

Developing a Sense of Place by Humanizing Public Pedestrian Precincts

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ABSTRACT: This research paper lays stress on philosophies of human desire. All the human being has some psychical need in addition to physical needs. And to satisfy the psychical needs, there is a need for stimulants, more in case of exclusive pedestrian precincts. Having exclusively Pedestrian precincts/Cores in city design draws its inspiration from the fact that public zones, accessible to majority of citizens, represent zones where anything and everything, that characterizes a town, happens. They, consequently, must allow for the most varied form of behaviour from that of a child to that of old people to that of physically challenged. As a result such zones need to have Design Elements to serve their varied behavioral patterns. Designing Pedestrian precincts are different essentially because of time dimension where a longer time lag is required to experience the pedestrian friendliness of pedestrian precincts. Such external stimulants can be a moderate degree of complexity, novelty, surprise, and uncertainty attained by incorporating appropriate pedestrian friendly design elements in pedestrian layouts such as richness of architecture, landscape elements, water bodies, to sit and stroll through, and commuters' infrastructure. In this article/paper a detailed study of abovementioned Design element, external stimulants and pedestrian friendly design elements in pedestrian layouts will be discussed in detail.

Keywords: *Pedestrian precincts, Public/ core area, Pedestrian movement, Psychical needs.*

INTRODUCTION

The focus of this paper borrows a lot from Abraham Maslow's theory as far as hierarchy of Human needs are concerned since my paper posits to focus on the need on humanizing public-pedestrian precincts. Psychologist Abraham Maslow's paramedical theory of motivation (called hierarchy of needs) identified five primary motivational needs: physiological, safety, social, esteem and self actualization. Individuals' lower level needs have to be fulfilled before he moves to the next level. The beauty of Maslow's theory is that he considers love and esteem as important for maintenance of health as the lower three levels of pyramid.

In a nutshell, it means that for living a happy and healthy life, the psychical needs (esteem needs) have to be fulfilled. Beyond essential survival needs, psychical needs revolve around ability to learn, ability to understand, ability to comprehend and ability to develop - all - most importantly while you enjoy. Depending upon places, less developed cultures spend maximum time and energy for fulfilling their physical need but with cultural advancement travelling, entertainment, sightseeing, and sports - all become inseparable part of life and these activities act as tools to satisfy the psychical needs.

The great Louis Kahn, was always in a favour of developing strategies of planning "case to case". He propagated the idea of under- developed countries opting for new thought processes and designing their cities accordingly for solving their present and upcoming issue; either it is 'Energy crises' or 'Transport problem' or 'Shelter for homeless'.

There are few case studies which are telling success storey of planner's idea to make the city centres/ cores fully or partially pedestrianised and give back the place to their real users "THE PEDESTRIANS" but not to seizers-monster vehicles. Examples: Market hall at Stuttgart, Germany, Pedestrianised street in Medellin, Colombia, Flea market at Madrid, Manhattan, Near less halles at Paris, France, Dubai mall complex-Downtown Dubai, UAE (Fig. 1).

To somewhere along the line, there arises a need for special zones of activity, business along with leisure. It is wrong to assume that this paper deals with only pedestrian precincts meant for leisure only since leisure precincts perforce are pedestrian by nature.

This study posits that within the complexities of contemporary cities, it is wished to preserve their original pedestrian sanctity (Aminabad market, Lucknow, Hazratganj Market, Lucknow, Hussainabad complex, Lucknow, Chandani chowk, Delhi,, Connaught Place, Lutyen's Delhi, the great piazza of Fatehpur Sikri). The aforesaid idea gets strength when look over near past and get few examples of planned modern pedestrian precincts, for example, interlocked piazzas of Nehru Place of Delhi and Capitol complex of Chandigarh (Fig. 2).

Why does this happen? Is it possible to identify the characteristics which have made them so and put them down as theories to follow and emulate?

The challenge of the paper aims towards understanding and developing strategies for activity and business zones where commercial interest have superseded everything else, at times, after slowly and steadily strangling psychical needs.

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Street in Medellin, Colombia



Market hall, Stuttgart, Germany



Flea Market, Madrid, Spain



Flea Market, Madrid, Spain



Time Square, Midtown
 Manhattan, New York

Fig. 1: Examples of success storey of planner's idea to make the city centres/ cores fully or partially pedestrianised (Source: Omnilexica, 2012)



Piazza of Fatehpur Sikri
 (Source: Niccholidaysindia, 2012)



Chandani chowk, Delhi
 (Source: Khemani, 2006)



Hazratganj, Lucknow
 (Source: Outlookindia, 2010)



Connaught Place, Delhi
 (Source: Shaggyley, 2012)



Capitol complex of Chandigarh

Fig. 2: Original pedestrian and planned pedestrian precincts

In case of public pedestrian precincts, there is specific need of special concentration on Meticulous attention over to features and elements used as external stimulants because of involvement of TIME dimension. Time dimension means the requirement of longer time lag for experiencing, perceiving, understanding, absorbing impressions of user friendliness of pedestrian precincts. Such external stimulants can be a moderate degree of complexity, novelty, surprise and uncertainty which have to be multilayered and regularly renewable. These stimulants can be attained by incorporating appropriate pedestrian-friendly design elements in pedestrian layouts.

MATERIALS AND METHODS

The Making of Pedestrian Precincts

If one is to identify some of the characteristics, which have helped implementation in survival of pedestrian precincts, these can be listed as under:

Their easy accessibility;

The location of an important singular activity; (either because of building or the character of a place) e.g. Piazzas of Renaissance and Medieval periods;

Their proximity to major circulation channels and yet their isolation- e.g. St. Marks Piazza, Venice;

Their placement at the end of a vista. e.g. Durbar Square, Patan, Kathmandu; St. Peter's, Rome;

Their scale and the resulting identifiable enclosures;

Their sense of conviviality resulting from richness of the located architectural construct etc. (the Sutton flower street where the flowers blossom throughout the year); and finally

The treatment of floorscape- the mosaic pebble streets of Rome. Etc (Read carefully the characteristics as given below).

Characteristics of Pedestrian Precincts

The aforesaid "the making of pedestrian precincts" identifies at random physical implications as personally observed envisaged over a period of time in some of the important examples which may not form a comprehensible seriatim.

To understand the aforesaid as a process, especially their incorporation within the active cores of cities, one needs to derive their essentials from design parameters for analysis of public cores given in Ian Bentley, Alan Alcock "*Responsive Environments*."

A perusal of these characterises refers to degree of permeability, quality of variety, the legibility of the constructs and the articulated spaces within these constructs, the quality of robustness, visual appropriateness and the richness of environment. Bentley goes beyond the aforesaid and even refers to the degree of personalization these public cores offer for their appreciation and involvement of a multitude of people in their activities and functions.

It would be inappropriate to accept the above given design parameters as universal phenomena since pedestrian-friendliness of a place also arises from the context of people, place and time.

Whereas degree of permeability is most important for public cores, its connotation to pedestrian-friendly precincts are slightly questionable since a high degree of permeability in pedestrian precincts will be in contradiction to the desired aloofness of the Pedestrian-friendly environment. Similarly, in pedestrian precincts, the ease with which people understand the opportunity the place offers (legibility) is not so much in tune with intrinsic sense of exploration a pedestrian prefers.

The context of place (site configuration and climate) needs to be reckoned since what is applicable in cold climate of Europe where sun is so precious and important will be in complete contrast with shady walkways required in hot and dry environments. It is the context of the place which makes Indian bazaars with their linear, narrow winding streets so much akin to fully covered bazaar streets of the Middle East. For any western market it is impossible to match the riot of colours, the music of tonalities and atonalities (which made Pythagoras invent a system of music in mathematics) in Chowk of Lucknow and the aroma of eating joints of the Orient.

The context of people is another important parameter in view of differing aspirations of people of various contexts. The classic example of this can best be illustrated by the fact that the people of subcontinent perforce need to mix their leisure with their other activities (dropping a child to school, shopping, eating, entertainment, moving to workplace etc.) and, consequently, their pedestrian-friendly precincts need to integrate many of these facilities in their fold if the precinct has to be logical and valid. The great pedestrian precinct of the Capitol Complex designed by master architect Le Corbusier, despite its democratic overtones, till date, remains a jungle of concrete sans activity, sans people.

Theory of Pedestrian Movement

The way a scheme is perceived as one walks through the scheme depends on how its elements are assembled: buildings, walls, planting, roads, play and parking areas, and forming spaces and defining territories. It also depends on understanding of users - the way they observe and use the environment.

GLC (Greater London Council) study (1978) in its Manual on Housing Layout explains in detail the characteristics of pedestrian movement in urban and open spaces; differentiates type of movement of people of different age groups (children, young and aged); categories of movement vis-à-vis purpose of movement; and compares the movement of pedestrians with the fluid momentum of water.

Pedestrians do not naturally walk and change direction in abrupt angles

The aforesaid has not been discussed in detail because of limited scope of paper.



Fig. 3: Pedestrian Friendliness

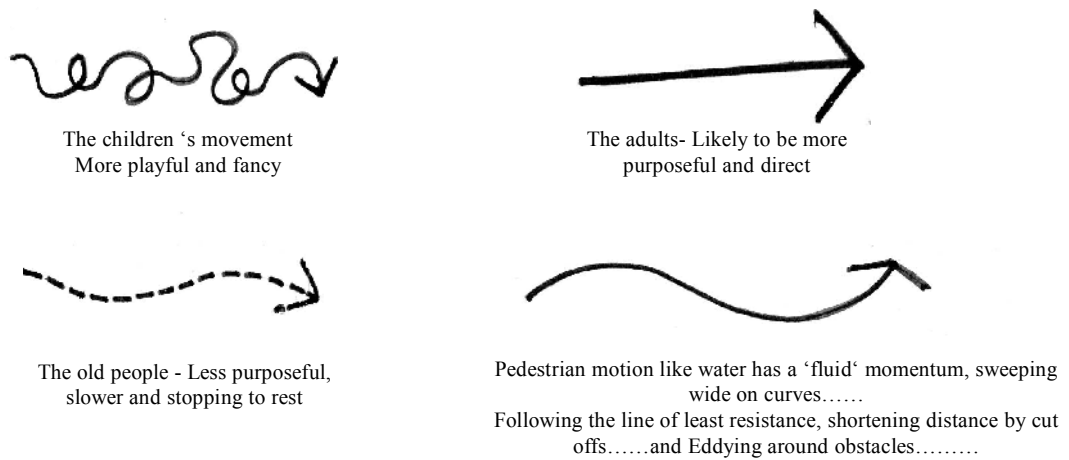


Fig. 4: Pedestrian movement

RESULTS AND DISCUSSION

Trends in Design Approaches of City Cores Plotted Development Approach

A plotted development approach gives tremendous freedom in design, in consonance with aspirations and actual needs of user. It incorporates variety which in turn provides unconditional conviviality - a prerequisite of a make-believe world. In other hand, the generated variety can be disorderly-ugly, and even obscene, resulting from incompleteness of fragmented parts. The movement layout can, thus, lack continuum in which buildings and constructs do not respect layout references: entrances, forecourts, corridors. (Fig. 5-1).

The quality of space as a result suffers.

Mono Plane Pattern

Mono plane patterns show a tremendous apathy towards pedestrian movement characteristics by accepting pattern development on single plane and do not wish to create any intricate level differences taking away all the interest from pedestrian movement (Fig. 5-2).

They are only concern towards geometrical regularity and symmetry where plans tend to become more important than visual experiences. They limit the human envelopes and see planned spaces articulating buildings - akin to plan of a Roman colonial settlement where site characteristics have very little or no role to play. Such plans at best commiserate with configuration of land, facilitating economical use of space and time; allow freedom of movement resulting in well defined spaces which can be easily landscaped, provide easy access to clusters of activity having possibility of being connected to adjunct enclosures. Whereas on one hand, this approach gives rise to very simplified patterns, on the other, it creates conflict between vehicular and pedestrian; restrict viewing distances, which in turn reduces the sense of exhilaration. To summarise, this pattern reduces the sense of place giving rise to axiom like "where am I?"

Nothing illustrates this better than the beauty of Agora in Acropolis of the Greeks as compared to mighty forums of the Romans.

Bazaar Street Pattern-Conurbation Approach

Follow essentially a linear pattern - streets with shops and other activities on both sides of the Bazaar streets punctuated by other compatible land uses (Fig. 5-3).

It defines very strongly the pattern of movement; in linear enclosures; in planned shaded corridors; with movement channel accommodating major activity zones in the "ins and outs" of conurbation pattern. Most repeated example of this is the location of many of the municipal/estate offices in Indian bazaar (Ghanta ghar in Chandni Chowk, New Delhi), the Gaiety theatre at the Mall, Shimla . These planned buildings, at times, also get located on the intersection of two or more movement channels, e.g. Kaiserbagh, Lucknow, India.

Linear channels, though quite efficient for tropical climate (hot and dry) are restricted; structures aligned along the channel remain diffused in the absence of viewing foreground. Also, such linear channels are devoid of variety in floorscape and need careful handling to remove the boredom and also hinder integration of public facilities within the unidirectional channels.

Theme Based Planning

Planned pedestrian areas, usually a part of planned large public precincts, in their design (if designed by an architect) use symbolism in their design as the use of such symbolism tends to give design a theme, at times, a nostalgia of many great traditions which fascinate. Many a times, it is from such symbolism that the design evolves its meaning which can be reinterpreted and is more comprehensible; functions in planning of such pedestrian area are easier to locate, tending to give an impression of a system. The major disadvantage of use of symbolism in pedestrian precincts (which usually has two dimensional connotations) might seem farfetched; at time, it is independent- oblivious to constraints of the site, is sensitive to actual needs whose interpretation may be different. Add to this, the fact that the use of symbolism in planning such precincts makes site planning rigid, unchangeable and static (Fig. 5-4).

The classic example of the use of symbolism in planning of large pedestrian precincts is planning of Pragati Maidan in

India, where Raj Rewal, (a renowned Indian architect) used symbolism to evolve the circulation pattern comparing each pedestrian movement artery to the seven great rivers of India: Brahmaputra, Ganga, Mahanadi, Yamuna, Saraswati.....so on and so forth and justifying such symbolism of pedestrian movement with fluid water, which sweeps wide on curves and forms pools up and below.

Introvert Planning Approach (CBD)

The most popular approach in design of pedestrian precincts as it enables the identification of main zone of activity. These are mostly found in contemporary towns as district centres, sub-district centres etc with well defined boundaries, containing predominately commercial and business land uses. Historical examples of this is Italian and French renaissance piazzas, the Connaught place of New Delhi and the district centres such as Nehru Place, Bikajikama Place and Sector-17, Chandigarh. Amongst other things, introvert planning invites greater participation; can provide a climax—in the form of a landmark or a node which in turn ensures creating a make-believe world (Fig. 5-5).

Geometrical Matrixes Approach

It is a known fact that two dimensional patterns (consisting of hard and soft landscape, paving.) produce plans which are easier to subdivide; in which, at times, preconceived building forms and patterns can be located resulting in hierarchy of comprehensible enclosures (Fig. 5-6).

Whereas on one hand the aforesaid is valid, on the other, rigid adherence to follow geometrical matrixes tend to give straight jacket planning which is unsuitable for pedestrian movement; giving rise to abrupt changes in direction; where sense of orientation becomes ambiguous.

The classic example of use of such Geometrical patterns can again be the grand pedestrian precinct of Connaught Place, New Delhi (designed by great Edwin Lutyen) in which, till now, despite many attempts, no solution has been found to either connect the Central Park with the pedestrian movement or to maintain a continuum of pedestrian movement while crossing traffic arteries entering Connaught place.

CONCLUSION

The inferences of this paper performe suggests pattern of development in pedestrian precincts where one moves from design requirement to requirements perquisite, specifies various stakeholders, detail out the design requirement, function and physical implication of pattern of development in the particular site.

Listed below are the some thumb rules of achieving the aforesaid, which are this paper’s major inferences:

- Un-proportionate linear site needs to be broken;
- Pedestrian precincts, with limited accessibility, require dispersal of parking and entrance point;
- Predominantly pedestrian precincts must keep all vehicular traffic on the periphery;
- Sites, with awkward configuration, can be sorted out only if uninterrupted linkages and movement pattern is allowed;
- Pedestrian precincts work well if distinct channel with all characteristics of channel exist. Large pedestrian precincts need simplified vehicular channel which encompasses major zones of activities;

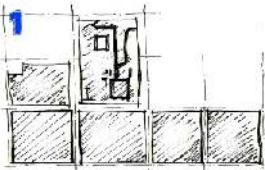

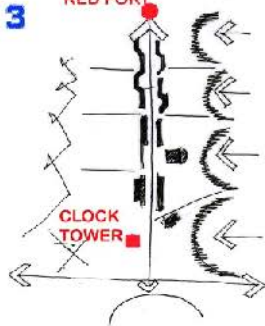
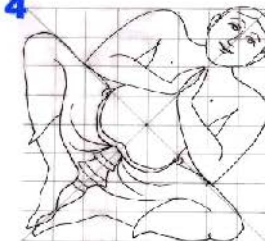
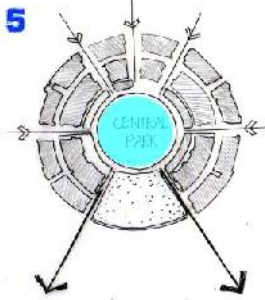
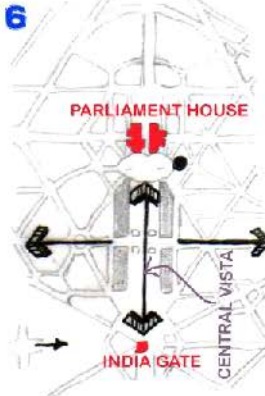
	<p>1 PLOTTED DEVELOPMENT OF JAIPUR, INDIA</p>
	<p>2 FORE-IGHTENING WHICH MIGHT RESULT TANT A MONOTONOUS PRECINCTS</p>
	<p>3 CONURBATION DEVELOPMENT WITH ITS INTERESTING INS OR OUTS AND A CONTINUATION OF PEDESTRIAN MOVEMENT AT CHANDANI CHOEK, DELHI, INDIA</p>
	<p>4 MANY PEDESTRIAN PRECINCTS TRY TO EMULATE SYMBOLISM: SUCH AS VASTU PURUSH MANDALA</p>
	<p>5 CONNAUGHT PLACE CENTRAL PARK INTROVERT PLANNING</p>
	<p>6 CENTRAL VISTA NEW DELH. INDIA IMPOSED ON HEXAGONAL MATRIX</p>

Fig. 5: Trends in design approaches of city cores

Dispersion of off-site traffic along the periphery helps in allowing a safer and clear access and exit ways of pedestrians; Pedestrian precincts needs the incorporation of characteristics which may motivate their movement;

For very large precincts, incorporation of few simplified vehicular channel helps in encompassing major activity zones; In case of availability of limited access points, either locate less intensive land uses like administrative, service areas etc along closed side or puncture the closed side for making more access points;

Location of major land uses and activity area at the centre and non building land uses at the corners creates a hierarchy of forms from dense in the centre to sparsely placed in the awkward corners;

Keeping apart/ unhindered but integration of three basic functions; i.e. work, leisure and circulation of a pedestrian precinct is mandatory;

A large activity area requires dispersed accessibility and movement channel;

Connection of different constructs with continuous corridor and landscaped area makes a site easily accessible to all the pedestrians;

Pattern is that visual form which may achieve the various goal like:

Variety in 2-dimensional faces (e.g. floorscapes, landscapes) Street patterns as good communicator

Creates visual contacts and dilute physical boundaries between various functions

Inbuilt flexibility of movement channel in pedestrian precincts need to be simple, need to provide convenient access and need to be in accordance with sun movement - possibly in shaded areas to break the monotony of movement, alignment of movement channels, require proper planning, give rise to location of landmarks, interesting serial vision for site.

The above in turn can be further improved by in-site intricate pattern to enhance the grain of circulation

The image quality of pedestrian precincts can be improved to bring in conviviality by:

Level changes;

Scale and form of enclosures;

Overlapping of distant object by closer ones;

Use of vista, court, and slot;

Use of water and trees for better climate;

Use of water to evoke moods of gaiety, mystery, majesty and shear, voluptuousness;

Use of water as sheet, jet, cascade and film etc.

For every developing country like India, whenever we try to achieve a comfortable level of ECONOMICS, ESTEEM or ENERGY, affordability is always an issue. We need to find alternate ways and means to fill the gap between "availability" and "affordability". History reminds about the fact that only a creative thought may help in solving such issues. There is an urgent need for "Doing more with less".

ENDNOTES

Buckminster fuller says, "There is no energy crisis, only a crisis of ignorance" (Wikipedia, 2012). Fuller was shocked on the amount of energy wasted by skiers with their heavy pack loaded on their back using trolleys, lifts and other infrastructure to take them to the top of the mountain with the only intention of skiing down the slope. He could not stand the wastage of precious million of tons of copper wire laid down at the bed of Atlantic to connect the Continent with America just to say a short "HELLO"; sure in the knowledge that human beings' ingenuity will very shortly come out with energy saving alternatives. Twenty years hence a small mobile has connected the world proving his axiom; "Doing more with the less" true (Wikipedia, 2012).

How then we remain oblivious to this lateral thinking of inventor geniuses and fail to appreciate the exhilaration of the great Louis Kahn, who propagated the idea of under-developed countries opting for new thought processes for solving the energy crisis facing the world and designing their cities accordingly.

Why can't the merit of all the aforesaid force us to revert back and think of exclusively pedestrian-friendly cores of cities, nay whole cities, where city cores so humanised are not criss-crossed by the monster vehicles and really bring the nostalgia of the pedestrian precincts of our bygone eras? We borrow from the ideas of these inventors and futurists and present a short paper giving strategies for humanizing city cores to give them the character of A Place."

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