

Teatro Thalia's adaptability condition: A reflection through a Post Occupancy Evaluation.

Extended Abstract

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Introduction

The dissertation now presented aimed to study Thalia Theatre in Lisbon. This old theatre, built in the first half of the ninetieth century, was demanded by the first count of Farrobo, which was a rich, exuberant and well known aristocrat of that time in Lisbon. The theatre was built next to his palace – *Palácio das Laranjeiras* -, to be the stage of his own particular shows, parties and theatres he was bringing to Lisbon through San Carlos' theatre.

After a fire that destroyed part of its original structure, the Thalia theatre remained abandoned for more than one hundred and fifty years. After all this time, the minister José Mariano Gago, leading the *Cience, Technology and Superior Studies' ministry*, started a process of recovery, and asked the architects Gonçalo Byrne Arquitetos and Barbas Lopes Arquitetos to develop the project. The minister asked for a project, in which the program would depend only on the architects. The team should think about which program would suit well in the ruin, and at the same time, show respect about the history of that building. In 2013, the Theatre opened again to the public as a polyvalent room, where currently takes place ministerial meetings, theatres, opera concerts and orchestra concerts.

This paper aims to understand the main functional problems and conflicts driven using this space – considering the multipurpose

condition. We pretend to study the conditions to the original project's program, evaluate in which way the space affects and shape the uses, detect the incompatibilities and conflicts and explore the principles which explains these phenomena. It's also a main goal to test a Post Occupancy Evaluation's method (POE) which can be applied in multiuse spaces, and in which results can be useful to future interventions, to increase its quality and reduce identified problems.

The work was developed following a POE methodology, considering the perception of multiple users in what concerns utility conditions, the weaknesses and the facilities which quality might increase. It was, therefore, divided in three sequential steps:

1st step: Context – The main purpose was to understand the overall framework of the intervention, considering the intentions and expectations of the users and different stakeholders throughout all the process. Further, it was done an inventory of the events currently taking place at Thalia Theatre.

2nd step: Inventory of uses – This step was focused on a physic-constructive and a space-functional evaluation. It included visits to the space, during events and in the theatre's free time and it was developed through diverse POE tools, namely walkthroughs, questionnaires, observation of events and the matrix of discoveries.

3rd step: Diagnose: This step considered data analysis, looking for weaknesses and trying to understand how those weaknesses affects in different ways each user of the theatre. From this point, it was possible to make recommendations

and determine strategies which allow to solve the detected problems.

1. Post Occupancy Evaluation

As Preiser et. al¹ declares, a Post Occupancy Evaluation (POE) is an evaluation which emerges from the desire of understanding a building's performance considering the users expectations and satisfaction. It has its focus in the users' opinions and needs, aiming to evaluate the satisfaction level, and considers the multiple stakeholders involved in the utilization of a building².

There are multiple steps for the development of an POE:

- 1) **Planning:** Stablishing evaluation parameters, calendars, costs and timelines-;
- 2) **Realization:** It is when the POE takes places
- 3) **Application:** when the data is analysed and some recommendations are made.

There are multiple tools which can be used to perform a POE evaluation:

- 1) **Walkthrough:** is a guided tour through the building, which aims to identify positive and negative aspects;
- 2) **Comportment's map:** It registers the movements, comportment and activity of the users in a room.
- 3) **Desire Poem:** It is tool which is used in an expressive use: drawing, poem or text. It

¹ PREISER et al.; *Learning from Our Buildings: A State-of-the-Practice Summary of Post-Occupancy Evaluation*; 2002 pp. 9;

² PREISER et al.; *Learning from Our Buildings: A State-of-the-Practice Summary of Post-Occupancy Evaluation*; 2002 pp. 9;

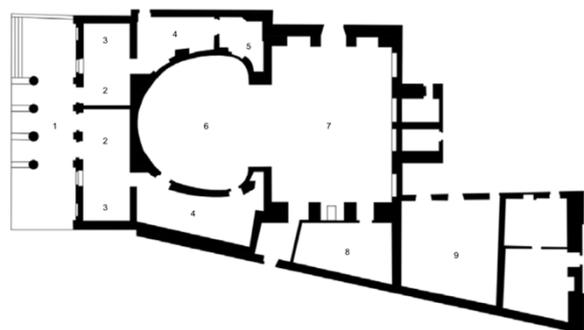
aims to continue a phrase which states “I would like the building to...”.

- 4) **Visual Mapping:** It pretends to identify the perception of a user through a determined environment.
- 5) **Visual Selection:** It reflects the mental mapping of the users, and the main components that structure the mental image of a space;
- 6) **Interview:** It is a dialogue or verbal description, having a determined goal.
- 7) **Survey:** Aggregates a group of questions related to a determined subject, which must be answered anonymously about a space;
- 8) **Finding's Matrix:** It is a tool which aggregates the findings of a space in each evaluation;
- 9) **Focus Group:** Reunion of 6 to 8 people to discuss about a determined subject;

2. Thalia Theatre

Original Building

The original building was composed by three main elements, recognized either in the outside volumetric, but also in the plan design – Foyer, audience and scene.



1| Peristyle; 2| Foyer; 3| Vertical Access; 4| Access to balconies and audience; 5| scenario's support and maintenance; 6| audience; 7| scene; 8| dressing rooms; 9| technical areas

Figure 1: Original plan by Fortunato Lodi. (Portugal 2013)

The foyer led to lateral corridors, which further led to the spectacle room. The access was distributed between the horizontal and vertical accesses.

In the foyer, two vertical accesses connected the ground floor to the peripheral accesses which led to the semi-circular balconies to the viewers. The theatre had space for five hundred people.

In the outside, a neoclassic facade was the main element of its original drawing. It showed a central peristyle, and four columns supported the triangular fronton, which showed the comedy muse's slogan – *HIC MORES HOMINU CASTIGANTUR*³. Ahead the columns, four marble's sphinxes rested.

All the other facades reflected the neoclassic influence, excepting the east facade, which, due to be facing the road, was built accordingly to the



Figure 2: Original disposition of the theater. Axonometric (*Reconstituito*n; Jorge de Sousa Noronha 2003, disponível em <http://jorgesousanoronha1.overblog.com>)

environmental buildings.

Intervention Description

The architects' team was confronted with an "open" design brief with a limited number of restrictions. Thus, they start thinking about which program would suit well in the ruin, and at

the same time, show respect about the history of that building.

The architects proposed an empty space, with no specific program, in which utilization would depend on the needs of the Ministry. The space would have the basic infrastructures so it could work, but not for a specific use. Also, they added a cafeteria – where it was supposed to install a restaurant – and a second entry, so the main entry would not be concentrated near the Palace.

Inside the main room, the walls would remain the existing ones, showing the old structure in masonry and stone. In the outside, the building would be coated with a fair-faced concrete skin which would have two main goals: to reinforce the old structure that was fragile, and to give a new image to the building, pretending to represent the old volumetry of the building.

To reveal the old volumetry of the theatre to the exterior, the east facade was demolished and a new pavilion in metal and glass was built, with a cover in a L shape, which created a new patio, supported by two concrete volumes. In the new east volume was installed the extra program, which corresponds to dressing rooms, public

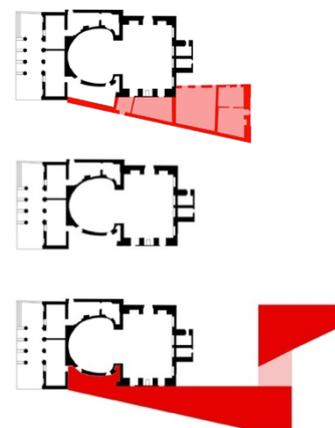


Figure 3: Demolished buildings and new pavilion

³ *In here, humans' habits will be punished;*

toilets, storage rooms, technical areas and the new entrance area. In the west volume was installed the cafeteria.

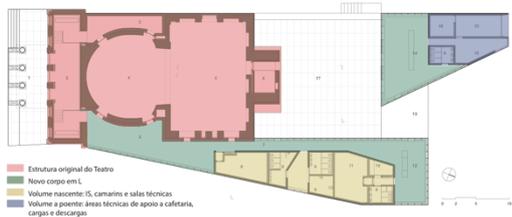


Figure 4: Scheme of distribution; red: Original structure; green: new L structure; yellow: east volume; blue: west volume

Constructive Process

Considering the fragile characteristics of the structure, the constructive options weren't wide. On one hand, the architects wanted to maintain the pre-existent structure, on the other hand, this structure was at risk of collapsing, due to no interior locking. The solution emerged from an exterior intervention, acting as consolidation and reinforcement of the old structure. It was built an exterior concrete skin, which allowed to resist to horizontal forces, and, from these new walls, a new cover arose. This permitted that no new charges were added in the old structure. In the interior of the theatre, the original walls remained visible.

The foyer remained loyal to its original aspect, either from the outside, where only recovery works were made, either by the inside, which original elements were replicated.

Events in the Theatre

In 2011, the theatre was ready to open doors, after all the works, under the management of Secretaria Geral da Educação e da Ciência. Since the moment it opened, the theater have received

projects which are preferentially connected to the culture and science.

It has currently an important protocol with the Metropolitan Orchestra of Lisbon, and also with Francisco Manuel dos Santos' Foundation, which uses the theatre to perform a television show once a month – *Fronteiras XXI*.

The events which occur in the theatre are the following:

- 1) Television Debates;
- 2) Cerimonies;
- 3) Exhibitions;
- 4) Concerts;
- 5) Dance shows;
- 6) Seminars, conferences and workshops;
- 7) Theatres and operas;
- 8) Fashion shows;
- 9) Perfirst (performance and instalation);
- 10) Contests;
- 11) Private events;
- 12) Vigil service.

Each of the events presented above require different adaptations of the space. They have different number of visitants, different lucrative goals, they require different number of technicians, and different extra materials.

3. Diagnose

The POE was developed in two main phases, and was based in the method proposed by the *Guide to Post Occupancy Evaluation*⁴.

In the first phase, the author tried to obtain information which allowed to reflect the

⁴ BARLEX, M J, The guide to post occupancy evaluation, University of Westminster, 2006

importance of the theatre' multiuse, considering the number of users, the density of used space, and the use of the extra space in the theatre. This phase was developed through a group of tools of POE, provided in the already referred guide.

In the second phase, the information was collected through the observation of four events which occurred in the theatre on January 11th and 13th and February 7th and 9th. These observations allowed to understand the main problems of the theatre during its use.

Walkthrough

a) Multi use room

The main problems detected in the multiuse room was falling blocks of masonry from the



Figure 5: Blocks from the masonry falling through the wall.



Figure 6: Humidity in the wall

walls, which can be problematic for the users, infiltration and humidity either in the walls as in the floor, and air conditioning and lightning problems, which sometimes doesn't work or are not sufficient.

b) Technical room, dressing room and public toilet

These areas revealed good conditions, in general. They are small rooms, where the material is storage and the artist change for the shows. The public toilet though, are damaged. The hygienic paper supports are broken and were fixed with tape.

c) Foyer and Corridors

These areas don't show any constructive problem. They reveal in general good conditions, and work perfectly.

d) Cafeteria and Exterior Patio

The cafeteria in the Theatre was primarily designed to be a restaurant. Although it is empty and ready to work, the cafeteria does not have access to some basic needed infrastructures. There is no connection to water in the balcony, and, therefore, it is rarely used.

Also, the pavement of the exterior patio has some problems. It was projected in concrete attaches which are divided by a five centimetres' gap. Considering that this patio is used for

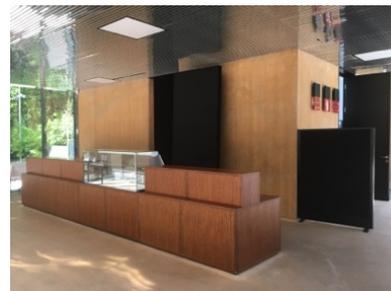


Figure 7: Cafeteria



Figure 8: Floor in the exterior patio

cocktails, these gaps might become dangerous, once someone in high heels my fall if the heal gets stuck in this. Further, this patio is frequently used to transport and move the material from the transportation trucks to the interior of the theatre. This task becomes harder once the wheels of the transportation platform usually get stuck in the gap.

Space-Function characterization

This analysis was collected through surveys which were distributed either by the internet either in a physical way. It is divided between two

samples. The first sample corresponds to the resident population of the theatre, which are technicians, administration and clients or artists. The second sample corresponds to the visitors, i.e., people who come to theatre to watch a show or concert.

To make the interpretation easier, the results were organized in three categories:

Huge success: if the parameters are evaluated with at least 80% of positive answers

Success: if the parameters are evaluated with positive or neutral by 80% of the answers.

Failure: If the parameters are evaluated as negative for more than 20% of the answers.

The survey presented to the resident sample was composed by sixty-four questions which aimed to study nine evaluation areas: general evaluation, corridors, buildings' image, interior ambience, functionality, structure, security, public toilets and common areas. This sample was composed by twenty people, which were fourteen artists, four technicians and two administration members.

The survey presented to the visitors was composed by fifty-one questions which aimed to study five evaluation areas: interior ambience, public toilets, functionality, building's image and security. The sample was composed by twenty-two people.

Resident's results:

a) Corridors - *success*

Building's entrance - *failure*

Building's exit - *huge success*

Interior orientation - *huge success*

Access to low mobility individuals - *failure*

b) Building's image - *success*

Environment integration - *huge success*

Image after reconversion - *success*

Image of corridors - *success*

Multiuse room - *huge success*

Cafeteria - *failure*.

c) Interior ambience - *failure*

Ventilation/air conditioning - *success*

Interior humidity - *failure*

Summer's interior temperature - *success*

Winter's interior temperature - *failure*

Windows - *failure*

Interior Lightning - *failure*

Environment noise - *success*

Soundproofing - *success*

Sound quality - *failure*

Air-conditioning use - *success*

d) Functionality - *failure*

Space available for storage - *failure*

Dimension of multiuse room - *failure*

Space available for artists - *failure*

Location of technical room - *failure*

Loading/unloading channel - *failure*

Transportation and movement of material - *failure*

Interference between visitors' area and technical areas - *failure*

Multiple room layout - *failure*

Ability to adapt technical material to various events - *success*

Visual amplitude inside the room - *success*

e) Structure - *failure*

Old walls' consolidation - *failure*

Infiltrations - *failure*

f) Security - *success*

Emergency exit access – *success*

Emergency evacuation – *success*

Fast exit – *success*

Exit signalization – *success*

g) Public Toilets - *success*

Number – *failure*

Location – *success*

Cleanliness – *success*

Interior design – *success*

Shared WC between artist and visitors – *failure*

h) Common areas (cafeteria and patio) –
failure

Cafeteria functionality – *failure*

Access to basic infrastructures – *failure*

Pavement's comfort - *failure*

The analysis of these surveys allowed us to understand that the major problems in the theater are related to the functionality, such as the spaces available either for equipment and artists, and the problems concerning the structure. Although, in general, the residents demonstrated a level of general satisfaction of 3.4, in a scale from 1 to 5. The most recognized area is the Building's image, in which most people considers it as a huge success.

Visitors

a) Building's image – *huge success*

Environment integration – *huge success*

Image after reconversion – *huge success*

Image of corridors – *huge success*

Multiuse room – *huge success*

Foyer's Image - *huge success*

Cafeteria – *success*.

b) Interior ambience – *Success*

Interior humidity – *success*

Interior temperature – *success*

Sound quality – *success*

Soundproofing – *success*

Interior Lightning – *success*

c) Functionality – *success*

Furniture comfort – *failure*

Dimension of multiuse room – *success*

Visual amplitude inside the room – *success*

Occupation density – *success*

Access to handicapped - *success*

d) Security – *success*

Emergency exit access – *success*

Emergency evacuation – *success*

Fast exit – *success*

Exit signalization – *success*

e) Public Toilets - *success*

Number – *failure*

Location – *success*

Cleanliness – *success*

Interior design – *success*

For visitors, the main issues of the theatre, are the problem of the furniture, they consider it uncomfortable. Also, they consider a lack in the number of toilets. On the other side, the most recognized area of evaluation is also the building's image, which was considered as a huge success.

Events Observation

a) Event 1 – Conference/Seminar;

This event occurred in January 11th. It was a meeting promoted by the ministry. It was

two hours long. The only part which was used was the scene, because it was a small meeting.

The room was organized in two columns of eight rows. Each had five chairs. In total, there were seventy chairs.

The entry was made by the foyer. It was calm, due to the dispersed entry. The interior temperature was low, due to no heating utilization. The sound was well controlled, so there was no problems with it.

The interior lightning was a problem. Only the people who were immediately under the

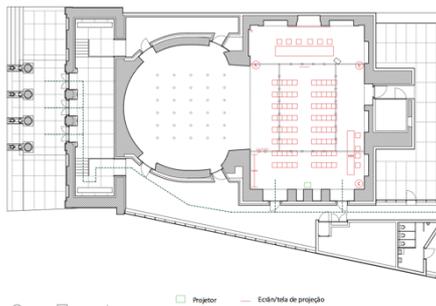


Figure 9: Room disposition at the meeting

lamps could have an acceptable level of light. The ones who were less close to it were not able to write or read their papers.

b) Event 2 – Metropolitan Orchestra Concert;

This event took place in January 13th. It was a concert from Metropolitan Orchestra of Lisbon. The orchestra was organized in the scene area, and the spectators were in the audience area. The maximum capacity of the room was two hundred spectators, and the room was full.

The public entrance was slow, it took a lot of time for the room to be full. This happened because there was only two doors receiving the tickets.

The room was hot during the show. The heating was on, and it was a little bit warmer than it was supposed. With people inside the room, the temperature increased. The lightning was reinforced with four spotlights located in the stage. Also, some musicians had their own personal lights near their sheet music.

The major problem detected during this event was the use of the space outside the multiuse room. There was no space for all the orchestra to be in a good changing room. The musicians were divided, and men used cafeteria as changing room, and women used the storage room as dressing room. Also, the utilization of the same bathrooms by musicians and public was problematic. The musical instruments were placed in the corridor, and the influx of people increased the probability of something get damaged.

By the end of the show it was really complicated to get out of the room. Once more, only two doors were being used, and it took lot of time for people to get out.

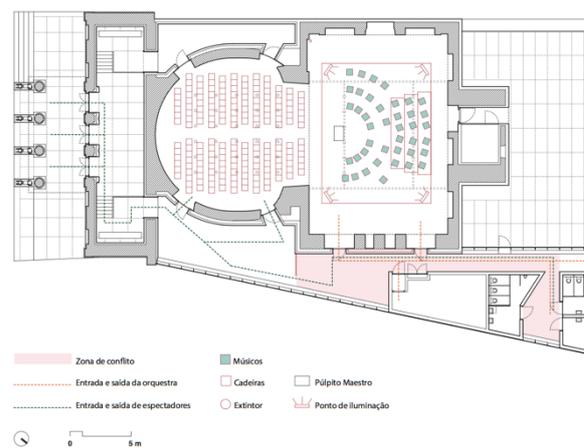


Figure 10: Room disposition at the orchestra concert

c) Event 3 – Television show: *Fronteiras XXI*

The event took place on February 7th, it was a television show, filmed in the multiuse room. It is a program which is promoted by Francisco Manuel dos Santos foundation, and is connected to RTP.

The audience zone was used only for the cameras, and all the show happened in the scene area. There were three commentators, and one presenter. Also, there were around forty people as spectators. Behind the spectator's line, a camera moved through along all the theatre through a lane.

All the spaces in the theatre were used. The cafeteria was a cocktail room for the spectators, where they had to do the check in. Also, the other rooms were booked by the commentators and the presenter.

The car park was full of RTP's trucks, were all the lightning and image control take place.

The air conditioning was on, and it as a comfortable interior temperature. The level of lightning was good, and allowed people to write

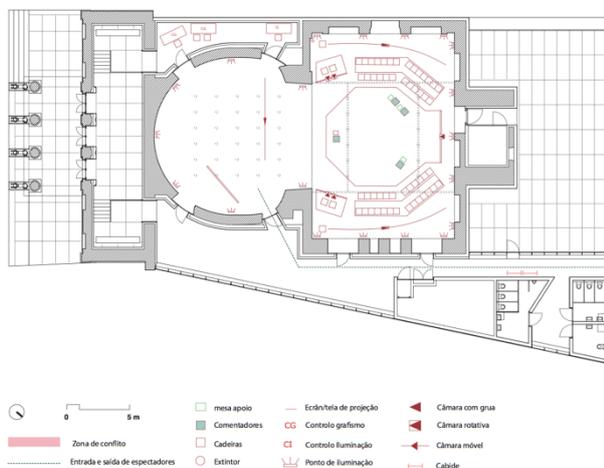


Figure 11: *Fronteiras XXI* plan

a read their papers. Although, the lightning had to be reinforced, and the RTP studio made an extra structure, which was connected to the metal structure from the theater, to have more light in the room.

The main problems in the room in this event were the lightning capacity, which had to be reinforced. Also, the car parking was overbooked for five days, which creates problems with the ministry.

Further, another problem was the electric cables that were all over the floor. This might represent a dangerous problem, once someone might fall.

d) Event 4 – Meeting

This event took place in February 9th. It was a meeting with the minister.

The room was organized with two columns of nine lines. Five of these lines had twelve chairs organized in semi-circle. At the top of the scene, there was a projection screen.

The temperature in the beginning of the meeting was nice, and the main problem was the electric cables all over the floor. It was like Event

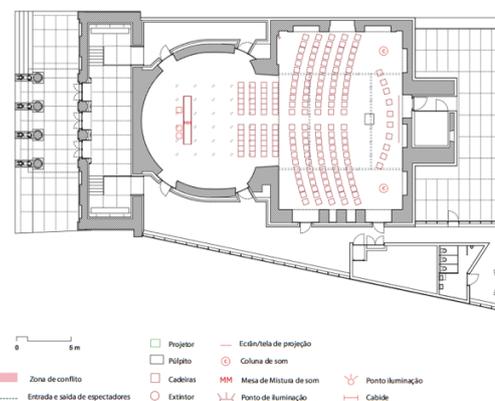


Figure 12: Disposition of the room at the meeting

Discovery matrix and recommendations

Through the tools presented previously, we are now able to establish which problems are having bigger impact in the theatre's performance. In what concerns the physical-constructive performance, the problems detected are mainly related with the interior walls, which are showing some signs of fragility, namely blocks falling and the humidity, either in the multiuse room as in the corridors and storage rooms. Further, the space-functional problems reveal that there's no enough space either for dressing rooms as for storage rooms, the sharing bathrooms between the visitors and the musicians and the problem with the access for handicapped people.

The parameter which reveals less problems are the integration of the building with the environment and the capacity to use the multiuse room itself to a multiple number of events. Also, all that is related with the emergency exits are parameters which do not show any problem.

The cafeteria is also a theme which should be carefully looked at. On one hand, it was supposed to be used and it's important in the events where cocktails are required. On the other hand, is almost not being used as a cafeteria, and has been used since the beginning as a space which can also serve multiple uses – dressing room, storage room, cocktail room. From this point, it is a room which should be rethink. Is it necessary to have a cafeteria in this place?

4. Final Considerations

The initial process to recover the Thalia Theatre was made without a required program.

This was left open so the architects would define it. The chosen program was a multiuse room, which would be available for any use that the ministry might wanted.

The main problems arise due to the concept of multiuse. For the fact that the building was not designed for a specific purpose, but to serve any kind of events, the required infrastructures for those events were not thought, and therefore, the theatre is not ready to serve them. We can use an example the Orchestra's concert. There's no room available for an orchestra of forty musicians, therefore, the space available have to be adapted for this kind of situation.

The problems concerning the technical-constructive parameters were harder to detect and normal in a work situation, therefore, they were not predicted.

The adopted methodologies showed some satisfactory results, although, incomplete. For future researches in multi-use rooms, we suggest that some other tools might be used, such as the desire poem. Although it is a tool that does not require lot of time and is not scientifically necessary, this tool might be useful to have a deeper overlook over the opinion of the users.