Personalization and its Relation to the Perception of Safety: A Case in Residential Apartments

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Abstract—*Public space is a best example of a civic space. Since the classical cities of Greece and Rome, and through the renaissance Plazas to the City beautiful movements, the importance and need of a space for socialization has evolved. In recent dates this social space has evolved and developed with changes and modification and is an indispensible part of Urban life.*

While sociologists, planners and psychologists have researched on these two aspects, namely, 'public space design' and 'personalization' separately, there remains a theoretical gap, as these two have rarely been studied in the light of each other. The principal aim of this study is to investigate the nature of the dependence of the two, and further it envisages identifying the relation of experiential criteria of safety with the concept of personalization.

The method applied is two-fold. i) The direct inspection and observation technique is used and ii) a questionnaire survey is undertaken. The respondent's data is statistically analyzed and co-related with the observed data.

The working hypothesis is 'Personalization of Public Space is directly related to the feeling of safety' thus tested with the research based study.

1. INTRODUCTION

The present research is done as a part of the original research work that is aimed at identifying parameters and indicators for safer public spaces. This requires a multipronged study involving several methods and theories that are propounded by several theorists in this direction.

The study involves taking one issue that is directly related to the area of "safety as a psychological aspect" that is an immediate area of my study. This study also involves Questionnaire survey and Direct-observation techniques that belong to the domain of Research methodology.

1.1 Prologue

Aristotle had defined "space as a public container" when he described a public space. The place by its definition claims the inherent trait to be acceptable and accessible to a variety of people, belonging to myriad diversities of choices.

Personalization on the other-hand talks about that trait of living organisms that defines its "territory", demarcates the personal choice and gives an uniqueness to a place. The relationship between human and the built environment has been a large domain of study since the last century and half, and "place value", "place attachment" and personalization has been understood in social, environmental context by the social scientists.

Architectural and planning experts have had a paradigm shift with sociologist like, Patrick Geddes, Mumford and similar who started working on Environment-behaviour studies.

Along with the works of T Halls' "Personal space" and study of "Proxemics", Sommer's "bubble of privacy", Jane Jacob's "hierarchy of open space", the concept of "personalization" has broken the domain of simple "territoriality" or place markings prevalent in animal kingdom to the realm of sophisticated human space design.

1.2 Issue Identification

Researches have also been done in the direction understanding Urban place, with particular stress on public space and its relation to crime. They discuss that lack of safety in relation to "social area", "type of built environment", "local landscape" and similar parameters of study.

While sociologists, planners and psychologists have researched on these two aspects, namely, "public space design" and "personalization" however there remains a theoretical gap, as these two have rarely been studied in the light of each other. Although apparently it is paradoxical to suggest a connection between them, but since environment and human are reciprocal to each other and it is an observed fact how places adopt to changes based on human intervention, a study has been done to investigate the nature of the dependence of the two, and further it envisages to identify the relation of experiential criteria of safety with the concept of personalization.

This research seeks to identify a relationship between personalization and that of safety among residents in a typical apartment in a class 2 city in India.

2. AIM AND OBJECTIVE

This research based study is about to identify and investigate the nature of personalization that occur in semi-public spaces in apartment buildings and how much it is related with the safety concerns of the residents.

The objectives are double barreled:-

i) To see if territoriality is achieved through space personalization

ii) Linking space personalization to sense of belonging that relates to sense of safety.

For this an apartment building is selected in the new growth corridor of Bhopal (a grade 2 city) in India. The study highlighted the importance of semi-public and public spaces that exist between the residential zones and their contribution in the success of a project. The choice of an apartment is done (2 years to possession), and the space personalization is rationalized with safety considerations of the occupants.

Since the building chosen for the study had areas restricted that could be personalized, therefore the study area was limited to the circulation lobby which was also the entrance area to individual residential units. This selection was effective for the study as this area was heavily personalized in maximum cases thus providing enough data to work on.

3. RESEARCH METHODOLOGY

The whole idea of this research is two-pronged.

"Is there a relationship between space personalization and the sense of security in typical residential apartments?"

Additional query is, that if the answer to the above question is "yes", then "what are the main factors and elements of design that influence the same".

Given that human tend to personalize space according to their own choice which has been discussed in several academic works and has been termed as as "legibility" and "identity of place" by Lynch, "unique address" by Relph, "place and occasion" by Aldo Van Eyck, and "place making" by Jane Jacob, my research is based to identify the architectural design elements that people tend to use to personalize their own residences in a typical/ prototype design.

For this a residential high rise apartment complex in Lalghati area of Bhopal city has been considered as live case study, and want to study how the entrance to each flat has been personalized by the owners/ residents has been conducted.

In this light my research is also to identify if the personalization can also help in developing the sense of security within the residents. The methodology adopted for conducting this research is as follows

i.   Selection of sample environment. (a G+6 apartment, with 168 number 3-4 BHK units)

ii.   Selection of sampling procedure
iii. Nature of data collection
      a) step 1- Direct Inspection procedure which involves reconnaissance survey and observation based study and record,
      b) step 2- Formulation of questionnaire
      c) step3- Interview conducted
iv.   Data analysis.
v.   Relation with safety established.

4. CONTEXT OF STUDY: SELECTION OF STUDY AREA

Environmental behavior studies is a field of research that discusses the relationship between the environment (natural and built) and the inmates –the users and settings or places. The behavioural pattern of humans have been studied over time and one of the natural instincts that has been observed by all scholars is the concept of "territoriality". Territoriality is a concept older than the origin of mankind. It is a behavioural pattern observed in various animals species and relates to the concept of "fright-distance" and "flight distance". A "territory" can be explained as an area, two-dimentional, or three dimentional that belongs to a particular user/ user group and not preferred to be invaded.

This area or the territory can be described or demarcated by physical elements or "markers". Sometimes the delineation of place is purely behavioural (through body-language). However, this is a proof of- social cognition approach and done for simplification and order. Moreover, it is much easy to survive in a society if we know how to behave and act.

The current study has considered this concept and its manifestation to "personalization" – an attribute more observed in highly intelligent mammals, particularly humans. This may be thought to be remotely related to Sullivan's famous dictum" form follows function" or directly opposing it. The concept has gained wings under the studies of several social scientists who proved that inhabitants/ users often make several changes or modifications to the surrounding environments that had not been foreseen by the designers. This was purely born of human need satisfying various degrees of needs as observed in Maslow's hierarchy of needs.

The study is directed to study the experiential concept of safety with personalization of space, mostly is public/ semi-public areas.

5. DATA COLLECTION AND ANALYSIS

The process involved translating the questionnaire in vernacular language (hindi) and most of the time the format was filled in by the investigator herself. Many people had to be asked general questions and the same was recorded in cell phone. Photographs were also taken on cellular phone to validate the reconnaissance study.

Out of 168 residential units, residents of 4 units did not participate, and 3 units were clubbed into single unit. Thus the total number of studies that could be collected was 161. Out of which 11 units were devoid of any form of observable personalization. Thus the study was concentrated on 151 units.

The data collection started with "direct observation method", which helps in identifying "direct manifestation of design by users" (Ziesel,1984) and also according to Rathje (1979) who defined physical traces as "any changes to the physical environment due to human actions".

As the visual record was based on the 4 major types of changes or interventions done, they are recorded as below:-

Table 1: Personalization with Fully Built-in Elements

	Description		Number of cases	Percentage
1	protective/extra door addition	screen doors	17	11
		grilled doors/ collapsible gates	7	5
2	Built in frames		3	2
3	Renovated main door panel		6	4
4	Renovated entire opening		8	5
5	Wall finishes/Paintings		3	2
			44	29

Table 2: Personalization with Partially / Lightly Built-in Elements

	Description	Number of cases	Percentage
1	Shelves	4	3
2	Decorative name plates	9	6
3	Light fittings	5	3
4	Ironmongary	9	6
5	Pictures/wall hanglings	5	3
6	Env Control(Coolers/AC units)	4	3
		36	24

Table 3: Personalization with Easily Moveable Elements

	Description		Number of cases	Percentage
1	Loose furniture		68	45
2	Household equipment	Bicycles	16	11
		dustbin	29	19
		clothstand	1	1
		water filter	1	1
		steel trunk	5	3
		earthen pot	2	1
		sofa set	2	1
3	Landscape features		45	30

Table 4: Personalization with Temporary / Fully Adjustable / Frequently altered Elements

	Description	Number of cases	Percentage
1	Rangoli	6	4
2	Construction material	5	3
3	packing boxes	8	5

6. RESULTS AND DISCUSSION

Discussion and questionnaire survey revealed some interesting facts about the choice and preferences of the residents, and the overall relation between the degree of change to the intention behind.

The questionnaire survey also revealed a large number of data that was otherwise not identifiable.

The graph shows that the Easily Movable-type of personalization is the maximum practiced form of space modification that has een used in the study area.

Also through discussion it was known that many residents (almost 50%) were in rented condition, and thus couldnot legally go in for fully built-in renovations.

The study revealed that mobile furniture is the mostly used element (45%) and just next to it followed landscape treatment. (30%)

Many people who went for fully built-in mode of personalization used double doors , protective doors, changed the door type, or even altered the entire door opening (27%).

Of the easily movable things that were kept, some were purely utilitarian and did not contribute to aesthetics, privacy or self esteem- like dustbins, bicycles, trunks etc.

RESULTS FROM QUESTIONNAIRE SURVEY

Q1. a) Do you think you have modified the entrance to your flat only to improve its appearance?

1.a.1 To make it feel more part of my home rather than an extension of the communal space outside
1.a.2 to make other areas of the flat more private when answering the door
1.a.3 to make the place look much more visibly pleasing
1.a.4 to make the space more functional such as the addition of a shoe rack or coat hooks".

IMAGE	15
PRIVACY/SECURITY	41
AESTHETICS	52
FUNCTIONALITY	42
	150

Q1. b) what other reasons may be applicable? Choose ONLY ONE that is applicable.

- It increases degree of privacy. — 77
- It helps in giving an identity to the place. — 53
- It helps in defining an area. — 9
- Helps in creating hierarchy of space. — 11

150

The answer shows higher bias towards having degree of privacy observed by the people who have made most modifications in the entrance area. However it also reinforced the "self esteem" concept.

Q2. What time of the day do you have visitors most? Choose the correct answer.

- From 6:00 am to 9:00 am
- From 9:00 am to 12:00 noon.
- From 12:00 pm to 3:00 pm.
- From 3.00 pm to 6.00 pm. — 17
- From 6:00 pm to 9:00 pm. — 90

It was identified that most respondents whose entrance was mostly personalised expected more visitors at late hours, confirming their higher comfort level in respect of safer feeling.

RESULTS FROM QUESTIONNAIRE SURVEY

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IMAGE	15
PRIVACY/SECURITY	41
AESTHETICS	52
FUNCTIONALITY	42
	150

Q3. Rate the visibility of the entrance to your flat from other areas of your flat.

no visibility	less visibility	medium visibility	good visibility	full visibility	
0	1	2	3	4	
		13	37	101	151

The above question was answered with the result mostly saying "full visibility"

Q4. Do you change the entrance décor often? Please Rate frequency.

never	yearly	quarterly	every month	
0	1	3	4	
0	38	14	0	52

This question was not answered by all respondents. However most of the answers trends to yearly renovation. This explains that most renovations are of semi-permanent nature.

Q6. "I find the residential colony quite secure with respect to danger from crime and vandalism."

Activity	Strongly disagree	Somewhat disagree	Somewhat agree	Strongly agree	
Protective door added			5	18	23
Renovated entire opening				2	2
Frame built-in				2	2
Renovated main door panel			2	4	6
Light fittings			2	3	5
Movable furniture		5	12	49	66
Wall finish	1	5	1		7
Decorated name plate/pictures	5	2	2		9
Landscaped area		1	7	23	31
	12	35	104		151

The table 5 below is a summary of the observations and inferences that have been identified through the research study

Table 5: Personalization with Fully Built-in Elements

	Observed change		Recorded Effect
Fully built in	screen doors		Greater degree of sense of privacy, security. Mostly accepts visitors at late hours and comfortable with meeting visitors at length at the entrance.
	grilled doors/ collapsible gates		
	Built in frames		
	Renovated main door panel		
	Renovated entire opening		
	Wall finishes/Paintings		
Partially buit-in	Shelves		The sense of image is great but also a great degree of security prevailed along with the people who did personalization. But also things done to increase aesthetics
	Decorative name plates		
	Light fittings		
	Ironmongary		
	Pictures/wall hanglings		
	Env Control(Coolers/AC units)		
Easily movable	Loose furniture		Observation and interaction proved that people went for this alternative when mostly they wanted more territorial definition but were not directly owning the flat. Thus this was seen as increasing the aesthetics, function and also to great extent the sense of safety among the people.
	Household items	Bicycles dustbin Cloth-stand water filter steel trunk earthen pot sofa set	
	Landscape features		
Temporary	Rangoli		People did not relate to safety or functionality with these.
	Construction material		
	packing boxes		

7. CONCLUSION

The data analysis results in realizing that most of the people did personalize their entrance area although it is actually a common space. Thus integration of "place value" is definitely observed.

The results show that more the "Fully built-in " is the nature of personalization, greater is the feeling of safety and security in the residents.

The residents who own the flats have mostly personalized. Others (rented occupants) have also personalized but mostly through the "Partially built-in" or" Easily Movable "features.

Another interesting finding is that "feeling of safety" and "degree of personalization" goes hand in hand, in a way, that one has encouraged the other. That is, if it feels safe, the objects are kept and vise-versa.

This study has been a small step to achieve the objectives of the research, and through the social behavioral study, it was found that even if to a small degree the below hypothesis are true.

That is,

i) Territoriality is achieved through space personalization

ii) There is a positive linkage between space personalization to sense of belonging that relates to sense of safety

8. FUTURE SCOPE OF WORK

The research was conducted in a semi open space and under a controlled set up. However this research method can be successfully applied in open public places where the diversity of users is more and also the perception criteria is varied.

The sampling technique has to be devised to suit the need of the research and then the research will use multi-criteria analysis techniques and the result will be more accurate if co-relation matrix can be generated.

This research has proved to a precursor to a much bigger study that will follow after larger data collection in a larger context.

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