



# Modification Trends of Terraced Houses: A case study of Section 7, Shah Alam, Selangor

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## Abstract

Terraced or link houses have been one of the most popular housing schemes lived by modern Malaysians from all walks of life due to its design and affordability amongst all landed properties. Conversely, the mass housing production concept has its disadvantages and in most cases could not complement to the diverse individual needs and personal satisfaction of personalisation. The most distinctive evidence is the adhered normal practice to renovate or modify houses even as early as when the owner is given vacant possession of the property. Users make changes for various reasons such as for personal needs, functional requirements or just plainly for aesthetic appeal. Housing modification or occurs when users modify the interior or exterior physical components of their homes. Modification works ranges from a simple change of colour of the facade to major structural changes to the home. It is also much based on individual affordability and the timing of the modifications to be made. A questionnaire survey was conducted in a terraced housing development in Section 7, Shah Alam, Selangor, to establish the personalisation trends and the motivational desires behind the personalisation.

Keywords: Housing, personalisation

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## 1.0 Introduction

A house can only be considered a 'home' to the extent that the occupiers can give it their own meaning... It may even be said that 'homes' develop 'in spite of' rather than 'because of' the house design. (Marcus, 1986, on Ruddick)

Why does renovation of homes occur extensively to the Malaysian terrace developments? And in some cases even prior to moving in a newly completed home? Presumably, it is for the enhancement of personalisation, in keeping with the unique needs of individual families. The perceived beauty of architectural features and personalisation however, through an architect's appraisal, would undeniably be different to that of a layperson. Ancient truth obvious since the times of Pythagoras, its conceptual golden section and precise geometrical specification dictates architectural beauty. While these terrace developments are constructed with these aesthetic appeals in mind, to the layperson, its attractiveness is not entirely dependent on the architect's practical experience and training. The owner's emotional response plays a distinct personal and contextual role (Gifford, et al, 2000). Personalisation of homes in terraced developments in this paper means modification of or addition to the dwelling exteriors, for example the front, back or side yards or of the facades. These changes of the immediate environment to the extent that it gives its own personalised meaning are in line with Rapoport's observations (Marcus & Sarkissian, 1986). It is thus apparent that personalisation seems to occur despite countless design treatments and differentiation between residential neighbourhoods. This paper aims at understanding these trends to this personalisation process.

It is also universally known that humans often mark and personalise spaces they occupy be it fences and hedges or other symbols to identify the space to the owner (Hansen & Altman, 1976). There are many ways of measuring the physical features of changes to a building. From Gifford, Hine, Muller-Clerrn, Reynolds JR., & Shaw (2000), the use of The Architectural Coding System (TACS) using the Lens Model Approach is a detailed comprehensive measurement of the observer's impressions of a building. A simpler model of changes to architectural facades used by Stamps (1999) is determined by three factors of silhouettes, massing and surfacing. However, the model that best fits the context and perceptions of the owners in this particular limited field study is that of Marcus & Sarkissian (1986). Territorial expression, added privacy, articulated facade, personal additions, components replacements, and entry personalisation are among the elements studied and surveyed within the target user groups.

Thus, the two main objectives of this paper are concentrated on descriptive behavioural analysis of modifications of residents in Section 7, Shah Alam, towards personalisation of their dwellings and establishing the personalisation trends and the motivations behind the undertaken personalisation. This descriptive analysis attempts to explain the situations in the personalisation to provide a better understanding of household behaviours which then become the catalyst for further detailed studies.

It must also be noted however, that due to limited resources of the study, the ethnic

majority of the selected area (the Malays) has been identified and will undoubtedly restrict the findings, applicable to only that race and of the Islamic culture, values and lifestyle.

Nevertheless, the research objectives and methodology, in another research grant can also be taken to other areas of different races, cultures and lifestyles and be comparatively analysed for a holistic understanding of the Malaysian context.

## 2.0 Methodology

The study was based on questionnaire surveys conducted on residents living in Section 7, Shah Alam. Section 7 consists of various types of houses with low cost flats, medium -cost apartments, semi-detached houses, bungalows and the predominant terraced houses. There are 2184 units of terrace houses in Section 7 (MBSA, 2(04). The major housing typology of the terrace was chosen in this particular survey. The approach used in this survey was a household drop off survey, where 220 questionnaires were distributed systematically to three main areas in Section 7 (Figure 1). The three main sections were identified by its distinct physical road boundaries. The selection of samples was based on a systematic sampling on houses that had been to some extent made some form of personalisation to its exterior. During the field survey, respondents were approached personally and given the questionnaires. In some cases, allocation of time to answer was given to the respondents and the questionnaire was picked up at a later time, as agreed by the respondents. A total of 204 questionnaires were returned and used for the data analysis



Figure 1: Section 7, Shah Alam

(Source: Google Earth (2009). Retrieved on 9th October 2009 from <http://maps.google.com.my/maps?client=firefox-a&rls=org.mozilla:en-US:official&hl=en&tab=w1>)

### 3.0 Results and Discussions

#### 3.1 Areas of Personalisation

For terrace houses, the most common type of exterior personalisation is the front, back and the side portion of the house. These three simple categories of exterior personalisation were used to better understand the needs and requirements of the respondents. There were 342 cases of renovation works done by the respondents in the study area. In Figure 2, personalisation of the front portion had the highest percentage with 47% cases of modifications. Meanwhile 41% of respondents personalised the back portion of their houses and only 12% of corner unit respondents personalised the side portion of their houses.

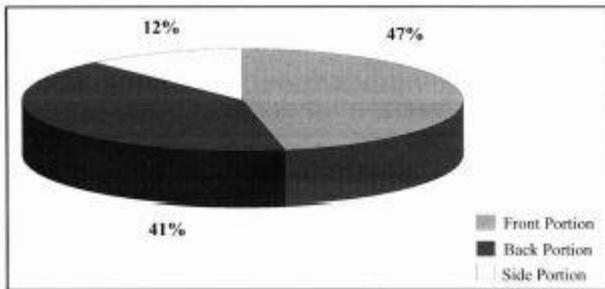


Figure 2: Areas of personalisation Modifications periods

Figure 3 shows when the modifications took place. The personalisation of the front portion, 48.4% of the respondents surveyed made renovations after having moved in for quite some time. However, when it comes to modifications to the back portion of the house, more than half of the respondents (55.3%) made renovations before moving in. The same results appear for modifications on the side portion of the house with 62.5% of the respondents. This clearly shows that before moving in, respondents were more likely to personalise their houses by renovating the back and side portion of the house. Meanwhile modifications to the front portion were more likely to happen after moving in, only when the household felt the need to do so.

#### 3.2 Modifications costs

Modification costs varied from the lowest renovation works of RM1000 to the highest cost of RM200,000. It represented the respondent's personalisation towards their dwellings at different levels of intensity, from the simplest adjustments to the renovations of entire facades. As shown in Figure 4, the cost of modification is detailed out accordingly to the three areas of renovation. For the front portion, half of those who renovated this portion spent between RM 10,000 and RM29,999, followed by 19% for the cost of RM30,000 to RM49,999. The same pattern was also evident for the modification at the back portion of

the house. Costs between RM10,000 and RM29,999 were spent by 46% of those who renovated the back portion. Meanwhile, as shown in the Figure 4, the renovation costs for the side portion of the house was more or less evenly distributed.

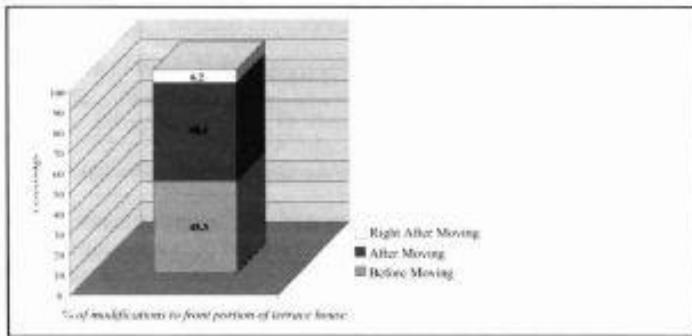


Figure 3.1: Periods of exterior personalisation - Front portion

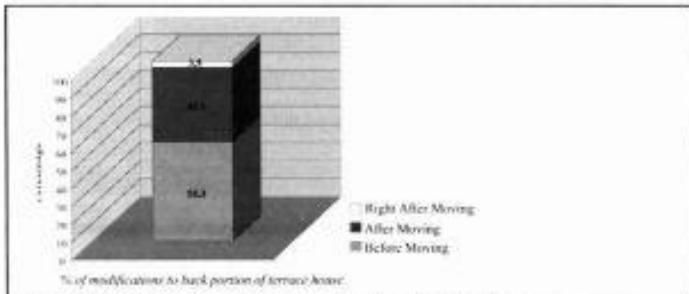


Figure 3.2: Periods of exterior personalisation - Back portion

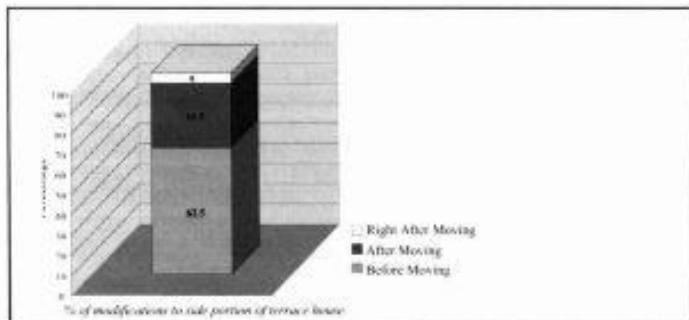


Figure 3.3: Periods of exterior personalisation - Side portion

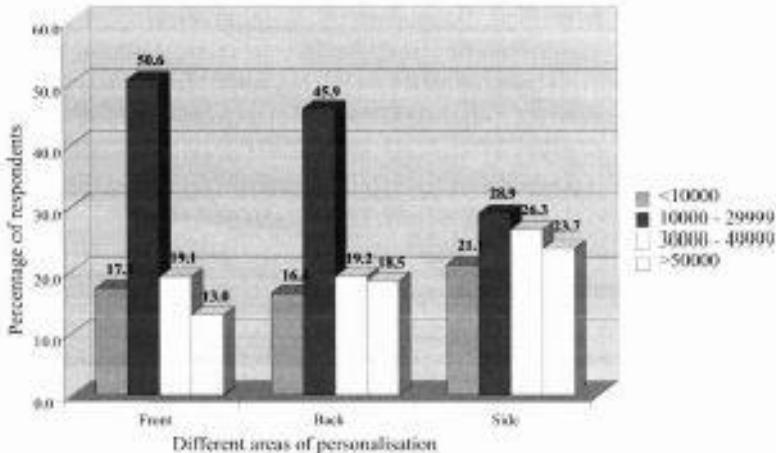


Figure 4: Cost of Modification

### 3.3 Elements of modification

Modification requires spending money, especially on elements that is important in the perceived personalisation of one’s house. Based on the survey, the elements for modification were listed according to the three areas of the house and the respondent’s response to what elements that had been done to make their houses more personalised. Using multiple response-dichotomy analysis, for the front portion of the modification, the top five ranking on the elements of modification were painting, grill, gate, porch, pavement and door. Each element and its percentage is presented in Table I.

For the back portion of the houses, the top five elements of modifications were painting, additional kitchen, grill, flooring and door. Painting was still the most common element to change in the personalisation of appearance of one’s house. Additional kitchen space was needed as the current design of kitchen space in many terrace houses was rather small. With the allocation of the backyard and setback requirements, the additional space for wet kitchen was added for a bigger kitchen space. The addition of grilles at the back of the terrace house was ranked at number three for logical safety reasons. At rank number four was renovations to the flooring of the back area. Respondents making changes to the door most likely needed a better quality door material. The side portion of the house shows more or less the same pattern where painting ranked first. This was followed by the grille, window and wall respectively. Additional space also received a high ranking when more land was available to the side of the terrace house. These limited units renovated the side portion for aesthetics and for the perceived difference in appearance.

Table 1: Elements of Modification

Front portion of the house	Cases	%	Ranking	Back portion of the house	Cases	%	Ranking	Side portion of the house	Cases	%	Ranking
Window	100	52.9	7	Additional kitchen	130	78.8	2	Window	29	53.7	3
Door	117	61.9	5	Additional room/space	66	40.0	9	Door	21	38.9	7
Extension of car porch	90	47.6	8	Additional awning	73	44.2	7	Wall	29	53.7	3
Gate	142	75.1	3	Additional space in 1st floor	30	21.8	11	Additional side space	28	51.9	5
Wall	103	54.6	6	Landscape outside of the house	30	18.2	12	Soft Landscape	24	44.4	6
Iron grille	150	79.4	2	Landscaping	29	17.8	12	Hard Landscape	12	22.2	9
Porch pavement	120	63.5	4	Grille	129	78.2	8	Balcony	6	11.1	12
Roof	64	33.9	12	Door	107	64.8	5	Terrace/patio	10	18.5	11
Hard Landscape	40	21.2	14	Window	90	55.8	6	Grille	30	55.6	2
Soft landscape	67	35.4	11	Flooring	118	71.5	4	Painting	41	75.9	1
Landscape outside main gate	44	23.3	13	Wall	71	43.0	8	Awning	25	37.0	8
Balcony	20	10.6	15	Painting	132	80.0	1	Courtyard	12	22.2	9
Terrace/patio	20	10.6	15	Gate	57	34.5	10				
Painting	152	80.4	1	Others	7	4.2	14				
Additional awning	69	36.5	9								
Additional space	58	30.0	10								
Others	11	5.8	17								

### 3.4 The process of modification and level of satisfaction

The modification process takes in the form of renovation done in one occasion or renovation works in stages. Based on Table 2, 80% of the renovation works for all three areas of modifications were done all at once and only 20% were conducted in stages. In relation to the level of satisfaction, Table 2 shows that the respondents were generally satisfied and happy with the renovation works done to their houses. Renovation works done in one occasion or in stages showed high a percentage of satisfaction with the side portion area having the highest percentage with 95% of the respondents satisfied, followed by the front portion area with 94% and back portion area at 81%. However, 15% of the respondents who renovated the back portion were not happy and showed dissatisfaction. Modifications done in one occasion was very much more preferred compared to renovation works done in stages. But, when it comes to the level of satisfaction, most respondents

were happy and satisfied or very satisfied with the renovation works done regardless whether the renovation was done all at once or in stages.

### **3.5 Reasons for personalisation**

People modify their houses because of many reasons. They may make simple modifications or even change the entire appearance of their dwellings. Based on the survey done for this study, different parts of the house were associated with a particular reason. For the front portion of the modification, the changes done were inclined towards personal needs with the top three reasons to make the house more aesthetically beautiful, for security measures and the need for additional parking space. This was based on the ranking score of multiple responses as shown in Table 3.

Meanwhile, for the back portion of the terrace house modifications, the reasons given were more of a functional requirement and for the needs of the family. The need for bigger kitchen space was ranked number 1. The existing space for kitchen was not big enough and with the land available at the backyard, the extension of the kitchen became a possibility. Modification to have a wet kitchen area was ranked number 2. This was a common extension made and the original design kitchen was thus used as a dry kitchen. Security reasons were also among the top three reasons as it provided the feeling of a safer personalised security.

For the side portion terrace house modifications, besides for personal needs, the modifications were also for aesthetic appeal. The highest ranking was to have more space for a bigger family. Having a bigger corner lot size, respondents were able to design their yards according to their own preferences. Therefore, the second reason was to make the space more pleasing with landscaping elements which also provided further privacy and personalisation.

### **4.0 Conclusion and Recommendations**

Whilst a more comprehensive study on the perceived achievement of each personalisation element through the perspective of each owner could be laboriously done in further studies, some patterns has nevertheless been able to be observed. Firstly, as in the critical comments of Professor Mohamad Tajuddin Mohamad Rasdi in *The Star* (Rasdi, 2009), on visual privacy violations in a multi-racial country like Malaysia has been constantly dismissed in the modern developments of housing estates, especially terrace housing. The lack of mutual understanding and respect of rituals and cultural values has possibly also contributed indirectly to the immediate personalisation of the terrace house. In this specific study, it is only true representing the ethnic group of the Malays, as outlined in its limitations earlier. It is only prudent; in order to better understand the holistic Malaysian context, further studies need to be made to other communities of other races, cultures and values.

Table 2: Cross tabulation between renovation process and level of satisfaction

Renovation process	Front Portion				Back Portion				Side Portion		
	Very satisfied	Satisfied	Less satisfied	Total	Very satisfied	Satisfied	Less satisfied	Not satisfied	Total	Very satisfied	Total
At once	39	89	7	130	24	64	18	1	127	12	36
% within renovation process	26%	67%	5%	100%	19%	66%	14%	1%	100%	33%	100.00%
% within level of satisfaction	83%	80%	70%	80%	80%	79%	14%	100%	80%	98%	80.00%
In stages	8	24	3	35	6	22	4	0	32	2	9
% within renovation process	23%	69%	9%	100%	19%	63%	13%	0%	100%	22%	100%
% within level of satisfaction	17%	21%	30%	20%	20%	21%	18%	0%	20%	14%	20%
Total	47	117	10	174	30	106	22	1	159	54	45
% within renovation process	27%	67%	6%	100%	19%	67%	14%	1%	100%	31%	100%
% within level of satisfaction	100%	100%	100%	99%	100%	100%	100%	100%	100%	100%	100%

Table 3: Reasons for modifications

Front portion of the house				Back portion of the house				Side portion of the house			
	Count	%	Ranking		Count	%	Ranking		Count	%	Ranking
Identity and image	77	41.8	5	Need bigger kitchen space	133	80.1	1	Need more space for bigger family	29	54.7	1
To be different from neighbours	67	25.5	8	Wet kitchen area	97	58.4	2	To make the space more beautiful with landscaping elements	27	50.9	2
Additional privacy & personal touch	72	39.1	6	Security	80	48.2	3	Privacy and personal touch	22	41.5	3
Dislike the original design	45	24.5	9	Need for utility/in-store room	60	36.1	4	Identity and image	19	35.8	4
Need for parking space	64	45.7	3	Space for drying clothes	55	33.1	5	Additional room/space	16	30.2	5
Need for additional space	81	44	4	Relocate washroom	44	28.5	6	Security	16	30.2	5
To make it more beautiful	110	59.0	1	Need because of weather effects	33	19.9	7	Need because of weather effects	42	22.9	7
Security	89	48.4	2	Additional room at first floor	20	15.9	8	To be different from others	1	1.9	8
Need because of weather effects	49	26.6	7	Others	3	1.8	9				
Others	5	2.7	10								

Sensitive and unique, these areas of studies are solely applicable to Malaysia and its inherent multi-ethnicity of residents. Secondly, the continuous question that one may ponder and leading to a larger equation, is the very development of terrace housing in Malaysia. Its originality in its purpose and adoption, from the age of colonialism in young Malaya, to its continuing implementation in modern Malaysia, is it still fundamentally applicable? These current questions of sustainability and adoptability of culture, climate and needs in terrace developments are voiced out by many concerned architects, designers and end users alike, advocating for an alternative to terrace developments (Davis, et al., 2(06), (Yahya, et al., 2(06) and (Sabri, et al., 2(08)

This study, within its own limited context and capacity has undeniably implied that

personalisation occurs willingly and spontaneously among new and old owners of terrace developments. Personalisation will transpire no matter how effective the architects and designers are able to design and cater to the individual's needs. The broader perspective is to digest and inquire on the patterns of personalisation, within Malaysia's terraced housing context. Are all the patterns of personalising, even for the need of a bigger kitchen, the result of improper terrace housing designs or the ultimate failure of terraced developments within the Malaysian domain?

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