



first covered theatre in Athens





# ROMAN THEATRE

PANEL 3/10: history of theatre as a space

Through the progress of technology in the building culture have new features evolved which shaped the typology of the Roman theatre. The first one was built in Bologna in 88 before Christ.

- use of bricks as a structural material.
- No more dependency on a given hill as a stage element.
- It's becoming a building on its own, with a façade.
- The façade of the scene is higher, use of construction machines.
- The curtain appears and velarium for the sun is introduced.

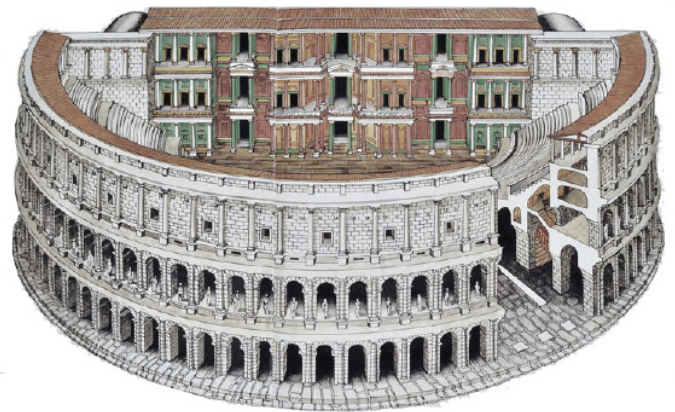


figure5: 13-11BC theatre of Marcellus, Rome

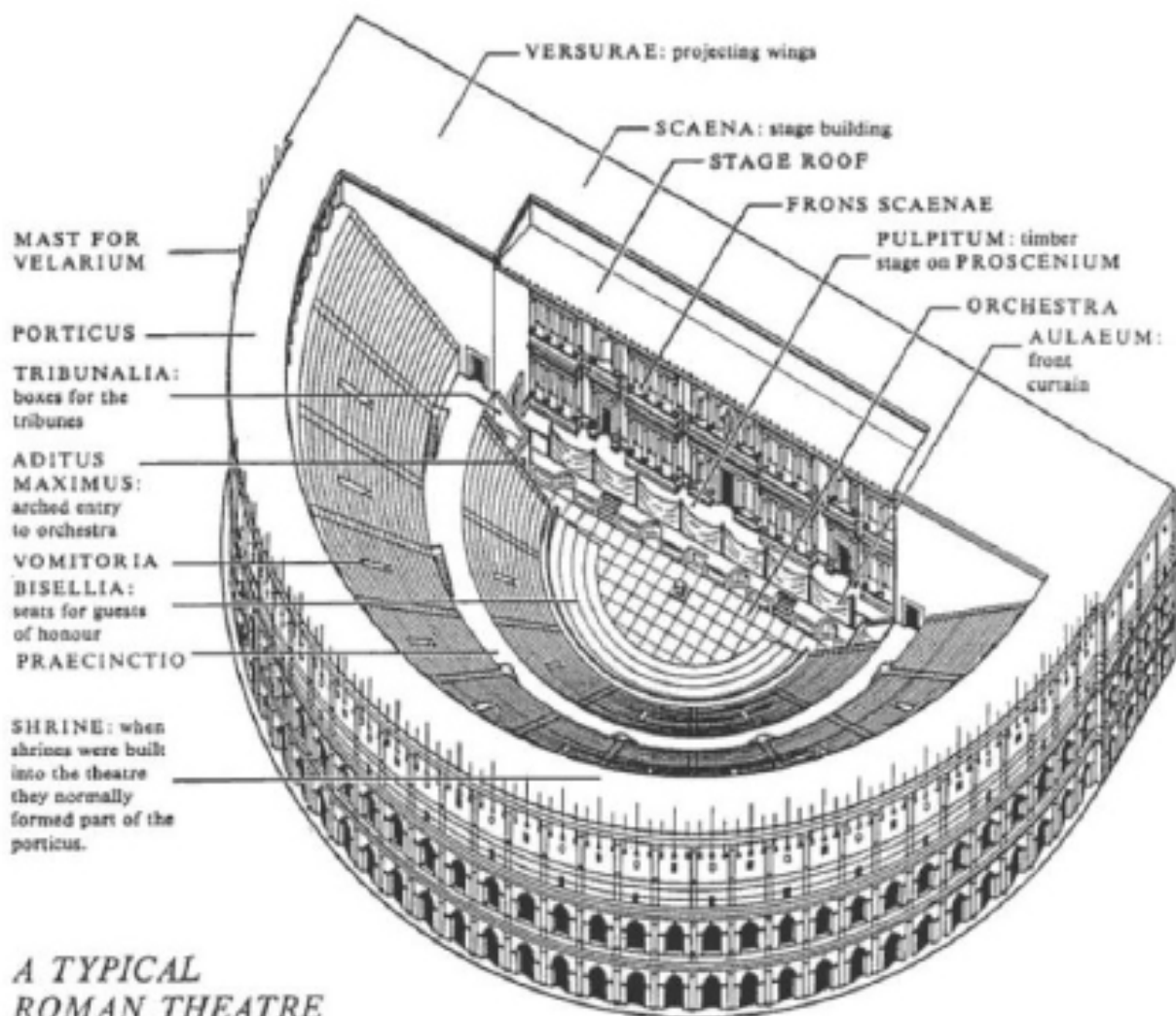


figure6: 13-11BC theatre of Marcellus, Rome

# THEATRE MEDIEVAL TIMES

## PANEL 4/10: history of theatre as a space

- Religion has caused the disuse of these spaces.
- No more new buildings but tradition goes on, becoming itinerant.
- Church started staging religious representations in the process of taking over whole cities.

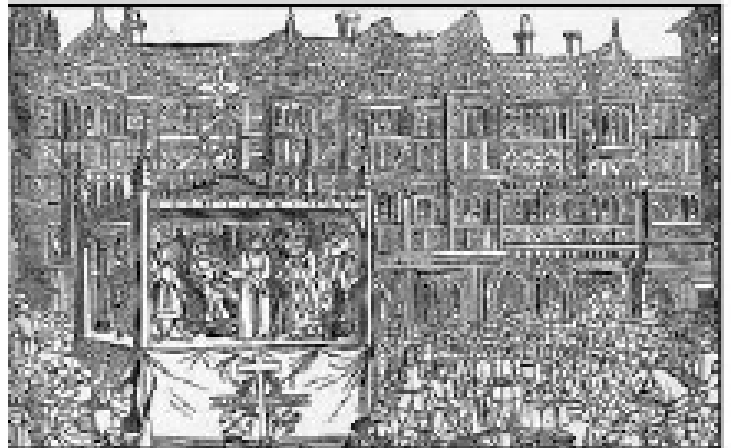


figure7: Drawing of a mystery play by David Jee, from Thomas Sharp's "Coventry Mysteries", 1825

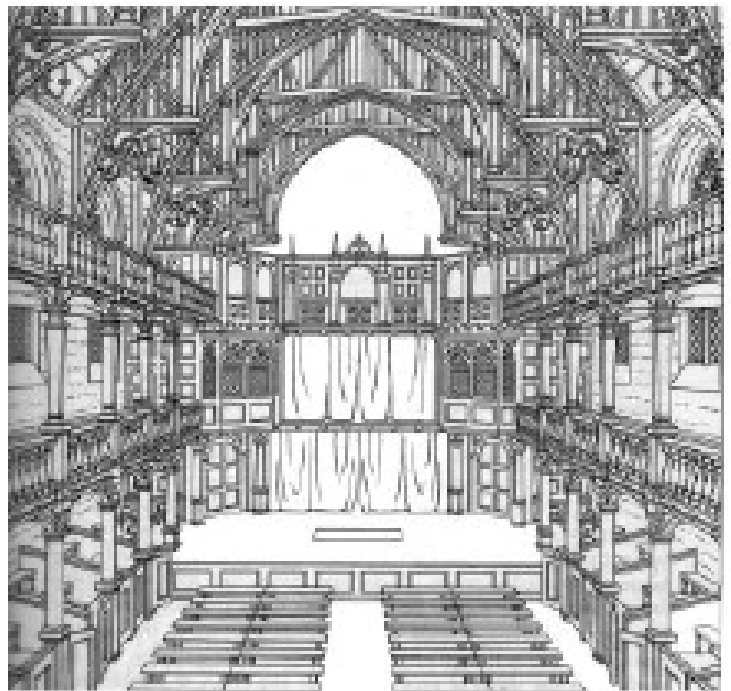


figure 8: What the second Blackfriars Theatre in the old Parliament Chamber may have looked like. Pg. 207 of Shakespeare's Blackfriars Playhouse by Irwin Smith.



figure 9: 1547 - Valenciennes set design showing Heaven (left), a Hell Mouth (right), and various places in between



# THEATRE IN RENAISSANCE

## PANEL 5/10: history of theatre as a space

With the advent of Renaissance, a clear switch from temporary places (church, square, garden, courtyard...) to stable theatre took place. However, due to the lack of proper spaces, all sorts of performances were staged within the so called "palazzi".

From now on, the city was represented in an illusionary perspective inside the theatres interior. Moreover, the symetrically centred seat in the audience was given to the prince. Men were usually seated in the middle and women on the side.

Scenography had evolved to bring in more realism into the plays. The Teatro Olimpico di Palladio brings some equity in the visuals. Modern scenography brought up illusionistic scenographies. Scenic dynamism dominated the plays.

The first stable closed theatre was Teatro Olimpico, still with original scenography in wood (they were temporary). Based on the study of DE ARCHITECTURA of Vitruvio and the study of old Roman theatres.

Made inside medieval existing buildings. Scamozzi, the one that completed the Teatro Olimpico and the scenes, made the first building built for theatre purposes.



figure9: Interior of a Theatre, c. 1700-50 | Anonymous Italian design



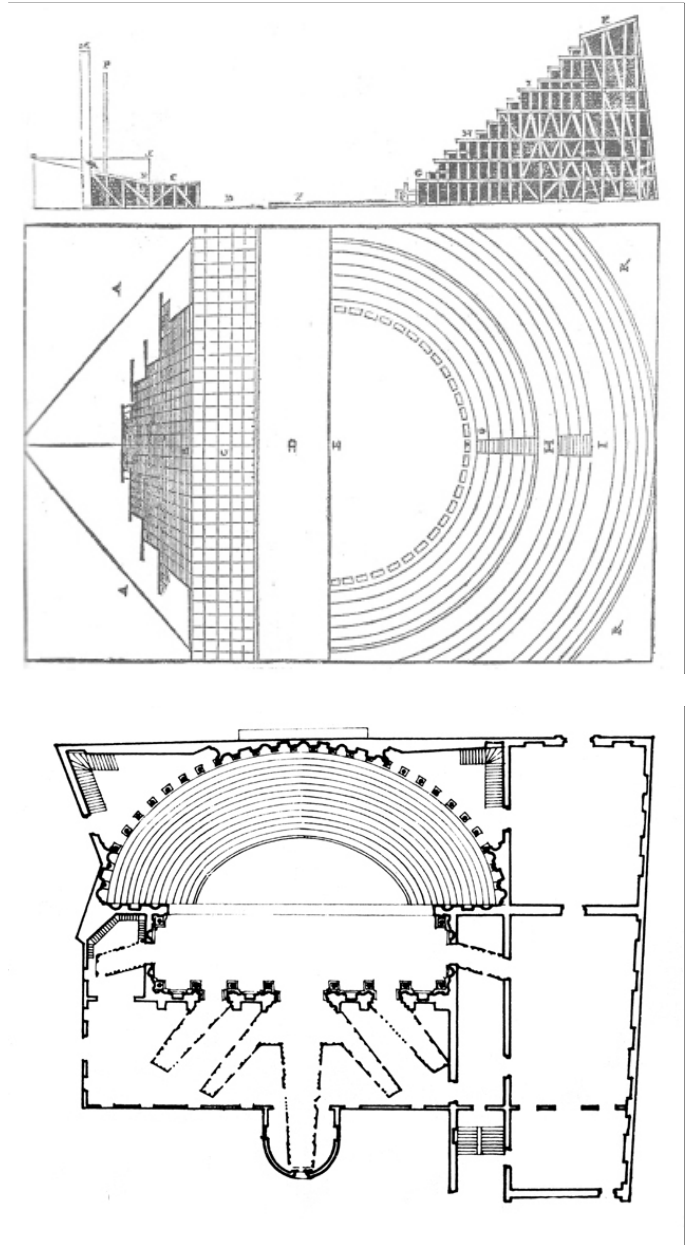
figure10: Teatro Olimpico (1580 - 1584), a 3000 seat "academic" theatre, is the oldest surviving Renaissance playhouse.



figure 11: Teatro Olimpico. The large arch in the center is known as the royal arch (ital. porta regia).

# ELIZABETHAN THEATRE

PANEL 6/10: history of theatre as a space



Elizabethan theatre has its roots in circus, dog-fights and also cheap taverns (usually without roof). The audience is set all around on three sides, which created a great involvement of the audience. One of the main examples of this style is the Globe theatre of Shakespeare.



# ITALIAN THEATRE, 1600-1700

## PANEL 7/10: history of theatre as a space

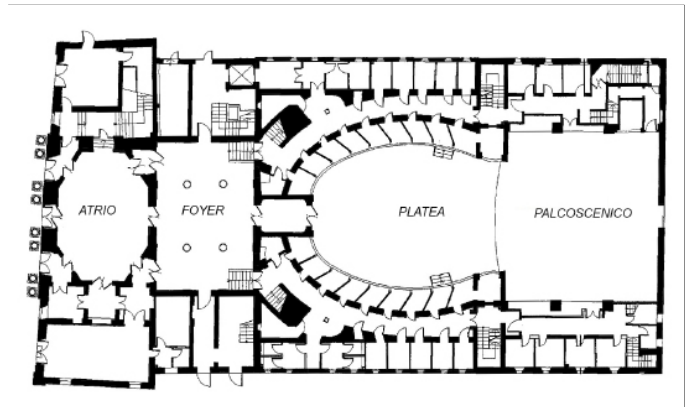
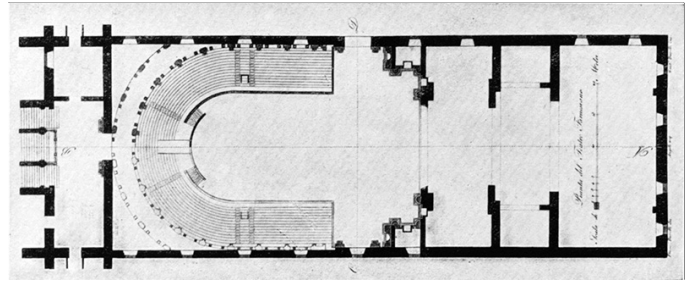
Theatre moved away from palazzi and was since then managed by private individuals. Theatre became more accessible to everyone.

This new form of theatre is changing the “spectacular paths” in the cities - for example in Venice - where there was a network of such spaces in the urban tissue. Therefore, new academia and confraternities were starting, especially in Florence.

Paris also slowly moved from the “corte or palazzo” to the more social manifestations.

The theatre space kept on changing: No more tiers but an inclined floor was used (rather circular than oval arranged). More stage machines and scenography have brought it closer to the baroque style. San Carlo in Napoli is the first “teatro lirico” and Teatro Argentina is the oldest of Rome with an elliptic shape.

In France however, they have done some modifications to the Italian style by shortening the auditorium and adding more differentiation in the audiences space.



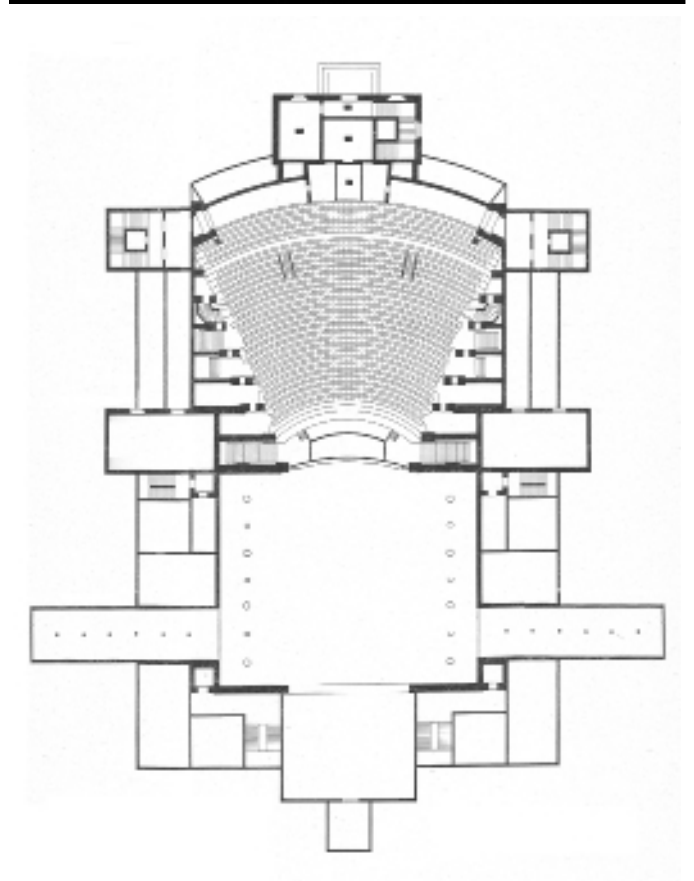
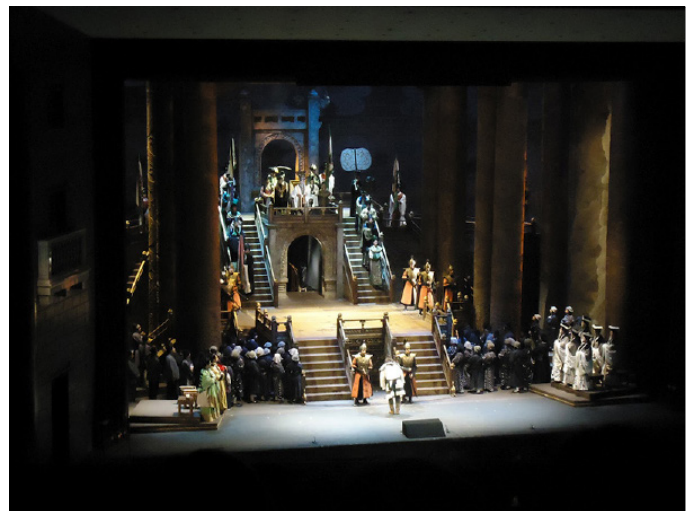


# WAGNERIAN THEATRE, 1800

PANEL 8/10: history of theatre as a space

The plan scheme is mainly the same, but the main changes come from improvements in the sceno-technic aspect;

- Hydraulic energy and electricity improves stage machinery and lighting. Therefore, scenography improves and enables new possibilities.
- Lighting has evolved from gas to electricity.
- No more painted scenery.

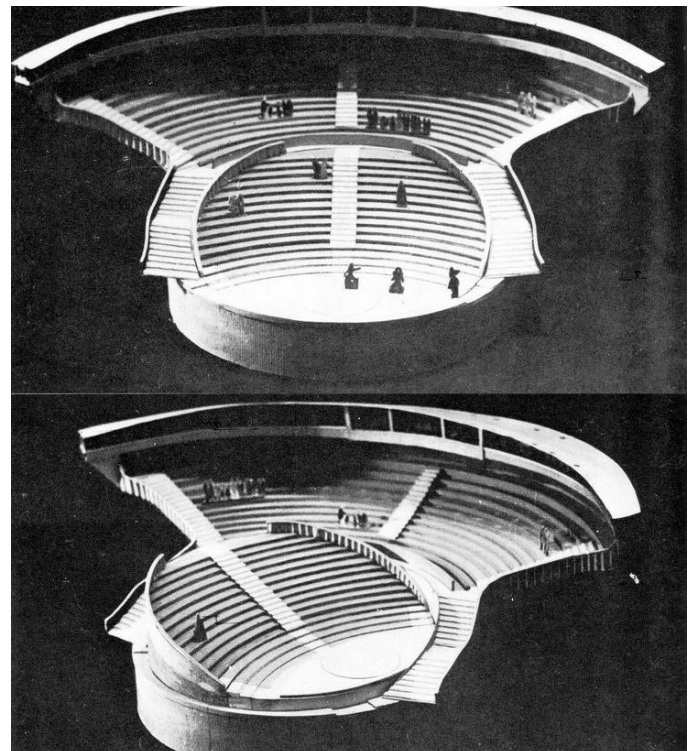
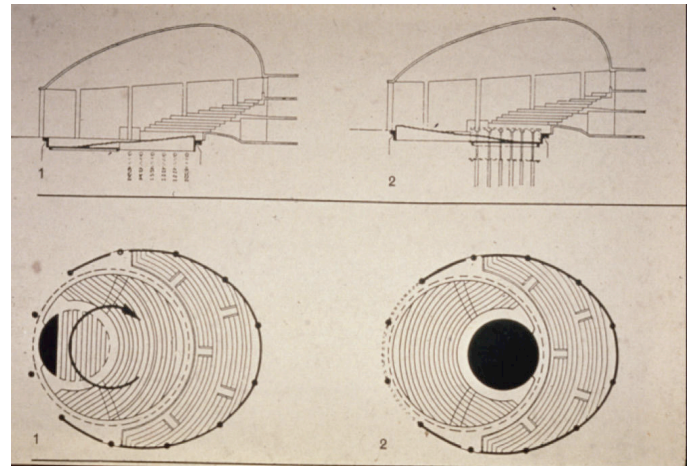
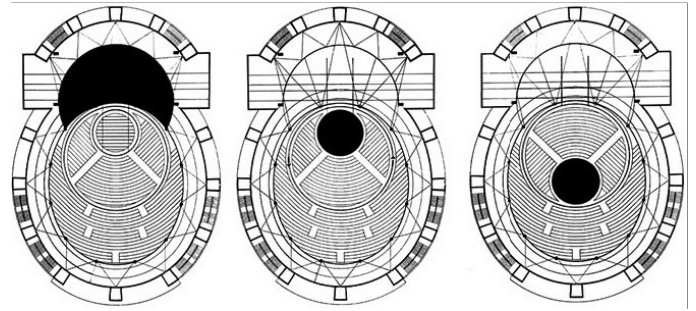


# THEATRE XX CENTURY

## PANEL 9/10: history of theatre as a space

Return to Elizabethan configuration, removing the scenic arch which was separating the world of spectator and actor. More minimalistic renderings are favored again. Furthermore, the XX century theatre is characterized by the abolition of the separation between social classes in the audience order.

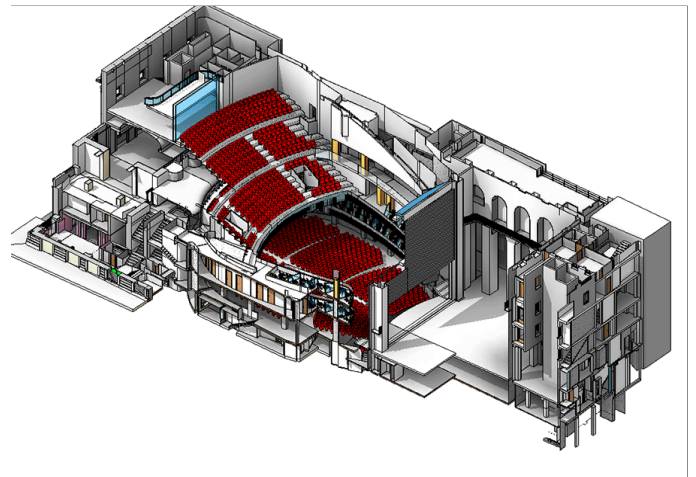
Introduction of adjustable sizes of the scene (due to different theatrical genres) Max Littmann in Weimar. In 1927, Gropius designed the total theatre, where it was possible to have three different configurations: 1.arena, 2.room with scenic arc and 3.Greek theatre. From the 1950 onwards we see these buildings becoming more versatile as the inclusion of cinemas, musea, libraries turned them into real cultural hubs, addressing the societies needs.





# CONTEMPORARY THEATRE

PANEL 10/10: history of theatre as a space



## 3.2 definitions

*etymology, literature*

Dealing with three disciplines with the intent of creating a cross-contamination between them and hopefully bringing them together, blurring their edges to create a manifold where architecture and theatre merge in new and unconventional ways, I found the need to know their conventional definition, to start questioning them and try to create a manifold that challenges the existing conventions. Here below the definitions for each discipline that I will analyse in the conclusions, explaining how the questioning these definitions led me to the guidelines for the project.

**performance (art)** is a performance presented to an audience within a fine art context, traditionally interdisciplinary. Performance may be either scripted or unscripted, random or carefully orchestrated; spontaneous or otherwise carefully planned with or without audience participation. The performance can be live or via media; the performer can be present or absent. It can be any situation that involves four basic elements: time, space, the performer's body, or presence in a medium, and a relationship between performer and audience. Performance art can happen anywhere, in any type of venue or setting and for any length of time. The actions of an individual or a group at a particular place and in a particular time constitute the work.

(Wikipedia.org, 2017)

Performance art is an essentially contested concept: any single definition of it implies the recognition of rival uses. As concepts like "democracy" or "art", it implies productive disagreement with itself.

(Carlson, 1998, pp. 1, 2.)

**theatre** from Greek **θέατρον** (théatron, "a place for viewing"), itself from **θεάομαι** (theáomai, "to see", "to watch", "to observe"), is a collaborative form of fine art that uses live performers, to present the experience of a real or imagined event before a live audience in a specific place, often a stage. The performers may communicate this experience to the audience through combinations of gesture, speech, song, music, and dance. Elements of art, such as painted scenery and stagecraft such as lighting are used to enhance the physicality, presence and immediacy of the experience.

(Carlson, Journal of Dramatic Theory and Criticism, 2011)

(Wikipedia.org, 2017)

# architecture

For architecture, rather than a definition, I collected some quotes, which rather than creating a concise definition, offer a quite critic view on what is architecture today.

*“Architecture is definitely a political act.”*

- Peter Eisenman in Haaretz

*“Architecture is by definition a very collaborative process.”*

- Joshua Prince-Ramus

*“Architecture is always related to power and related to large interests, whether financial or political.”*

- Bernard Tschumi in The New York Times

*“Architecture is full of romantics who think that even relatively small changes to the built environment create the aspiration for a better society.”*

- Mark Wigley in Surface Magazine

*“Architecture is a physical experience — it needs to be seen and touched to be wholly understood.”*

- Nicolai Ouroussoff in Los Angeles Times

*“Architecture is an incredible ego trip. You get things done, you build them, you look at them. That’s why I enjoy life and don’t have an ulcer”.*

- Stanley Tigerman in the Chicago Tribune

*“Architecture is a very dangerous job. If a writer makes a bad book, eh, people don’t read it. But if you make bad architecture, you impose ugliness on a place for a hundred years.”*

- Renzo Piano in Time

*“Architecture is a discipline directly engaged with shaping enclosure, of erecting and toppling barriers or—more explicitly—of extending and limiting ‘freedoms’.”*

- E. Sean Bailey & Erandi de Silva in “BI’s First Print Edition Released - FREE: Architecture on the Loose”

*“Architecture is always political.”*

- Richard Rogers in Financial Times

*“Architecture is always a temporary modification of the space, of the city, of the landscape. We think that it’s permanent. But we never know.”*

- Jean Nouvel in The New York Times



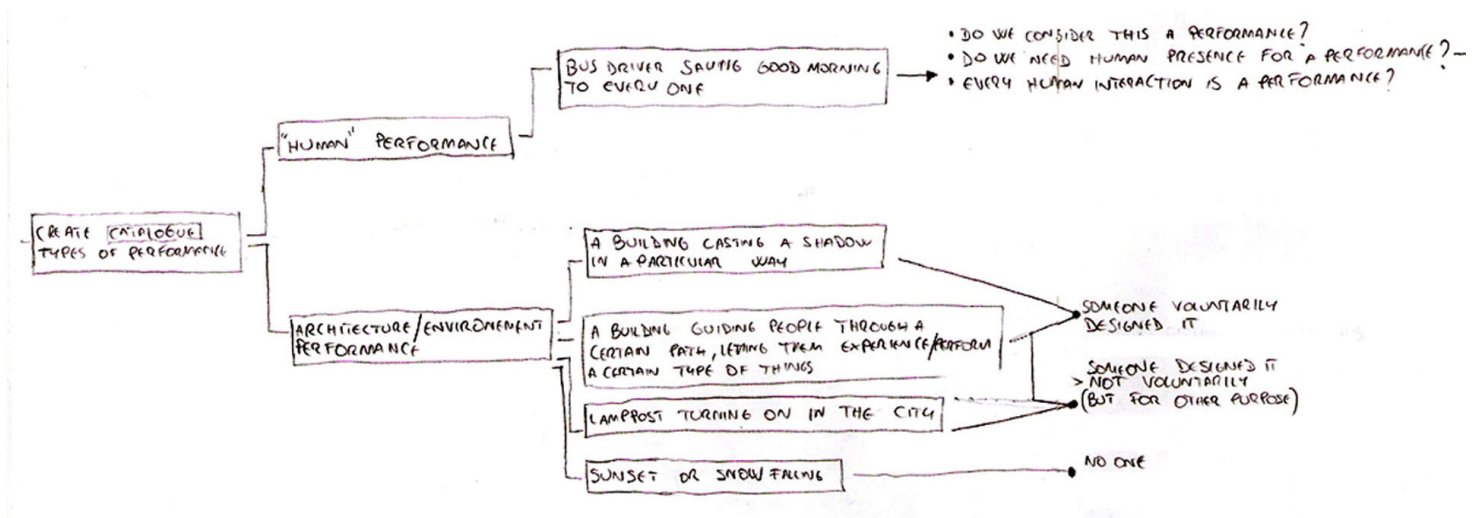
### 3.3 types of performance

#### performativity in architecture

One of the possibilities in making theatre and architecture come closer, rather than architecture only serving theatre in an aseptic way creating the space for allowing theatre performances, could be exchanging roles between the space (architecture), the performers and the audience.

I have been looking in what are the possibilities for architecture to take the performative role, by starting to look at the literature. Beside performative architecture I also found this concept applied to objects and I reported it below because I believe it gives interesting hints on the possibilities of performativity applied at entities.

Below also an image of a mental map of the early stage of the research where I was questioning what I could call performance and if it was applicable to buildings or the environment.



The result of this investigation brought to some considerations about performativity in buildings and environment:

1. the intentionality of the act. For example, a building casting a shadow in a particular way that is catching the attention of the user it could be considered a performance, because the designer intentionally created that effect, for example on chapter 4.1, page 54, the Capilla San Bernardo.
2. another example could be a building guiding people through certain paths, letting them experience a certain type of things and letting them move in certain ways or perform certain actions in order to go further in the space, for example at page 39, the Summer Theatre, at page 41, Khor I, and at page 46 Periscope. I personally think this example could be borderline, meaning that I'm not sure if it is still a case of performative architecture, but since it is still an intentional act of the designer, in a sense can still be performative architecture, but in an indirect way.

In the other cases extended not anymore to buildings but to the environment, I analysed for example a lamppost turning on in the city, or the sunset and it can't be considered as a performance since there is not an intention in catching the attention of anyone with that event, no one designed it.

#### Performative Object

1. an object whose cornerstone is narrative and whose nature is completed by an action acted by the user
  2. an object designed and made according to the action that demands or dictates, not designed upon its function. By extension, every object that request to assume a certain number of positions, both physical and mental."
- (Unknown)

#### Performative Architecture

"At the urban scale, architecture operates between the opposing poles of "smooth" urban space (by blending in) and urban landmarks (that stand out). Contemporary avant-garde architecture advances the latter towards architecture as performance art, which takes the urban setting as a stage on which it literally and actively performs."

Some of the recent projects by Lars Spuybroek (NOX), such as the D-Tower4 in Doetinchem, the Netherlands (1998–2003), and Maison Folie5 in Lille, France (2001–04), can literally be seen as architectural performance pieces.



Lille, France  
(2001–04),  
architect NOX/  
Lars Spuybroek.

In Maison Folie in Lille (above), an old textile factory that has been transformed into a new urban art center, the added multi-purpose hall (a black box) features an external, partially transparent skin, whose intricate tectonic composition of metallic grilles produces varying moiré patterns as one moves along it. Spuybroek refers to this dynamic effect as a “static” movement, “an animation of the vertical tectonics of the façade, ... bending vertical lines in a complex pattern that produce a whole range of changes when walking or driving by, enhanced by the position of the sun.” There is also the literal movement of changing lights placed behind the metallic grille of the façade, adding another layer of intricacy to the building’s urban performance.



D-Tower, Doetinchem,  
Netherlands (1998–  
2003), architect NOX/  
Lars Spuybroek.

D-Tower is a hybrid digital and material construct (above), which consists of a biomorphic built structure (the tower), a website and a questionnaire that form an interactive system of relationships in which “the intensive (feelings, qualities) and the extensive (space, quantities) start exchanging roles, where human action, color, money, value, feelings all become networked entities.” The complex surface of the 12 m tower is made of epoxy panels shaped over CNC (computer numeric control)-milled molds. The epoxy monocoque shell is both the structure and the skin, and thus simultaneously multi-performative from the tectonic and building physics perspectives. The tower changes its color depending on the prevailing emotional state of the city’s residents, which is computed from responses of the city’s inhabitants to an online questionnaire about their daily emotions — hate, love, happiness and fear — and these are mapped into four colors (green, red, blue and yellow), with a corresponding light illuminating the biomorphic surfaces of the tower. The city’s “state of mind” is also accessible through the website, which also shows the “emotional landscape” of the city’s neighborhoods. So, either by looking at the tower or the corresponding website, one can tell the dominant emotion of the day.

“In performative architecture, the emphasis shifts from building’s appearances to processes of formation grounded in imagined performances, indeterminate patterns and dynamics of use, and poetics of spatial and temporal change.”

“It is often the movement of people around and through a building that gives architecture its performative capacity, as [Maison Folie pic n.92334](#) demonstrates. It is the experience of architecture’s spatial presence and materiality — the engagement of the eye and the body — that makes architecture performative.”

“The buildings characteristics are a reflection between the materials and to how they create the flexibility to the performance, instead of being a building that creates no movement visually or through. Both visually and structurally, the building is moving; the building complements the performance.”

(Performative Architecture, Kolarevic, 2005, pp. 205, 206, 207)

## 3.4 *interview*

### Notes on the conversation with Terry Brochard

author of graduation thesis: Theatre Experience, the experience of a visit in theatre from the visitor's perspective  
works as Guest Experience Designer for TEDxAmsterdam

#### Considerations on what is performance

My personal definition is:

the activation / alteration of a certain status of quiet that enables / attract the others attention / interest.

#### He suggested:

"Performance is intentional activation of the others attention, and the temporal and spacial framing of the action is very important.

He defined performance as a "process of making for the Other". And he advised I should take into consideration also space as part of the equation, so it becomes: performer, audience and space.

He also suggested to think about this aspect while developing the design:

"Do you want a performance with the use of the building or with use of the audience, or both?"

"The answer is not "in" the elements of your catalogue, but "between the lines""

"What if you narrow it down to only stage?"

"If you start being lost, at some point pick a place and start on the specificity of that."

#### References he suggested to check

Mechanical woman dancing at stedelijk museum

Mirror maze den haag

Toneel group Amsterdam

Actors point of view



Stedelijk museum Amsterdam Jordan Wolfson

## 3.5 interview

### City symposium

#### Design for doing: Public Space and Performance Design

SPRING FESTIVAL UTRECHT. Lecturers: Dorita Hannah, Nicolette Gast, Sodja Lotker, David Habets.

in conversation with Dorita Hannah after the lecture.

Hannah is Research Professor of Interdisciplinary Architecture, Art & Design at the University of Tasmania, Australia and Adjunct Professor of Stage & Space at Aalto University, Finland. She works across the spatial, visual and performing arts as a scholar and design practitioner. Specialising in theatre architecture, as well as the design of cultural venues and public space, she also creates dance-architecture events and performative installations as practice-led research.

**Q** Do you think is possible to create an object or a situation where the roles between architecture and theatre are blurred and or shifted and the conventions and hierarchies are subverted, and where architecture can perform?

**A** *"I do absolutely, (think that is possible) as an architect and scenographer and a performance maker, but that's because I believe that architecture should not disappear when the lights go down, and there is when the **black box concept** comes, is either the black box of the stage, the black box of the studio...I mean...for example this "reich" of audience, a lot of actors call the wall of death, because it's literally your wall of people and for a lot of actors who are not used to that is pretty confronting. But I really believe, that's why I'm more and more interested in the "city" and everyday spaces, that would refer to outside, you know, how we can start to think of everyday spaces as being able to harness **how people can move (in space) and make themselves available**...and also the idea that everybody is different, not everybody wants to seat in the front row...some people like to be in the shadow, some people like to get up and move around, **different cultures and different ways**, but if you are asking for an example, my examples are always Lina Bo Bardi and her beautiful **Teatro Oficina** in Sao Paolo but also she did the **SESC Pompéia**, and what she did which was quite interesting is when she got this community centre with theatres and galleries, and what she did she moved her office there, it was an old factory that was going to be turned into a centre and she moved her office there, she watched the kids playing ball and she watched the way people were having barbeques, and **watched how the community worked in the space** to how to design one of the most brilliant spaces. So if you have a look at Teatro Oficina, it's a very surprising theatre but I think it's a street, it's a public space, but it's also linked with politics, you know... the director of the theatre was part of the Tropicalist movement, he is there every night as Ariane Mnouchkine from the theatre du soleil..."*



## 3.6 book review

### “Theatre and Architecture” by Juliet Rufford

Between my readings this book was particularly useful because of the specificity of the topic, and because it was a vast overview on the literature on *theatre and architecture*.

I reported here main the concepts that were relevant in creating a critic point of view and a starting point for the project.

In the introduction chapter *an unlikely combination*, the first important concept developed is that:

**“the type of theatre (place) is influencing the genre of theatre (acting, drama...)”**. Copeau believed that architecture does not simply “contain” drama but *produces* it by co-creating its meanings, conventions and aesthetics.” We find the same concept explained through an example about the show of Sarah Kane, *4.48 psychosis* which was staged in two different rooms of the London Royal Court theatre: in the small room it was “visceral, oppressive and painfully intimate”, in the big room the voices of mental health patients floated coldly distant.

The theme of permanence and ephemerality is touched when in the chapter *challenging assumptions* theatre and architecture are compared on themes such as permanence, ephemerality, costs, scientific-based and so on. While she states that western architecture aspires to permanence, then she compares it with **“Traditional Japanese architecture**, by contrast, aspires to lightness, using light materials. Japanese architecture thinks of conservation as preserving more the building type rather than the materials. (Buildings being rebuilt many times a ritual renewal.)”. I believe this part is relevant for me because I am interested by ephemerality as a tool to design.

Another important theme is the disjunction between function and events in architecture. In the chapter from event-space to space acts Rufford reports the position of **Bernard Tschumi about this topic whom** supports enforced connection between architectural spaces - actions. “Architecture is a lot about the events that take place in it” he states.

Furthermore he suggests:

- architectural processes (from concept to interaction users/building) are similar to performance processes, since both are time-based and dynamic.
- disjunction program – typologies, buildings designed for a purpose, adapted for other use.

Tschumi points out that spaces and events have a complex relation that can be renegotiated in unexpected ways “...kitchens as places for preparing food, or bedrooms as intimate place, but people have sex in their kitchens and eat pizza in the bed.”(Rufford)

In the same chapter I found questions about **performativity in architecture**, Rufford reports the thought of **Chris Salter in “Entangled: technology and the transformation of performance”** whom argues that: “The kinetic and responsive architecture associated with architectural performativity poses complex questions about architecture: **Is it still or can it move? Does remain the same or it can shape shift into new configurations? Is it always permanent, or can it be as fleeting as performance?**”

Those are very interesting and challenging questions because they go to the essence of the question of performative architecture but also are fundamental question I have in the design. Indeed he continues with “Friction between: architecture of performative spaces and architecture of performance(performative) (between the **space** and the **action**) originating at the level of intelligent surfaces.” (Salter, 2010)

I believe that performativity in architecture nowadays is confused with blinking screen and smart surfaces, but in fact, rarely **alter our experience of space**. We do not experience the very architecture performing. I started wondering what could mean performative architecture and what features should it have:

- the kinetick aspect
- the poetic
- the flexibility
- the interaction with people

I don't think this is a complete list, because it seems still an ongoing debate, since it's at the cutting edge of two disciplines, but I believe I will find more features when I developpe the design.

About the performativity confused with excessive use of technology, Branko Kolarevic in his "Towards the Performative in Architecture" says about the role of architects: It should be "...less to predict, pre-programme or represent the performance, more to allow something unexpected, instigate, support indeterminate patterns and dynamics of use, and poetics of spatial and temporal change."

Another way of seeing architecture as a performance is found in the chapter *theatre architecture as scratch performance* where an example is given.

In London, the former town hall of Battersea has been transformed into an arts centre containing three studio theatres. In 2006 needed technical upgrade and repair carried out by Haworth Tompkins. The need to remain open during the works "created a series of phased interventions in which changes were made in response to performers' needs and could fade in or out of focus depending on how busy the venue was at any moment." (Rufford)

There are therefore similarities between the architectural work of Tompkins and performance.

Rufford afterwards describes three major findings about the work of Tompkins:

1. **A building is fluid and changing.**

Tompkins revealed hidden doors, broke through partition walls for a performance leaving those changes there, and over time might be indistinguishable from the permanent architecture. These changes will leave a trace that gradually will accumulate, and become like a coral reef, will become something totally different maybe.

2. **Connection with Tschumi's thought about typology – program: crossprogramming.**

The conversion of the 1980 hidden traces of Victorian town hall. Tompkins rediscovers that complexity and shows it. He believes people understand what a building is about and are able to explore it. Tompkins uses Tschumi's point of suggesting mismatches between building type and suggests no strict alignment form-function, which is beneficial to theatre because creates friction.

3. **Architectural interventions are timetabled. Just like performance.**

The building had to stay open during the works. Architecture was one of the daily activities of the art centre and **is no longer bracketed as distinct form from the performance work.**

Consequences: architects and clients collaborating more, less rigidity, less authorship since architecture tends to channel and contain us.

**Tompkins uses performance techniques to "devise" architectural solutions.**

In the second part of the book, namely *part two: on theatre*, Rufford analyse if and how architecture and theatre can have shared methodologies. In the chapter **theatre and the tectonics** she explores what can mean produce theatre with architecture ways. The answer is found in **tectonics: the branch of architecture that deals with poetics of construction**. She explains that "some aspects of architecture enabled ways to understand drama and dance, because tectonics speaks most clearly to the theme of making."

I started wondering why tectonic is an important tool to understand theatre and making theatre and I found the answer in Rufford's statement: "...tectonic is more than just juxtaposition or eclectism, tectonic helps us understand the: **wholeness, integration, inter-relatedness, fragmentation, rupture and critical un-building.**" Moreover "tectonics aids the internal organisation, investigate conditions of production in theatre."

The poetics of a piece's construction.

## 4.0 *database of case studies*

To complete the research and explore what is possible and what has been done already, I created a database of case studies that helped me understand how to develop my project. This database include two categories:

1. Unconventional places of performance  
I collected 8 projects, mainly all theatres that break free from the classic stage-audience configuration. Usually in these projects the audience is free to roam around, there is a certain dinamicity of the scene, some of them are open to the environnement and some others have different configuration within the same building.
2. Performative spaces - objects  
This category collects a variety of typology of spaces that have particular features such as the interaction with the environnement and with people, the changing aspect, the poetic aspect or the flexibility.

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## ***4.1 UNCONVENTIONAL PLACES OF PERFORMANCE***

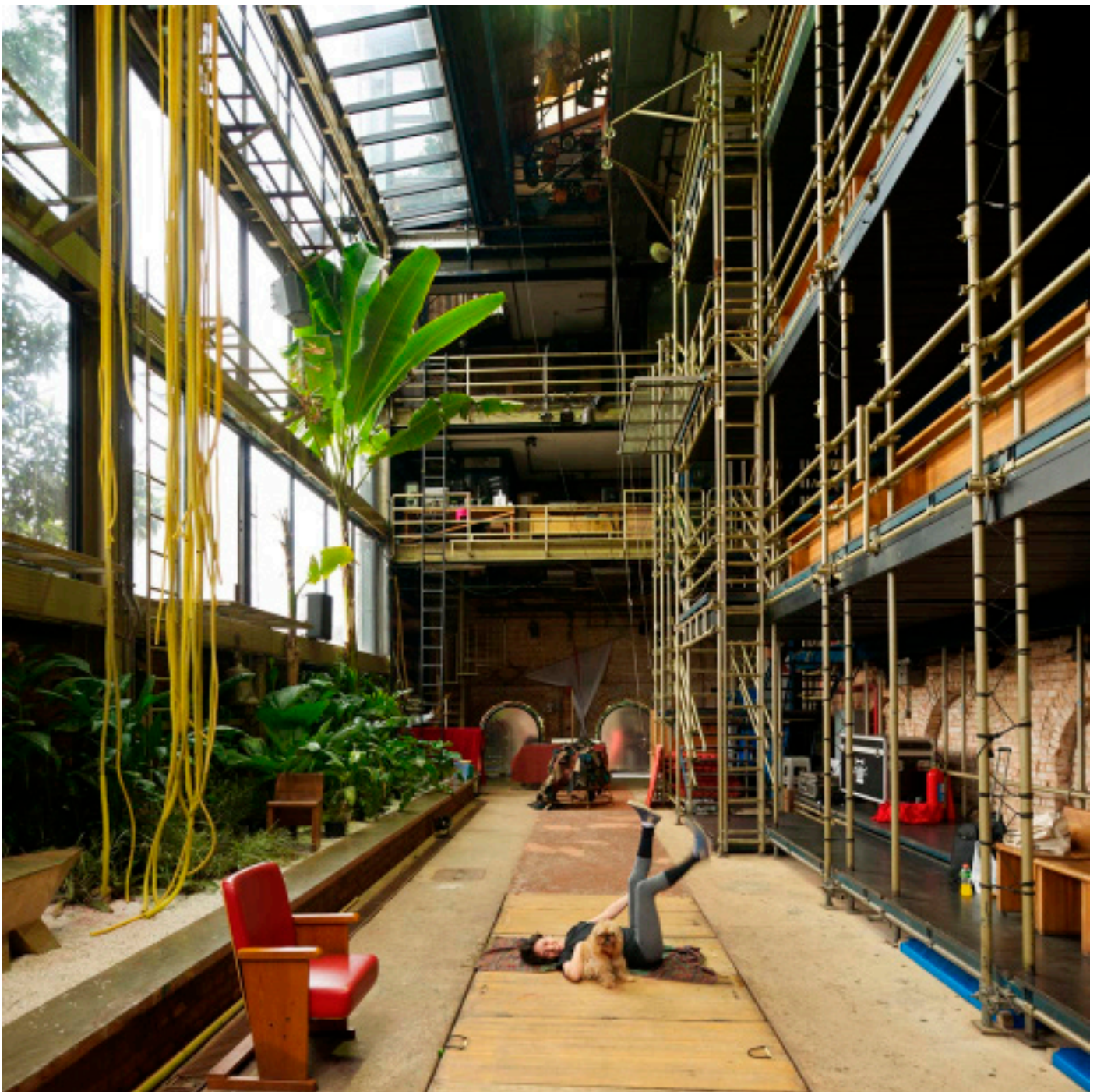


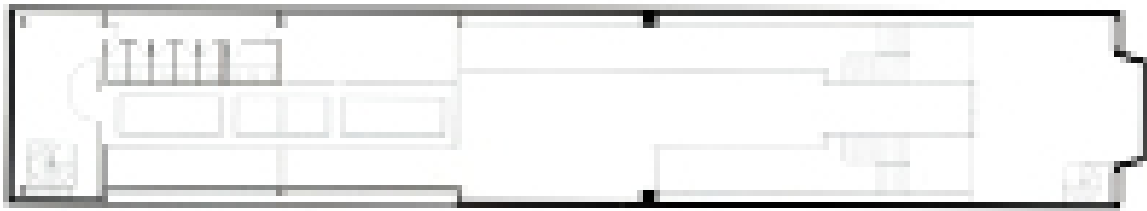
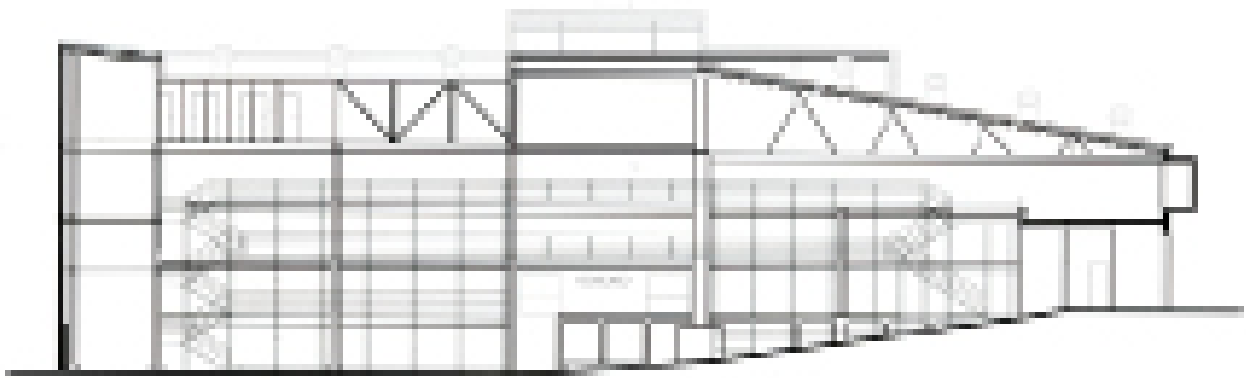
# Teatro Oficina

Architects : Lina Bo Bardi  
Typology : Cultural Architecture / Theater  
Location : São Paulo, Brasil  
Project Year : 1984  
Material : Concrete  
Photographs : © Iñigo Bujedo Aguirre,  
© Nelson Kon

## Description

A long, narrow, street-like space in the burned-out shell of a former theatre that is watched by a wall of galleries built out of scaffolding. Built to serve the orgiastic performances of the theatre's creator Zé Celso. Extending the sidewalk into the interior, the street-stage suggests a continuity with the urban space. Measuring 4m long, it is partially built in knockdown wooden boards suspended 1.5 m from the ground, so that the underlying space can be explored during performances. The roof is made by a sliding steel surface that could be opened to offer a view of the sky. The intention was for the audience to occupy both sides of the alley and the scaffoldings.





PROJEKTOV  
10.10.2019

# Teatro Lirico di Cagliari

Architects : Maurizio Sacripanti

Typology : Theater

Location : Not realized

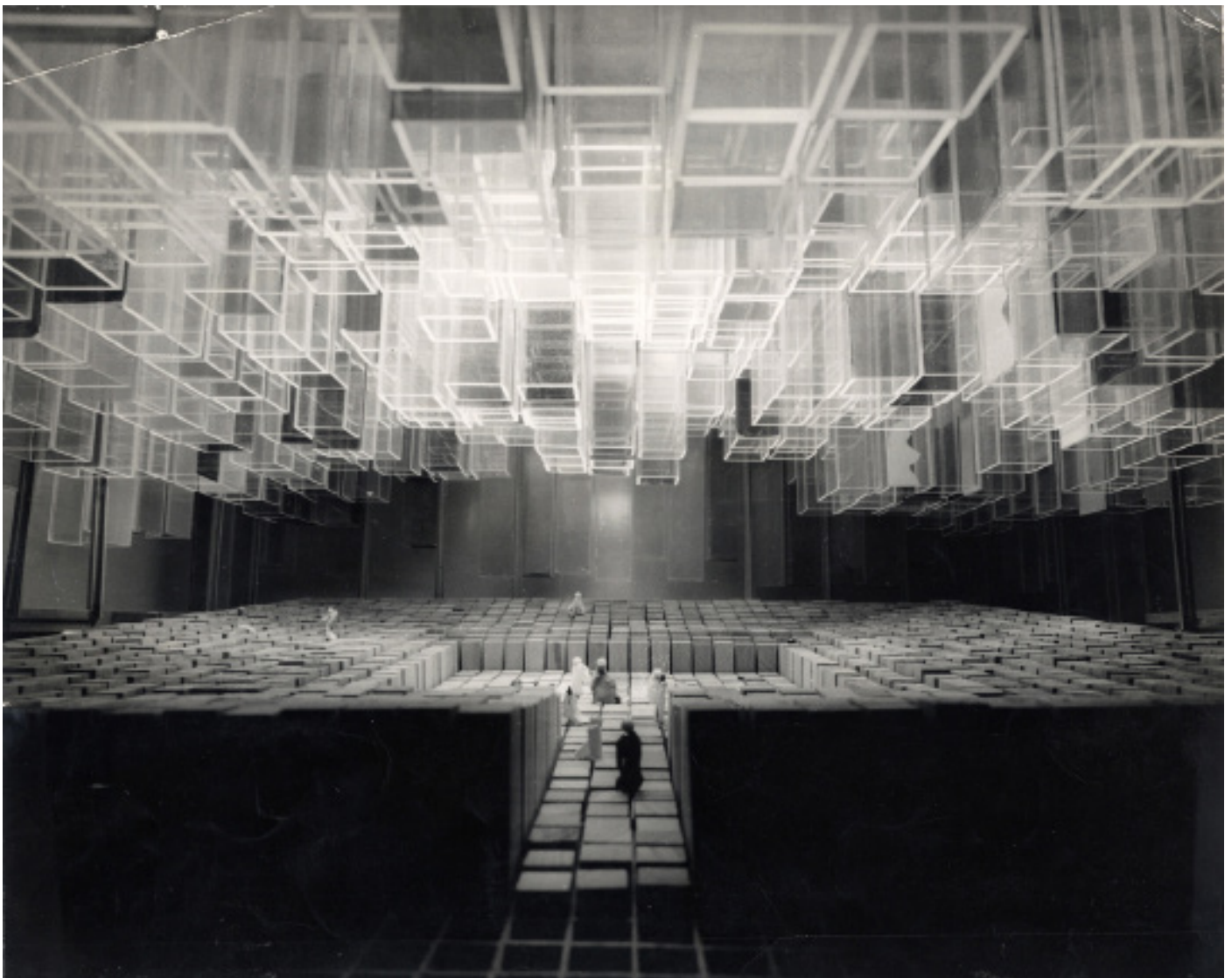
Project Year : 1965

Material : /

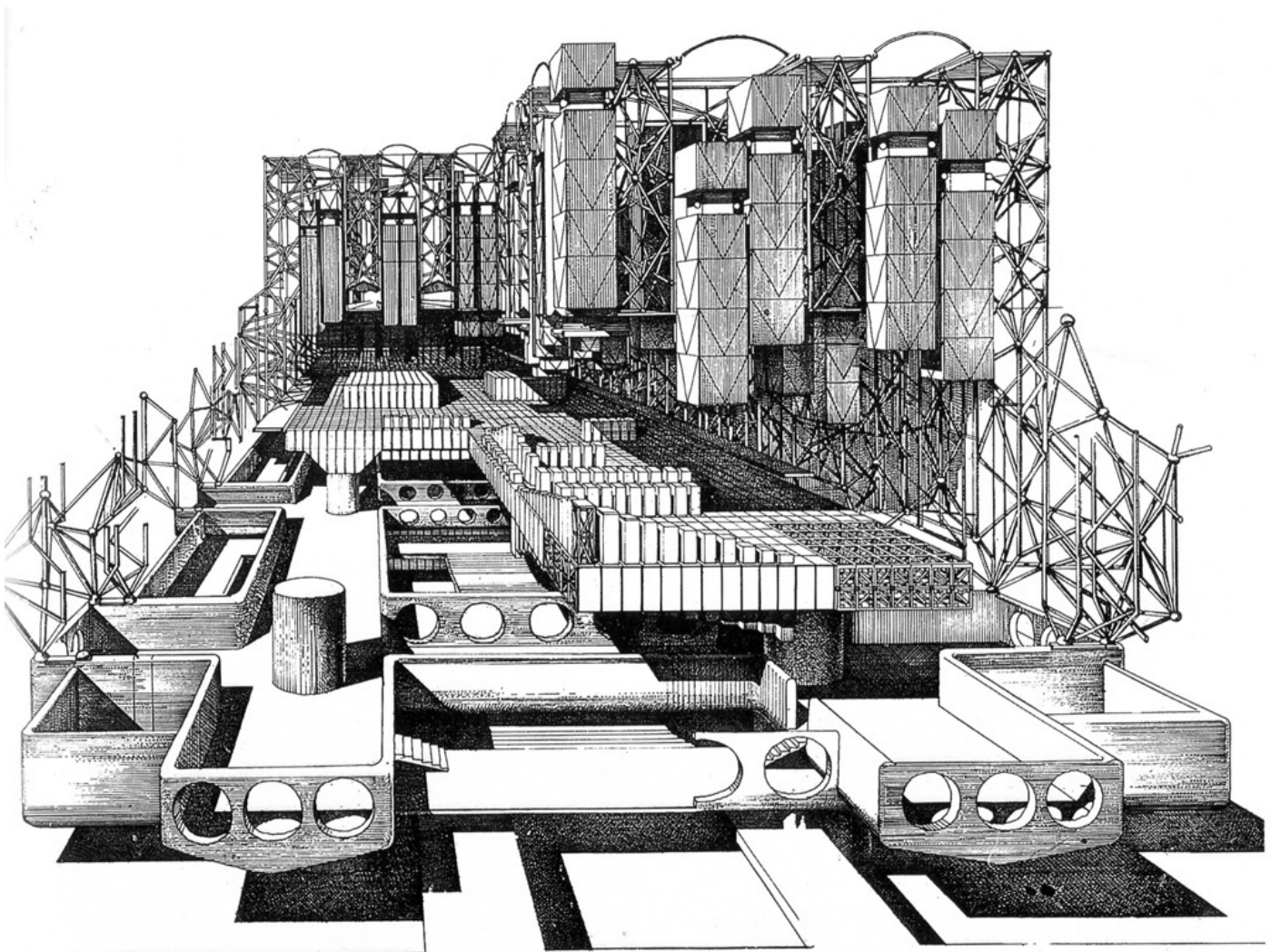
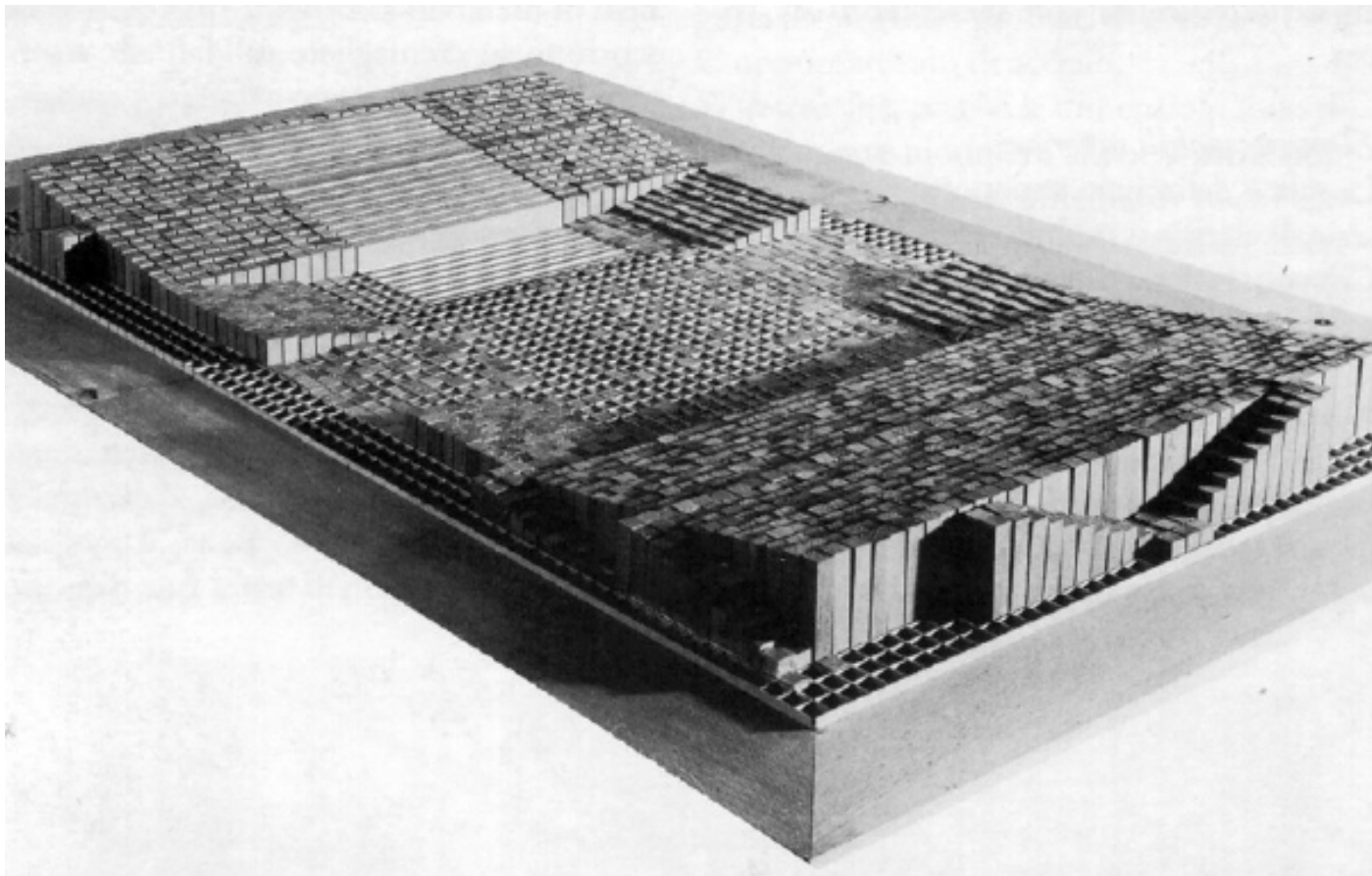
Photographs : <http://www.fondosacripanti.org>

## Description

This design was the entry for a design competition for the new lyrical theatre in Cagliari by architect Maurizio Sacripanti and won the second prize. Sacripanti imagined for Cagliari's theatre an all encompassing system of movable plynths and fake roofs elements, allowing for almost infinite possibilities of stage configurations, seating layout and acoustic performance of the scenic space.







# Floating theatre

Architects : Aldo Rossi

Typology : Theatre

Location : Itinerant

Project Year : 1979

Material : tubular steel frame covered with wood

Photographs : cnn.com, deconcrete.org

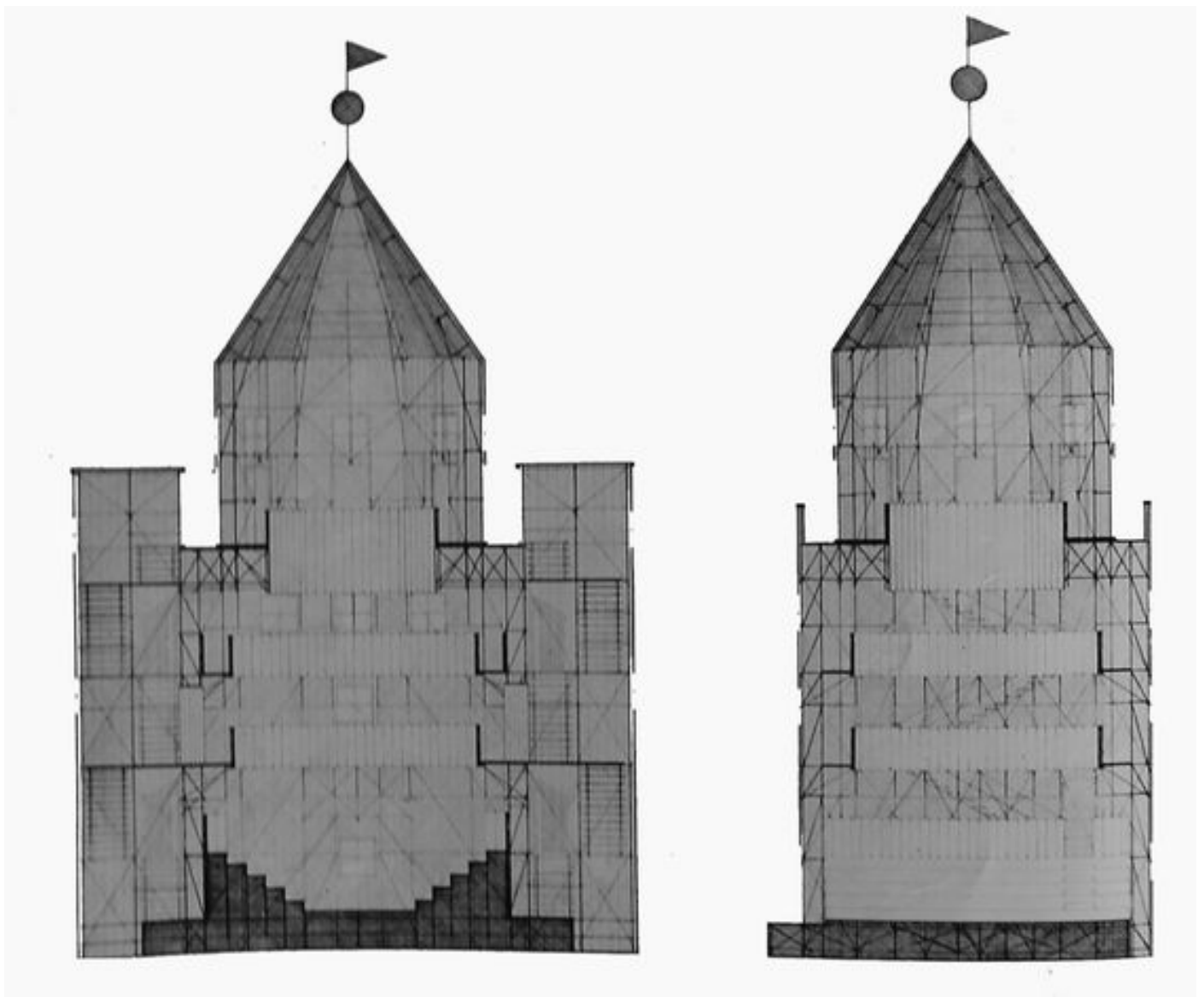
## Description

Designed for the Venice Biennale of 1979 with the idea of reviving floating theatres of the carnivals of the 18th century. After the Biennale the theatre left Venice, crossing the Adriatic sea to go to Dubrovnik.

With neither theater nor architecture existing without an event, Rossi focuses on the unexpected occurrences, the ever-changing meanings of a place due to ever-changing events. His theater is not a place solely to watch performances but also a place to be watched, a place to observe and to be observed. This is accomplished on two levels, by placing the theater as an object in the water and, on the inside, by placing the stage in the center of the seats. As spectators become part of the backdrop for the theatrical event, the city of Venice is drawn inside through window openings in the upper balconies. An uneasiness occurs as the people sitting in these areas are aware of the presence of boats and the visual rise and fall of the theater on the water.







# Teatro Olimpico

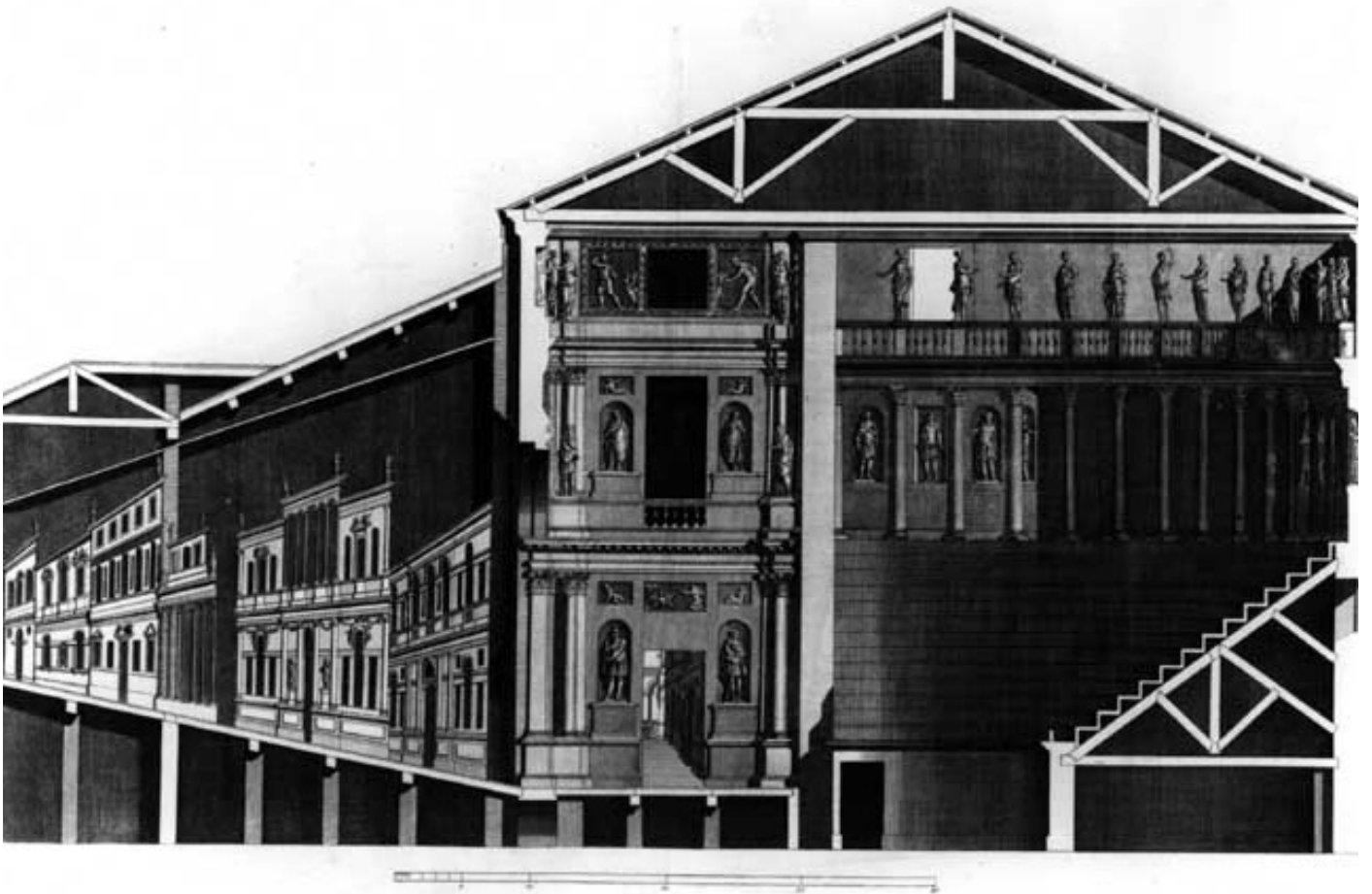
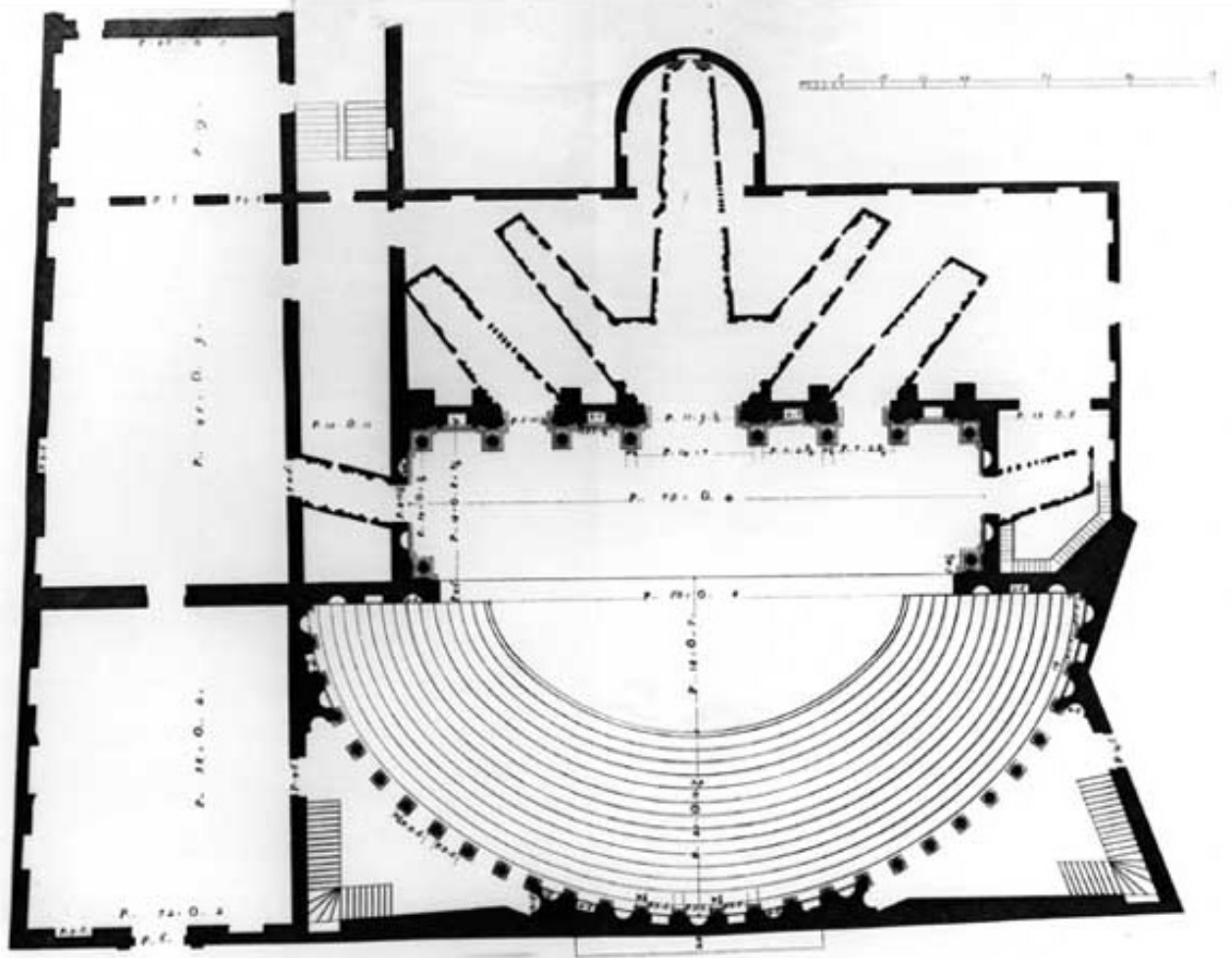
Architects : Andrea Palladio  
Typology : Theatre  
Location : Vicenza  
Project Year : 1580 - 1585  
Material :  
Photographs : Wikipedia.com

## Description

The trompe-l'œil onstage scenery, designed by Vincenzo Scamozzi, to give the appearance of long streets receding to a distant horizon, was installed in 1585 for the very first performance held in the theatre, and is the oldest surviving stage set still in existence. The full Roman-style scaenae frons back screen across the stage is made from wood and stucco imitating marble.









# Folly for a Flyover

Architects : Assemble

Typology : performative spaces

Location : London

Project Year : 2011

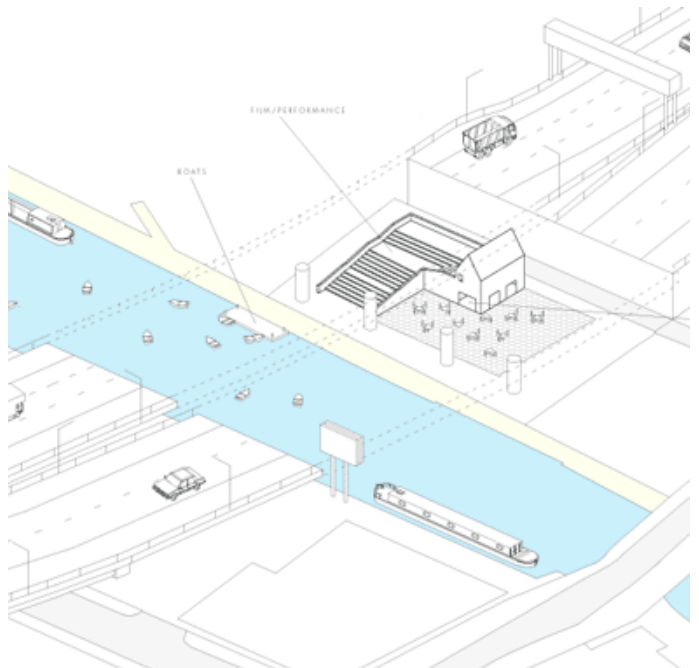
Material : wood and clay bricks, scaffolding

Photographs : Assemble

## Description

Non-profit organisation Assemble have constructed a temporary canal-side cinema under a London motorway flyover. Folly for a Flyover was assembled by a team of volunteers over the course of a month, using reclaimed and donated materials. It remains in place for six weeks, staging a series of movies and performances as part of the Create festival. Built from bricks of clay and wood and supported by scaffolding, the structure encloses a cafe, bar and cinema stalls. Transforming the cavernous undercroft where the motorway crosses the Lea Navigation Canal, Folly for a Flyover will host a six week programme of waterside cinema, performance and play.







# Summer Theatre

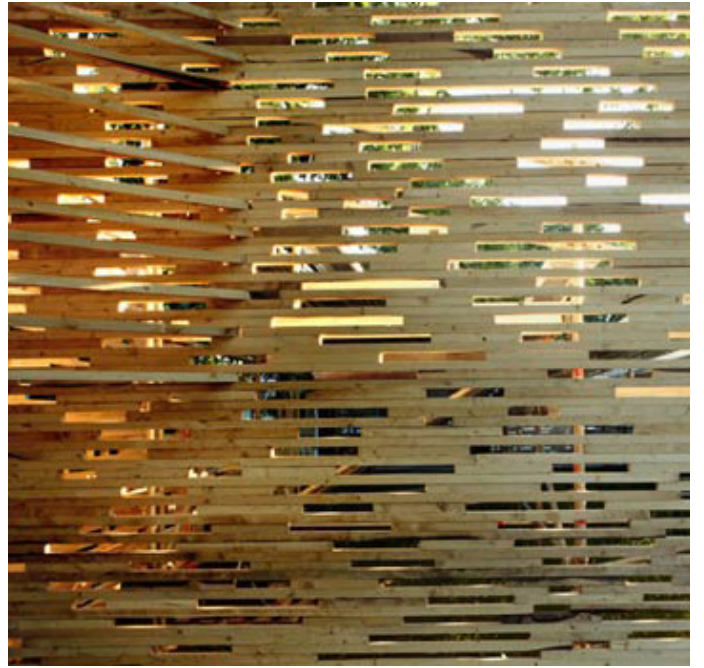
Architects : Kadarik Tüür Arhitektid  
Typology : performative spaces  
Location : Estonia  
Project Year : 2011  
Material : entirely from timber batons  
Photographs and text: Ott Kadarik

## Description

This temporary outdoor stage in Estonia by local studio Kadarik Tüür Arhitektid is made entirely from timber batons. The 420-seat Summer Theatre incorporates the surrounding trees and lake, creating an adaptable backdrop for 12 performances. At the end of the summer it will be completely dismantled and the timber rods recycled. Its main architectural goal is to create a closed, comfortable and intimate space that creates an immediate connection with the audience and the actors. The architecture frames the landscape in a way that the park, trees and the pond become an integral part of the stage-set.









# Khor I

Architects : TAAT  
Typology : performative spaces  
Location : Netherlands  
Project Year : 2012  
Material : timber  
Photographs : Sina Maleki

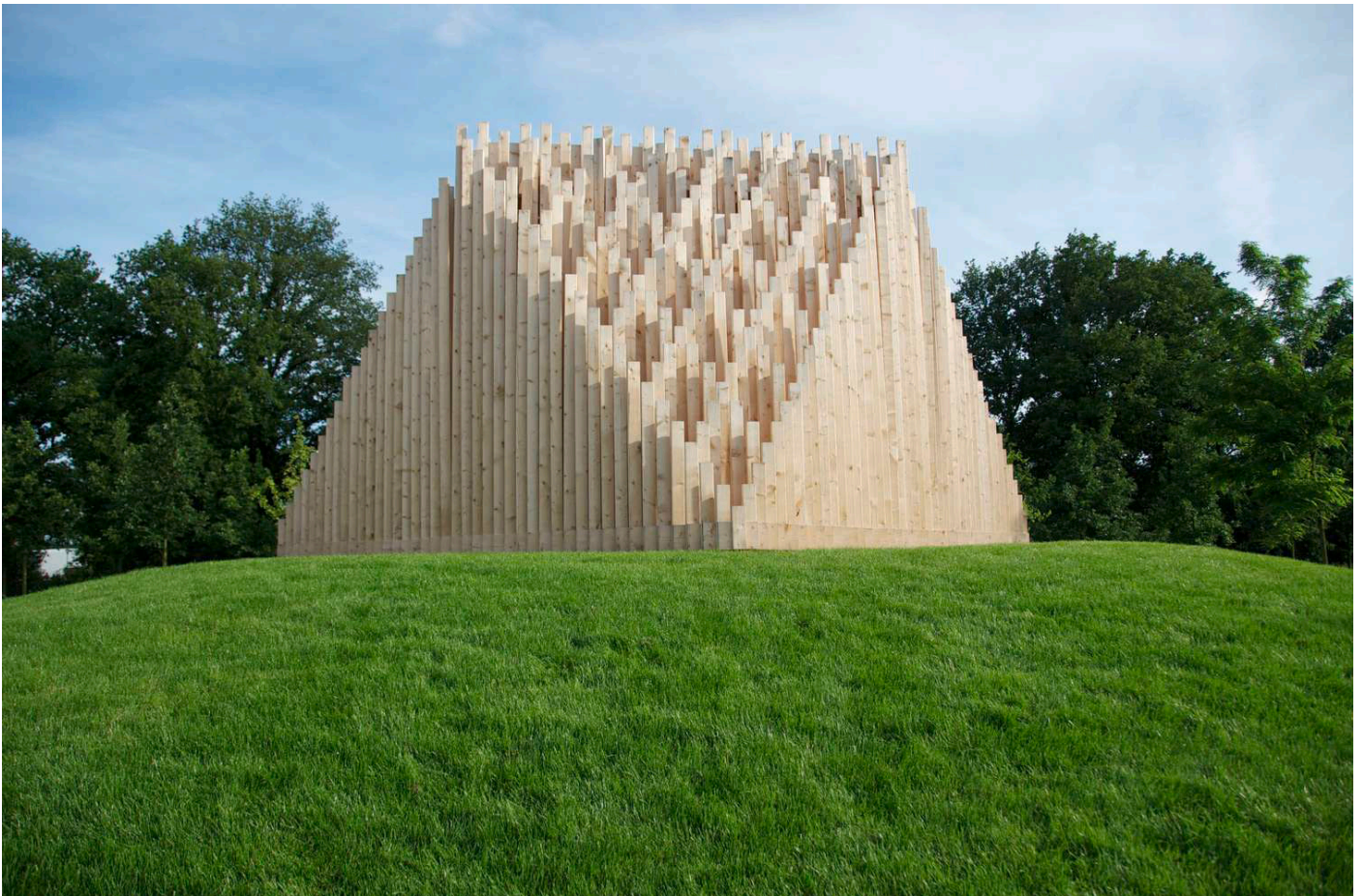
## Description

Khor I is a temporary theatre designed by TAAT (theatre as architecture, architecture as theatre) where they subvert the roles between audience and performers.

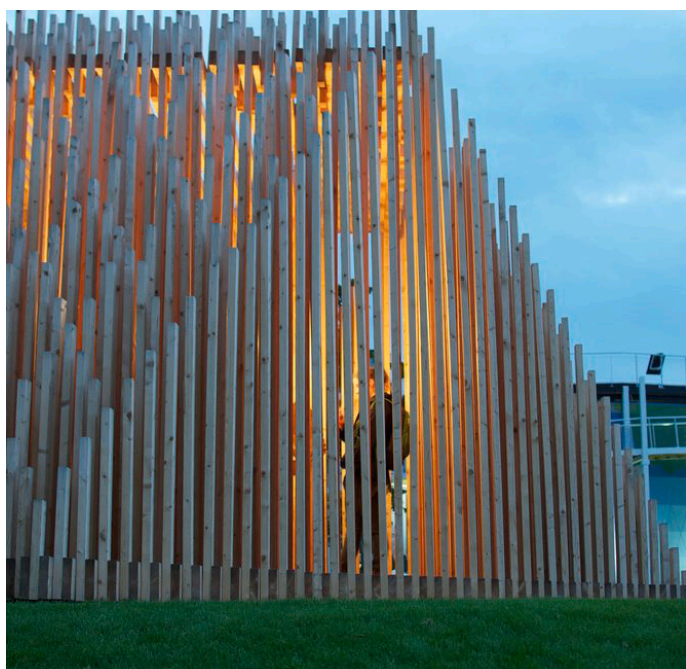
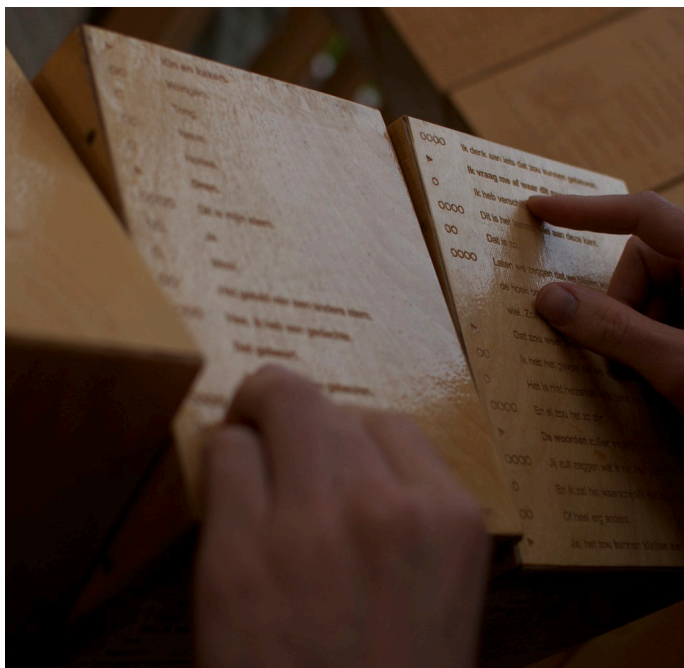
In this installation the audience is guided by the building to perform certain actions, like walking through the building and reading these Buddhist “prayer wheels”.

“In order to read the text, the participants move from one wheel to the next thus performing a slow circle dance around the installation. The experience bears a mantra-like quality: the participants immerse themselves in the performance, momentarily losing any sense of time and space.”

“The pavilion, designed by Breg Horemans, is as much an essential part of the installation as is the script. It provides a setting for the play that is both intimate and in touch with the surroundings. Architectural elements are used to introduce the visitors to the play they are about to perform.”









# Poplart theatre

Architects : Haiko Meijer  
Typology : prefabricated foldable house  
Location : itinerant  
Project Year : 2015  
Material : poplar wood  
Photographs : Onix Architecten

## Description

“Director Michiel Johannes Jansen found our cubes interesting and saw in them the possibility to make the smallest traveling / transportable theater. Of course the cube has an enormous power of expression for itself, and when you travel with that cube, it always ends up in different contexts. That is why I decided to do something with the degree of openness / closeness.”

“This cube is built and convinces; even experts wondered how we had put these trusses together. For us it was a significant next step in the series: how do you get the cube movable, dismountable as a building that can exert its own expressiveness in several places? We have further developed the truss construction into villas and into a museum.

‘Initially, the idea was that frame and cube are one but the frame has separated itself from this line of thought and can lead an independent life, bigger than the cube itself. There can now be several cubes in the frame, the frame is open and generates future possibilities: you can make a gazebo, you can put a pergola in it or a greenhouse, you can make it green or create a workspace : the house is never finished and the possibilities are ... there is still a lot to dream about: perfect imperfections. ‘









## **4.2 *PERFORMATIVE SPACES - OBJECTS***

# Periscope tower

Architects : Oopeaa

Typology : Periscope tower

Location : Seinäjoki lake, Finland

Project Year :

Material : Wood

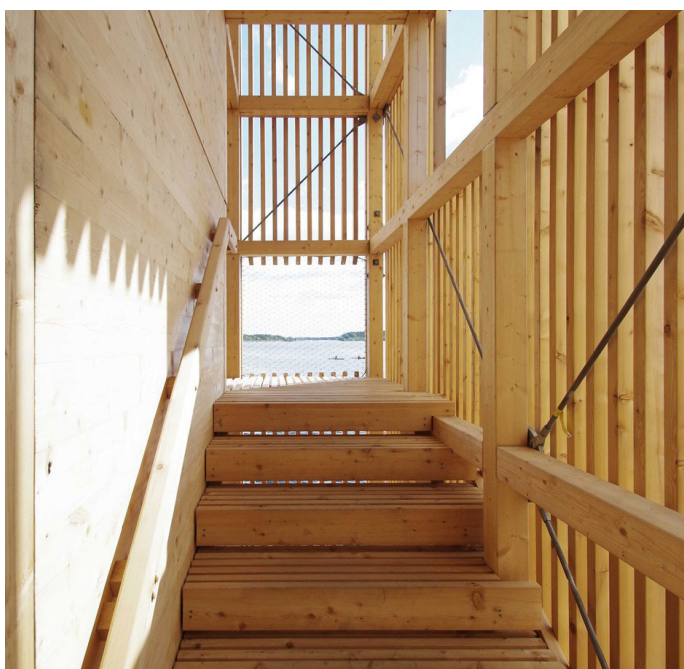
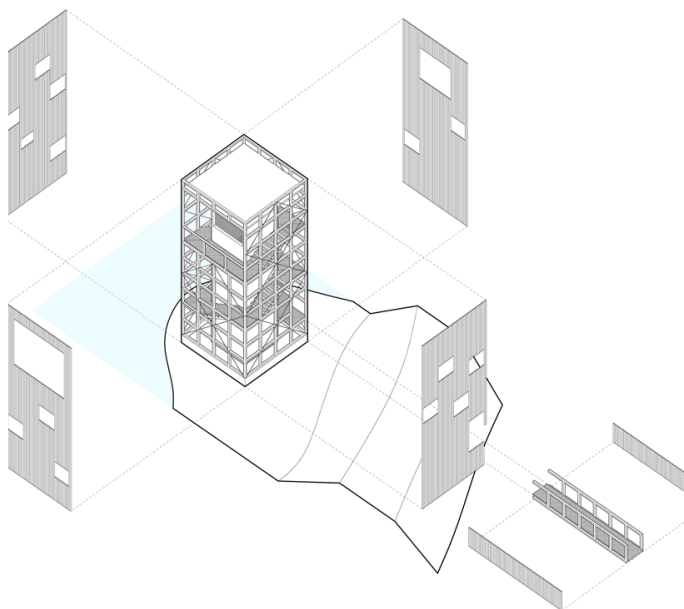
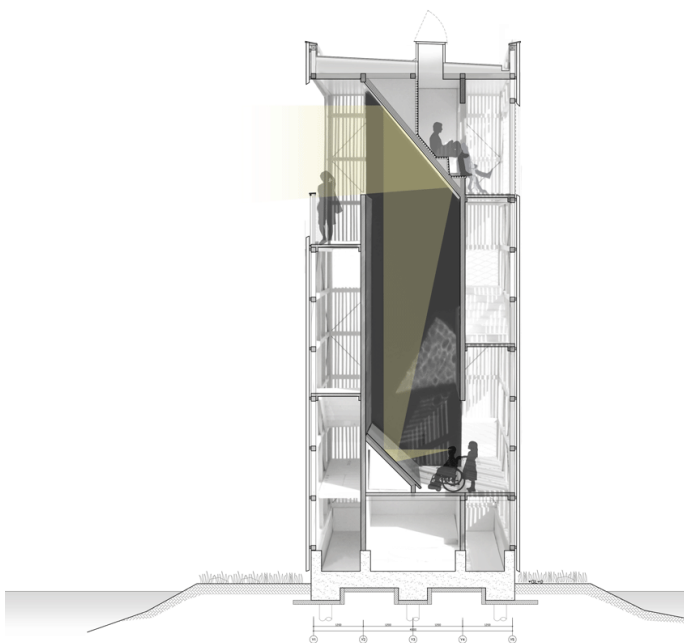
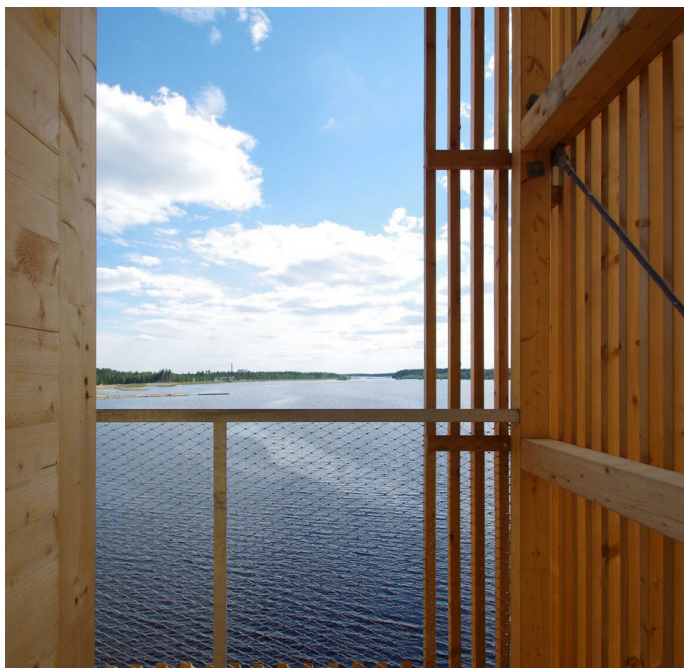
Photographs : Oopeaa

## Description

This lakeside observation pavilion by Finnish studio OOPEAA doubles as a giant periscope, so visitors don't have to climb to the top to enjoy the view. Located beside a lake near Seinäjoki, western Finland, the Periscope Tower invites guests to climb up a set of stairs to reach a balcony deck boasting views across the water. But there are also a pair of angled mirrors positioned at either end of the structure's hollow centre, meaning those unwilling or unable to climb can experience the same perspective. The tower has a structural core of cross-laminated timber (CLT) – an engineered wood that offers a more sustainable alternative to steel.









# Forest cabin for a grieving man: Mask house

Architects : WOJR

Typology : housing

Location : New York

Project Year : 2013 unbuilt

Material :

Photographs : renderings WJOR studio

## Description

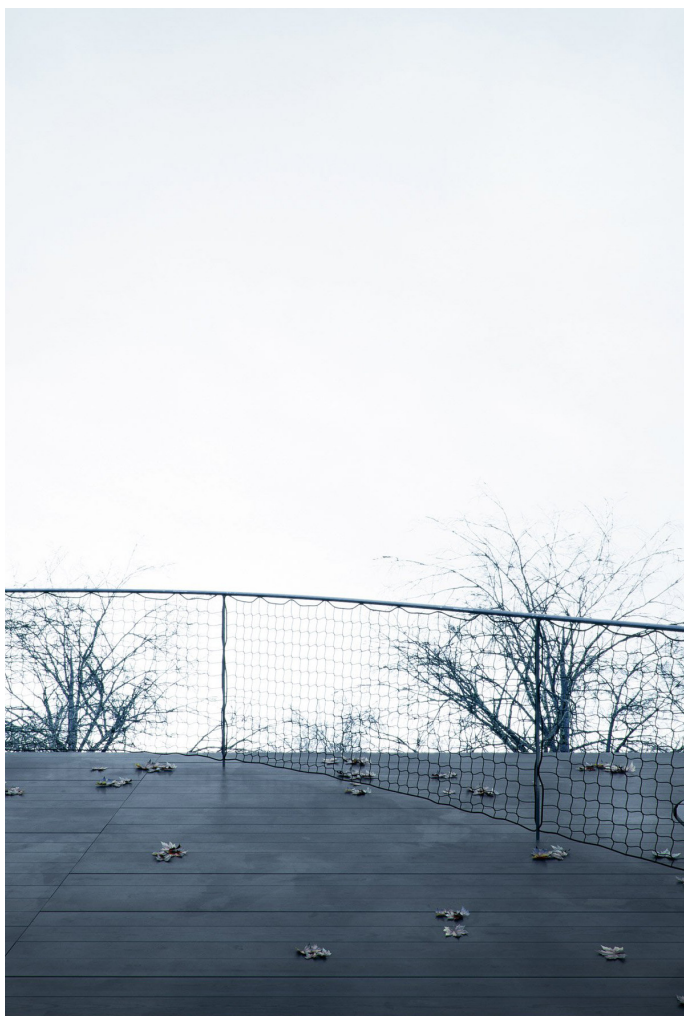
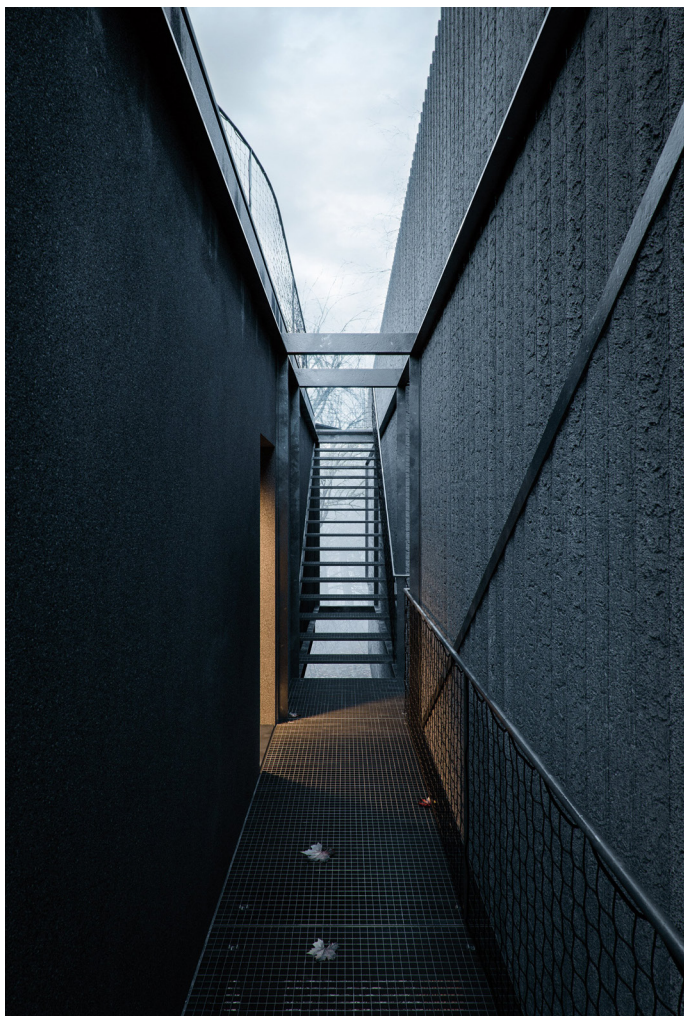
This conceptual cabin in upstate New York was designed as a space of refuge and contemplation for a man who lost his brother, and is sheltered by a large slatted wall that covers the front of the home.

The yet-to-be-built Mask House by WOJR was designed to be “a place of separation and protection that removes one from the world of the everyday and offers passage to an other world”.

A narrow walkway would lead up to the entrance, located in the centre of the front facade. After crossing the initial threshold of the house’s “mask”, visitors would enter into an open-plan living area that contains only a central suspended hearth.









# D-Tower

Architects : architect NOX / Lars Spuybroek  
Typology : installation  
Location : Doetinchem, Netherlands  
Project Year : 1998 - 2013  
Material : epoxy panels  
Photographs : architettura.it

## Description

D-Tower is a hybrid digital and material construct which consists of a biomorphic built structure (the tower), a website and a questionnaire that form an interactive system of relationships in which “the intensive (feelings, qualities) and the extensive (space, quantities) start exchanging roles, where human action, color, money, value, feelings all become networked entities.” The complex surface of the 12 m tower is made of epoxy panels shaped over CNC (computer numeric control)-milled molds. The epoxy monocoque shell is both the structure and the skin, and thus simultaneously multi-performative from the tectonic and building physics perspectives. The tower changes its color depending on the prevailing emotional state of the city’s residents, which is computed from responses of the city’s inhabitants to an online questionnaire about their daily emotions — hate, love, happiness and fear — and these are mapped into four colors (green, red, blue and yellow), with a corresponding light illuminating the biomorphic surfaces of the tower. The city’s “state of mind” is also accessible through the website, which also shows the “emotional landscape” of the city’s neighborhoods. So, either by looking at the tower or the corresponding website, one can tell the dominant emotion of the day.







# Sea organ

Architects : Nikola Bašić

Typology : Land art

Location : Zadar, Croatia.

Project Year : 2005

Material : Marble

Photographs : Wikipedia.com

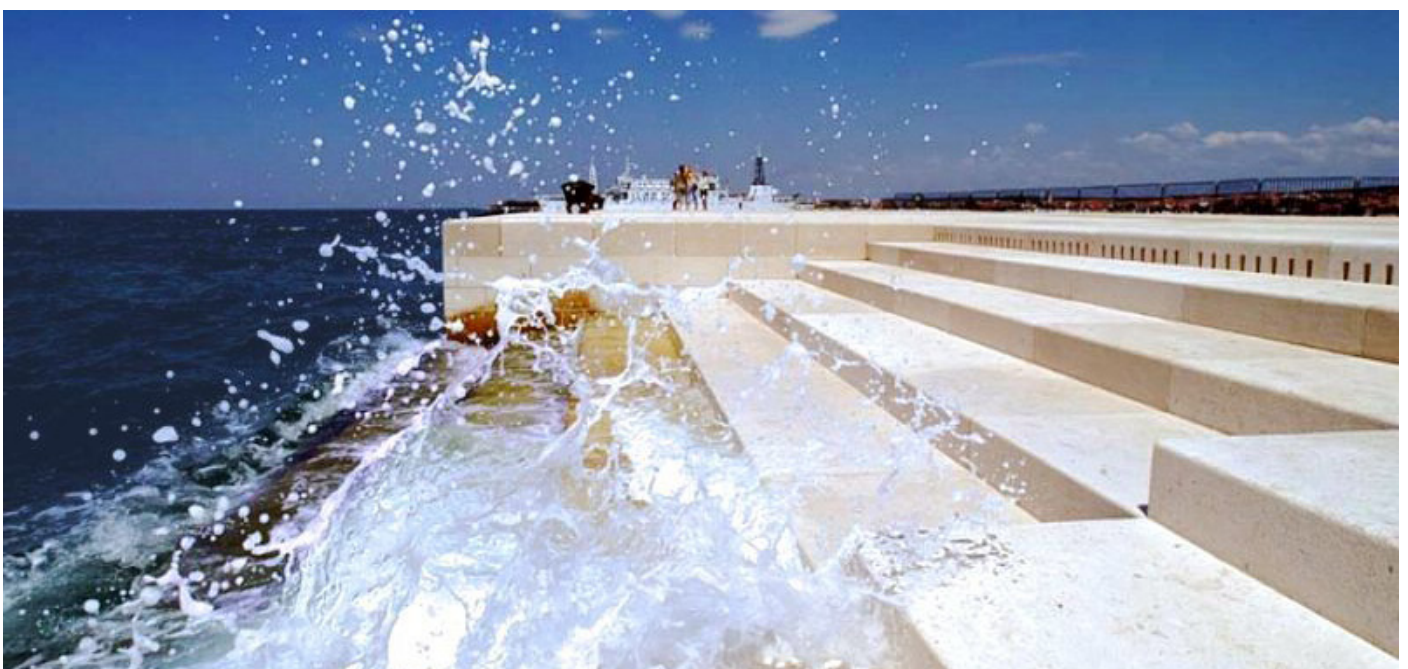
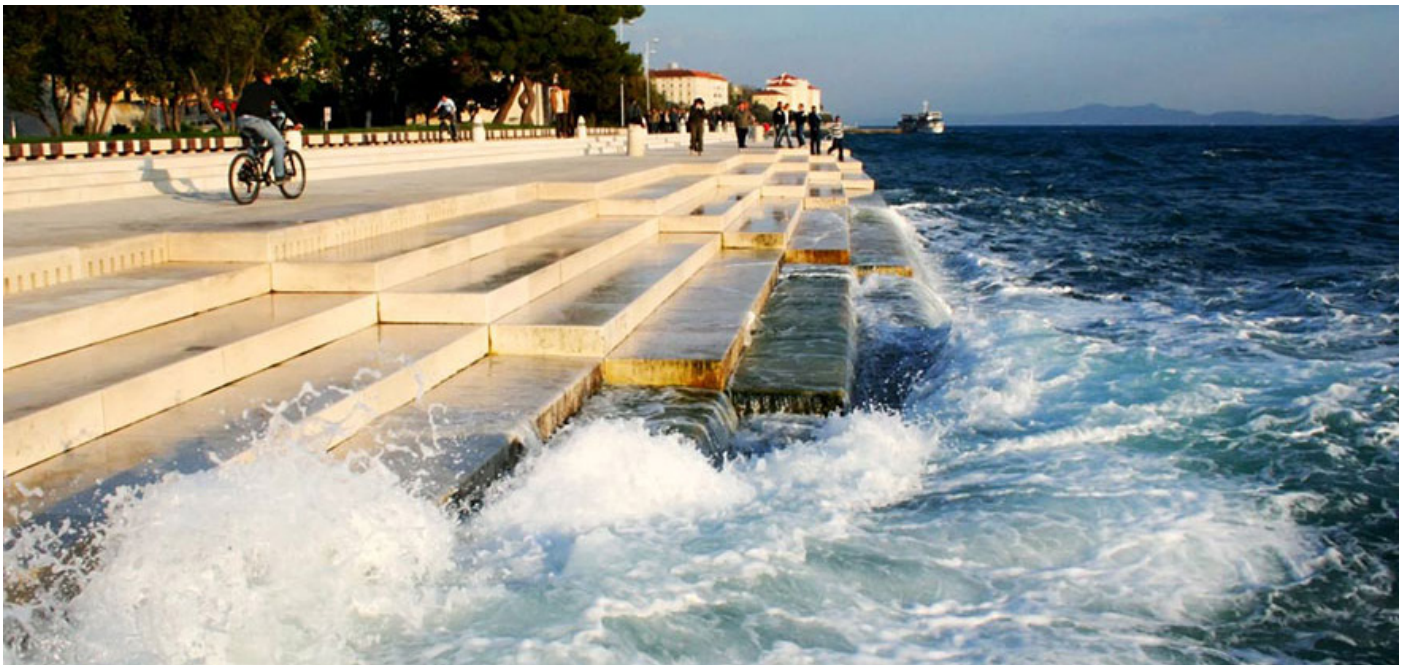
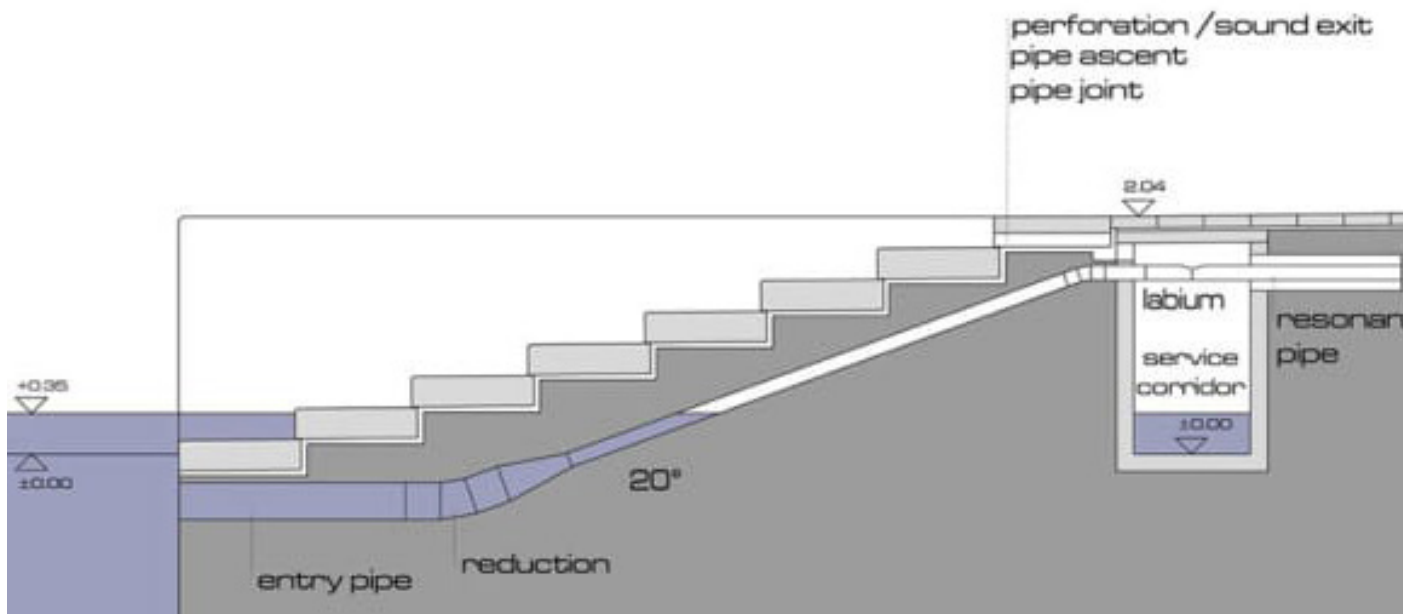
## Description

The organ looks like a series of broad steps leading down into the water, but there's actually very clever engineering hiding under the surface. The lower steps allow water and air to flow in. That water and air is then funneled into resonant chambers under the steps, and pushed out through the channels on the upper stairs, seen here. These cause the undulating, chime-like notes to be produced. Because the sea is always shifting and changing, the sea organ never sounds exactly the same twice. Each sound you hear is completely unique.

The stairs extend for about 70 meters along the coast, under them, at the lowest sea-tide level, 35 pipes of different length, diameter and tilts were built in vertically to the coast and they raise aslant until the paved part of the shore and end in a canal (a service corridor). On the pipes there are LABIUMS (whistles), which play 7 chords of 5 tones. Above the canal there are perforated stone stairs through which the sound comes out, the air pushed by the sea.









# Capilla San Bernardo

Architects : Nicolás Campodonico

Typology : chapel

Location : La Playosa, Córdoba, Argentina

Project Year : 2015

Material : Bricks

Photographs : Nicolás Campodonico

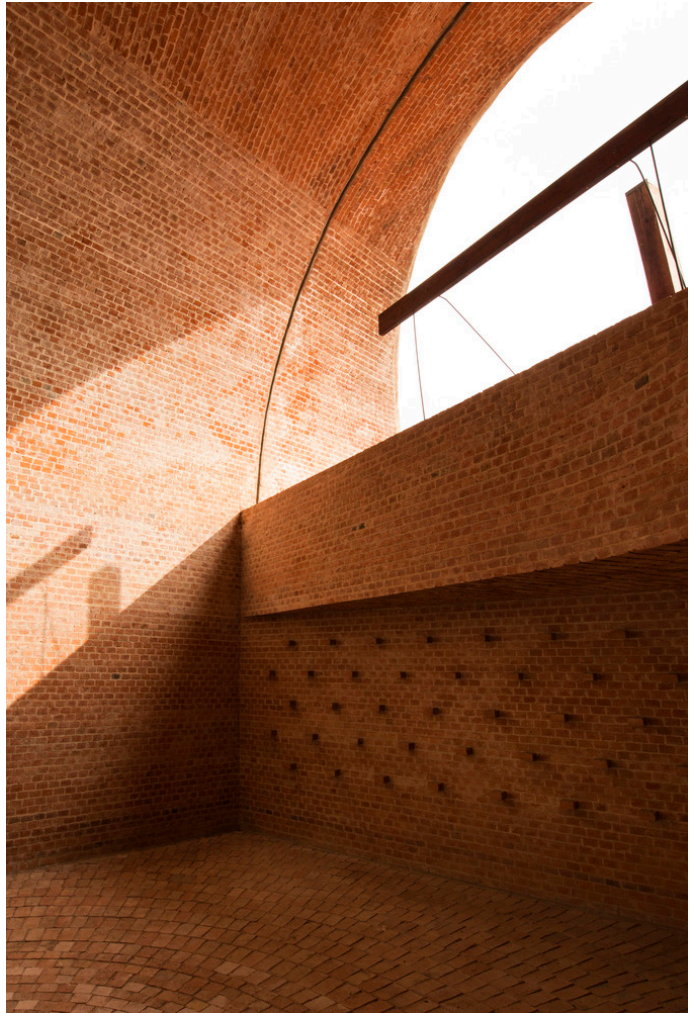
## Description

Located in the Pampean plain, east of the province of Córdoba, the San Bernardo Chapel (patron of the place) stands on a small hill of trees, originally occupied by a rural house and its corals, both dismantled to reuse their materials, mainly its hundred-year-old bricks. The site does not have electricity, running water, or any type of service, nature imposes its conditions.

On the border between the trees and the open field, the volume of the chapel opens in the direction of sunset, capturing the natural light of the sunset in the interior space. Outside of this, a vertical and a horizontal stick are arranged separately and are projected inwards. As a result, every day, throughout the year, the shadow of the wood slides through the curved interior of the chapel, culminating its journey superimposed one on the other.









# Crown Fountain

Architects : Jaume Plensa, Krueck and Sexton Architects  
Typology : public art  
Location : Chicago  
Project Year : 2004

## Description

Crown Fountain is an interactive work of public art and video sculpture featured in Chicago's Millennium Park, which is located in the Loop community area. Designed by Catalan artist Jaume Plensa and executed by Krueck and Sexton Architects, it opened in July 2004. The fountain is composed of a black granite reflecting pool placed between a pair of glass brick towers. The towers are 50 15.2 m tall, and they use light-emitting diodes (LEDs) to display digital videos on their inward faces. The water operates from May to October, intermittently cascading down the two towers and spouting through a nozzle on each tower's front face.











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## MASK HOUSE

[https://www.dezeen.com/2017/01/07/wojr-mask-house-forest-cabin-concept-grieving-man-upstate-new-york/?li\\_source=LI&li\\_medium=bottom\\_block\\_1](https://www.dezeen.com/2017/01/07/wojr-mask-house-forest-cabin-concept-grieving-man-upstate-new-york/?li_source=LI&li_medium=bottom_block_1)

## D-TOWER

<http://architettura.it/architettura/20041013/index.htm>

## SEA ORGAN

<https://www.zadar.travel/en/city-guide/attractions/19-04-2007/sea-organ#.Wtph2G6WTX4>

## CAPILLA SAN BERNARDO

<https://www.plataformaarquitectura.cl/cl/787722/capilla-san-bernardo-nicolas-campodonico>

## CROWN FOUNTAIN

<http://millenniumparkfoundation.org/places/crown-fountain/>

## 5.0 conclusions

According the definitions of Performance and Architecture, keeping in mind the goal of creating a space of contamination between them, some questions can be placed on the table of discussion. Regarding its flexibility, since performance can be unscripted, it can be anywhere, the performer can be absent, or in a medium and so on, can this flexibility be applied to architecture, while in a shift of roles, architecture could be the performer? Can architecture be considered as a performance? I believe that a positive answer to these questions could be found in the BAC centre of the architect Tompkins, where architecture interventions in that building were scheduled in between performances in the schedule of the theatre, and wasn't a hidden process, but it was shown just as a performance.

About the definition of Theatre which states that it is a collaborative form of art, which is not always the case, and furthermore it is also trapped into hierarchies dictated by the space, how to eradicate certain hierarchies with the tool of space? I believe I can answer with the guidelines Tschumi gave about this topic: starting to treat the building processes as performances, operating a disjunction between form and function and allowing mismatches for creating a certain friction, which is an important positive factor in theatre. In addition avoiding that architecture dictates strict spatial and social cues, but be rather flexible.

Another important conclusion can be drawn after the conversation with Dorita Hanna.

"Architecture should not disappear when the lights go down", but rather be part of the environment, the performance, the performers and the audience co-creating the meaning of the performance itself.

The black box concept is what makes architecture just as a servant discipline for theatre. Furthermore for creating a contamination between the disciplines it's useful to observe how different people use the space to create an adaptive space of performance. An interesting example she gave is the Teatro Oficina, very deeply integrated in the urban tissue like a urban corridor, extension of the street, where literally actors were stopping people from the street to bring them inside. But also a theatre that refused the canonical theatre space and was allowing different mode of use.

From all the case studies analysed some conclusions can be made. What is successful in creating a contamination between performance, performers, space, audience and environment usually are the following elements: transforming configuration of the space, integration in the urban/natural tissue, itinerant, playing with perception and senses, modular and assemblable in different configurations, ephemerality and poetic.

I believe with the conclusions above I found the answer to the research question.

*To what extent architecture and theatre can subvert the hierarchies and the conventions they are based on, and to what extent the edges of the disciplines can be blurred, contaminate and being contaminated by the users and the environment?*

At this moment I cannot say exactly to what extent, because that will be found out in the project, but, I believe I found the how.



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