



Research Paper

Possibilities of revitalization of urban back-alleys in New Delhi

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ABSTRACT: This paper intends to highlight the areas that are generally paid little attention by the architects, the rear side. It is a study of the significance of the alleys and the urban life that dwells in them. Currently, most alleys in the city are underutilized, and they evoke a number of negative images—fearful places, waste-strewn, bad smelling, etc. Land is an important resource and in the recent times, the concept of alleys is being questioned. Alley transformation is becoming widely acknowledged as a viable solution for urban redevelopment across the world. The successful transformation of alleys presents many benefits, such as economic development, enhanced streetscape, visual enhancement, reduction of crime, etc. Transformation of alleys leads to more productive and effective utilization of public space. The research highlights the various ways in which the interventions made by neighborhood dwellers in Delhi improve the usability of the alleys.

KEYWORDS: Alley transformation, urban revitalization, participatory planning

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I. INTRODUCTION

There is an old saying that “A building has a queen Anne front and a Mary Ann behind.” The character of a city gives it a superficial treatment where design enthusiasm is lavished on the fronts of the buildings, so that beautiful urban edifices can be constructed around parks, main streets, plazas. Many of the disagreeable and decaying sides of urban life are confined to the backyards, alleys and service lanes. This parallel streetscape is a piercing reality of urban life.

Alleys are the narrow lanes behind the buildings where we see the complex ducting, elaborate electrical panels, and plumbing contrivances in visible arrangements. All services including waste conveyance, thoroughfare of fire tendons, loading and unloading of goods on a routine basis takes place from these indispensable voids that the architect never shows to his client. The users are the key generators of the feeling of personalization and belongingness in such spaces. No designer can predict the way his building will be used, decades after its completion. They could also become desirable hideouts for people with malicious intent.

Alleys are unrealized community spaces that could be transformed into positive infrastructure that offer multiple benefits— ecological, economic, and socio-cultural at the same time. They give opportunity for sustainable urbanism by providing facilities like walkability and urban mobility, play area and green cover, biodiversity conservation, urban runoff infiltration and maintenance of built and open ratio. Many developed countries are tapping into the benefits the resource can provide for daily life in the cities [1]. Attempts have been made to extend commercial functions into these areas to prevent crime. In the Japanese city of Kyoto, major department stores have cut storefront windows into the back of their buildings that open onto alleys. And in Melbourne in particular, graffiti is endorsed by the city, it's become an iconic aspect of their laneways [2]. Most alleys in New Delhi are underutilized and not walkable, and are often perceived as, dirty and unsafe. There is a need for revitalization of alleyways in New Delhi for the optimal utilization of the physical asset. In Delhi's Khan Market and Chitranjan Park, alleys have been developed by the neighborhood communities as an extension to the existing activities. These shall be described in detail in the subsequent sections.

II. DIFFERENCE BETWEEN BACK-ALLEYS AND STREETS

The rudimentary difference between these two have to be that streets are always facing the front (or the primary entry) of a building while alleys are along the sides or/and the rear end of a building. Unlike streets which have higher order function of serving the accessibility of a larger community and at a larger scale (group

of neighborhoods, a city, etc.), alleys, on the other hand, serve only a neighborhood for its semi-public social requirements. Alleys are provided between the back of buildings to give access to services like trash collection, parking, and provision of utilities [3]. Streets have a regular pattern of buildings. The geometry of the street is as important as the geometry of the plots itself. The territorial ownership of a street is well defined whereas that of an alley is indistinct and based on mutual understanding. As it is at the front of the house, the green yards in front of the street are much more cared for and well designed. The landscape in the alleys are untended and fortuitous. The sense of noise on the streets is very different from the alleys because of the presence of traffic. Alleys provide a sound buffer in the interiors of the neighborhood. Design factors like rhythm, continuity and spatial order are not maintained in the alleys. Services such as gas pipelines, drain pipes, electric wiring are hidden on the street front, but are exposed on the alley side. There is variety in the way the space in the alley is used. Streets are maintained publicly whereas alleys are predominantly a shared responsibility of the occupants. Legal regulations on the streets are strictly followed. Alleys rarely have any legal regulations [3].

III. BENEFITS OF REVITALIZATION

Alleys provide an opportunity for urban stakeholders, because of some of its unique features: flexibility in establishment of autonomous outdoor personal space, provided within backyards; opportunity for a semi-public connection with the small set of backyard neighbors; and a dignified civic "streetscape" presence - made possible because the street itself is relieved of some of its multiple service burdens by the back-alley [3]. They double up as traffic-free pedestrian passages and also serve as alternative routes in case of emergencies. Apart from being elements of socio-cultural importance, alleys are also admired as functional landscapes by planners and designers. Peter Calthorpe and Andres Duany, who advocate "new urbanism" promote utilitarian back-alleys for relief of the overburdened suburban streetscape, and promote alleys as access to back-side ancillary dwellings as well.

3.1. URBAN DENSIFICATION:

It enhances the existing network of the neighborhood by providing the possibility for mixed-use zoning. There can be small retail windows, laneway housing, pedestrian paths, recreational parks and garden gyms, and public arenas for communal gatherings. This makes the entire neighborhood an urban ecology that can fulfill its own needs [1].

3.2. MAINTAINING PUBLIC HEALTH:

The alleys in their current state provide breeding ground for microorganisms of many diseases. Making them a clean, sustainable ecology would reduce the threat of these diseases by a great margin. Pedestrian-friendly, clean and safe back streets, encourage people to engage in physical activity. It is especially important for reducing health hazards of obesity and similar health conditions. Children get additional space for play which is safe and is within the neighborhood. Provision of garden gym equipment, furniture, swings for children and other such facilities creates an environment for recreation [2].

3.3. ADDRESSING THE ISSUE OF STORM WATER POLLUTION:

Paved or metaled alleys become home for trash and junk that are toxic in nature. Other activities like washing cars, sidewalks, paint and polish of the buildings add harmful chemicals to the alleys. When it rains, these toxins find their way into storm drain systems and eventually pollute the fresh water source. Some solutions that researchers have come up with are, de-paving the alleys or using permeable pavers or using vegetation that can remove the toxins and absorb the storm water. Unpaved alleys or alleys paved with permeable pavers help in rejuvenating the ground water table [2].

3.4. LANDSCAPE ECOLOGY AND BIODIVERSITY CONSERVATION:

Alleys can enhance the biodiversity in urban areas by patching a wide range of heterogeneous greens together. This provides different habitats for different organisms to breed in [1] [4]. The positive effects of this at the urban level, including urban heat sink, preventing soil erosion, conservation of native biology.

3.5. CRIME PREVENTION:

Researches show that people associated alleys with crime and filth. The rate of petty crimes that make the alleys appear unsafe may reduce drastically if the back alleys undergo revitalization. As and when these alleys start getting used by people, the person with mal intent gets a feeling of deter and prevents him from committing a crime.

3.6. STRENGTHENING THE NEIGHBORHOOD:

The alleys can be used for social strengthening of the neighborhood by becoming the space for communal interactions. As the alleys are a maze like network within the neighborhood, it's a territory of the neighborhood exclusively. It is unlike the front yards and the streets that are the same for the visitors and the insiders. It is a place where the locals feel intimacy [1].

IV. STRATEGIES FOR TRANSFORMATION

Revitalization of urban back-alleys has been widely used in the developed countries. Some of the methods adopted in their cities can be used by the dwellers of developing nations, for optimum utilization of the prime real estate. The city of Chicago has come up with a solution to manage urban runoff and conserve biodiversity behind the buildings, by using permeable pavements. Traditional metaled or concrete paving, does not allow water to pass through it and the surface runoff due to storm water is difficult to drain. It does not allow the water table to regenerate and the fresh water from rains is mixed with waste water in the sewer lines. It is a recycled product of construction debris. The added advantage is that they even regulate climate control at a micro level. During summers the sun rays are reflected from the surface of the pavement, making it cooler. During winters, the pavement retains heat and stays warmer for a longer time making the alley comfortable to walk [5].

In the city of Vancouver, laneway houses are being legalized. These are 500 to 750 sq. feet, single or double story dwelling units. They help in re-densification of the existing urban fabric. Crime prevention and maintenance is achieved by territorial reinforcement. People like inhabiting the laneways as they are less noisy and crowded. 75% of Vancouverites believe that laneway housing is a great option for housing the elderly and adult children. It is believed that LWH brings diversity in the neighborhoods. LWH are believed to be much more affordable home ownership and also creates rental options for the people of Vancouver [6].

Some alleys are being used not only to pass through but places where people can stay. Stages and furniture is being set in the alleys to hold events. This concept has been successful in Pioneer Square, Seattle. The square has great historic significance. Lighting had been especially designed and resurfacing of the pavement was done. The local community itself planned a series of events like poetry reading, art, music, movie screenings etc [1]. Melbourne has legalized street art in some alleys. The street artists make such art pieces that the alleys become tourist attractions. The essence and characteristic of the alley is showcased in a way that tourists from all over the world come to experience it. The Hosier Street with the 'Ganesh' art piece is a very famous alley revitalized by street art [5].

The New Delhi municipal council took up the task of revamping of the middle circle of New Delhi's central business district, Connaught Place. This happened as a preparation for common wealth games in 2010. Uniform corridor flooring, lighting both on the streets and the façade, strewing up all the cables and organizing them. As a result of this, a lot of cafeterias and retail outlets too opened in this area. The load on the existing sidewalks was reduced and the overall economy of the area has seen a boost.

V. CASE STUDY: CHITTARANJAN PARK

The city of Delhi received thousands of refugees who came in the hope of shelter and food during the partition of India and Pakistan. One of the refugee rehabilitation settlement for the East Pakistan Displaced Persons (E.P.D.P.), who fled from the East Pakistan province post-independence; now known as Bangladesh. The East Pakistan displaced refugees were the Non-Muslim Bengali community who had fled to Delhi in search of shelter. They were allocated a large area for accommodating almost 1400 Bengali families in the southern area of Delhi in 1960. This was called E.P.D.P. Colony and is now called Chittaranjan Park named after Chittaranjan Das, a very prominent and a renowned political figure from the Bengali community during the British rule [7].



Figure 1: Plan of Chittaranjan Park with an overlay of street hierarchy [7]



Figure 2a: Road sections through the residential block, across neighborhood greens [7]



Figure 2b: Road sections through the residential block, across inner park spaces [7]

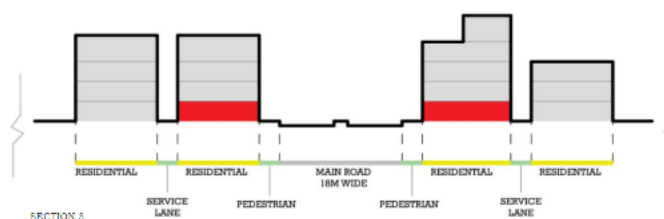


Figure 2c: Road sections through the main road [7]

It can be observed from the section in figures 2a and 2b that the width of the service lane is comparable to the width of the access street itself. In the old residential blocks as seen in section 2a, the height of the building mass and the width of the road is comparable. This means that there is ample of light in the alleys. The planning of the area led to a medium density residential typology. After the changes in the bye laws by the Delhi Development Authority, a stilt parking floor had to mandatorily be provided, in the new construction. Due to this, the typology of the built volume changed, as there was a direct link between the access street and the back alley. There exists a visual connection and a sense of fluidity through the plot.

5.1. QUALITY OF PHYSICAL SETTING:

As observed, the back alleys had a lot of informal secondary activity happening in them. Each back alley had a small temporary dwelling of washmen, tailors or tea shacks. The family of these service providers clean and maintain the alley. They are well connected with the neighborhood as they provide services to all the houses. An interview with one of the washer man's family informed that most of these servicemen have been staying in this locality for more than 20 years. They build their temporary dwellings and draw electricity and water from either the plots they reside beside or illegally from the service conduits itself. Some of these service providers have occupied the space for decades together and have not been moved. It is because of the vitality of the services they provide for the functionality of the society. The impermanence of their dwelling still persists. They do not try to encroach upon the land by making a permanent dwelling. There are faint edges in the space occupied by them, dividing it into the work station, kitchen, and storage space, bathing area and resting space. These families have the maximum contribution in the cleaning of the alley to maintain a hygienic environment.

The street lighting infrastructure in the alleyways was as good as the infrastructure in the neighborhood access streets. Some of the houses have lit their rear too for the purpose of surveillance. The paving is done by lean cement concrete. According to the residents, the paving is redone every 3 years.

The residents exercise great rights over the alleys in the authority of the Residents Welfare Association (RWA). Some of them are gated on both sides by the RWA. They are authorized to introduce temporary structures such as bamboo fencing, potted plants and tents for special occasions. They have the right to use this as an alternative access to their house. Some people take great advantage of this and rent out one room to students seeking cheap accommodation. These apartments are accessed from the back alley itself. An attempt to decorate the façade has been made to attract tenants. Most of these houses have created a green backyard. Because of all the reasons, the alleys are walkable and people feel safe crossing them even at night.



Figure 3: Images of the back alleys in Chittaranjan Park

5.2. BENEFITS DERIVED:

The residents consider the alley as a breathing space for their dwellings. Residents draw various benefits from the alleys. Some utilize their back alleys as an extended parking space. Some residents exploit the benefit of a secondary access through the alley for added income by renting out the rear side room. It is the place from where they get maximum light and fresh air into the house. The low rise dwellings that are owned by one family usually take advantage of the space available to them and create a green space. It becomes the frontier for interaction with the neighbors on the back side of one's house. It gives an opportunity to the neighborhood to hide their services behind the houses without disturbing the celebrated front side of the house.

For the informal sector, this space is the primary source of livelihood. It is the place they provide their services from and in the later part of the day becomes the place they perform their routine activities in. The extents of the territory marked by them over time on the alley, has the status of "home" for them.

VI. CASE STUDY: KHAN MARKET

Khan Market in Central Delhi was developed in 1972 to be allocated to refugees from the North - West Frontier to open their small businesses, following the Partition of India. It is ranked the 28th most costly retail location in the world (according to a study by Cushman & Wakefield) with eateries and high-end retail showrooms [8]. Visitors are one of the key stakeholders for any kind of development in Khan Market. To assess the impact on visitors, a sample interview survey (100 samples) was carried out by the DUAC in February 2017 to determine the broad visitor profile. The key observations from the survey were that all age groups frequent the market for different activities - convenience shopping, utilities and apparel shopping, eateries, and pubs, etc. Given its historical background, location and unique character, 5% of the respondents were found to be tourists. Mode of transport primarily used to access the market is private cars (72%) with half of them driven by chauffeurs [8].

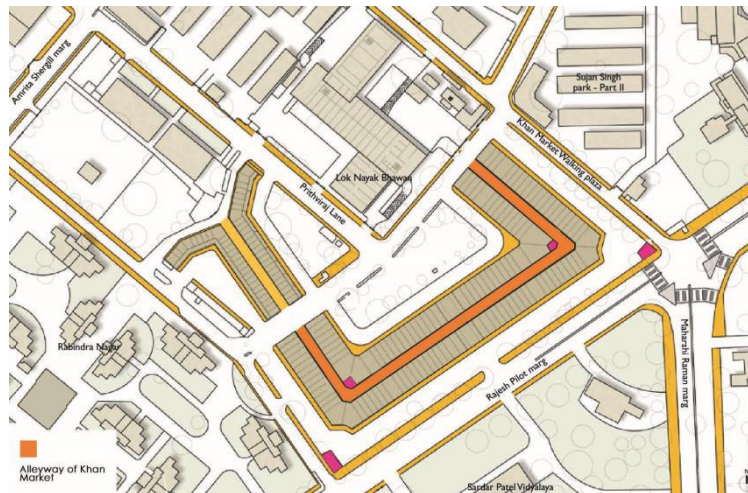


Figure 3: Plan showing the location of the alleyway in Khan Market's context (highlighted orange) [8]

6.1. QUALITY OF PHYSICAL SETTING:

The alley gives a chance of extension of the existing commercial area in a way that it itself becomes the image of the place. The exposed services and activities like garbage collection are made acceptable among the elite visitors. It brings the two different ends of the social system meet together in an urban setting. The services of the commercial activities that are always hidden behind false facades are celebrated and showcased.

The physical setting is such that all the services are exposed on the street. There are about 10 electric transformers in the stretch of the alley studied. All the commercial units have their air conditioning outdoor units facing on to the alley. One can see electric meters, gas pipelines and water and soil water pipes running along the façade. There are manholes in the center of the street at a distance of every five meters. Some commercial units have made an attempt to ornament their façade by creating a false façade hiding the services behind it. At some places street art is also done on the existing finish of the external wall. Most of the shops have just made impactful signage to attract the customers and left the design of the façade untouched. The paving is done in asphalt blocks which is easy to install and has gaps in between that ensure seeping of storm water into the soil to recharge the ground water.

The owners of the units exercise maximum rights of policy making. The common restriction is that the entrance to the alley has been blocked for vehicles by placing bollards. Thus vehicles need to be parked outside the alley. Only cycles can pass through the posts. The commercial units bring their commodities using their personal trolleys inside the alley. It is observed that the structure and framework of the residential unit has been altered very slightly to make a cafeteria, salon or retail showroom. Thus the design of fenestration and location of staircase are retained in most units. As a trend, one can see that the salons prefer to occupy the spaces on the upper floor. This gives them a sense of privacy for conducting their activities. The showrooms need to have an easier approach, thus they prefer to occupy the space on the ground floor. In case of showrooms, the rented area is generally till the extents of the plot (22ftx18ft), therefore they get two entrances in their shop. However, the entrance from the front is made grand and the one at the back is treated as a secondary entry only to increase the approachability of the shop. The operators of the commercial units as well as the residential units have a right to design their façade as per their liking. There is no rhythm in the appearance of the façade. Some units expose their services completely while the others attempt to hide the facades with louvers or jaalis.

6.2. BENEFITS DERIVED:

The alley gives a chance of extension of the existing commercial area in a way that it itself becomes the image of the place. The exposed services and activities like garbage collection are made acceptable among the elite visitors. It brings the two different ends of the social system meet together in an urban setting. The alley is pedestrian friendly as the narrow lane surrounded by tall buildings mostly remains shaded and vehicular movement is restricted. The alley therefore becomes a place rather than just a space.

The study shows that the commercial activity of the access streets can be extended to the back alleys to release the streets from the pressure of the demands. There were around 150 households occupying the ground floor of the building for commerce and the first floor for residence. When the residents realized the potential for the growth of the market into the alleyway, they got the land use for the plot changed and rented it to a cafeteria or a boutique showroom. This change of the nature of the alley was accepted by both the visitors and the occupants rapidly. In over 8 years, 135 residences out of 150 have shifted out from the market. The residents got

a chance to rent or sell their space and they were able to buy bigger houses in other parts of the city. The commerce in the market is thriving at such a rate that it is one of the most successful markets of the city.

VII. CONCLUSION

The very fundamental of neighborhood planning with alleys expects the neighborhood dwellers to extend their territorial influence into the alley and contribute in the maintenance, surveillance and upkeep of the alley. With the change in lifestyle of the people, such an expectation for a community owned space was out of question. Therefore, the alleys that were planned to act as informal community open spaces, were showing the potential of reaping negative impacts.

The existing alleyways in the city can however be transformed and utilized. It is a viable urban redevelopment strategy as observed in the case of C.R. Park and Khan Market. The neighborhood community and the local government must tap the potential of these spaces in their locality to uplift the urban scenario rather than leaving them as waste spaces. The alleys not only cater to all the services but also act as a breakout place for the community.

The case study of C.R. Park shows that the active participation of the neighborhood due to the introduction of Residents Welfare Association helped utilize the otherwise unkempt space for a sustainable purpose. Some use it as an extended parking space; some fulfill their aspirations of having a private garden by making a small green backyard; some use it as a secondary access to their dwellings. The alleys are found to be well lit and regularly cleaned. It is even safe for a woman to walk in the alley in the late evenings. The physical infrastructure provided in the alleys was comparable to that provided in the access street itself.

In Khan Market, the services that are hidden behind the buildings are celebrated in this posh market. The commerce in the market is thriving at such a rate that it is one of the most successful markets of the city. Designer boutiques, restaurants, salons, pubs, convenience stores are all doing good business in this market. The former residents got a chance to rent or sell their space for additional income.

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