Jurnal Teknologi

Full paper

Pragmatic Probe: Preference and Satisfaction with Built Environment

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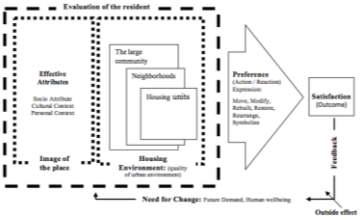
Article history

Received: 10 November 2014
Received in revised form:
23 January 2015
Accepted: 12 April 2015

Graphical abstract



Abstract

Enhancing the quality of urban life is considered by social scientists. It has instigated a growing attention in findings from surveys aiming to measure the inhabitant image in particular places. This paper investigates preference and satisfaction that utilizes a model from both a conceptual and empirical perspective. It mainly explores the image of certain social-spatial factors enhanced in the degree of preference and satisfaction with neighborhood and housing types on both scales, as an overall and as details of urban elements and house features. It first presents a brief overview of literature and the methodology and then reviews findings covering 162 respondents living in two cities that represent four different neighborhood patterns, social-spatial characters, and housing types. The four neighborhoods are: traditional settlements, attached houses, tower apartments and single family houses. The major findings reveal that satisfaction within a given neighborhood does not necessarily associate with place attachment and similarly, despite realization of lacking certain social-spatial qualities in the neighborhood, people may feel attached to the place because of certain attributes. However, there is on one hand a positive relationship between satisfaction and feelings of a neighborhood as home, and on the other hand, differences in preference and satisfaction of house types, urban elements and house features.

Keywords: Social-spatial environment; satisfaction; preference; attachment

1.0 INTRODUCTION

Cities forms and functions are never static, their older parts, where they are retained, are transformed by the dynamics of their culture and spatial requirements. Homes, streets, and neighborhoods differ from one another, but are hierarchically connected realms. Built up areas expand. New neighborhoods and arteries are designed as attached parts via vehicular and pedestrian roadways and as a communication system. Home, as an essential component of neighborhood formation, is a familiar place where the family lives; as a geographical world, it represents self, family and societal culture. As Greenbie put it, "Homes are expressions of our individual personalities combined with those of our class, culture, and time" (1981, p.4). His statement anchors on the individualistic personality of residents expressed by house features; and likewise, it can refer to neighborhood development. Neighborhood layouts and house designs, as an appearance of the arrangement of spaces, ordering of furnishings and style of decoration (ceilings, walls, closets, elevations, status, etc.) are often modified to pragmatically express changing social connections, social-religious ideals and social intentions. No matter how individualistic people are, their designs and decorations inter-subjectively follow cultural norms and social conventions.

In this respect, it can be said that use of typical colors, designs, arrangements, and so forth is a way of expressing belonging to the group, and adherence to a set of beliefs and ideology. At general level, people may have very different color and forms preferences (Suchman, 1966). Hence, street and house characteristics are expected to provide evidence of people's images of house and urban elements as associated with the pragmatic enhancement of spatial forms and details. To examine that premise, consideration of inhabitant preference and satisfaction sought to identify the significant differences and similarity among their images of urban elements and illustrates the relationship of elements to behavioural patterns of people. In this study, the focus is on neighborhoods. As case studies, two capital cities were targeted, Muscat, Oman and Damascus, Syria. In order to compare both cases, one must explore the following, the level of preference and satisfaction of both cities to their overall residences, the critical design elements that explain differences in the level of satisfaction and lastly, the level of preference of occupants of residential design features and layout.

2.0 LITERATURE REVIEW AND DERIVED THEMES

Residential environments can be thought of at least as three constituent realms, that contribute to residential satisfaction: the

housing unit, the neighborhood, and the larger community (Campbell, *et al*. 1976). However, it should be recognized that feelings about any one of these realms can influence feelings about another (Basolo and Strong, 2002). If someone likes his house, he might feel more satisfied about his neighborhood. While satisfaction has been studied frequently in neighborhood research (Campbell *et al*., 1976; Hall, 1974; Marans, 2003, Keyvanfar *et al*., 2014a, Keyyvanfar *et al*., 2014 b, Lamit *et al*., 2013a, Lamit *et al*., 2013b), several others have also been used to measure neighborhood preferences. Among those, are various researches tapping at people's lucid preferences of their housing environment. For example, peoples image of their residents and the needed action was targeted by Basolo and Strong (2002), Myers and Gearin (2001) and Myers, Dowell, and Elizabeth Gearin (2001) who searched for preferences and future demand in residential environments, while perceptions, evaluations, and satisfactions was interestingly exploded by Campbell *et al*. (1976), Marans (2003) and Hall (1974) in their search for the quality of life. Similarly, Pacione (2003) aimed for the human wellbeing in relation to the quality of urban environment. There is mixed evidence as to the degree of preference and satisfaction for specific amenities that are usually "embedded in larger residential stereotypes", both in surveys and in the built environment (Myers and Gearin 2001, p. 639).

Ferwati (2010) talked about the degree of satisfaction with a place being governed by a number of factors including both social and physical attributes of the built environment. In a few words, the effect of residential satisfaction may be a result of personal and experiential factors such as previous housing experience, the degree of integration into the society, the socio-psychological attitude toward the society, and the aspiration level (Pacione, 2003). But is there a process through which both preference and satisfaction are tagged on? Through three conceptual models the response to this inquiry is examined upon which the study theme is derived.

As Rapoport (1977) puts it in his model shown in Figure 1, a spatial / behavioral outcome mirrors perception of environmental quality, images, and environment evaluation and preference. One's preference of hosing environment goes through a process of examination of available choices (situation as an objective attributes) that achieve the best possible level of satisfaction with residents. Choices are filtered by cultural, personal, temporal attributes, etc. and evaluated on the base of environmental quality (e.g., Stagner, 1970), norms, values (Rapoport, 1977), ideal images, and life style (Moore, 1972).

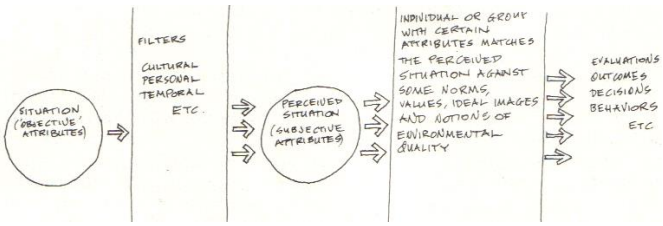


Figure 1 Perception of environmental quality–environment evaluation and preference (Rapoport, 1977, p. 48)

Spatial patterns are an outcome of spatial behavior. One may need to adjust behavior to conform to the prevailing norm and patterns of what is acceptable, expected, permitted and prohibited (Rapoport, 1976, 1982). If the outcome unsatisfactory then achieving a preferred environment is failed, an adaptation is the way out, otherwise people life is spatially affected. (Repoport, 1977, Majid *et al*., 2012a). Similarly, Gifford (2002) drew a research model (Figure 2) to illustrate the relationship between the physical built environment (Distal Cues) and intangible attributes (Proximal Cues) that play a significant role in the spatial decision-making that reveals people choice of a better fit living place.

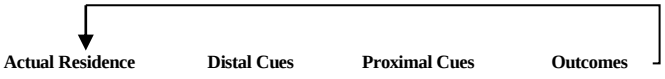


Figure 2 Research model of residential satisfaction, behaviour and well-being (Adapted from Gifford, 2002)

Rapoport and Gifford's models lack a further step where people tend to reevaluate the outcome through multiple feedbacks that lead to an extra mile search for the possible modification in the spatial outcome to reach the best fit possible. Bjorklund introduces her model, Behavior as a Spatial Search (Figure 3) through four components to illustrate the man-environment interaction process that's responsible for the development of various spatial patterns (1983, p. 93).

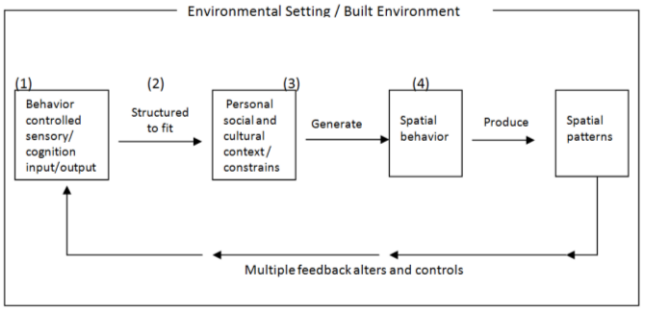


Figure 3 Simplified Bjorklund's model of "Behavior as a Spatial Search", 1983, p. 93

Component 1: According to Bjorklund (1983), operation of our behavioral-controlled sensory systems (as search mechanisms), messages are constructed in the mind-body. The control of sensory systems is generated by one's intention towards an information system(s) of the built environment, ignoring the others (Majid *et al*., 2012b, Majid *et al*., 2012c). One focuses his/her sensory system on the information system(s) that serves his/her purposes related to social activities, economic benefits, entertainment, etc.

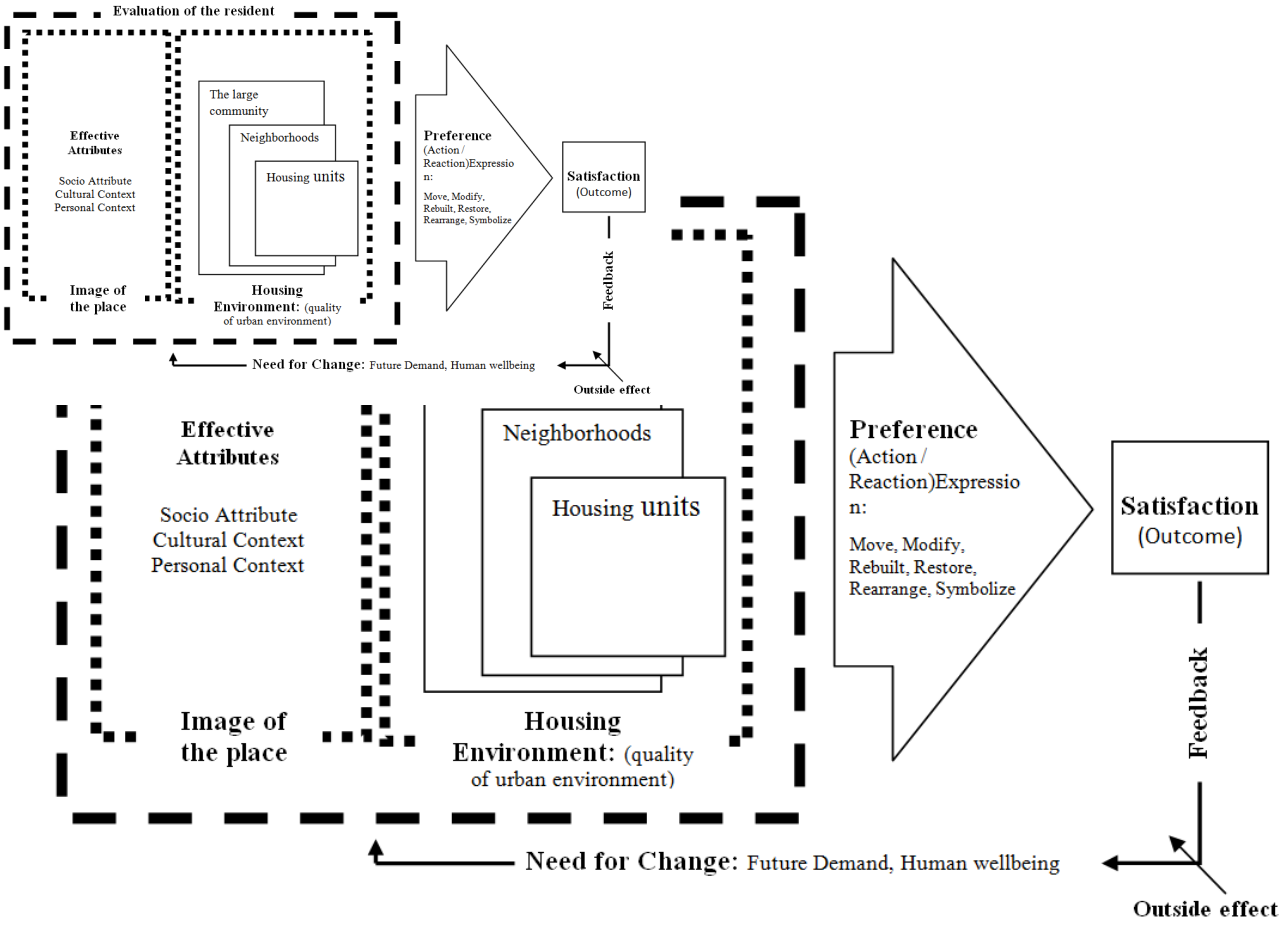
Component 2: Inside-the-self, the message (the information derived from the environmental setting) is decoded (interpreted) or structured to fit in light of cultural and personal contexts and constraints. Cultural and personal contexts and constraints connect variables, such as architectural types, symbols, and colors, at both the personal and group levels. Interpretation of the decoded message is not always the same because it is done in the light of personal and past acquired information which perpetually changes the ground of perception.

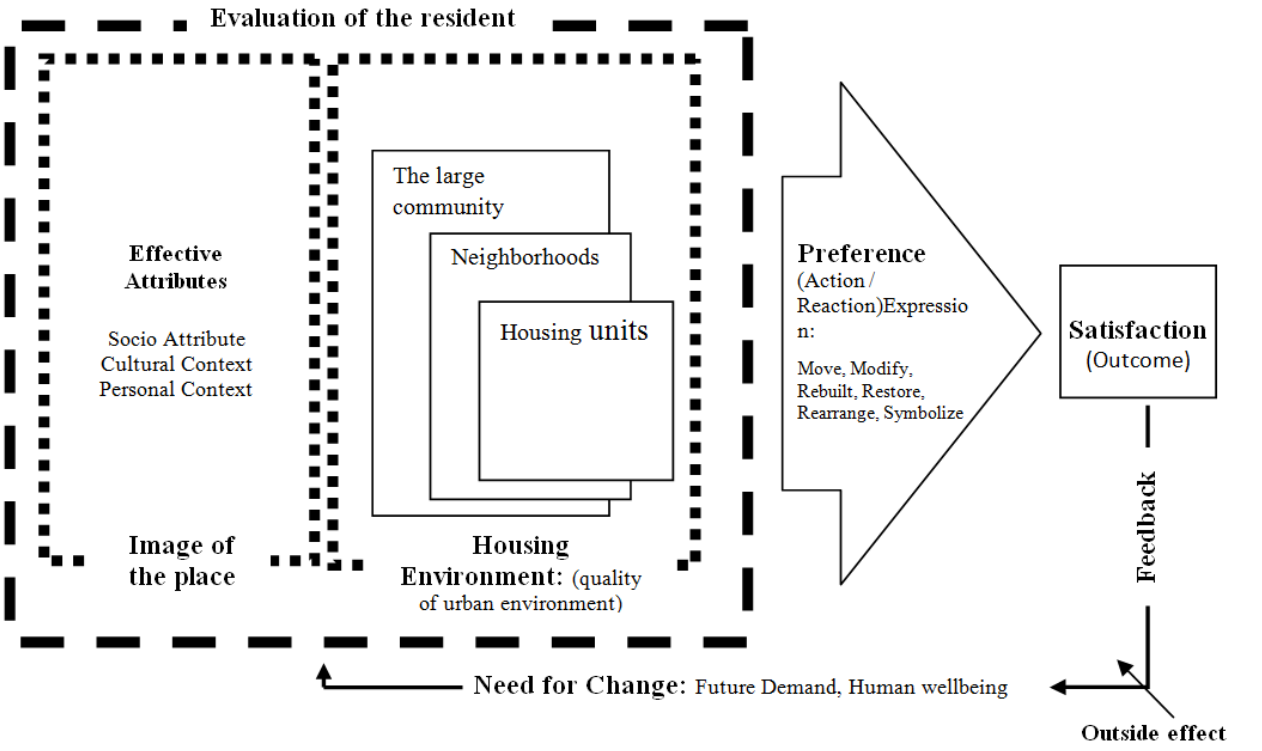
Components 3 and 4: Mental activities (perception-cognition) are reflected in our intentions and decisions to select appropriate information and to adapt to change in the surroundings. Actions resulting from mental activities are subsumed by the term 'spatial behavior' or human action and interaction in the built environment. Spatial behavior is determined in relation to personal and cultural constraints. Cultural constraints are revealed by the shared social principles, conventions, rules, laws as what an individual can or cannot do in a certain urban setting.

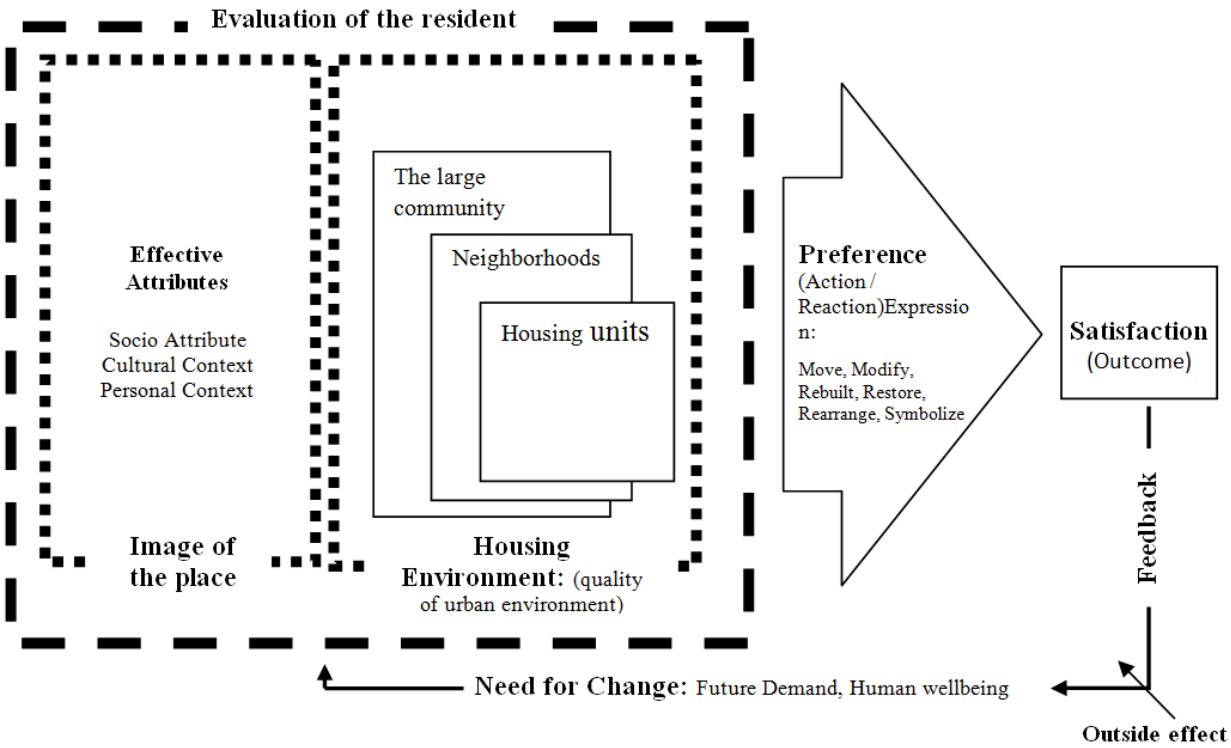
There is always feedback that reflects loss, gain, and transformation of information in this process. Feedbacks are essential to replicate activities, actions and interactions among individuals and between individuals and environment over time. Feedbacks also reflect changes in information and its interpretation through time. Changes in a person's or group's degree of satisfaction and preference for certain environmental events occurring as persons undergo developmental, social, political and economic changes (Ferwati, 2010, Shafaghat *et al*., 2014, Majid *et al*., 2012b).

From this concise literature review a thematic body, illustrated in Figure 4, is derived. It shows the pragmatic relationship among all constituents that impinge on the level of our preference and satisfaction. Starting from the need for change takes place when people, as dynamic beings, require alteration in their living place for a better place that fits their wellbeing (stress-free and healthy) and future demands. In the search for improvement, whether to cope with the available physical living place, modify it, or even move to a new house (Priemus, (1989), one goes through two realms act as socio-filtering systems: the physical and the image of the places (Proximal cues and Distal cues).

On one hand, we have the image of the place. It precedes the physical since it is responsible for the predetermination of one's decision making to adapt, produce, modify, reform, rearrange, restore, and symbolize their living place; or they may even move out streets that do not fit their images and dreams of living type and life style. On the other hand, we have the physical realm that considers the property price, size, geographical location, urban context, and architectural style.i As preference or satisfaction can be demanding, this thematic model is set open through the feedback process to take on all changes including the outside influences that feed the resident's thought and illustrate new alternatives.




Evaluation of the resident
Effective Attributes
Socio Attribute
Cultural Context
Personal Context
The large community
Neighborhoods
Housing units
Image of the place
Housing Environment: (quality of urban environment)
Preference (Action / Reaction)Expressio n:
Move, Modify, Rebuilt, Restore, Rearrange, Symbolize
Satisfaction (Outcome)
Feedback
Need for Change: Future Demand, Human wellbeing
Outside effect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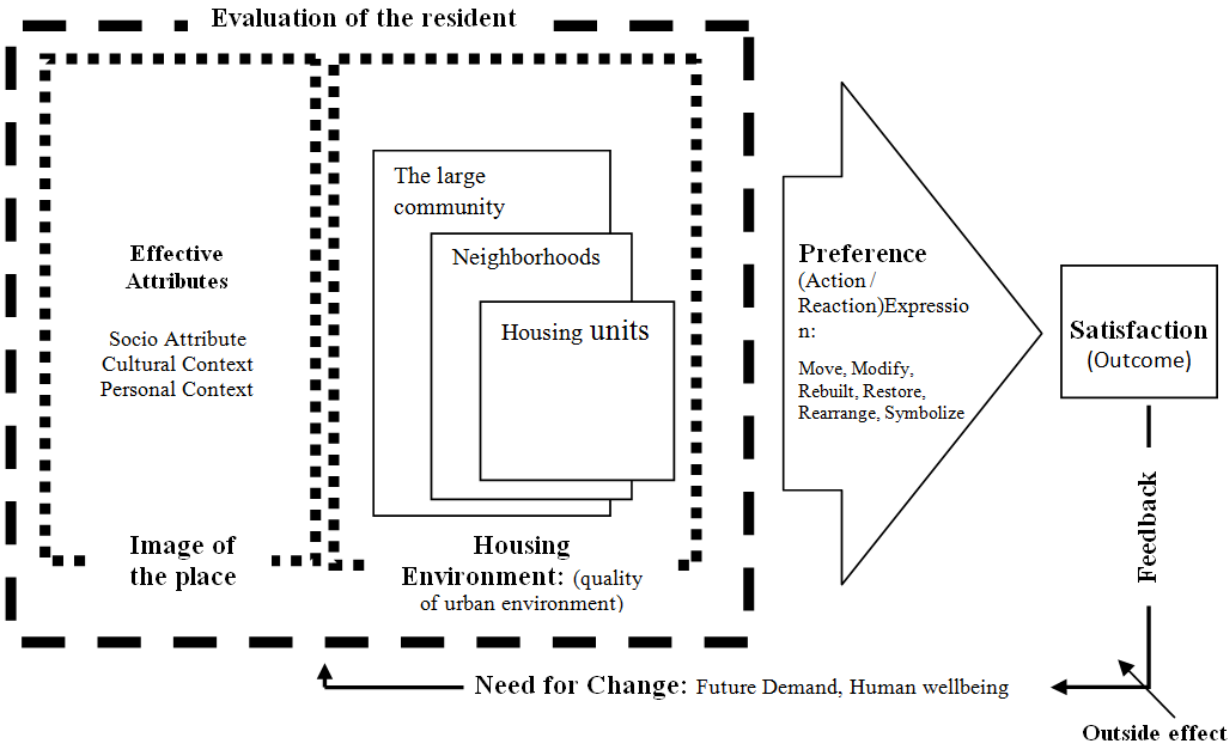

Figure 4 Conceptual model for the process of residents' preference and satisfaction (by author)

■3.0 DATA COLLECTION AND METHODOLOGICAL APPROACH

Inhabitant expressions of preference and satisfaction are bases for discovering the pragmatic meanings of urban elements that requires a field data survey prolonged to residents of both cities, Damascus and Muscat. The conceptual model, Figure 4, divides the research into four sections; the first section studies the spatial constituents that form the housing environment. It illustrates the major characteristics that point up compatriot experience with different house types. The second section studies the socio-spatial aspects. It meant to explore the intangible attributes that emulate the user's urban images, perception, social life and aspiration.

Through sections three and four, residents' preferences of and satisfactions with their living places are conducted by direct survey. Participants in the survey were representing a variety of age, tribes, occupations, and household types. Their responses were performed on various questionnaire types: one was the use of a five point scale and another required the rank of elements from the most to the least preference. We reported descriptive statistics on perceptions of neighborhoods and desired house types.

3.1 Housing Development

3.1.1 Overall Distribution of House Types

Damascus, the capital city of Syria, is known as the oldest continually inhabited city in the world. It is located on the east side of Al-Kasuon Mountain; and has the population of 4 million. It consists of two distinctive residential parts: the traditional and the modern. The former, occupying 17 percent of the overall city area, is located in the Old Walled City with organic extensions, to the south forming Al-Midan quarter and to the north and north west forming Bab Sreja, Al-Kaimariea and Al-Salihiea quarters.

Modern Damascus encompasses three distinctive housing types, attached, detached, and tower buildings. The land use map (Figure 5) shows that each residential area occupies a considerable territory: attached residential areas, forming 48 percent of the city's residential areas, are mostly located near traditional areas and in the south; detached residential areas, forming 20 percent, are mostly found in the north and the west; tower buildings cover 15 percent of the all residential areas; they are mostly found in the north and west, near detached residential areas.

In similar searching for Muscat's house typologyii, we find five main house types: one refers to traditional houses that constitutes of 27 % of overall muscatel region. It is distributed in three areas: Old Muscat, Matrah, and Rawi. These houses are attached and have irregular-layout with open inner space. The other major type is made up of villas, which forms 43 % located in newly development areas. The other two types are walk up attached apartments and detached buildings forming 21 % and 9 % respectively, found in scattered spots mostly in Al-Kwar, Al-Aziba, Al-Koubra, and Al-Seeb neighbourhoods. iii The tower residential buildings form the fourth residential type with a maximum height of 8 stories. It is new and fast growing in a scatter pattern all over the city as it mainly fills inlands or occupies leftover lots.

Consequently, single family houses and villas are common residence types in Omani urban scene while the apartment buildings dominate the urban layout in Damascus city. Omani

neighbourhoods reflect quiet and clean places with low density ranges between 25 to 35 houses per hector while Damascenes experienced crowded, congested, noisy neighbourhoods with the average density of 70 units per hector.

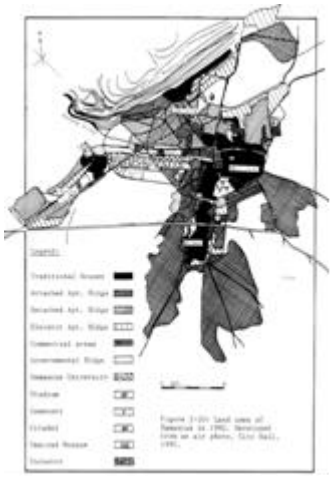

Figure 5 The land use map of Damascus city (by author)

3.1.2 Differences in Urban Forms: Tradition to Modern

(a) Street layout: changes from a traditional organic layout to a geometrical pattern become the tendency in modern street pattern that worked nicely to create noticeable land subdivisions while at the same time helps to accommodate cars as the main circulation means. Furthermore, the traditional windy the street makes the streetscape-perception full with manipulative views and surprises; while on the contrary, the modern straight street makes it possible to perceive the entire street in one glance.

(b) Spatial relation among different land uses: In traditional city, it is common to locate the public land use such as commercial, worship, and governmental buildings in the main street forming a strip public action area. This area attached back to back to the traditional compact residential buildings. Such attachment works in buffering both zoning from each other resulting in maintaining the segregation of public and private to avoid noise and crowded public action area while at the same endorse the protected and peaceful residential ambiance. Even though those notions of urban requirements are maintained in the modern neighborhoods, the solution comes different. Here, streets work as the buffering area and public action area become a defined square or block.

(c) Building skyline: As traditional houses lean on each other mostly at three sides leaving narrow gaps for street vein to take place, the overall front elevation shows the impossibility to distinguish one house from another. The street elevation is a continuous skyline with connected various elements that belong to the street gate, a local mosque, residential buildings, or a corner store. On the contrary, in modern neighborhoods, each residential building stands by itself. Repetitive elevation design is common. As a result, as Relaph (1976) puts it, too much similarity of buildings causing one to easily get lost and the feeling of "placelessness" results.

(d) Spatial layout: while traditional urban areas are developed outward, the modern areas are dominated with upward developments. Furthermore, the solid and void relation is reverse between both cases. While in modern neighborhoods the building stands in the center of an open space, in the traditional case, the building surrounds the open space promoting its private intensity to the utmost possible.

(e) View and sun accessibility: As a consequence of the house spatial layout, both in-out views and the geographical directions add another foremost difference between traditional and modern neighborhoods. In one hand, the traditional building has all its rooms oriented inward facing the confined open space. With its four inner elevations the sun casts and bounces its light all over the space. On the other hand, with the exception of villa type, the modern apartment residential unit has one, two, or three directions at most confining their view and sun exposure to their outward outlet.

3.1.3 House Design

Differences of modern house designs in both cities are perceptible. The comparison of 27 Omani and 32 Damascene houses of various types demonstrate that: the Omani house has bigger rooms with the average size of 14 to 25 m2, while Damascene houses ranges between 6 to 12 m2. That initial disparity is counted on different reasons. The Omani Government distributes free 400-600 m2 land on every new family. The size is good enough to build a two storey villa or a small walk up apartment building. For Syrians the case is related to land value and market demand. Here, in addition to the sky-soar land value, people built for profit seeking maximum revenue. The prize of 100-150 m2 apartment unit ranges from 100,000 to 500,000 Dollars depends on the location.

For both traditional Damascene and Muscat houses, the average size is undeterminable since a neighbourhood form a mix of houses with various family statuses (poor and wealthy families live door to door) and land availability; so the outer elevations poorly reflect the occupier's societal position and income (Figure 6). However, the house layout between both cities shows differences. The traditional Muscat house consists of a two-meter-height solid fence containing a cluster of various functional rooms within an irregular open space as shown in Figure 5. The open space is used for two purposes: one to accommodate new rooms when the family size increases; and two, for family gathering. Usually the kitchen is a separate room found at the end of the house with an access from the open space. Also a majlus, big room, is located close to the entrance with its own entrance used for guest. This old layout is carried into the modern house where the kitchen is laid far from the entrance and the guest room is built closed to the main entrance with a separate outer entrance. In the case of the villa, the kitchen has an additional outdoor or found entirely separate.

Figure 6 shows a locality of an extended family houses in Old Al-Khoud neighborhoods, Oman

Damascene traditional house, as Figure 7 shows a simple typical house layout, has a regular inner-courtyard with central water fountain, an iwan facing the North side, a Ka'a (big guest room) close to the entrance, kitchen follow the entrance, and rooms for living and sleeping with single facades toward the open space. Not shown in Figure 7 is the stair case that leads to the upper level where other rooms for sleeping and living are found. The stair case also leads to the flat roof used as a multi purpose open space. Beside the main entrance another or more outer doors can be found in huge size houses, such as Alazam Palace and Maktab Anbar. The upper floor may not be entirely built and terraces (mashraka) may be found among rooms. Through time when the family size requires extra room, an addition can be built in the mashraka or on the flat roof.

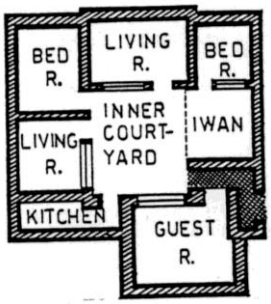

Figure 7. shows a simplified plan of Damascene traditional houses. Notice the shape of the entrance that forms the Medkal, private zone

■4.0 SOCIO-SPATIAL CHARACTERISTICS

Omani and Syrian encompass main cultural aspects as they share history, religion, and language. For both, large household size suggests that a family is of high status and power. Therefore, "cultural preference" encourages the creation of patria-local households that strengthen the extended family's social standing (Stevenson, 2008). Religious role also as its effective inputs on the cultural preference as marriage sons encourage to take care of them as they age. Co-residing with or live close to parents are responsible for the phenomenon of patria-local households distributions that are principally evident in traditional built environment.

In the case of Damascus, the spatial distribution of households follows the system of Al-ahia, districts society such as Hai Al-Midan, HaiAlshakoor, Hai Al-Kasa, and HaiAlsalishiea.Haiis a single district or quarterconsists of harat (hara for singular), an Arabic name for neighbourhoods that defined by both social and physical characteristics. Each Hai has some known big families. Members of the one hai are close members as one big family. they share good and bad days. In so hai, there is almkhtar, a wiseman who is known by everyone in the Hai as the "big Al-hara". Since fifties when newly modern walk up apartment (attached or detached) start dominate the urban scene, where physical environment does not support social interaction, but still people daily or often interact with their new neighbours in local mosques, butcher shops, corner stores, barbershops, building stairs, and bus stops.

The spatial distribution of Omani tribesworks nicely in synonymous with Damascene family household urban pattern. Tribal families dominate the urban layout scene such as Alharthy, Alakhbari, Alsaadi, and Alarimi. As people move to the city, their neighbourhoods do not work strongly on the social level. That is because people prefer to keep continuous contact with their tribal members despite the fact that they live apart.

In both cities, in response to a questionnaire, people had their first choice for living is heir birth neighbourhoods, hai, hara, tribal settlement. That supports the notion of the extended families or nuclear family cluster. The nuclear family as a spatial behavioural pattern is obvious in just newly built settlements in Oman, while in Damascus it goes back round 60 years.

With these differences between both cities, would the level of preference and satisfaction of the residents show no significant difference?

4.1 Satisfaction with the Domain and Neighbourhood

183 Omani and 340 Damascene participants were directly asked to express on a five-point scale their degree of satisfaction, first with their houses, and second with their neighbourhoods. The results shown in Tables 1 and 2 apprehend the weighted values that derived from the percentage of participants. Omanis' satisfaction with their houses and neighbourhoods counted 65 and 63 percentages for levels 4 and 5, satisfy and very satisfy. Whereas for levels 1 and 2 that is the least satisfied shows the results of 9 and 17 respectively. Damascenes show similar results. Still the significant difference is that Omani has higher level of the most satisfaction than the Damascene for houses and neighbourhood as well. But how similar are the degrees of satisfaction of residents of both cities? Through application of the Mann-Whitney Test, the distribution of frequency values scored by residents of both cities is tested. The null hypothesis states that: between residents of both cities, there are no significant differences in their degrees of satisfaction with their own living places (house/neighborhood).

The result reveals that at the probability level (P) of 0.1, H0 is accepted. People of both cities are relatively similarly satisfied with their residences. The high P values and the sum of the weighted values indicate that people throughout the city are satisfied with their living places. This satisfaction could be a result of many factors. 1) People have familiarity with the living place, which they have modified to reflect their own preferences. 2) People's social life has been developed over long periods of living in these neighbourhoods. 3) They perceive little or no opportunity to change their type of housing. 4) They have little or no experience with other environments that pointed out in the survey. Living span in their houses is over 20 years

and their experiences of other house types are limited to one or two years at most.

Table 1 Omani Case: Frequency table and percentages of participants' satisfaction with their houses on a five point scale. Weight Values are also shown

	Level of satisfaction of their house					Level of satisfaction of their neighborhood			
	scale	# of participants	% of participants	Weight Value		scale	# of participants	% of participants	Weight Value
Least	1	1	1	1		1	3	3	3
	2	7	8	15		2	13	14	28
	3	25	27	81		3	19	20	61
	4	24	26	103		4	23	25	99
Most	5	36	39	194		5	35	38	188
	total	**93**	**100**	**394**		**total**	**93**	**100**	**380**

Table 2 Damascene case: frequency table and percentages of participants' satisfaction with their neighbourhoods on a five point scale. Weight Values are also shown

	Level of satisfaction of their house					Level of satisfaction of their neighborhood			
	scale	# of participants	% of participants	Weight Value		scale	# of participants	% of participants	Weight Value
Least	1	7	2	2		1	10	3	3
	2	17	5	10		2	31	9	18
	3	103	30	91		3	88	26	77
	4	116	34	136		4	106	31	124
Most	5	97	27	143		5	105	31	154
	total	340	100	382		**total**	340	100	377

4.2 Preference for Neighbourhood Types

Even though people reveal satisfaction with their living places, they also may like other types of neighbourhoods more than they like their own. Thus, a question was proposed for residents to rank the five types of house/neighbourhoods (tradition, attached, detached, tower, and Villa) from the most to the least preferred living place. The collected data were weighted and summed in Tables 3 and 4. Table 3 shows that Omani residents ranked living in villa neighbourhoods as their first choice with the highest weighted value of 456. Other residential areas (modern areas, A, D, or E and traditional) have relatively close W values range from 214 to 272 that are way below the W value of the villa. Villa for Omanis is the reflection of their image of the autonomous living place that provides limited social interaction with their neighbours. Omanis' social activities take place on the tribal level. As a result, the notion of extended family still over dominates the nuclear family. There are almost 34 percent extended families and at similar percent related families gather in one neighbourhood. On the regional level, such distribution is even clear where the tribe gathers in the village in a big hall called Al-Sabla, Such as Al-Harthy, in Modirab Village.

In the case of the Damascus, Table 4 shows that within the range from 300 to 400 weight values we have villa, detached and traditional have 399, 330, and 312 respectively;while attached and tower neighbourhoods fell below, 245 and 216 respectively. iv

The background of residents of the towerneighbourhood does not adequately describe their previous living experience in other neighbourhood types. Therefore, their degree of neighbourhood preference is affected by their perception of the physical conditions and reputation. One wonders if residents of the modern areas had experienced living in a traditional neighbourhood, would they prefer a traditional house to a villa neighbourhood. Also, would residents of the traditional area have different preferences if they had experience living in modern housing?

How much do residents of the both cities differ in their preferences for different types of living places? The Mann Whitney U-Test is employed at 0.1 probability level (P) to answer this question and to test the null hypothesis (H0) stating that: There are no significant differences in the preference of living places (house/neighbourhood) between inhabitants of both cities. The result of the Mann-Whitney Test shows difference at the 0.1 probability level between residents of both cities. The Null hypotheses are unaccepted. People experiences of house types affect their choice.

Table 3 Sum of weighted preference frequencies expressed by Omani residents for the five different types of neighbourhoods

House Types	Scale	weight value				
		t	a	v	d	e
Most	**5**	56	11	**400**	0	33
	4	102	111	31	**124**	22
	3	53	70	20	73	73
	2	36	40	0	64	49
least	**1**	26	24	4	7	37
Sum of Weight Values		272	257	**456**	268	214

Table 4 Sum of weighted preference frequencies expressed by Damascene residents for the five different types of neighbourhoods

House Types	Scale	weight value				
		t	a	v	d	e
Most	**5**	**158**	33	**231**	57	23
	4	53	35	117	**140**	53
	3	48	91	19	**104**	38
	2	26	64	27	23	63
least	**1**	26	22	4	8	38
Sum of Weight Values		**312**	245	**399**	**330**	215

4.3 Pragmatic Dimension

People's behavioural patterns are not only influenced by their personal views and experiences, but also by social and cultural conventions and expectations. Cultural and societal constraints may induce people in practice to express a preference or source of satisfaction, such as glazing (enclosing) the balcony for privacy. On the other hand, examination of verbal evidence may reveal less preference of, or satisfaction with, a glazed balcony.

This may mean loss of a favourite feature or an identity, such as loss of a treasured place where a resident has direct contact with nature, or sustains a favourite view. This example does not necessarily imply that people always love an elements (an open balcony), because they may glaze their balcony as a preferred form to an open one. Or, with the lack of options, privacy might be evaluated by residents as a higher priority than an open balcony. It is a subjective matter. So, what people in practice tend to modify in their environment might mean something different from their best-liked environment.

From this example it can be concluded that practical change of living place might be done to maintain a certain degree of satisfaction and preference of the environment while total preference and satisfaction is still an unrealized ideal. "If images incorporate ideals, then people test reality against these images and evaluate environmental quality against these ideals" (Rapoport, 1977, p. 48). Not all people can obtain exactly what they want. They may have some of their preferred architectural features, but as seen later, people always tend to change some elements of their environment as their interests, circumstances, and goals change. For who can give them Eden?!!

One could say, "I do like my neighbourhood, though I wish to modernize the light fixture, widen streets, plant more trees, and prevent cars from using their horns." These preferred changes may be reasons to express dissatisfaction with the built environment of his/her neighbourhood, or its uses by others, especially when it comes to convenience. However, being restrained by the fact that they can neither improve their neighbourhood, nor move to a better neighbourhood, residents may still end up saying "Yes we feel satisfied here". To be less extreme, changes in built environments are not always the results of low degree of preference or satisfaction with urban signs. It could be the result of peoples' continuous needs for modification and improvement to express "the image of Eden", or just to seek reward in the hereafter by building a worship place or a public water fountain.

5.0 CONCLUSION

This research considers the pragmatic meanings of urban elements by examination of the relation of elements to behavioural patterns of people. This examination provides evidence of people's images of house and urban signs. Consideration of inhabitants' preference and satisfaction helps to identify the significant differences among their images of urban elements. "Houses that are really lived in for long do not look alike, any more than do the people who live in them" (Greenbie, 1981, p.4). These urban elements are combinations of architectural and urban features of the built environment in any of the four neighbourhood types: traditional, attached, detached, and tower.

Through three verbal steps, residents expressed their satisfaction and degree of preference for their own house features and neighbourhood elements. Though people experience urban elements in different urban settings, they expressed relatively similar satisfaction and preference for housing elements. Generally, these relate to functional elements, such as living room, bedroom, kitchen, bakery, mosque/church, and kindergarten. The difference in preference for urban elements among residents of all neighbourhoods shows a direct relation to the immediate use of such elements. For example, elements that exist in the traditional neighbourhood were preferred by residents of this neighbourhood in higher degrees than by residents of modern areas who did not have such traditional elements in their living place, as inner courtyards, Mashraka, ka'a, coffee houses, public baths, and adobe.

For their premises and neighbourhoods of the four neighbourhoods, overall moderate percentages of satisfaction by residents were expressed. Most residents of all neighbourhoods have shown some interest in moving to Villa-type, Detached or Traditional neighbourhoods, if they were able. But, why did people express satisfaction with their present neighbourhoods while some preferred housing in another neighbourhood as their first choice? Certainly, residents judge signs from different perspectives, which relate to convenience, culture, attachment, familiarity, reputation, and economical possibility. The following section examines what residents would like to do to their houses and neighbourhoods for a better fit of their needs. This is another way of examining residents' satisfaction with their houses and neighbourhoods.

Acknowledgement

The authors would like to thank Research Management Center (RMC) at Universiti Teknologi Malaysia. Furthermore, special thanks to the Ministry of Science, Technology, and Innovation (MOSTI) for funding this research projects with vote no. 4S055, and PAS grants (vote no. Q.J130000.2709.01K40, and Q.J130000.2709.01K41).

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