

Spatial Design and User Experience in Nepali Theaters: A Comparative Study of Architectural Layouts in Kathmandu and Pokhara

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Abstract

The research explores the spatial layout of theaters in Kathmandu and Pokhara valley, centering on the needs and preferences of users—both performers and audiences. It examines how theater spaces interact with actors' needs and audience expectations, employing a mixed-method approach that combines literature review, surveys, and on-site observations. By analyzing existing challenges and opportunities, the research offers insights into designing theaters that respond directly to user requirements, enhancing performance quality, comfort, and engagement. The findings contribute to the enrichment of the two cities' theatrical landscape by guiding the creation of user-centric spaces that foster creativity and artistic expression.

Keywords: Theater layouts, Performance spaces, Theater design, Actors, User-preference

1. Introduction

A theatre is a built space for live performances, where people gather to watch, listen, and connect with artistic expression. As a space serving both performers and audiences, its architectural qualities strongly influence the atmosphere and the overall quality of each performance.

The spatial layout covers how the stage is oriented, how seating is arranged, how people move from the entrance to the auditorium, and how lobbies, backstage areas, and services are placed. These elements affect navigation, visibility, acoustics, and comfort. User experience emerges from how people interact with this arrangement, combining practical needs with the emotional impression created by the environment. When these aspects work together, a theatre can build anticipation, support immersion during the show, and allow smooth, comfortable movement, making spatial design central to the audience's overall experience.

1.1 Study Area

Nepal has a rich cultural heritage, with traditional and contemporary performing arts thriving for centuries. As interest in performing arts and entertainment grows, there is an increasing demand for suitable theatre spaces that can accommodate diverse performances and provide a comfortable, engaging environment for both artists and audiences.

This study focuses on two key theatres in Nepal: The Mandala Theatre in Kathmandu and the Pokhara Theatre in Pokhara. The Mandala Theatre, located in the capital city, serves a dense and diverse urban population, making it a critical case for understanding theatre design in a busy metropolitan context. Meanwhile, the Pokhara Theatre caters to a relatively smaller audience, providing valuable insights into theatre design tailored for smaller urban centers with limited population

density and spatial constraints.

Together, Kathmandu and Pokhara offer contrasting yet complementary settings, and examining both locations provide a well-rounded understanding of how theatre architecture can respond to varied urban contexts across the country.

1.2 Objectives

Main Objective

- To study how architectural layouts and spatial design elements of theaters influence user experience of both audience and performers taking cases of theaters of Kathmandu and Pokhara.

Specific Objective

- To investigate the spatial layout of Mandala theater and Pokhara theater including performance stage, seating arrangements, circulation, accessibility, backstage design and other necessary elements.
- To evaluate audience experience and performers experience in relation to the space requirements, comfort, functionality, etc. within difference theater spaces.

1.3 Significance of Study

Theater has always been a space where stories come alive, connecting people through shared emotions and experiences. In Nepal, however, many existing theaters struggle to provide spaces that truly support this creative exchange. This study is important because it looks closely at how the design and layout of theaters in Kathmandu and Pokhara affect both performers and audiences—the people who bring life to these spaces. By understanding their needs, challenges, and experiences, the research hopes to highlight what makes a theater not just functional, but inspiring. The findings aim to encourage better, more inclusive designs that nurture talent, enhance

audience engagement, and strengthen Nepal's growing culture of performing arts.

1.4 Scope and Limitations

The study focuses on the spatial layout of theaters in Kathmandu and Pokhara, emphasizing the relationship between different functional areas such as the stage, seating, circulation, and supporting spaces. It explores how these spatial arrangements influence user experience, considering both performers and audiences' perspectives. The research includes on-site observations, surveys, and analysis of selected case studies—Mandala Theatre in Kathmandu and Pokhara Theatre in Pokhara—conducted within the study period.

The study does not cover detailed technical aspects such as acoustics, lighting systems, material finishes, or mechanical infrastructure. The survey was conducted with a limited number of participants, which may not fully represent the broader theater community. Additionally, the floor plans presented are conceptual interpretations intended for spatial analysis rather than precise measured drawings.

1.5 Time Frame

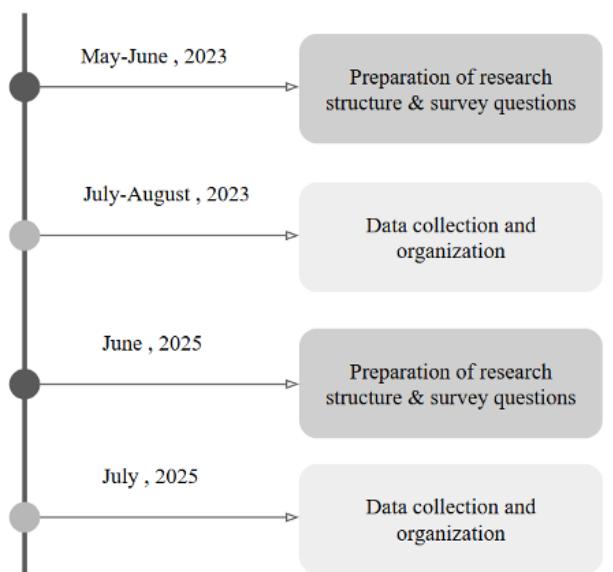


Figure 1. Time Frame Chart

2. Literature Review

Theatre is grounded in the art of storytelling. It functions as a living, immersive narrative in which characters are brought vividly to life before the audience. Whether presented as uplifting comedy, intense drama, or thought-provoking tragedy, theatre possesses the unique ability to connect us with the collective human experience. Through its narrative techniques, it serves as a mirror to society, reflecting our aspirations, fears, and desires.

Theatrical layout plays a vital role in conveying narratives, influencing the interaction between performers and audiences and shaping how stories are seen, heard, and felt. Spatial

configuration affects visibility, acoustics, and emotional engagement, while also accommodating technical and functional needs such as stage mechanics and performer movement [1].

2.1 Historical Development - Evolution of Theaters

This intrinsic role of theatre—as both narrative and societal mirror—was evident in ancient Greek and Roman worlds, where spectacle played a significant role in daily life. The ancient Greeks constructed open-air theatres to stage performances of comedy, tragedy, and satyr plays, engaging the public in shared cultural experience. Romans expanded this tradition, introducing monumental backstage structures (scae-nae frons) that enhanced architectural grandeur and showcased engineering skill [2].

A similar cultural significance can be observed, although less documented, in the context of Nepalese theatre, which remains a largely unexplored domain. Theaters bring alive ancient traditions and culture of this sacred land, and offer a peek into the country's state of affairs, in the most entertaining way [3]. Plays and dramas based on social subjects are a reflection on the Nepali way of life, and those with historical and religious themes conjure up centuries old traditions springing from real and mythical worlds, the impressions of which are still very much relevant. The varied forms of drama and theater reflect the vibrant cultural tapestry of Nepal and offer a unique artistic experience to both locals and visitors alike. The performative culture in Nepal goes back to medieval times. Historians like Satya Mohan Joshi state that the tradition of performance, represented by dance, drama and musicals, might have been put into practice by the Lichhavis (c. 450–c. 750 CE) [3]. Although evidence is scant, it is generally believed that several pieces of architecture that facilitated performances were built during the Lichhavi period, or even before. Courtyards, extended parapets, and dabu (raised platforms also known as dabali) are believed to have facilitated performance and played a major role in the evolution of the arts in Nepal. Plays performed at that time mirrored mythological and religious rituals as a central conceit [4].

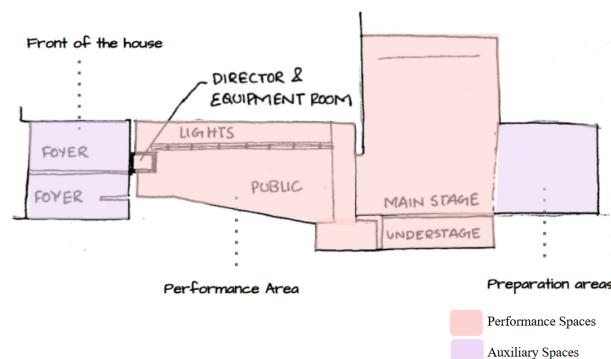


Figure 2. A Typical Spatial Configuration of Theater

2.2 Spatial Requirements in Performance theatres: Spatial Configuration

The spatial layout of theatres is crucial in shaping the artistic experience for actors and enhancing overall performance

quality. Well-designed stages with clear sightlines and good acoustics improve actors' communication and presence, creating a more immersive experience. Theatre spaces can be divided into three main parts:

- Performance
- Audience
- Auxiliary Space

The performance space is where the actors bring the story to life—the stage and all the areas where the play unfolds. The auxiliary space includes the backstage, rehearsal rooms, green rooms, and pathways that quietly support both the performers and the production. Meanwhile, the audience space—the auditorium, seating, and circulation areas—shapes how the spectators experience and connect with the performance.

Performance Spaces: These spaces are designed to accommodate various types of theatrical forms and determine the nature of interaction between the performers, the audience, and the physical environment. Their configuration directly impacts sightlines, acoustics, performer movement, and audience engagement. Common types of performance spaces include: End Stage, or Frontal Theater, features a stage positioned at one end of the auditorium, directing the audience's full attention toward the performance. It allows for the use of large backdrops and projections to enhance the visual experience. Proscenium/Apron Theater is characterized by a large arch called the proscenium arch that frames the stage which is usually deep and slightly sloped upward from the audience. In Thrust Theater, the stage extends into the audience area, surrounded on three sides, creating an intimate setting that strengthens the performer-audience connection. In Arena/Surround Theater, the stage is positioned at the center, and the audience surrounds it on all sides. The stage design is minimal, with scenery and carefully arranged to avoid obstructing the audience's view. Black-box or studio theaters are highly flexible spaces consisting of a single black-painted room, with the stage floor at the same level as the front row. Seating can be arranged in various temporary configurations to suit different production styles and performance types. Open-air theaters are Outdoor spaces often set in natural surroundings. While parts may be covered, they rely mainly on natural light, especially during sunset, for a unique experience. Site-specific theater Created for a particular location, where the site becomes part of the performance. The audience moves through scenes, observing or participating as the setting shapes the theatrical experience.

Audience Spaces: Beyond the auditorium and circulation areas, several audience-focused spaces enhance the overall theater experience. These spaces form the front of house and public interface, contributing to comfort, engagement, and social interaction. The Front of House includes all areas accessible to the audience—such as the foyer, box office, cafeteria or bar for refreshments before and during the interval, cloakroom for storing personal items, and merchandise stalls selling show or theater memorabilia. As the first point of contact for most visitors, these spaces significantly shape the audience's overall perception and enjoyment of their theater

visit [5]

Auxiliary Spaces: Auxiliary spaces in a theater support the primary functions of performance and audience engagement. Though not directly involved in the performance itself, these spaces are essential for smooth operation, performer preparation, technical support, and audience services. These spaces typically include rehearsal rooms for practice and refinement, green rooms for performers to rest and prepare, storage areas for props, costumes, and equipment, workshops for building and maintaining sets and technical elements, and docking zones for loading and unloading supplies.

2.3 Design guidelines and best practices about theater

The size, configuration, and density of a theater are primarily determined by the type of performance it is intended to host. Audience facilities are shaped directly by seating capacity and access requirements, and indirectly by the atmosphere and overall impression the theater aims to create. Similarly, backstage areas are influenced directly by the needs of scene handling, stage layout, and access, while also supporting rehearsals and set assembly. In essence, every aspect of theater architecture is guided by the function of the performance, ensuring a seamless experience for both performers and audiences [6].

This careful planning of spatial layout not only impacts the structural and functional aspects of a theater but also profoundly affects how actors perform and engage with their audience. Mackintosh (1993) points out that the arrangement of seats, sightlines, and acoustics can create a "tangible spirit of place," like in the Greek theaters at Epidaurus, where the space itself seems to hold and amplify the energy of performance. Actors respond to these conditions, with factors such as proximity, audience density, and the scale of the auditorium shaping their sense of connection with the audience. Actors also experience theater space as something dynamic, navigating architectural features as part of their performance. The space isn't static in the actor's mind; it changes depending on their movement, position, and the scene being performed [7]. For example, walking from upstage to downstage, moving between props, or reacting to audience proximity makes the same physical space feel different. The way actors move through the space is integral to the storytelling. They are aware of the space and use it intentionally to express character, emotion, or narrative [7].

When a performance is designed to present a clear and specific image, it becomes important that the audience sees it in a consistent way. This is one of the strengths of frontal stage layouts, especially for those seated near the center. Still, factors like distance and viewing angle within the performance hall also shapes the experience [6]. On the other hand, if the goal is to build a closer connection with the audience, then proximity and focus matter more. Thrust and surround stages are particularly effective here, as they naturally create a sense of intimacy by bringing performers and spectators into a shared space.

From the study carried out by Lemasson et al., 2019, partici-

pants indicated a preference for the all-round theater layout, as it created a stronger sense of intimacy and connection between actors and the audience. The all-round theater layout received the highest rankings in actors' assessments of transmitted emotion, audience interaction, anxiety, and overall preference. Being surrounded by spectators seems to make performers feel more engaged and aware of the audience, leading to a more dynamic and interactive performance experience.

3. Methodology

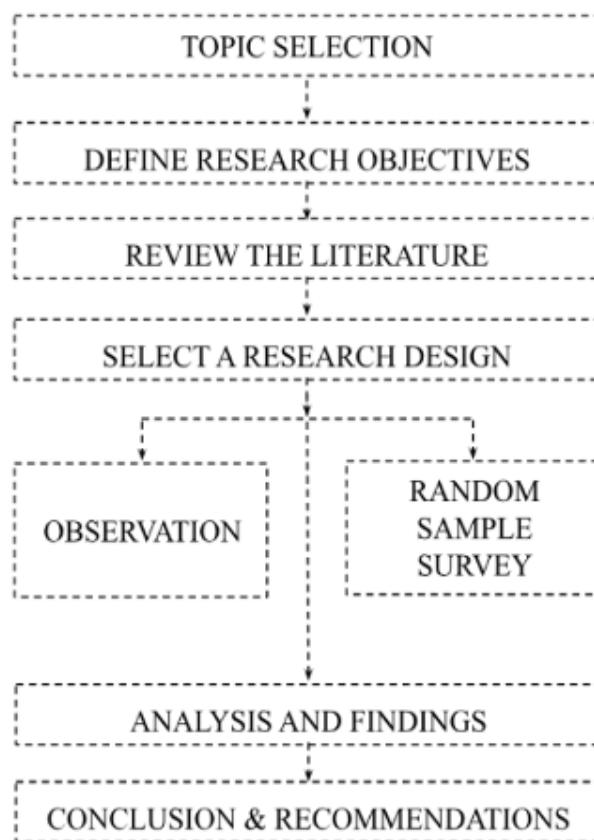


Figure 3. Ground Floor Plan

The first phase of this study started with the setting the objectives of the selected topic. Then the literature available through internets, journals and articles was collected and thoroughly studied. To further expand the research, specific study areas were identified where random sample survey and observation was carried out. Mandala Theater was chosen because of its acclaimed reputation in the Kathmandu valley. This theater was established in 2004 A.D and ever since then it has had a significant impact in the theater landscape of Nepali context. Pokhara theatre (est. 2073 B.S) was chosen to study about the theatre experience culture in Pokhara with such a smaller population compared to the capital city.

Observation: Firstly, the key elements to be observed, the information to be recorded, and any specific guidelines for conducting the observations were outlined. At the two theatre sites, floor plans and spatial aspects were drawn out from the observation.

Random Sample Survey: A well-structured questionnaire that aligns with the research objectives was generated using the google forms. This questionnaire included a mix of closed-ended and open-ended questions to gather quantitative and qualitative data. The survey questions were designed to be concise and clear, taking into account the time constraints and comprehension levels of the participants most of whom were actors, with a few being theater crew members. Figures and examples were also attached with the questions to make it more comprehensible. The questionnaire was completed within a time frame of 2 weeks. Once the forms were prepared, the forms were circulated throughout the participants in the theatre. After a week, all 13 responses —7 from Mandala Theatre and 6 from Pokhara theatre, were —collected, compiled and organized using spreadsheet tools to analyze data.

Comparative study of cases: After conducting observations and collecting relevant data through the survey, a comparative analysis was carried out between the two theaters situated in different contextual settings. The findings from Mandala Theatre and Pokhara Theatre were systematically compared using a set of defined parameters to assess their spatial organization, functionality, audience engagement, and overall performance environment.

4. Case Study

4.1 Case Study 1: Mandala Theater, Thapagaun, Baneshwor

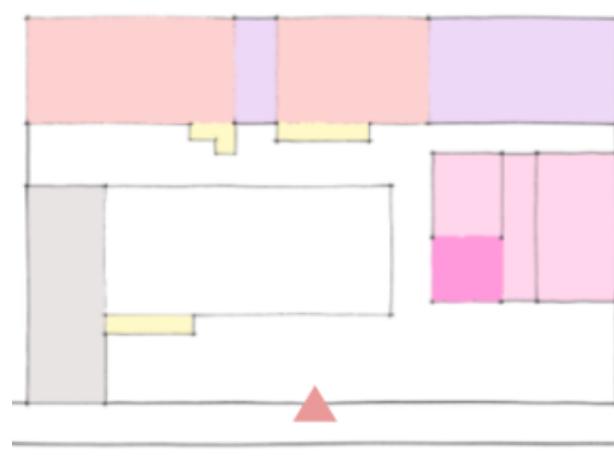
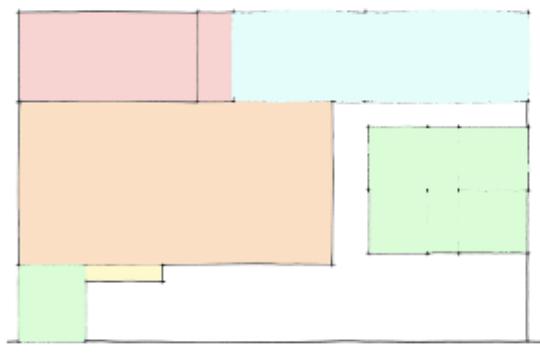


Figure 4. Ground Floor Plan

The site is situated in a commercial zone, covering a total area of 1,072.37 m² (equivalent to 2 ropani) with flat topography. It is oriented towards the east and is accessible via a 7-meter-wide road on the western side. The program includes a 170-seat auditorium hall and a black box theater with a seating capacity of 60. Additionally, a 135 m² cafeteria is provided on the upper floor (shown in figure 5) to cater to the needs of visitors and users of the facility.

Performance Spaces: There are two theatres: the main theatre is designed as an end-stage, while the smaller theatre functions as a black box space.



- Performance Halls
- Prop storage/Workshops
- Washrooms
- Artist's Residency
- Box Office
- Offices
- Rehearsal/ Practice rooms
- Cafeteria
- Circulation/Parking

Figure 5. First Floor Plan



Figure 6. Mandala Theatre

Audience Spaces: After the performances, the courtyard naturally became a vibrant area for discussions and interactions between performers and audiences, where they gathered, sang songs, and celebrated together.

Auxiliary Spaces: There are workshops and separate areas for storing props; however, some props are also kept in the foyer area below the cafeteria. Rehearsals and practice rooms are separate in the first-floor levels, which is quite convenient.



Figure 7. Mandala Theatre



Figure 8. Play: Andabheg at Mandala

4.2 Case Study 2: Pokhara theatre (Gandarva Theatre)

Pokhara Theatre is the only theater house in Gandaki Province, established through the labor and investment of local theater artists. As a theater located outside of the central capital and regularly hosting theatrical activities, it is considered a milestone in the decentralization of Nepali theater. The theater has actively participated in regular performances, training programs, interactions, national and international festivals, school-based acting classes, and various other cultural activities. (Pokhara Theatre, n.d.)

Performance spaces: The main hall features a 160-capacity (area 1944 sq ft) end-stage layout with a disabled friendly separate entry and exit point, which is used flexibly depending on performance needs. This hall is also made to work like a black box as the walls, floors and ceilings are all covered with black curtains and mats.

Audience Spaces: The audience areas are designed to encourage interaction and connection. After a show, the cafeteria and the open space near the entrance become lively spots for discussions and engagement. With the box office on the ground floor and the hall entrance in the same level adjacent to it, the movement of the audience feels smooth and well-organized.

Auxiliary spaces: The theatre is still in its construction phase but the spaces are already designated. The main hall is used for rehearsal and practice and there are no separate rooms. Backstage area seems quite compact as the stage is entirely covered through curtains and behind is the backstage. At



Figure 9. Auditorium Hall



Figure 10. Ground Floor Plan

present, some rooms are used as temporary green rooms but there are plans for properly designated spaces.

5. Result and Discussion

5.1 Comparative analysis on spatial organization

Performance Space: The performance spaces occupy the majority of each theatre. Mandala Theatre includes a black box and an end stage, providing flexibility for different performances. The Pokhara Theater has an end stage designed to function as a black box, recreating adaptability within structural limits.

Audience Spaces:

Cafeteria and box office: The cafeteria occupies about 20% of the public area in both theaters. At Mandala Theatre, it is on the upper floor and serves as a discussion and interactive space. Pokhara Theatre features a two-level cafeteria



- Performance Halls
- Prop storage/Workshops
- Washrooms
- Box Office
- Offices
- Rehearsal/ Practice rooms
- Cafeteria
- Circulation/Parking
- Control rooms
- Green rooms

Figure 11. First Floor Plan



Figure 12. Pokhara Theatre

with a proposed bookshop, offering potential for expanded community use. The box office in both theatres is on the ground floor near the entrance, ensuring smooth ticketing and audience circulation.

Auxiliary Spaces:

Rehearsal rooms: In Mandala Theatre rehearsal rooms are located on the upper floors, offering dedicated practice areas separate from the main performance space. In Pokhara Theatre, the main hall itself is used as the rehearsal area,



Figure 13. Main Hall



Figure 14. Play: Muna Madan at Pokhara Theatre

indicating a more integrated but less compartmentalized space.

Backstage areas: The backstage area at Mandala Theatre is narrow and not flexible yet functionally satisfactory. The backstage at Pokhara Theatre is also narrow, with part of the stage being used as backstage space by separating it with curtains, reflecting spatial constraints in both venues.

Storage: For storage, props at Mandala Theatre were stored in a narrow room under the seating, with some left in open areas. On the other hand, Pokhara Theatre currently stores props in a temporary space, but there are plans for future expansion to improve storage conditions.

Services

Parking and Washrooms: Both theatres prioritize circulation and parking. Mandala Theatre offers roadside and courtyard parking, while Pokhara Theatre provides a separate designated area for better organization. Mandala has 12 washrooms with separate male and female facilities, whereas Pokhara has 4 functional washrooms.

5.2 Comparative analysis on Users Preferences

The survey used five mixed-format questions to capture quantitative and qualitative data on user preferences for auditorium types, audience areas, and auxiliary spaces.

Performance Space

Figure 17 highlights the preferred auditorium layouts among performers. At mandala theatre, the most popular choice was the thrust stage, followed closely by the black box. In contrast, Pokhara theatre participants showed a stronger preference for

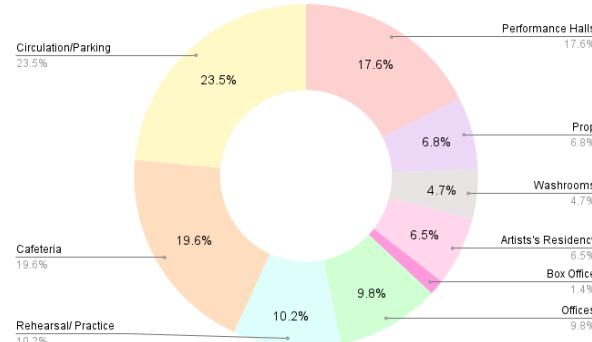


Figure 15. Functional Space Allocation in Mandala Theatre

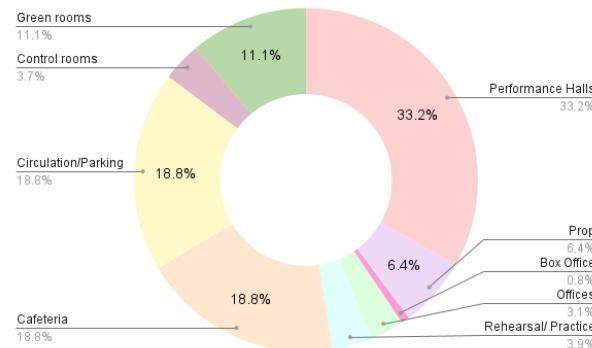


Figure 16. Functional Space Allocation in Pokhara Theatre

the black box, with a notable share also favoring open to air settings. Proscenium and in the round layouts were the least preferred in both theatres. This finding aligns with existing literature, as noted by Guyer (2010), which highlights that flexible and immersive stage formats such as the thrust stage and black box, are generally favored over more traditional or less adaptable layouts, as they foster greater intimacy and proximity between actors and audience.

Stage Elements

Figure 18, highlights how different stage design elements are valued in the two theatres. At Mandala Theatre, Trap Doors and Lighting Grids were the most preferred features, while Catwalks and Technical Booths were less favored. In contrast, participants from Pokhara Theatre placed greater emphasis on Lighting Grids and Technical Booths, with less preference for Trap Doors or Catwalks. This suggests that while Mandala actors value experimental stage mechanics, Pokhara actors focus more on lighting and technical support to strengthen performance.

Auxiliary Spaces

1. Preparation Areas

Figure 19, shows participants' satisfaction levels with the preparation and backstage areas of Mandala Theatre and Pokhara Theatre. At Mandala Theatre, about 58% of participants were unsatisfied, mainly due to spatial and acoustic issues. Some also noted the "absence of a two-way entrance to the stage" as inconvenient, as it limited smooth entry

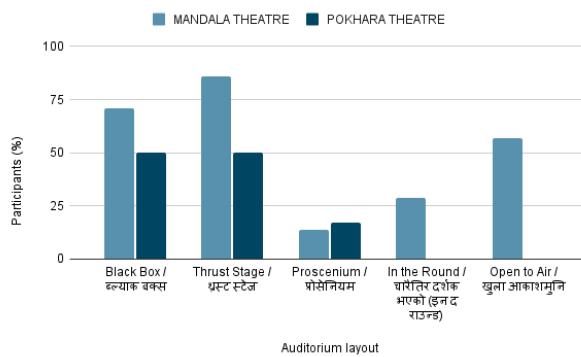


Figure 17. Bar Graph Showing the Preferred Type of Auditorium Layout

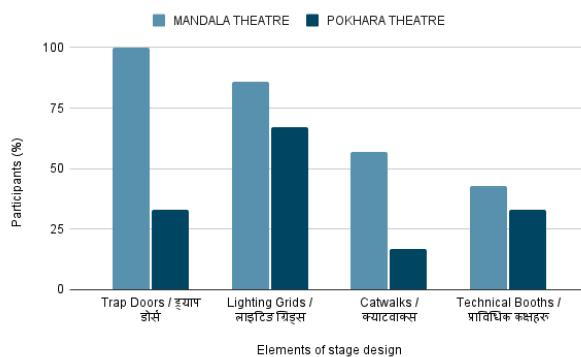


Figure 18. Bar Graph Showing Preferred Stage Design Elements that Enhance Performance Effectiveness

and exit during performances. Some pointed out that there “no proper separate space for male and female performers”. The remaining 42% of participants were satisfied, though their responses suggested a moderate level of satisfaction rather than full approval. At Pokhara Theatre, about 35% of participants expressed dissatisfaction commenting that “even a small noise backstage can be easily heard by the audience,” indicating poor sound insulation. While a clear 65% reported satisfaction with the backstage and preparation areas saying that “the spaces help them stay focused and calm” Overall, users are quite satisfied with the spaces at Pokhara Theatre, considering it caters to a smaller audience and hosts small-scale plays. However, at Mandala Theatre, the backstage areas require significant improvement in space planning, sound control, and accessibility, especially since it accommodates larger-scale shows and a greater number of audiences than Pokhara.

2. Rehearsal Areas

In terms of rehearsal areas, participant responses varied significantly between Mandala Theatre and Pokhara Theatre (Figure 4-16). At Mandala Theatre, a majority of respondents (around 58%) reported dissatisfaction with the rehearsal spaces. One participant mentioned that the backstage was “congested,” reflecting a lack of adequate space. while only about 42% expressed satisfaction. Participants from Pokhara Theatre showed an opposite trend: approximately 65% indicated satisfaction with the rehearsal areas, compared to about 35% who

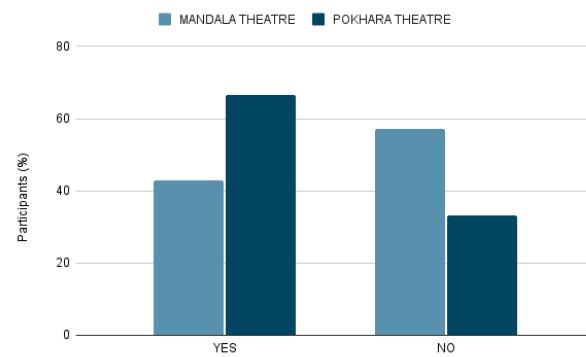


Figure 19. Bar Graph Showing no. of Participants who are Satisfied and not Satisfied with the Preparation Areas

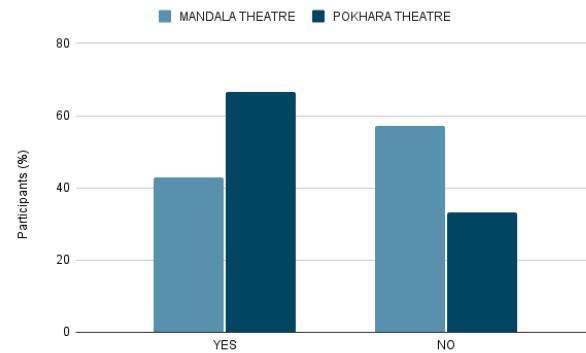


Figure 20. Bar Graph Showing no. of Participants who are Satisfied and not Satisfied with the Rehearsal Areas

were not satisfied. This contrast shows that actors view the rehearsal spaces at Pokhara Theatre more positively, while Mandala Theatre continues to face challenges in providing areas that meet their needs.

3. Audience spaces

Participants highlighted several issues regarding theatre spaces, with circulation problems and limited size being recurring concerns. One participant from mandala theatre noted that “the theatre space feels a bit small,” pointing out how the compact environment restricts movement. Others mentioned that it was “difficult for self-exploration, lighting, and difficult to navigate to the place of the next entrance,” showing how both technical aspects and user experience are affected in mandala theatre. These issues likely arise from the limited overall floor area and insufficient planning for audience movement and accessibility. Location also emerged as a significant issue in Pokhara, with one participant stating, “the space where our theatre is located is the wrong place,” reflecting dissatisfaction not just with the interior, but also with the broader setting of the theatre. Alongside these critiques, audiences also offered constructive suggestions. They recommended that theatre spaces should be “more open and better ventilated, so they feel more comfortable.” Another suggestion emphasized the importance of “more organized and spacious backstage and rehearsal areas” to reduce stress and ensure smoother operations. Additionally, participants noted

that both the theatres are disabled-friendly, highlighting the value of inclusive design.

6. Conclusion

This study highlights how important thoughtful spatial design is in shaping meaningful theatre experiences in both Kathmandu and Pokhara. At Mandala Theatre, the central location makes it more accessible and culturally active, attracting a diverse audience and frequent performances. However, being a larger-scale production house, the existing facilities are not able to fully satisfy users. Pokhara Theatre benefits from a more open and spacious environment, allowing for outdoor gatherings and community activities such as exhibitions and theatre festivals. Yet, one participant remarked that “the space where our theatre is located is in the wrong place,” suggesting that while the physical site offers openness, it may feel disconnected from the city’s main commercial core. Though these two theatres differ in size and setting, they also share common challenges—congested backstage and rehearsal areas, poor sound insulation, and inadequate storage facilities. Circulation and accessibility within the buildings are often constrained, affecting both performers and audiences.

In terms of performance spaces, actors in both theatres show a clear preference for flexible stage types such as black box and thrust stages because they allow more creativity and a closer connection with the audience. Audiences at Mandala Theatre enjoy its lively and interactive atmosphere; however, they note that the compact multifunctional courtyard—serving simultaneously as a parking area, gathering space, and queue zone for the box office—restricts movement and reduces overall comfort. In contrast, at Pokhara Theatre, audience appreciate the smoother circulation, open forecourt, a separate designated parking area, and spaces for post-performance interaction, all of which contribute to a more relaxed and inclusive atmosphere. Based on user feedback, theatres should have flexible stages, organized backstage and rehearsal areas, and comfortable, accessible audience spaces. Properly planned auxiliary facilities and site layout support smooth operations and a positive experience for performers and audiences.

7. Recommendations

Participants highlighted several ways to improve the theatre experience for both performers and audiences. They emphasized the need for more open, well-ventilated, comfortable and welcoming spaces. Backstage and rehearsal areas should be spacious and well-organized to reduce stress and ensure smooth operations. Many suggested that theatre should evolve beyond school-related plays, aiming for a higher, more advanced level of drama. There was also a call for state support—placing theatres in convenient locations with easy transportation access so everyone can attend without hassle. Concerns were raised about artists’ wellbeing, emphasizing the need for fair opportunities and financial support to help them thrive professionally.

Performances spaces: For audiences, seating should allow

clear sightlines, with row spacing of around 900-1000 mm. Seats themselves are best kept within a width of 450 to 500 mm, balancing compactness with comfort. Circulation should feel generous, with main aisles at least 1200 mm wide for smooth movement and emergency access. Guyer (2014) discussed three seating capacities as per the type of production of the theatre. A house with about 300 seats is seen as a small legitimate drama theatre, often serving a local community audience. The stage for such a theatre is recommended to be around 12-14 meters wide and 9-12 meters deep. Additionally, the stage layout should allow for at least two ways on and off stage, reducing congestion during performances.

Auxiliary spaces: A rehearsal room that mirrors the size of the stage allows performers to practice without compromise, while backstage areas such as dressing rooms, green rooms, and storage should be generous enough to accommodate the full company comfortably. To control backstage noise, as noted by the participants, solid-core doors and sound lock vestibules can be added to the backstage areas. Even modest provisions—a green room for gathering, a couple of dressing rooms sized for small groups, and secure prop storage close to the stage—can greatly improve workflow and morale. Acoustics and comfort complete the picture. The performance hall should aim for clear, natural speech, with minimal echo and controlled background noise. While lobbies and rehearsal areas benefit from natural light and ventilation, the auditorium itself must remain carefully managed to protect sound quality and audience comfort. Natural ventilation openings should be controllable and closable during performances so that the performance acoustics/ comfort is not compromised. Accessibility must be a priority, ensuring that differently-abled users can navigate easily, with clear circulation paths to avoid crowding. Implementing these parameters ensures functional, comfortable, and flexible environments for small professional theatre operations.

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Conflict of Interest

The authors declare no conflict of interest.

References

- [1] Sampayo, F. (2024). *The art of theater design: Stages, spaces, and audience immersion*. Schaller Design Lab. Retrieved July 18, 2025, from <https://schallertech.com/en/design-of-stages-and-spaces-in-a-theater/>
- [2] Cartwright, M. (2016, April 22). *Greek theatre architecture*. *World History Encyclopedia*. Retrieved July 18, 2025, from <https://www.worldhistory.org/article/895/greek%20theatre%20architecture/>
- [3] Poudel, D. (2021, August 3). *Celebration, censorship, and indifference: Nepali theater in the shadow of the state*. Retrieved July 18, 2025, from <https://www.recordnepal.com/celebration-censorship-and-indifference-nepali-theater>
- [4] Gutschow, N. (2011). *Architecture of the Newars: A history of building typologies and details in Nepal* (Vol. II) (B. Basukala, Illus.). Serindia Publications.
- [5] Theatres Trust. (n.d.). *What spaces make up a theatre?* Retrieved from <https://www.theatrestrust.org.uk/discover-theatres/theatre-faqs/171-what-spaces-make-up-a-theatre>
- [6] Guyer, J. P. (2014). *An introduction to architectural design: Theaters & concert halls, Part 1*. *Architectural Education Review*, 13–18.
- [7] Mackintosh, I. (1993). *Architecture, actor and audience (Theatre Concepts)*. London, UK: Routledge.
- [8] Lemasson, A., André, V., Boudard, M., Lippi, D., Cousillas, H., & Hausberger, M. (2019). *Influence of theatre hall layout on actors' and spectators' emotions*. Springer-Verlag GmbH Germany, part of Springer Nature.
- [9] Pokharel, A. (2010, July). *Nepalese theater*. ECS Nepal. Retrieved from <http://ecs.com.np/features/nepalese-theater>
- [10] Klar, L. S. (2006, October). *Theater and amphitheater in the Roman world*.
- [11] Beasdown, A. (2015, September 26). *Audience configurations and theatre types*. Retrieved from <https://beasdown97.wordpress.com/2015/09/26/audience-configurations-and-theatre-type>
- [12] Pokhara Theatre. (n.d.). *About us*. Retrieved from <https://pokharatheatre.com.np/about-us/>
- [13] Mandala Theatre Nepal. (n.d.). *Mandala Theatre*. Retrieved from <https://mandalatheatre.com/>
- [14] Bowler, L. M. (2015). *Theatre architecture as embodied space: A phenomenology of theatre buildings in performance* (Doctoral dissertation, University of Munich). Munich, Germany: University of Munich Repository, p. 82.
- [15] Pedanekar, A. N., & Patki, P. N. (n.d.). *Impact of theatre architecture on performing artists*. B.K.P.S. College of Architecture, Pune. Savitribai Phule Pune University.