

MEASURING CONVIVIALITY IN ARCHITECTURAL SPACES – A CASE STUDY OF CULTURAL INSTITUTIONS



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ABSTRACT

This research aims to study the factors that have a considerable impact on the conviviality of architectural spaces by studying three cultural institutions. The theoretical aspects are understood through the literature study to identify the key parameters influencing conviviality. Further, the identified parameters are tested for the degree of influence on the phenomenon of conviviality through spatial analysis of the selected cases of three public institutions: Triveni Kala Kendra, New Delhi, the Museum of Socialism, Lucknow and the Lilavati Lalbhai Library, Ahmedabad. The selection of cases is on the basis of accessibility to a wide range of users largely by virtue of being public spaces, yet maintain the spatial diversity by selecting spaces of varied functional use.

The study has been successful in generating the key principles of convivial spaces that shall prove to be useful for design professionals. The study concludes that comfort, accessibility and connectivity, control or ownership over space, engagement with the space, aesthetics and design contribute to the conviviality of a cultural institution but the degree to which they impact a space can vary to a great extent. The study was conducted during the pandemic with limited physical access to the public buildings. Hence the study is purely interpretive and includes the end users' perspectives based mainly on the memories of past visits.

Keywords: conviviality, cultural institutions, spatial engagement, comfort, sociability

1. INTRODUCTION

The functionality and dynamics of a place are largely influenced and driven by the quality of the space. In essence, public spaces form the backbone of any society, and it is essential for them to be designed in a manner for them to be sociable, accessible, diverse and invite participation. A term which fits best in this context is 'convivial'. The spaces which make a person feel at ease are termed convivial spaces. The spatial features and characteristics contribute to the conviviality of the spaces.

In a society, culture plays a very important role in its progression. The cultural institutions, being the prime locations for the dissemination of this education, are an integral part of the society and become vital teaching public spaces for designers to analyze and learn spatial aspects and gain sensitivity. The way an individual behaves or interacts in a space is majorly governed by the language of the built, unbuilt and all its spatial features.

2. CONVIVIALITY IN ARCHITECTURE

The term convivial has been derived from the Latin word "convivere" which means living together. This term has long been related to sociable, amiable and celebratory traits. Conviviality is a quality which energizes human interaction and vivacity. The term evokes a connection that requires the presence of others between a mood and an atmosphere. It needs an attitude that can be gracious, cheerful or graceful. People prefer conviviality because it gives them and others a taste of happiness which they may not have been able to conjure on their own (Thombre and Kapshe, 2020).

Conviviality conceptually transcends the English sense of having a good time in the company of others (Heil, 2015). It can be talked about as an event, atmosphere, cultural aspect, spatial characteristics and quality of life. It generally occurs widely when addressing or planning for multi-cultural societies. With reference to the studies on multicultural societies by Amin (2008), he states "Conviviality as an everyday virtue of living with a difference based on the direct experience of multicultural. It is a word that has begun to circulate in thinking on social inclusion and cultural recognition of differences in public open spaces".

The concept of conviviality develops chiefly under the sense of place discussion. Individuals normally participate in social activities according to their sense

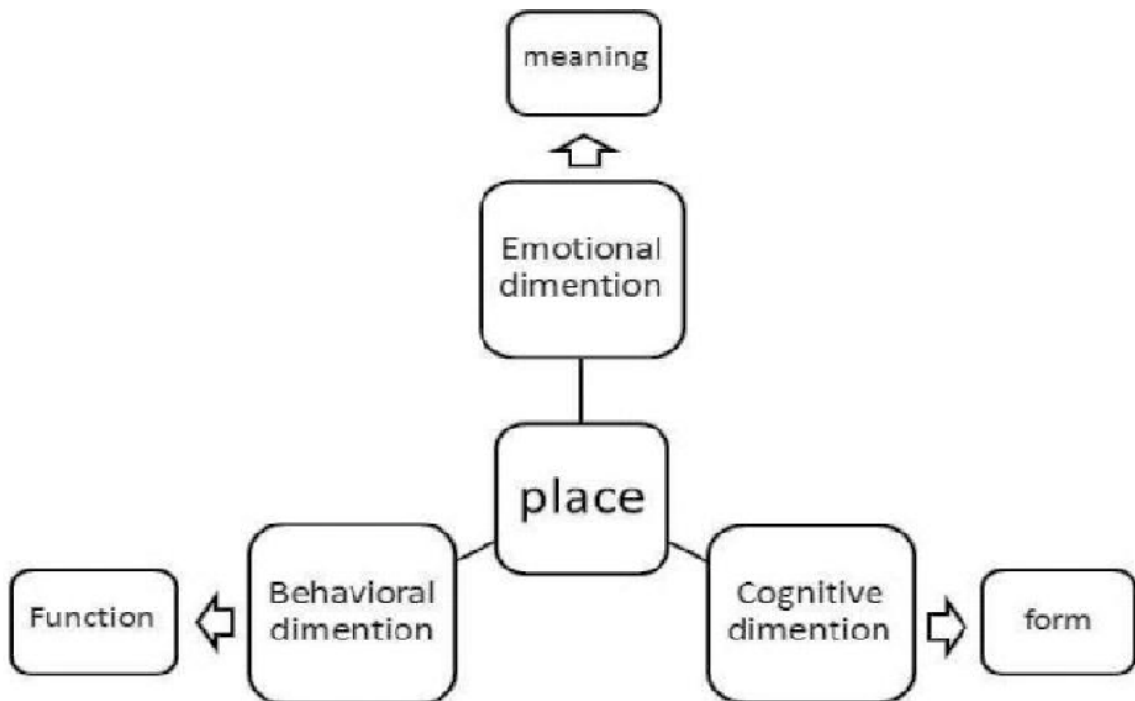


Figure 1: Dimensions of creating places (Source: Jogerson and Stedman, 2001)

of place. Physical parameters often allow the growth of the sense of a place to respond to the existing functions in a given place by making out some meaning from it. Convivial public spaces are spaces which are amicable and comfortable to use. They provide the ambience needed for successful public spaces because people don't feel threatened or uncomfortable in them, as stated by Jaganath (2017), "The ability to make people feel relaxed and comfortable in a space can influence positive thinking and good health of the person."

Shaftoe (2008) indicates that welcoming environments have their own personalities, creating a healthy and friendly urban atmosphere for people to use. That is what is intended for public spaces that are well-used. But there are also public spaces that are not assessed and are viewed as socially threatening or harmful. The convivial approach to spaces revolves around cultural, social and positive development rather than economic factors. It tends to centre on the daily life of people where spare time, free space, convivial technology and convivial organizations act as a social and cultural capital which comes from cultural networks rather than existential assets such as income (Thombre and Kapshe, 2020).

Jorgensen and Stedman (2001) have found that an individual's inclination about a place is an indication of emotional measurement. Their convictions about a place shape the cognitive dimension (Figure 1). This ideology can be used in shaping a framework for a feeling of conviviality at a particular place. The feeling of solace and sentiment of euphoria are fundamental fixings with legitimate administration to make convivial public spaces.

3. IDENTIFICATION OF PARAMETERS

After studying various literature and authors on convivial spaces and public spaces, the features which are required for to cultural institutions and which will be considered for the purpose of this study are as shown in Table 1 (Burte, H., 2008):

- Comfort
- Accessibility and connectivity
- Control or ownership over space
- Engagement with the space
- Aesthetics and design

4. SELECTION OF CASE STUDIES

Cultural institutions encompass a variety of spaces. For this research, a varied typology of sites ranging from an arts complex to a library was selected to ensure a mix of use and avoid biases. Also, they are in the same climatic zone which will enable the study to understand how the designers have responded climatically. The case studies selected are as follows:

1. *Triveni Kala Sangam, New Delhi*: This is a prominent and famous cultural and arts complex and education centre.
2. *Museum of Socialism, Lucknow*: This houses a collection of exhibits about the social reformer, Jaya Prakash Narayan. It is also called the Jaya Prakash Narayan (JPN) Interpretation Centre.
3. *Lilavati Lalbhai Library, Ahmedabad*: Embedded in the heart of the CEPT University campus and designed by B.V. Doshi, the CEPT Library is conceived as a place

for the students and faculty of the various academic departments to catalyze relationships.

The study was conducted during the pandemic with limited physical access to the public buildings. Hence the study is purely interpretive and includes the end users' perspectives based mainly on the memories of past visits.

4.1 Triveni Kala Sangam, New Delhi

Triveni Kala Sangam is an eminent art, cultural and educational centre in New Delhi. Due to its conducive climatic response, the building becomes a good hangout space for people, especially scholars and students, to spend the afternoons or evenings together. The landscaping is such that despite the built form, a user is not constantly amidst buildings, but offers a place to enjoy nature as well. The indoor-outdoor spaces in turn provide the opportunity to connect passively with nature and engage with it. The absence of any form of ticketing allows everyone to walk into the space freely. However, the lack of parking creates a problem for private vehicle owners. Flexibility in the performance spaces of various types of art, when many activities have to be arranged in a small plot, and balance between the interior and the exterior can be seen easily (Figure 2). The privacy of the building gradually increases as one goes vertically from the public spaces on the ground floor followed by working studios on the first and second floors. A perfect balance of separation and cohesion can be seen. A high degree of versatility has been achieved by accommodating a large number of functions on the site adding to the experiential quality of a public building (Facebook, 2019).

Each floor provides the outer wall with a planter, providing a nice climate. By having window openings on the entire north side of the wall, the light and ventilation are taken care of without letting the direct heat of the sun in. Along with the planters, the use of jaalis as a façade element not only creates a traditional relatable façade element but also helps in letting in the fresh air and cutting the harshness of the Delhi afternoon sun. Mr. Stein said of this building, 'I have searched for ways and a vocabulary that would articulate a rational, efficient reconciliation of advanced modern engineering techniques and architectural attitudes of the twentieth century, with India's ancient, but enduringly essential,



Figure 2: Adaptation of space in times of an exhibition
(Source: Triveni Kala Sangam, Facebook page)



Figure 3: A campus of individual buildings and spaces perceived as a whole (Source: Adapted by Authors from White, S. (1989))



Figure 4: Entrance to the museum of Socialism, the solid structure emerges out of soft landscape (Source: André J Fanthome, from www.cladglobal.com/CLADnews)

aesthetic and cultural values.' Almost as a campus of individual blocks, each clearly labelled, the current building is perceived as a whole with more than 50 per cent of the covered area accessible to the public (Figure 3). Architectural features are carried out with a plaster façade around the perimeter of the site as well as planting in pedestrian traffic and vehicular movement of the wall. The connectivity between the spaces adds to the coherence of the space. However, the absence of a lift is felt in the four-storeyed structure.

4.2 Museum of Socialism, Lucknow

The contemporary design of the Museum's architecture takes responsibility for constructing what will be the past of tomorrow while narrating the present one. The entrance is a volume of three heights that instantly

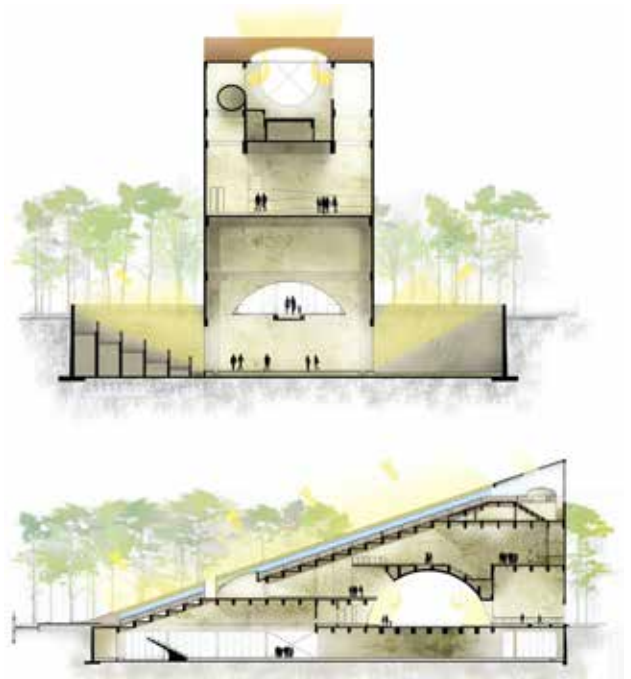


Figure 5: Access of Natural light and ventilation through the structural volume (Source: Archohm)

initiates a conception of the institution's size and the person's stature (Figure 4). The façade's triangular shape, easily visible even from a distance, derives from the wedge cut out of the JPN International Centre, as well as from its stronger diagrammatic definition of the triad of socialist aims- liberty, independence and fraternity. The entrance leads to a cellar, a play of deception in which the house seems to float, the thickness on both sides being equal to two floors of water bodies (Archohm, 2016).

The presence of natural light facilitates the atmosphere required for the place. Despite being in a building with no windows, the way the natural light creeps in engages the users. On the exterior, the facades have been built as blank walls with an introverted character. However once inside, light is sent on a wild goose chase so that it is controlled as it returns, and its tonality is most suitable for the visual spread and to illuminate the minds that consume it. (Figure 5)

The sound suits the place's atmosphere. The low-level lighting of the galleries contrasts with the bright and naturally illuminated atrium. The airflow inside the building does not let any user feel as if they are in a suffocating building. Landscaped open spaces provide respite from the museum's otherwise intensely immersive environment, providing spaces for reflection and realization in a leisurely fashion.

Spaces are stretched in equilibrium in the horizontal and vertical planes, so that the path, though in bits and in sync with the specified areas of experience, seems like a continuous one. Volumes are placed within volumes to bring levels of difficulty and surprises to the space-making experience (Figure 6). Internally, volumes are made to interlock seamlessly as the concept of a community in the enterprise is not only a reverberating word but also as the program has also been built in this way. The

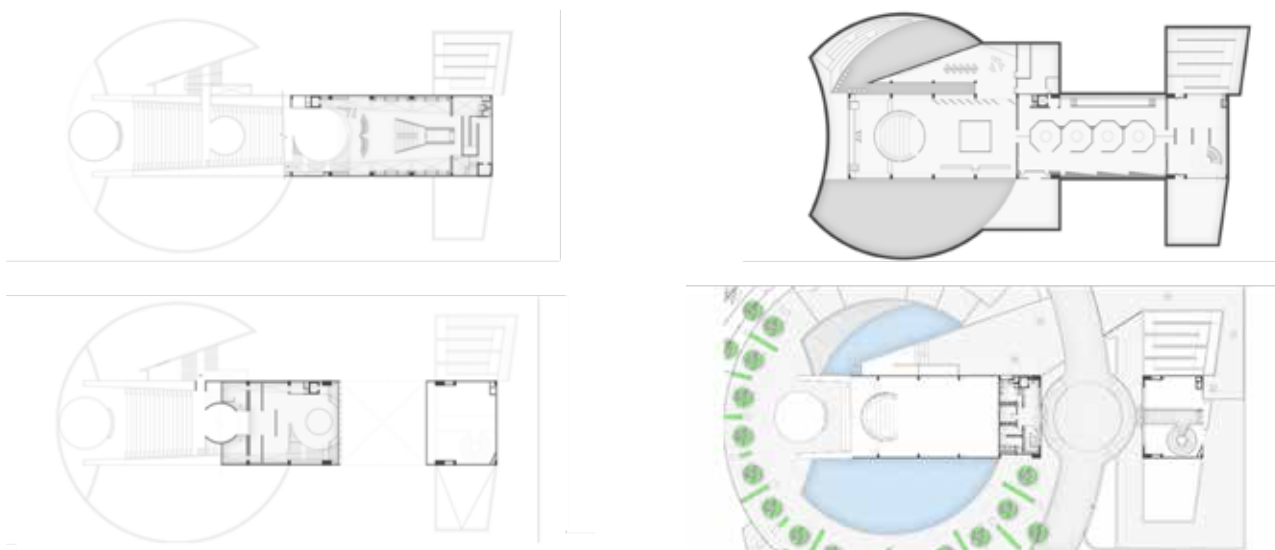


Figure 6: Volumes are placed within volumes to bring levels of difficulty and surprises to the space-making experience. (Source: Archohm)



Figure 7: Lilavati Lalbhai Library – The spatial layers (Source: Rajesh Vora, *Architectural Records*, Feb. 2018)

architecture is in dialogue with the integrated planning of museums and exhibits, construction experience and landscape. The landscape is a key component of the house, with a seamless sinuous drive into the venue, an 'introductory walk' into the entry foyer, usually used as inserts, rests and even termination nodes to balance the built environment of the JPN Interpretation Centre before being physically and metaphorically swept off its feet in the Convention Centre's skies. An urban forest itself is an indication of the homage paid to nature that the corporation is parked in a green location that is visibly huge.

4.3 Lilavati Lalbhai Library, Ahmedabad

As a library complex within a college campus, this building serves the purpose it is designed for, with

adequate seating and reading spaces. Situated in the hot and dry climate of Ahmedabad, this building along with the operable louvres, light wells and sunken built mass tackles the weather and succeeds in achieving an ambient atmosphere comfortable for the users within. With a large open plaza in front, this building provides a great view and is in alignment with the previous structures (Figure 7) (Gonchar, J., 2018).

The entrances to the building serve as not only a connection between the square and the inner volume but also as a place of arrival and pause, wider at the outer edge and (maybe asymmetrical) narrowing down within. The building is thus much like a kaavad- a moving temple, in which layers of doors are opened, each unveiling a continuous narrative, a different episode. The narrative

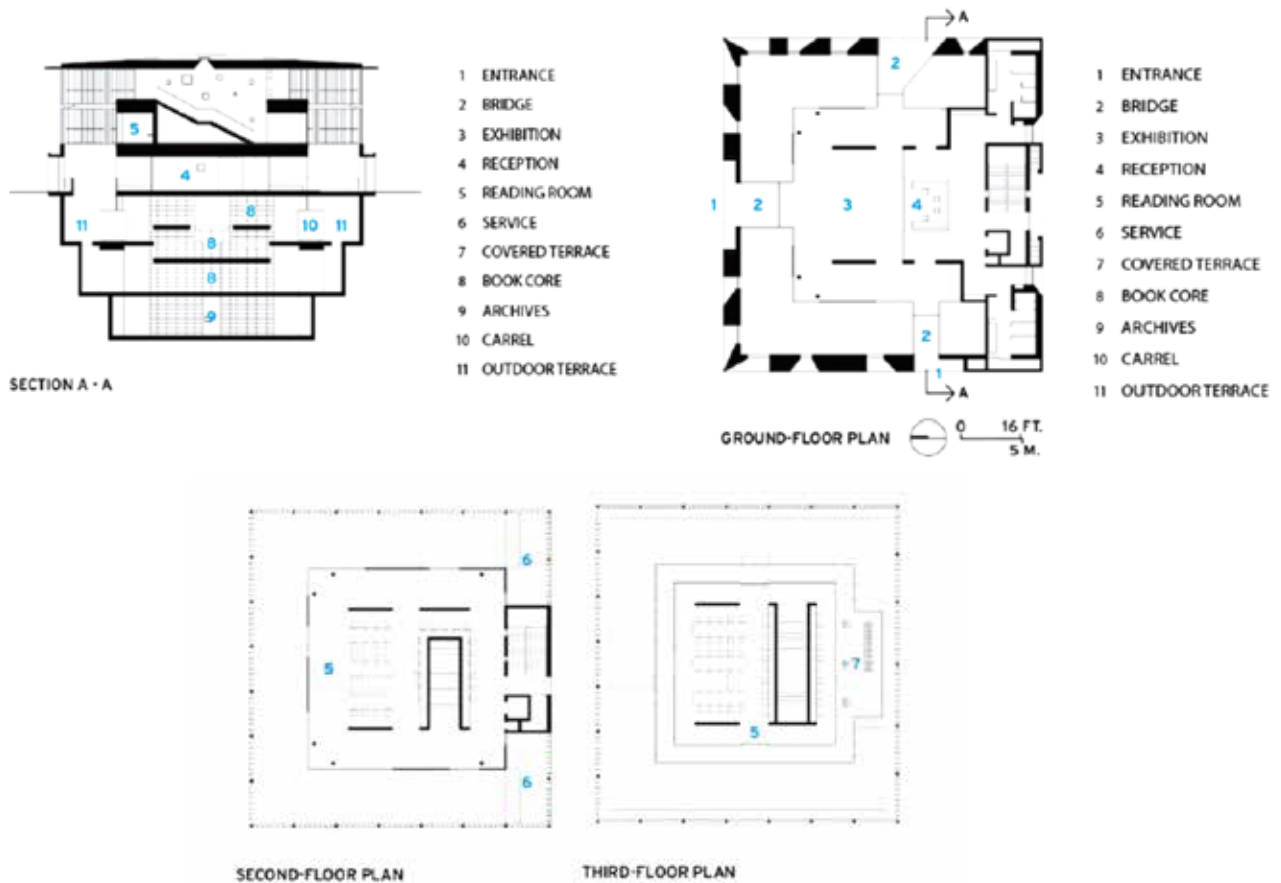


Figure 8: The building is sunken to provide natural cooling by the surrounding earth. (Source: www.architecturalrecord.com)

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of the building engages a user and creates a successful connection within the minds of the users. Capturing and being able to articulate the correct scale of the scheme, spaces and form is another important predictor for an architectural work of its 'knowledge of location'. Located at 4 meters and 8 meters below ground level, the central book centre, surrounded by research carrels, with archives at the base and study rooms, benefits from ample and filtered natural illumination that flows through the louvred façade as well as the natural cooling effect provided by the surrounding soil, a technique that offers a geothermal advantage in the warm environment (Figure 8). According to the architect, 'Entering a library is to reflect, to connect with oneself and with books'. A below-grade surface that has worked its way up into the light appears to be the huge unrendered concrete ground floor. The base is given an interesting sculptural look by an asymmetrical series of gaping diagonal recesses. In airy, transparent contrast to their base, the two 4 m upper storeys stand on this plinth.

5. RESULT

The identified parameters were explored in detail to draw conclusions about corresponding physical attributes. The understanding of the architectural and physical attributes of the three case studies, lead to drawing the following inferences in terms of the parameters identified earlier (as shown in Table 2).

6. CONCLUSION

- Degree of contribution: All the parameters studied are

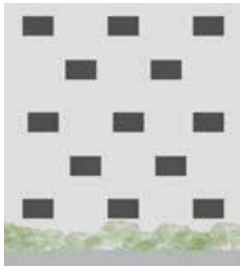
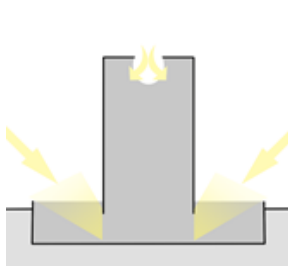
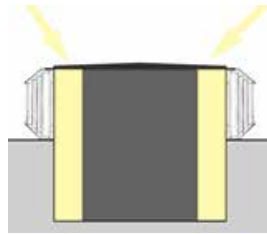
essential for a space to be convivial in nature. However, the degree of contribution of each parameter to the experiential quality and conviviality of the whole space varies greatly.



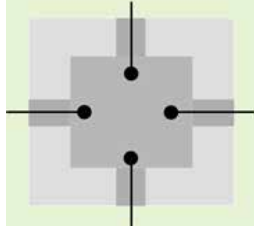
- Comfort in a space plays a significant role: It helps subconsciously in putting a user at ease. It is comfort which explains why a natural lit space and ventilated area is more habitable than an artificially lit area. Similarly, passive cooling is much more comforting as compared to the actively cooled spaces.
- Visual and physical connections: The visual connect one can establish and the physical connection one can traverse enables a user to experience and relate to the journey of the space and connect with it.
- Restrictions and controls: The restrictions or controls a space offers surely do alter the ease of movement occurring in a space. Yet, it was observed that users tend to adapt to it and do not refrain from habiting the space.
- Engagement with spaces: The activities a space offers are the prime purpose why a user is visiting a space. Thus, the engagement the space offers in the form of activities and the passive engagement by the layout of spaces, landscape and transition contribute greatly to the conviviality.
- Design of space: The design of a space needs to be aesthetic, legible and arouse curiosity. All three case studies are beautifully designed, they have unique design forms, yet the scale and spatial planning enable their spaces to be understood by the user and not be dominated by them.

Table 1: Identification of parameters, attributes, and analysis tools for measuring conviviality in architectural space
(Source: Compiled by Author)

PARAMETER	PHYSICAL ATTRIBUTES	ANALYSIS TOOL
Comfort	<ul style="list-style-type: none"> • Climatic comfort • Natural light • Natural ventilation • Outdoor spaces • Common zones 	<ul style="list-style-type: none"> • Architectural drawings • Photographs
Connectivity and Accessibility	<ul style="list-style-type: none"> • Visual connectivity • Physical connectivity • Pedestrian movement • Parking areas • Connectivity within spaces 	<ul style="list-style-type: none"> • Architectural drawings • Photographs
Control or ownership over space	<ul style="list-style-type: none"> • Manual • Technology • Design elements • Signage 	<ul style="list-style-type: none"> • Photographs
Engagement with space	<p>Active</p> <ul style="list-style-type: none"> • Activities in the space • Adaptability of space <p>Passive</p>	<ul style="list-style-type: none"> • Photographs • Literature
Design and Aesthetics	<ul style="list-style-type: none"> • Scale • Legibility • Façade • Entrance • Layout of spaces • Material • Colours • Concept and design intent • Form • Landscape features 	<ul style="list-style-type: none"> • Architectural drawings • Photographs • Literature

Table 2: Analysis of identified parameters for the three selected case studies
(Source: Images and data compilation by Author)

PARAMETER	TRIVENI KALA SANGAM	MUSEUM OF SOCIALISM	LILAVATI LALBHAI LIBRARY
Comfort	 <p>Use of Jaalis, presence of vertical gardens, shaded spaces provide climatic comfort, natural light and ventilation to the space.</p>	 <p>The sunken court, light wells and the sloping form provide the optimum amount of light needed in the space.</p>	 <p>The operable louvers, sunken building and shades provide outside enable relief from the scorching heat and provide natural light and ventilation.</p>
Engagement with space	<p>The space offers several activity spaces like exhibition galleries, art galleries, OAT and these spaces easily adapt to the crowd and function beautifully in the absence of them as well.</p>	<p>The space has photo galleries, an amphitheatre, kid's area, and cafeterias. The visitors are also provided with audio tour. The numerous activities along with the landscape engage a user well in indoors. Outdoor spaces are currently less interactive.</p>	<p>This library has spaces for isolated study, group study, discussions, exhibition spaces and reading areas. The shaded sill on the outside provides for seating of students.</p>

PARAMETER	TRIVENI KALA SANGAM	MUSEUM OF SOCIALISM	LILAVATI LALBHAI LIBRARY
Control or ownership over space	There is no restriction on people entering. Cars are not allowed. The entry gate is small and there is no ticket needed.	It is accessible by all from 10:30 am to 5:00 pm.	It is open to all entering the CEPT campus, which is restricted by guards. The facilities are open to the members only.
Connectivity and Accessibility	 <p>The small spaces are well connected with each other. The whole campus is pedestrian friendly, but the use of cars is not allowed inside. Parking is also not provided. In the four-storey building, vertical circulation is via the staircase only.</p>	 <p>A large archway acting as entrance and a flight of steps leading to the top create a visual connectivity to the space. The space is completely pedestrian-friendly with steps inside the building as well.</p>	 <p>With entrances on all sides, this is a library of easy access. The transition of spaces within is through steps and lift. Bridges lead to the inside of the spaces through the entrance which also act as a space for pause and relaxation.</p>
Design and Aesthetics	The space, designed by J.A. Stein, is extremely versatile in terms of the activities it offers and the kind of spaces it has. The indoor and outdoor spaces complement each other, and the campus provides a breather in the Delhi context.	Designed by Archohm, this serves as a gateway to the forthcoming interpretation centre. The building is a landmark hence have bold appearance. The wedge-shaped building may be intriguing but the scale and the site planning enable a user to connect and relate to the space.	This library is designed with a vision to blend with the campus and use traditional materials in a modern way. The shape of the building and the form, building within a building, provide seclusion and calmness needed for a library space while using local materials like wood and concrete to complement the existing campus.

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