

ACTIVATING CITY THROUGH KINETIC SPACES: A CASE OF ALUVA MANAPPURAM

Joshua T Abraham*, Jinoj M**

College of Engineering Trivandrum, Thiruvananthapuram, India

Abstract

Incredible urban communities over the world have truly been characterized by the nature of their open spaces more than the design magnificence of individual buildings. The activities taking place in such spaces influence the character of the city. One such activity which highlights that the place is not static is Festival events. It is a city in constant motion, where the very physical fabric is characterized by the kinetic. Such non-static cities encourage urban transformations over economy, politics and culture over the static city. Aluva, a town in Kerala, India, derives its unique identity from once-in-a-year activity of 'Shivarathri' festival which specifically happens at the 'Manappuram' (sandbanks) of Periyar River. However, this space is left underutilized for the rest of the year leading to several undesirable activities resulting in safety concerns, crimes, waste dumping etc. This paper evaluates how the festival affects the town and neighborhood and how the non-static nature of space, during the rest of the year, can be harnessed for its benefit, thus making it into an asset for the town. Participant observation during the festival and over the course of the year is carried out to analyze the spatial quality. Accessibility, safety, nature of enclosure in relation to kinetic spaces are analyzed in this paper. The study concludes on how the kinetic spaces can be designed and managed as an asset for the cities.

Keywords: Open spaces, Kinetic spaces, Aluva, Manappuram, Safety, accessible

1.0 Introduction

Incredible urban communities over the world have truly been characterized by the nature of their open spaces more than the design magnificence of individual buildings. We have now dealt with the Manhattan horizon without the Twin Towers, yet would we be able to envision New York without the busy Times Square? Or Delhi without individuals enjoying the lawns of the India Gate? Or the river edges of Varanasi without its grand Ghats? A city can't be experienced without grasping the public nature of it.

Cities of Europe, influenced by the classical Greek and Roman urban design, regularly have charming plazas at the center, encompassed by great public buildings. While large plazas with

* Corresponding Author: Joshua T Abraham ; E-mail- joshuathannickal@gmail.com

** Corresponding Author : Jinoj M; E-mail- jinojm@gmail.com

concrete grounds are not appropriate for the Indian climate, where the public space of the city is identified as neighborhood 'Kavalas' (local nodes of Kerala), bazaars and streets, functioning ever so for a known period of time. This is where individuals gather to purchase their daily necessities, yet in addition to get the 'gossip of the day'.

Resembling to the glorious Ghats of Varanasi, the prime public spaces of the cities are flexible with functions and are multi-ethnic. Here, tourists take selfies, people discover anonymity in the crowd, the old enjoy the night breeze, and devotees experience salvation through the visuals of 'sandhya-arati' and the 'chaiwallahs' earn their livelihood.

The public realm is rooted in our vernacular urban fabric –where we encounter the people who are not quite same as ourselves. This assortment enriches the everyday experience of our life.

Political researcher John Parkinson, from the University of Warwick, the U.K, headed out to 11 national capitals over the globe trying to coax out the associations between these two substantial and theoretical thoughts: open space and democracy. Subsequently, takes note of that 'safe' and 'accessible' open spaces are essential for participatory systems.

1.1 Open Space in Cities

Safeguarding and keeping up open spaces in urban contexts is viewed as a vital part of satisfying environmental quality objectives and achieving a liveable city (Schopfer, 2004, Clark, 2006). Progressively, it is comprehended that healthy cities must incorporate, among numerous different perspectives, viable and accessible open space and urban nature. Open space can likewise impact aesthetics, and the broader perception of the entire city (Duhem, 2005). In this manner, urban planning and design should consider the significance of protecting and keeping up these spaces. In any case, numerous cities don't have satisfactory rates of open spaces (Jim, 2004). There is a need to comprehend what comprises quality open space and how it very well can be accomplished.

A number of scholarly fields are pertinent in understanding the idea of open space, including financial aspects, urban planning, geology, history, landscape, political science and human science (Bengston, 2004). The traditional understanding of urban space as being principally topographical. A case of this geographical perception is Zevi's traditional meaning of urban space, which is that it is all space that is 'left over' and not enclosed. Basically, it is 'voids' that have been restricted and characterized by structures, for example, walls and buildings (Madanipour, 1996). A much simpler meaning of urban space is that it is, "all types of space between buildings in towns and other localities."(Krier, 1979).

A study regarding the values and accepted meanings for open spaces within the city found that a higher proportion of respondents valued open spaces that contribute to and enhance the positive aspects of the urban community. This includes the perceived cultural diversity and sociability of these spaces, and the variety of recreational opportunities and visual landscapes (Burgess, (1988). This study identified a greater need for more diversity of the natural settings of open space areas and of the social and recreational facilities within these spaces.

Zukin says that public spaces enables the people to perceive and represent the city. It receive strangers, enhances tolerance, and provides opportunities for social life, both in civic and commercial manner (Zukin, 1995).

1.2 Social aspects of Open Spaces

The activities taking place in an open space encourages social conditions. To understand urban quality, we need to understand the association between cities and people. According to Jan Gehl, the public components of our lives are disappearing due to the society being more privatized with private homes, offices, shopping centers etc. It is more and more important to make the cities inviting, so we can meet our fellow citizens face to face and experience directly through our senses. It is important to have public life in good quality public spaces for a full and democratic life. He also says that, the dominant qualities of public spaces in totality are the presence of people, activities, events, stimulation and inspiration. (Gehl, 1987)

What if the spaces changes with season, is more ecologically sensitive, and has the potential to become an asset to the city. We are not giving sufficient consideration, when a public domain comes under the influence of a flux, which is extremely temporary. We tend to think of public spaces as fixed physical spaces (Reijndorp, 2001). A specific space can be utilized contrastingly by different groups of individuals at various time.

1.3 Festival spaces in a city

This paper centers on the public spaces that festive occasions possess, with the concern that these spaces are left out for the rest of the year. These spaces are analyzed before and after the festival. Evaluation is done on how the festival affects the town and neighborhood and how the static nature of space, during the rest of the year, can be harnessed for its benefit, thus making it into an asset for the town.

Aluva 'Manappuram' (sand banks) in Aluva, is a municipality in the Ernakulam district of Kerala. Aluva is divided into the Northern and Southern portion by the River Periyar bifurcating making the Northern portion into a peninsula. Aluva, derives its unique identity from once-in-a-year activity of 'Shivarathri' festival which specifically happens at the 'Manappuram' of Periyar River. The National highway was the only connection to the Northern portion until 2016, when a pedestrian bridge was built across the river connecting the town to the Manappuram. The pedestrian bridge cannot be used during the monsoon flood at the steps leading to the Manappuram will be submerged. Aluva has a population of approximately 22500. The Shivarathri rituals take place in one day, for which 1 million people visit this place to pay obeisance to their ancestors. From this day a fair takes place for the next three weeks.

2.0 Static open spaces

In spite of the way that the multidimensional estimations of open spaces in the public and private domain comprise the essence of urban sustainability, their significance isn't sufficiently addressed with regards to developing countries. Rapid urbanization has led to the deprivation of open spaces. The compact nature of cities has led to the need for multifunctional public domains.

A noteworthy imperative of the public realm is the presence of thieves, illegal drug peddlers and other dangers in society. Public spaces need to guarantee the wellbeing of its users and ensure it against abuse by the 'undesirables'. It turns into an amazingly dubious circumstance where public spaces should be ensured against wrongdoing by filtering out the undesirable activities and yet not losing the public character of the space.

2.1 Static to Kinetic

"So-called 'undesirables' are not the problem. It is the measures taken to combat them that is the problem... The best way to handle the problem of undesirebles is to make the place attractive to everyone else." (William H. Whyte)

Project for Public Spaces suggests that these spaces need to be designed with flexible uses in mind, always taking into account that a mixture of sun and shade, food, water, and a good view of the passing scene are essentials. They also found that a good place provides a range of things to do ("uses and activities"); is easy to get to and connected to the surrounding community ("access"); is safe, clean, and attractive; and, perhaps, most important, is a place to meet other people ("sociability").

"Safety...by surveillance and mutual policing of one another sounds grim, but in real life it is not grim. The safety of the street works best, most casually, and with least frequent taint of hostility or suspicion precisely where people are using and most enjoying the city voluntarily and are least conscious, normally, that they are policing." (Jacobs, 1992)

Here for the spaces we are concerned, permanent buildings are not an ideal solution, hence the thought that architecture becomes representations of static city, according to Rahul Mehrotra, it is no longer possible to read the city with its architecture alone. So, architecture is not the "spectacle" of the city. Also, the image of the city cannot be analyzed with architecture alone. In contrast, Festivals such as Dussera, Navarathri, Muhharam, Ganesh Chathurthi etc. emerged as the "spectacle" of the Kinetic city. These festivals in the everyday landscape dominates the visual culture of the Cities of India (Mehrotra, 2013). A specific space can be utilized contrastingly by different groups of individuals at various times. The temporary enclosure systems that occur during such festivals offers potential to accommodate, keeping up and developing the ordinary life.

3.0 Understanding the kinetic space

The fieldwork for this research involved participant observation of the mind-boggling varieties of social behaviors happening within public spaces during festivals and in everyday life. The analysis looked to describe the key spatial structure of the events, and of public involvement in the events. Also it tries to analyze the space in terms of public utility such as recreation, conventions, exhibitions etc., during the course of the year. It observes on the stances and movements of participants, both arranged and unconstrained, and the public requirements during such an event. It also looks in to the forms of interaction between the participants. Thus the role of festivals in creating informal spaces for socializing serving to the meaning of the place.

Field notes, photography and site investigations from live observations in the public settings were enhanced by authentic research of media reports and festival programs from earlier years. The resulting examination of the behavioral observations concentrated on the spatial, material and illustrative highlights of the physical settings where these occasions happened.

The "Manappuram" has three access points, the pedestrian bridge from Southern side to the Northern side, the temple road connecting the highway and the GCDA road connected to the highway as well in the Northern end. Three observers were stationed at the access points for an hour during three different times of the festival head counts moving in and out were recorded, a similar kind of observation was carried out on a regular day.

3.1 The case: Aluva Manappuram

The “Manappuram” a 21 hectors of land, accounts almost 12% of the public open space of the city. This means an individual living in Aluva alone has 8.8 square meters of open space from the “Manappuram” itself. According to the URDPFI Guidelines, Ministry of Urban Development, Government of India, an open space of 25 hectors could serve a population of 0.5 million, then the Manappuram can serve a population of 0.4 million. However, this space is left underutilized for the rest of the year leading to several undesirable activities resulting in safety concerns, crimes, waste dumping etc. This paper evaluates how the festival affects the town and neighbourhood and how the non-static nature of space, during the rest of the year, can be harnessed for its benefit, thus making it into an asset for the town. Participant observation during the festival and over the course of the year is carried out to analyse the spatial quality. Accessibility, safety, nature of enclosure in relation to kinetic spaces are analysed in this paper. The study concludes on how the kinetic spaces can be designed and managed as an asset for the cities.



Figure 1: Map of study area with the Manappuram highlighted in green
Source: author

3.2 Morphology

About 15% of Aluva is built, though 85% of the land is open 58% of it happened to be within private plots, and about 27% is covered with water. Buildings in Aluva are mainly contemporary structures. The older part of Aluva which lies to the south of the Periyar River (around the core and along the NH 47) is dense and characterised by continuous row type developments while construction over the last three decades are of a plotted configuration (owing to the municipal development rules).

The plots to the north of the river contain individual buildings that stand in the middle of the site. Their boundary walls however, are continuous blank entities and define the street block.

Live edges are more prevalent in the historic settlements to the south of the river – such as shop fronts and doors leading directly on to the street.

3.3 Natural features & public realm

The town has been developed in the lower terrains of the land. In the earlier times the river has been the major mode for transportation. Aluva developed as nerve point of trade and became the "gate way to east".

A major portion of Aluva’s open space area consists of the Manappuram to the north of the Periyar - the ‘Harithavanam’ project that promotes its use and conservation has been proposed. Trees are abundant but generally occur within private properties. A major portion of Aluva’s open space comprises of the Manappuram, to the north of Periyar. Planned parks and open spaces are

very few to the north (Model Park, Municipality initiative) of the River and one to the south (not functioning currently).

The “Manappuram” is the Northeastern physical limit for Aluva. It accounts for 5.51 percent of the total open space of the study area. The 21 hector of open land can be used effectively. Though the level of water rising during floods over the past due to lack in records, this land is vulnerable. This land submerges under the water every year during monsoon i.e; between the months of July and August.



Figure 2: The Manappuram during Flood (Monsoon season)

Source: Times of India, 10 Aug 2018, 03:54PM IST

3.4 Transportation

The highly fragmented character of Aluva is also reflected in the transportation system. Located at the center of the Ernakulam district, Aluva is connected to all major cities in the country by air, rail, road and sea. Major district roads (MDR) such as Aluva-Munnar road, Aluva- Perumbavoor road, Aluva-Paravur road and Aluva-Kudungalloor road provides road connections to other parts of Ernakulam district.

NH 47 passes through the western half of the town and provides a road connection to other parts of the state. Aluva is a major transport hub and serves as a trade-center for neighboring districts. As such a number of transportation modes are concentrated in the city center and crossing the city resulting in fragmented quarters. The bus stand is in located in the southern half, to the right of the NH47. The main railway station is located approximately in the center of the southern half.

The northern portion of Aluva towards the Manappuram lack public transportation facilities. The roads can be easily widened in the northern portion. Conditions for pedestrian movement can be strengthened by creating legibility, and removing obstacles. The GCD Road is active only during the Shivarathri festival.

3.5 Social Infrastructure

The Southern portion has all the facilities like hospital, ATMs etc. The northern side lacks such facilities. Aluva Lacks resting places, public toilets etc. Though the metro station, railway station, and the bus stands has toilet facilities, they are not visible to the public. Physically and visually accessible public toilets, resting places are to be provided. The Northern portion should have facilities like health care units, ATMs etc. within accessible distance. The Northern portion also lacks recreational facilities life libraries, Halls, parks, shopping centres or Malls etc.

The Manappuram becomes the hot spot for murders, unidentified dead bodies, and illegal drug dealings ect, the police and the residents’ states. The residents of the place were inquired on the crimes that happen in the Manappuram area, they have stated that the space is free of such happenings during the shivaratri fair due to constant activities and police surveillance.

3.6 Activity

Reputation of Aluva is spread outside due to the celebration of Shivarathri festival In Kumbham month every year. During this festival, thousands of devotees offer sacrifice to their ancestors succeeding the holy night and tourists gather to witness these Hindu rituals and prayers. There

will be street vendors all around the Manappuram area and remain for 3 weeks after the offerings of Bali.

On the peak time in the morning session from the pedestrian bridge 117 people enter the Manappuram in one minute and 46 makes an exit. 72 people enter through the temple road 63 exits. The Parking by the GCDA road has 374 cars parked at once, according to the Kerala municipal Rule, 1991 a parking lot could account for 25 people. The temporary bus station has 42 bus parked. A bus has the capacity to take 51 passengers, then 2142 people through bus arrives to the Manappuram. So, in an hour the Manappuram holds 19000 people.

A similar observation on a usual day counted only 17 people visiting the temple 12 playing football.



Figure 3: The Manappuram during Shivaratri festival and during usual days
Source: author

According to the Devaswom Board it is estimated that 1 million people visit the “Manappuram” on the day of Shivaratri of which 80% of the participants take dip. 15% comes for Darshan. 5% comes for recreation alone.

A ritual is carried out with a “karmi” within a set temporary shelter known as “bali tara”. The average size of Balithara is 2.4m X 5.25m. Average time for a ritual is 7 minutes. Currently used shoreline for taking dip is 249 m long. The average width of a human body is ~0.5 m. Then 498 individuals can line up, side by side on the shore. There is 14 hours from 5 a.m. to 7p.m. Then an individual gets ~ 0.5 minutes if 800000 people are to bath in this area. ~ 0.06% of the visitors can take dip at once.

The “Manappuram” area is active during the Shivaratri Festival, it remains unoccupied for the rest of the year except for the ritual of “Karkidaka vavu bali”, during the month of August and during the Shabarimala season from November to December as it is a halting point for the pilgrims.

3.7 Inference

The northern side of Aluva to the east of the National high way is a low density residential area. This residential area makes an island of its own, isolated from the rest of the city. Though a calm residential area the place lacks spaces for recreation. The ‘Manappuram’ being adjacent to this neighborhood can be effectively used for this purpose. A well maintained public space attracts people towards it. At the present condition very few youngsters use this spaces for playing football. The spaces surrounding the temple attracts a few pedestrians and serves as a spaces to relax. However, the space does not hold the users as it does not provide the qualities relating to protection, comfort and enjoyment.

The Manappuram lacks connections physical as well as visual connection from the southern side. The GCDA road making an edge to the neighbourhood ends at the Manappuram, which is least

used except for the day of 'shivaratri' and the carnival that takes place for the next four weeks. The municipal park at the southern side is closed and adds to the physical and visual blockage to the river and the Manappuram. A river sidewalk runs much lower to the park and it is a dead end to one side and is connected to the pedestrian bridge on the other.

The 'Manappuram' due to its isolated nature invites the 'undesirables'. This can be addressed through the provision of desired connectivity to the spaces. However, it is understood from the surveys that the space is cleared of such 'undesirables' during the period of the festival, because of the surveillance being offered by the police and the people during the event. From this it is understood that activating the space could reduce such undesirable activities, as well as offer a multifunctional recreational space for the neighborhood and the city. This river sidewalk is not visible from the ground level of the park due to its depth.



Figure 4: Existing structure plan for usual days and for the festival, Manappuram and its precinct
 Source: author

4.0 Conclusion

A large open space such as the Manappuram makes great opportunities for the city to use it as a destination for recreational purposes with constantly changing activities. The connection to the Northern side is strengthened through the provision of a second pedestrian bridge at the dead side of the river side walk. The Municipal Park is to be opened to the public and the side towards the River side is to be stepped so that the walk way is visible from the park, and the river could visually attract more people to the Park. The second pedestrian bridge connects the neighborhood that it could be used in the monsoon as well, unless the flood level is unusually high. The GCDA road is connected to the Temple road so that vehicular accessibility is established. The river is provided with boat jetty to establish more connection to the other bank. The manappuram could then be the venue for exhibitions, congregations, fairs of different scales, for which the structures are temporary made with areca nut tree poles, leaf thatched roofs, and enclosures with fabrics are suggestive like the Garden festivals which rooted back in the nineteenth century in Bundesgartenschauen, Germany. These are not permanent features, but are stimulants for changes, intended for revitalization of old industrial cities. Garden festivals are temporary festival events. The ever changing activities adds to the vibe of the city and the area could become safer from immoral activities. The constant activities brings in the need to maintain the manappuram and the river edge throughout the year rather than cleaning it up before the festival to take place.

With temporary enclosure systems different events differing in scale and size could be hosted in the Manappuram, referring to the Kumbh Mela in Prayagraj, India which becomes the most complex temporary system of such ephemeral landscape where the world's largest religious congregation with a population approximating to 5 million takes place for 55 day, the floating population comes up to 20 million during these days. However to accommodate these gathering an entire city is set up starting from infrastructure such as roads, pipelines, electric grid, drainage

etc. enclosures scaling from small dwelling units to large congregation halls are set up with materials such as metal sheets, cotton fabrics, wooden poles etc. these all happens on the dried plains of River Ganga. After the “Mela” is over the entire city is disassembled and no clue of such a settlement remains as the water submerges the pain in time. A weekly market could be set up in the municipal park or in the Manappuram like in the Asian, Latin American, Mexican cities, where the parking lots are animated in the week ends with about 50000 vendors. In the current era where there are case of Olympic stadiums, Malls meant to serve the public are left without use, such soft urban systems are more reasonable.

The building adjacent to the GCD Road after 10m height shall have a setback of 2m for extra floors. These plots could accommodate functions such as craft shops, restaurants, hotels, cafes etc. Office spaces shall not be permitted in the northeastern portion of Aluva. The raised plots can be opened up by stepping the abutting side to the road. The parapet or boundary on the abutting side of the road shall have a maximum height of 1m.

The temporary shops in the “Manappuram” are to be made of modules 7m x 10m of which 7m x 7m will be of shop area and 3m x 7m for resting and for storage. The modules can be multiplied according to requirement.

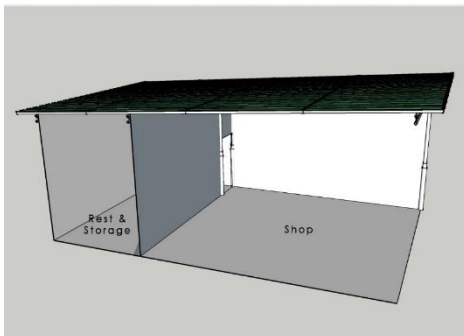


Figure 6: Temporary Shop Module
 Source: author

The plots along the Temple Road are allowed to provide space for temporary shops during the Shivaratri festival days, provided these shops shall limited to an area of 15 square meter such that the facade of the residential building is not completely hidden from the road. The boundary walls shall have a maximum height of 1.5m.

It is suggested to have an alternative access to these plots, while the shops occupy the gateways during the festival. This is in precaution any case of emergency. The shops in any case shall not abut the road or cause any obstacles for the pedestrian movement.

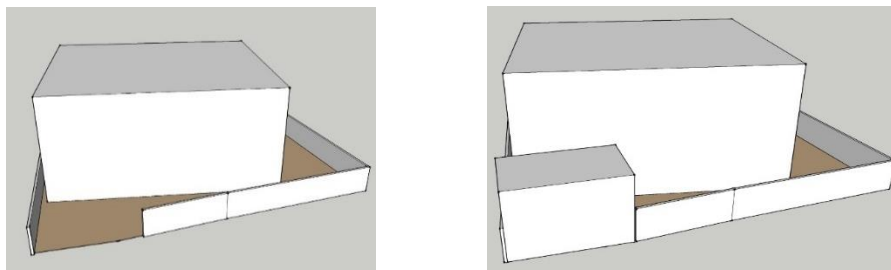


Figure 7: Residential plots along Temple Road in normal days (Left), Temporary Shop within the plot during Shivaratri (Right).; Source: author

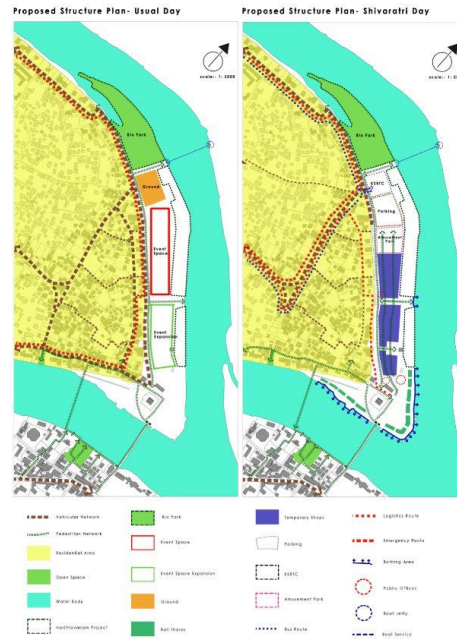


Figure 5: Proposed structure plan for usual days and for the festival, Manappuram and its precinct
 Source: author

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