Chasing the Great Australian Dream: Definition of "an Ideal Home" among Baby Boomers

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ABSTRACT: In Australia, the idea of home ownership or The Great Australian Dream is still perceived as the main achievement of every Australian's life. Perception of an ideal home is changing over the decades. Each generation has special requirements criteria which foster their dwelling space. This research identifies and compares three generations' (Baby Boomers, Generation X and Generation Y) demographics, special requirements and perceptions regarding their ideal home. The examination of previous research and literature into the Queensland context reveals that the Baby Boomers population of people 65 and older is currently 11.8% of the state population and is expected to grow to almost one quarter of the population by 2051. This is the highest growth rate among these three generations. Further analysis of these three generations' status and requirements shows that aging is the most critical issue for the housing systems. This is especially the case for Baby Boomers due to their demand for support services and health care in the home.

The study reveals that 'ageing in place', is a preferred option for the aged. This raises questions as to how well the housing system and neighbourhood environments are able to support ageing in place, and what aging factors should be taken into consideration when designing Baby boomer's home to facilitate health and wellbeing. Therefore, this research designed a qualitative approach to investigate Australian Baby Boomers homes around Queensland, predominantly in the Brisbane area, using semi-structured interviews and observations. It aims to find out the level of satisfaction of Australian Baby Boomers with their current home and their preferences and requirements in light of their ideal home. The findings contribute new knowledge in the light of ideal home mechanisms. A set of strategies has been developed from the findings that may help improve the level of comfort, safety and satisfaction that Baby Boomers experience in their current and future homes.

Keywords: Baby Boomer, Generation Y, Generation X, Queensland, home

INTRODUCTION

The word 'home' is derived from the Anglo-Saxon word 'ham', meaning village, estate or town (Hollander, 1991). According to the Oxford Dictionary, a home is a place where one lives permanently, especially as a member of a family or household (Oxford Dictionaries, 2012). The definition of home has been the subject of recent debate and has been widely discussed in the literature disciplines of sociology, anthropology, psychology, human geography, history, architecture and philosophy (Shelley, 2004). From a different angle, a home can be described as the integration of house, family, haven, self, gender, and journey. Many authors also argue that an "ideal home" creates the notion of being-at-home (Rapoport, 2000).

Our society nowadays is not just composed of diverse cultures, but also diverse generations. Therefore, chasing the Australian dream home requires identifying the key features of a home as a cultural value which is impacted by the generation's requirements on the meaning of home and home life (Dupuis and Thorns, 1996). Howe's and Strauss' (2000) theory divides the generations into approximately 20-year periods in which have common sets of characteristics in addition to the historical experiences, technological advances, and other socioeconomic statuses. Particularly broad differences were found discovering between generations assigned as the Baby Boomrs Generation, Generation X, and the Generation Y (Thomas C. Reeves and Eunjung Oh 2011).

The first part of the study provides an overview of three generations' (Baby Boomers, Generation X and Generation Y) lifestyles and then analyses their requirements concerning their housing systems, and the rising demand for housing choices suitable for the Baby Boomers population for ageing in place. In the second part, a semi-structured interviews and observations were designed to identify their requirements and preferences regarding their ideal home. The purpose of this study is to examine the consequences of ageing on housing system in Queensland. It is aiming design a set of strategies to meet Baby Boomers housing requirements and preferences to enhance their level of comfort, safety and satisfaction of their current and future homes.

LITERATURE REVIEW

Definition of Baby Boomers, Generation Y and Generation X

The silent generation or Baby Boomers are those who were born between the years 1946 and 1964 during the demographic post-World War II baby boom (McIntosh-Elkins et al., 2007). The term "Baby Boomer" was first used in 1970 in a Washington Post article (Oxford Dictionaries, 2012). Generation X can be described as who were born after post-World War II Baby boom between early 1960s to the early 1980s (McIntosh-Elkins et al., 2007). The term was popularized by Coupland's (1991) novel "Generation X: Tales for an Accelerated Culture. Generation Y is the term to describe those who were born in the late 1970s, or from the early 1980s to the early 2000s (McIntosh-Elkins et al., 2007). They are also called the Millennials, Echo Boomers or the Net Generation since they grow up with Internet, online magazines, computers, television, movies, music, video games etc. so technology is the irresolvable component of their life (McIntosh-Elkins et al., 2007; Tulgan and Francis, 2001).

Queensland's Baby Boomers, Generation Y and Generation X Statistics

According to the recent Census (Australian Bureau of Statistics, 2011), Queensland is projected to experience the fastest and largest household growth in Australia between 2006 and 2031.

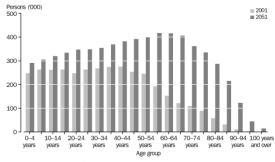


Figure 1: Age Profile, Queensland—2001 and 2051 (Australian Bureau of Statistics, 2011)

It is projected that almost 20% (1 in 5) of Queensland population will be in the age group 65 years or more in 2031 as the Baby boomers move into retirement age (Australian Bureau of Statistics, 2011) as illustrated in Figure 1. Figure 1 also shows that the population of Generation X (50 - 64) and Generation Y (35 - 49) will be at a similar rate by 2031 (Australian Bureau of Statistics, 2011). Since the early 1960s, baby boomers have been an important group in Queensland's population. They are expected to continue to have a substantial impact on the composition of the state's population in the future, giving rise to new challenges for housing systems and community services.

Baby Boomers, Generation X and Generation Y requirements concerning their ideal home

a) Baby Boomers

Due to the mixed effects of declining fertility and increasing longevity, life expectancy of Queensland's Baby Boomers population is increasing to 65 years and over- refer to Figure 3. This demographic change is a critical issue for the Australian states' housing systems as it affects the unique nature of the demand for housing (Sivam and Karuppannan, 2008). Moreover, it fosters high demand for support services in the community which is a challenge for the Australian society, families and individuals (Anderson, 2009; Brown, 2007).

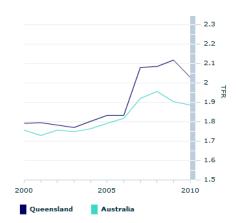


Figure 2 : Total Fertility Rate, Queensland and Australia (Australian Bureau of Statistics, 2013)

Australian census in 2006 signifies that the majority of Australian Baby Boomers are unwilling to live in retirement villages or residential aged care (Judd, 2011). Entering into older age brings different aspirations for Baby Boomers with regards to the quality of housing, use of services and travel (Lyndhurst. 2004).Literature on Baby Boomers shows that many of them consider retirement life as 'ageing in place' as their first choice (Lyndhurst. 2004) . They prefer to live and retire in places that offer a communal environment or the ones that they are familiar with (Sivam and Karuppannan, 2008). Taking into consideration their health decline, they need to live in a home which is located nearer to the cities, towns or existing services and infrastructure (transport, shopping centres, medical and health facilities) rather than living in retirement villages or large scale residential parks (Chapman, 2001).

Solomon (2011) argues that Baby Boomers ranked stateof-the-art kitchen as the number one on their list of 'must-have' amenities; with walk-in closets, whirlpool baths, fireplaces and swimming pools accomplish their top five according to the survey. They also look for a home where they can age gracefully as a statement that they have achieved what they want to accomplish after all the hard work (Solomon, 2011).

It perceived that Baby boomer's dream home is an affordable accommodation in an appropriate location with an artistic and explicit design with specific amenities which could respond to their aging needs and high demand for support services (Anderson, 2009; Brown, 2007). This study reflects the need for programmed strategies and policies of the current architectural trends to facilitate independent living and appropriate housing arrangement for Queensland's Baby boomers. Modified housing and planning and improvement of a vast range of facilities, technology and age-friendly infrastructure in their built environment can have significant impact on their life quality (Judd, 2011).

b) Generation X

In regards to Generation X's common beliefs and behaviours, their ideal home is a place that displays a pragmatic use of space in respect to the modern architecture with classical interface. Unlike their Baby Boomer parents, they prefer to live in an urban home with functional amenities which will fit in their life. They would also tend to pick a home with modernism movement architectural influence that follows the theory of 'form following function' (Brown, 2007). They define their dream home as having high quality 'activity zones.' which they could figure out to how respond to their requirements (Brown, 2007). Therefore, it allows architects to incorporate with flexible spaces that can be used for multiple purposes (Duggal, 2011). Albeit, Coupland (1991) claims that Generation X and Baby boomers are the antitheses of each other as their home features are completely different from each other due to their age and health care requirements (Coupland March 15, 1991).

Generation X prefers luxurious kitchens and fully equipped amenities such as large walk-in closets as shown in Table 2 (Solomon, 2011). As most of them are children of Baby Boomers, "their ambitions for dream houses are now dovetailing with those of their parents (Solomon, 2011). They are finding things within their home to help them organize and eradicate clutter (Solomon, 2011). However, their age requirements show themselves not only in how they prioritize their dream amenities but also in how little they need the age consideration of Baby Boomer's homes. (Solomon, 2011).

c) Generation Y (Millenials)

This generation is willing to live in suburbs with the single-family detached home where they can walk or cycle to and from work. Unlike the other two generations, their perception of an ideal home is a place with a high quality of community and neighbourhood space in reversal to their home personal space (Duggal, 2011). They aspire to have a home with a spacious outdoor space that can serve for parties and functions and provide them with diverse environments. Their ideal home is a small unit with the flexible and multifunction area which is affordable and sustainable to reduce their maintenance costs (Sheehan.P. 2007).

Their top-10 priorities include a whirlpool bath, sauna/steam rooms and entertainment centres as shown in Table 2 (Solomon, 2011). This generation is looking for amenities that enhance their social life and more interested in turning a home into a social hub (Solomon, 2011). They tend to take more risks with their interior designs and decorations (Mendleson, 2010). They also prefer the contemporary and upmarket lifestyle such as postmodern or deconstruction home styles that are more fashionable and well connected with their virtual world (Sheehan, 2007). Technology is also second-nature to this generation. They are completely wired and technology savvy and it is common to see a Generation Y's home practically hummed with electronics (Sheehan, 2007).

Table 1: Top dream-home amenities vary in importance by generation

Rank	Generation Y	Generatio n Y	Baby Boomers			
1	Whirlpool bath	State-of- the-art kitchen	State-of-the-art kitchen			
2	Swimming pool	Large walk-in closets	Large walk-in closets			
3	Game/billiard room	Fireplace	Whirlpool bath			
4	Large walk-in closets	Whirlpool bath	Fireplace			
5	Fireplace	Swimmin g pool	Swimming pool			
6	State-of-the-art kitchen	Patios, porches and decks	Workshop/hobby studio			
7	Sauna/steam room	Game/billi ard room	Patios, porches and decks			
8	Gym/fitness room	Garden	Garden			

9	High-tech entertainment center	Gym/fitne ss room	Game/billiard room
10	Patios, porches and decks	Workshop /hobby studio	High-tech entertainment center

Source: Solomon, C.(2011). 'Dream homes' vary by generation. Retrieved 12.04.2013, 2013,

from http://realestate.msn.com/article.aspx?cp-documentid=13107891

Why has the Baby Boomer's ideal home become the focal point of this study?

Comparison of the three generation's populations (figure1) indicates that the Baby Boomers represent the most remarkable demographic change of the Queensland population, especially over the next 40 years. The proportion of people aged 65 and over in Queensland will grow from the current 11.8%, to almost one quarter of the population by 2051. These demographic changes in Queensland territory become a critical issue for the Australian states' housing systems as it affects the level of the demand for housing among Baby Boomers (Sivam and Karuppannan, 2008). Therefore, it increasingly becomes a focus of this research to identify key features of this generation's home as a cultural value to meet their requirements and references on the meaning of ideal home in order to establish greater dwelling in future.

In addition, there is a general conception that different generations may have different perceptions of what they perceive as their ideal homes. The idea of ideal home is not simply modelled by the interest of developers, architects, urban planners, politicians, engineers and builders and interior designers. Rather it shaped by people personal and familial experiences as well as variety of factor changes over the decades which impact on their perceived desires and requirements in relation to their ideal home design.

Analysing of the three generations status and requirements shows that aging is the most critical factor for the housing systems as the unique nature of the demand for support services and health cares. However, it perceived from literature review that most of the studies focus on the fiscal implications of providing retirement incomes and projected increase in the cost of healthcare system. Remarkably, less consideration occur in other aspects of ageing such as planning, housing and factors contributing to ageing and health care. Rosenberg and Everitt (2001) state that after health and financial situation, aged people's concern is their housing. Indeed, housing cannot be separated from their health and income because all three are inter-related (Golant, 1992; Rosenberg and Everitt, 2001).

"The major impacts of the ageing of Australia's population on falls injury costs cannot be underestimated when we consider that by 2051 there will be: People aged over 65 years are at greatest risk of sustaining an injury from fall, which will result in a permanent disability. Further, older Australians were more likely to have injured themselves at home. In 2001, injuries most commonly occurred in people's homes, theirs or someone else's (46% of all people reporting recent injuries)".(Australian Bureau of Statistics, 2003)



Figure 3: Major factors contributing with Baby Boomers Housing

RESEARCH QUESTIONS

Despite, the lack of accurate data in regards to a conceptual framework for Baby boomers housing system and its principle that can provide with explicit and broad visions, the research question to be addressed in this study is:

1. How well do the housing system and neighbourhood environments support ageing in place, and facilitate health and wellbeing?

Besides this question, the other sub-question that will also be addressed is:

2. What factors should be taken into consideration when designing Baby Boomer's homes concerning their age and health care?

RESEARCH METHODOLOGY

This research is designed using a qualitative phenomenological approach of data collection and analyses. The purpose of taking this research method is examining and describing the "lived experience" of a phenomenon and study the experience from the individual perspective of a participant. The study has been designed as a three-step process. These steps are:

- Identifying Baby Boomers unique expectations, experiences, preferences of their home architecture style regarding their age and health care. Moreover, the level of comfort and satisfaction of the participants in their homes will be examined in respect of their requirements and existing building codes.
- 2) Comparing, analysing and formulating data (text, photo, sketches, and drawings) in order to foster a conceptual frame work regarding:

Indoor:

- a) Dwelling entrance
- b) Internal doors & corridors
- c) Toilet & Shower
- d) Stairways and Railing
- e) Kitchen space
- f) Laundry space
- g) Ground (or entry level) bedroom space
- h) Switches and powerpoints
- i) Door and windows
- j) Family/living room space
- k) Flooring

Outdoor:

- l) Lighting
- m) Entrance
- n) Doorways
- Explore strategies and pattern of ideal home for entire studied Baby Boomers generation in Queensland

The semi-structured interviews will be modelled based on open-ended questions. All interviews will be recorded in audio format and then will be transcribed verbatim. The researcher will provide observation notes regarding participant homes. Furthermore. designing of photographs and sketches from different parts and aspects (plan, section, façade) of the home will be attached in order to conduct visual data as a complement self-report data that run from interviews. The interview will be transcribed, coded and thematically analysed for the extending the current body of knowledge related to ideal home perception of Baby Boomers in housing design.

Participants

Semi-structured interviews and observations of participants will be undertaken with 12 participants (6 males, 6 females). The inclusion criteria for participation in this research are as follows:

- a) Living with in family or individually
- b) Being aged from 50 and over

c) Living currently in detached homes, town houses and apartments in Queensland or Brisbane suburbs.

d) Participants will not have any existing relationship with researcher.

Interviews

In the semi-structured interviews which are following the phenomenological approach, participants were asked about their level of satisfaction with their current home architecture styles and their primary reason for choosing their houses. They also were asked whether factors and notions of ageing play a big part in their decision. The participants were then given an opportunity to express their needs and expectations of what a home should offer regarding their age and health care and how it changed during the last 2 or 3 decades of their life. Then as a final and most significant question in the investigation, the Baby Boomer subjects were requested to describe how they would change their current home to make it more ideal in this respect.

The findings from all the interviews were compared and analysed to establish a foundation of understanding of Baby Boomers ideal homes as outlined in the results.

See Appendix B for participants characterise.

RESULTS

From the interviews conducted, three major themes for discussion emerged; these were:

Participants Level of Satisfaction of Their Current House

Generally, home styles have evolved over the decades to reflect societal change, household composition, and personal and family lifestyles. However, it is common that our own homes haven't changed with us over time. Participants suddenly realize that the house that once fit them perfectly no longer does. They realize that they have new demands for old age, while they may choose to stay in their current dwelling.

"... It is true because young people cannot see as they are young. They just pop and get into the toilet, into the shower but you need lots of level area downstairs, unless you tend to move every five years."(P6)

"...What less happen to you, you cannot see what is necessary, I think young people think more about modern, what is modern? It is got this it is got that, hang on it is nice to have modern but you need to have convenience too."(P1) The research found that the majority of participants are not happy with their current house architecture style in terms of adaptability, accessibility and healthy housing. Unfortunately, their homes described as 'Peter Pan housing' (built for people who never grow old), often lack supportive features and contain both hazards and barriers. However, housing type does not appear to have a significant influence on satisfaction with their current housing.

"I am happy about what I did but as I said earlier I think it is a good idea if somebody built a house, no matter how young it is because they are going to get old so think and do something about that at the beginning because it cost them less and it is a peace of mind down the track as they got older parents or older relation, they can accommodate them if they are happy."(p4)

Satisfaction with housing is related to housing's perceived impacts on wellbeing, access to social and civic opportunities, and monetary benefits to residents (Altusand Mathews, 2002). The research also reveals that high satisfaction is common regarding participans house social and civic aspects even if they need some modifications to increase efficiency, convenience and comfort. Most participants who had made modifications to their homes cited safety as the primary reason.

".... so when I remodelled my house about three years ago, I made sure that they put in all of those grab bars and stuff not because I needed them but because I didn't know when I might, so I thought it would be better to have those installed."(p8)

Participants Housing Preferences

According to the study, ageing in place was the preferred option of the participants. In other words, ageing in place refers to growing old in the home, community and environment that one is familiar with. Therefore, participants and their parents require that their housing system has crucial elements needed in providing care, and that improve the quality of life to help them remain independent.

"I see now with my mother, she is got a walker, if she drives to stay in the shower, there is no room to even turn the thing so she can sit on the chair on the shower." (P10)



Figure 4: Narrow Bathroom- The photo is taken from P10's home

They prefer a home which is planning to serve their multi-generational enquiries in terms of housing. Participants, supporting their grandchildren, are considering their aging parents which required a house with a special floor plan to accommodate multiple generations.

"I am taking care of my grandchildren, I am looking after my mother who is 91, I got two age group, the young ones and the elderly so my whole life as change from what it was, you never know life has too many twist and turns, you do not know..."(p12)



Figure 4: Baby Boomers houses often accommodate multiple generations- Taken from P12's home

Minor people in the focus group were cited that they would consider moving to accommodation that is more suitable when their health declines or they become disabled. Almost all expressed a common apprehension that they would rather modify their current home to become more comfortable and safe if it is possible. The majority were happy with their house and the neighbourhood they live in and want to stay there as long as possible.

"We remodelled our home five years ago; put in a higher toilet and made it level ... I love it. Little things make big differences which allow us to stay here [our current home] where we are happy with our friends and the kids."(P7)

In term of resources, participants preferred locations spread throughout the city/suburbs and located closer to existing services and infrastructure (transport, shopping centres, and medical and health facilities) rather than moving into large-scale residential parks. Despite this, they were mostly happy with where they are living and the services available to them.

"We've planned to move to the downtown but the issue is we like where we are living. I like our backyard...we're close to our church, we're close to shopping centre and bus stations and we've got no traffic jam in the morning ..."(P4)



Figure 5: Backyard - The photo is taken from P5's home

Participants Housing Requirements

Research into the expectations and requirements of the participants indicates that while they are thinking about issues like safety, ease of access and mobility, they also value comfort and enjoyment. Through investigation of their viewpoints regarding their home convenience and maintenance some significant factors were pointed out as follows:

• They all agree that the most convenient floor plan should be a single level plan, one-story ranch or flat designs with zero step entrances or ramps.

"I have had a back surgery ... I am so happy with our single level floor plan – all on one floor ... And it's also much easier to clean." (P3)



Figure 5: Single storey floor plan which provides convenience for occupants in term of mobility- Traced by Adeleh Mollaei from P 3's home

• Those who were not likely to stay in their homes mentioned stairs as a concern more than those who were likely to remain.

"As you get older you do need bedroom downstairs because you do not know if somebody breaks the leg, you cannot go up and down the stairs, and you do need at least one bedroom and bathroom on the first floor." (p5)



Figure 6: inconvenience stairway- The photo is taken from P5's home

• The responses were fairly equal among those who would like to remodel their bathrooms and kitchens, and house spatial circulation to decrease hazards and barriers.

"...It was allow my mother [who walk with walker] to turn if our shower was a little bit wider." (P10)

• The majority of participants want a house that's easier to maintain and easier to get around in. They felt that downsizing would make it easier to maintain and get around. Those choices impact on looking for a brick house with a great storage unit.

"I do like brick house, because my father had timber house and always we were there to fixing, painting, repairing and a lots of preparing of course,,,"

• 6 out of 12 participants would like to upgrade and change to enhance their lifestyle. Appliances (compact washer-dryer units to top-of-the line refrigerator freezers) and fixtures were high on the list.

• 8 out of 12 participants in the study had planned for the way they want their homes to be, 10 out of 12 planning for financial security and 8 out of 12 for health. Also 9 out of 12 planned for social activities, which can influence design decisions if they intend to entertain or host guests.

DISCUSSION AND CONCLUSION

In order to enhance the match between Baby Boomers housing and their lifestyle, their level of satisfaction of their current home was assessed. After evaluating participant's preferences and requirements concerning their current living space and in the future through the interviews, this study designed a three step strategy which allows the housing system to respond not only to Baby Boomers short-term desires but also to their longterm needs which was discussed as a result.

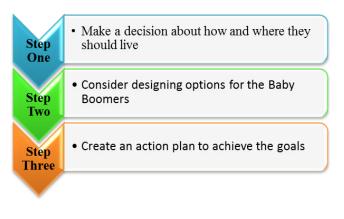


Figure 8: Study designed Three Step Strategy to meet Baby Boomers requirements regarding their dream home

Step one: Make a decision about how and where they should live

From the findings, it is perceived that for designing Baby Boomers ideal home three factors below should be considered in the first stage.

a) Baby Boomers Relationships

For most of Baby Boomers, family, friends and neighbours are of main significance in their lives. It is frequently part of the reason they live where they do. They are often pleased to live in close proximity to their family and other they care about. One of most important moving away consideration is how this will affect their ability to see their family and as well as the support they might provide to their grandchildren or parents. Furthermore, in this age, they do not make friends fairly easily so being close to their friends and neighbours, who help them in case of illness or emergency, are other critical factors to make decision that where they are willing to live.

b) The Region where Baby Boomers are probably most happy

A second significant factor that major Baby Boomers take into consideration is about where they might want to live, specifically if they are family-tied or flexible. There is wide range of variety in where people prefer to live. City or country, seaside or mountain, cold weather or warm or not the options are approximately endless. In this regard, the factors which Baby Boomers almost always think about are:

- Staying close to their roots, to what is familiar for them or where their history is
- Living in a rural area or the big city or some places in-between
- The Weather that they are used to
- Hospitable climate eg clean air, mild temperatures

c) How well the Resources in a given community meet Baby Boomers special requirements

The match between community resources and Baby Boomers' special requirements

Baby Boomers are willing to look closely at several communities to live in a place to be close to the amenities that they are likely to require now and in the foreseeable future. The study highlighted 5 most important resources for Baby Boomers:

- Entertainment: They need easy access to the kind of entertainment that they would rather; dining activities, theatre, concert and etc.
- **Religious Opportunities:** If religion is an important part of their life, they rather to live nearby church, synagogue or mosque.
- **Healthcare:** they are willing to live in the place that high-quality healthcare readily available and own the convenient access to the doctors' practice and a good hospital. In the case that they need major medical attention, they prefer not to travel an inconvenient distance.
- Educational Opportunities: Some Baby Boomers love to live near a college that

allow them to in attend courses, lectures and participant cultural activities.

• **Transportation:** Accessibility to public transport and other transport options was the main concern of most of the participants. Moreover, For the 55+ group, transport appear to be the factor that allow them to overcome isolation and it is found as very important when they will no longer be able to drive to the services and facilities they need.

In order to clarify where the Baby Boomers would rather live and how they want to live, priorities worksheet is created as the starting point of a designing procedure. Each Item assists to think about their most preferred desire and consider their current resources. This worksheet will associated with architect and housing system to consider what place might be a good fit for Baby Boomers preferences, their needs and their life style.

See Appendix C for Priorities List worksheet.

"This is the place that I see as my life as I have lived here for 30 years. I know my neighbours, I know the shops, I know the streets. I know everything about here; I can live here with my eyes closed and feel secure." (P2)



Figure 9: the home that participants2 lived in for 30 years with very friendly neighbourhood- The photo is taken from P2's home

Step two: Consider designing options for the Baby Boomers

The second step to heightening the match between Baby Boomers housing and their requirements is to consider their special design options which make their house design different from other generations. This study captures two words for the spirit of the spaces that have been built with unique design for this generation: adaptable and accessible

Adaptable: Based on the study in the Baby Boomers life style their houses should be designed on the principle to provide flexible and versatile space which can meet their age requirements. For example flexibility could be built in to the home by the inclusion of removable walls to enable larger bedrooms, bathrooms and dining room. These features, which are reversible, have been thoughtfully integrated into the design so as to not encroach on the functionality of other rooms in the home.

Accessible: Accessible housing for Baby Boomers is planned to create features within the home accessible for this generation with varying mobility levels to live independently, comprising features like zero-step entries, wider hallways and doorways to accommodate wheelchairs or walkers, and bathrooms, kitchens and bedrooms that are accessible by everyone. These design consideration enhance societal and economic benefits, decreasing the costs concerning their health care system and establish a challenge for them and others with mobility to keep their independence and dignity and "age in place" in their own homes.

In term of accessibility and safety as important factors of the Baby Boomers housing design, it can be referred to Universal design to the incorporation of standard design factors to satisfy the competencies of all people regardless of age, condition or ability (Coleman 1994). Australian Standard described the principles of universal design as 'Adaptable Housing AS4299'. The Universal Housing Design Working Group for the Office of the Public Advocate in Queensland (2005) indicates some performance requirements for non-discriminatory housing which is associated with the action plan.

Step three: Create an action plan to achieve the goals

The final step is to create a design for Baby Boomers ideal home based on the research findings.

It is perceived that most Baby Boomers dream house is a single storey design, detached, three or more bedrooms with a huge master bedroom suite, flexible living spaces and floor plans, and multi-purpose rooms that are perfect for those with empty nests. In addition, Since Baby Boomers are often in charge of caring of their grandchildren and elderly parents, these homes are ideal in the "here and now" as well as in the not-so-far-away future. In following the study will expand the research findings into the model to create some action plans for the Baby Boomers ideal home. Also it reviews the features of a Baby Boomer house plan to express how the proposed model achieved maximum comfort out of these houses.

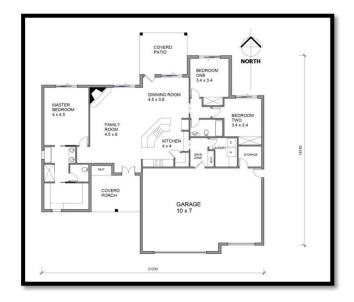


Figure 9: Proposed Model for Baby Boomers dream home – See the Appendix D

The following extracted factors from research findings provide a framework for the action plans in terms of accessibility, adaptability, and safety.

INDOOR FACTORS ASSOCIATED WITH BABY BOOMERS IDEAL HOME

(a) Dwelling entrance

The entrance of the model designed step-free into the dwelling to allow home occupants to easily enter and exit the dwelling.

According to the Universal design:

- I. with a level landing area 1500mm x 1500mm, and
- II. with a minimum clear door opening width of 850mm (see Figure).



Figure 10: Entrance for the proposed Model Source: http://www.houzz.com/photos/3600240/From-Pre-Fabto-Farmhouse-farmhouse-entry-atlanta



Door Clearance

Figure 11: Door clearance Source:http://www.houzz.com/photos/1326768/Admiral-s-House-transitional-entry-boston

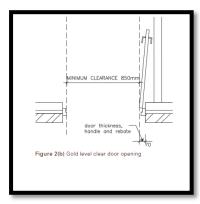


Figure 12: Door clearance Source: Residential remodelling and universal design http://www.ncsu.edu/ncsu/design/cud/pubs_p/docs/residential_ remodelinl.pdf

The entry level to the dwelling should provide a living space, bathroom & toilet and a bedroom space.

(b) Internal doors & corridors

The wide hallways and doorways designed for the model to facilitate ease of movement between rooms and accommodate the circulation needs of occupants specially when they grow older and may need to use a walker or wheelchair.

According to the Universal design:

I. Internal door widths for living, dining, bedroom, bathroom, kitchen, laundry

and sanitary compartment purposes recommended to provide 820 mm clear opening

II. Internal corridors which provide at least 1000mm clearance



Figure 13: Corridor Model Source:http://www.houzz.com/photos/81287/Condo-Hallcontemporary-hall-other-metro

(C) Toilet & Shower

• Showers & Tubs:

The proposed model's bathroom designed in a large shower with no curb at all. Also an adjustable-height shower head is recommended to associate with who has the mobility impairment. The shower included built-in seat – a bench for shaving legs or for those who have difficulty standing and, a great storage spot for multiple bath and hair products.

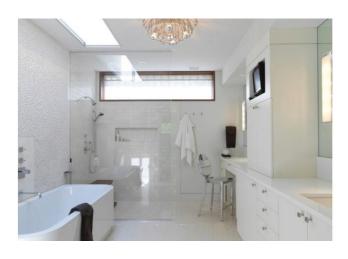


Figure 14: Curbless shower considered as a convenience for those with mobility problems Source:http://www.houzz.com/ideabooks/741559/list/The-No-Threshold-Shower--Accessibility-With-Style

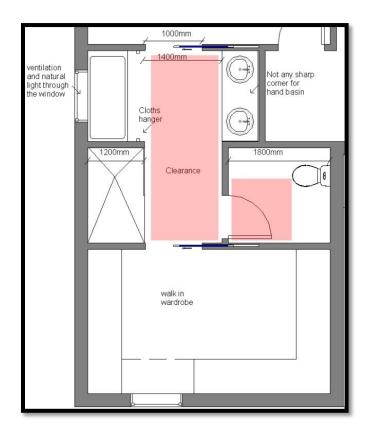


figure 15: Circulation space requirement for the proposed model's Bathroom (Ensiute)

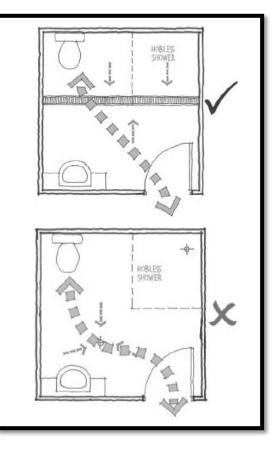


Figure 15: Suggested floor waste design for a hobless shower recess within a bathroom



Figure 16: detail of a trench drain that can be used in a zerothreshold shower Source:http://www.houzz.com/ideabooks/741559/list/The-No-Threshold-Shower--Accessibility-With-Style



Figure 16: In order to produce an adaptable space for the proposed model's shower, a fold up bench would be recommended to be installed instead of built-in bench. Source:http://www.houzz.com/ideabooks/1061289/list/Ba throom-Safety-Features-That-Support-Your-Style

• Grab Bars:

Bathrooms are defined as the most dangerous room for people of every age in terms of slippery floor which is the main cause of injury at home. Therefore all the showers and toilets of the proposed model should have grab bars that are securely attached and strategically placed.



Figure 17: Baby Boomers should feel safe and steady while showering. Pair of grab bars like these offers extremely showers safety for the proposed model. Those washing their hair in this shower could still keep a hand on a grab bar at all timesource:http://www.houzz.com/ideabooks/8793524/list/Conv ert-Your-Tub-Space-Into-a-Shower-----Choosing-Accessories

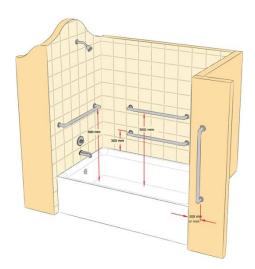


Figure 18: Bathtub Grab bar consideration for proposed model Source:http://www.lowes.com/cd_Grab+Bar+Essentials_1272 566813

• Toilets and Sinks:

The proposed "comfort height" toilet with a seat height of 400 mm would be installed for the proposed model. The hand basin is considered to accommodate a person who is seated which has pullback doors concealed under the cabinet space when it's not in use. In order to align with the comfort and safety principal, all the corners are rounded and sharp edges avoided on counter tops. Single-lever faucet handles are the easiest since it does not need to be grasped or twisted.

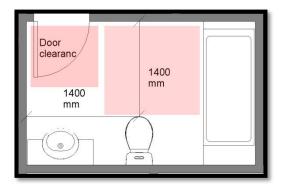


Figure 19: Circulation space requirement for the proposed model's Bathroom



Figure 20: Qualified toilet for the proposed model

(d) Stairways and Railing

In the case of having internal stairways (which is not recommended), building a straight stairway more easily accommodates the installation of a lift in the future if required due to ageing, mobility changes or a severe mobility impairment. The stairways should provide landings to encourage easy passage and visibility. Also they are more capable of accommodating the 'traffic' needs to meet the changing mobility needs of Australian Baby Boomers.



Figure 21: Correct stairway and landing (Not applicable in proposed model)

Source:http://www.houzz.com/photos/383043/201-Guerrero-Staircase-contemporary-staircase-san-francisco

(e) Kitchen space

Kitchens are often the hub for many of todays' families rather than merely a space to prepare and eat meals; therefore it should be designed intelligently to take advantage of every centimetre of space in the kitchen. Here are a few considerations for the proposed model to make it comfortable for this generation.

o Lighting:

Lighting is critical for those aged people with visual impairment. Therefore in the proposed model planning for as much natural light as possible within the design limitations is important and if this is not possible then artificial lighting from multiple sources, such as undercabinets and on tracks should be incorporated.



Figure 22: Rufty Homes - Kitchen Rufty Homes was recognized by the National Association of Home Builders (NAHB) with its "Room of the Year" award as well as a platinum award for "Interior Design: Kitchen" in the 2012 Best in American Living Awards (BALA).

Source: http://www.houzz.com/photos/5155987/Rufty-Homes---Kitchen-traditional-kitchen-raleigh

o Counters and Centre Island:

Incorporating an island bench should consider a design with multiple levels, consisting of one at bar height to accommodate tall and one at short height for those who are more comfortable sitting or are using a wheelchair. The design carefully leaves sufficient space around the island to facilitate comfortable and unimpeded movement between spaces.



Figure 23: Kitchen Island bench http://www.houzz.com/photos/2026928/Breezy-Brentwoodtraditional-kitchen-los-angeles

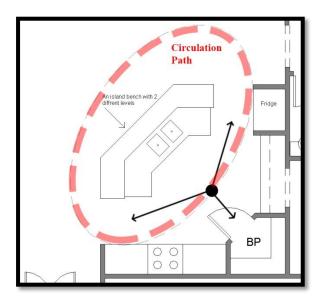


Figure 24: Circulation path in proposed model's kitchen Kitchen Island bench in two different levels is designed

(f) Laundry space

The performance of the laundry space is designed to associate ease of movement in the middle of fixed cabinets and to support easy adaptation.



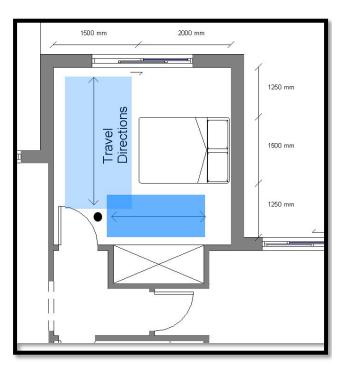
Figure 25: Laundry arrangement for proposed model Source:http://www.houzz.com/photos/183326/ORG-Home-Laundry-Room--laundry-room-

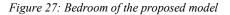
(g) Ground (or entry level) bedroom space

For the proposed model bedrooms are designed in a way to be able to provide the circulation requirements of Baby Boomers who may have temporary or permanent low levels of mobility, and additionally they are designed to be free of obstructions.



Figure 26: Bedroom of the proposed model Source:http://www.houzz.com/photos/2511795/Interior-Designcontemporary-bedroom-los-angeles





(h) Switches and powerpoints

All power outlets and light switches are accessible via <u>wireless remote control and are included in the</u> <u>proposed model to</u> provide convenience for the occupants in term of mobility. In the case of not utilizing Wireless Light switches and powerpoints, they would be sited at heights that are easy to reach for all home occupants.

(i) Door and windows

For the Proposed model, operable door, window and hardware controls are specialised to be comfortably manipulated and operated by the home occupants regardless of age or ability.

Considerations:

o Window sills are considered to be installed in a height that provides clear visibility and a view of the outdoor space from either a seated or standing position for home occupants. Also the lever action window openers were applied to allow great control when standing or sitting and are both practical and more user-friendly.



Figure 28: for the proposed model, the window sills are recommended to be installed in the height of 600 mm Source:http://www.houzz.com/photos/646177/Bedroom-02rustic-bedroom-sacramento

o Enhance the width of all doorways to allow for 850 mm of clear passage space to provide greater flexibility for Baby Boomers who use a wheelchair. Furthermore, to avoid tripping hazards, all room-to-room thresholds are eliminated. To enhance the convenience of the accessibility, round doorknobs with lever style handles are installed for all doors.



Figure 28: Doorknobs with lever style handles is specialized for the proposed building doors Source: http://name5things.blogspot.com.au/

(j) Family/living room space

Clear, open plan living offers functional living areas for all home occupants in terms of sociality and enhances natural surveillance within the home especially for Baby Boomers who suffer from visual impairment. Clear spaces are heightened in the family/living room to allow Baby Boomers to move between the spaces with ease.

"It is nice to have big family room with the kitchen, all in one level where the entertainments are going to be a backyard or balcony, it all comes together, and everybody is together." (P6)



Figure 29: Doorknobs with lever style handles is specialized for the proposed building doors http://www.houzz.com/photos/713591/Cat-Mountain-Residence-modern-living-room-austin

(k) Flooring

Floor coverings are specialised slip resistant to decrease the likelihood of slips, trips and falls in the home.

According the Universal H all floor coverings should:

- I. be firm and even, and
- II. Between abutting surfaces a maximum vertical tolerance of 5mm is allowable provided the lip is rounded or bevelled.

OUTDOOR FACTORS ASSOCIATED WITH BABY BOOMERS IDEAL HOME

In order to ensure that the proposed model for Baby Boomers home offers safe and comfortable entrance and existence, it is critical to consider the following factors concerning access from the driveway to the front door, lawn and walkways as well as any steps which already have been there or will be laid near the entrance:

(l) Dwelling access

A safe, continuous, step-free pathway from the street entrance and/or parking area to a dwelling entrance that is level is recommended.

Parking areas which are wide enough, 3.8m x 6.0m are recommended to make sure the old people and people with mobility are able to get into and out of the car easily and safely.

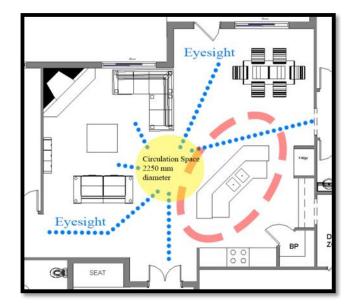


Figure 30: The living room was designed openly facilitate imped movement and provide strong visual attachment for Baby boomers



Figure 31: Pathway from street entrance which is proposed for the model

Source: http://www.houzz.com/photos/5732954/Midvale-Courtyard-House-contemporary-exterior-other-metro

(M) Dwelling Entrance:

the study proposed a model with zero- step entry as it was perceived from the finding that even a little step could be a huge disaster for some Baby Boomers. This also can be achieved with gradually sloped walkway which if it is planned intelligently, it can bring beauty and functionality to the home.



Figure 32: Entrance which is proposed for the model

Source:http://www.houzz.com/photos/443049/LuAn n-Development-craftsman-exterior-los-angeles

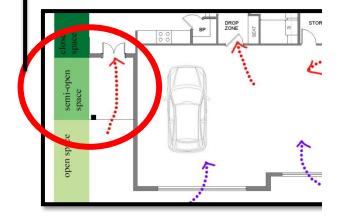
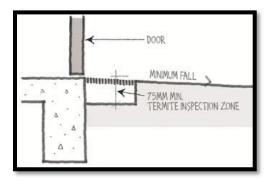


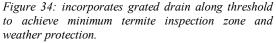
Figure 33: connection of the three open space, semi open space and close space through the zero step entrances

Source:http://www.houzz.com/photos/443049/LuAn n-Development-craftsman-exterior-los-angeles

(n) Doorways:

The double doors (which each Panel at least 850mm) are opted for entrance door in the matter that may Baby Boomers have difficulty of handling a large, heavy exterior door. In order to reduce the quantity of water in the area adjoining the door, appropriately sized grated drains and generous covers at entries are recommended to be provided.





Source: Residential remodelling and universal design http://www.ncsu.edu/ncsu/design/cud/pubs_p/docs/resi dential remodelinl.pdf



Figure 35: Double doors which each Panel at least 850mm is recommended for the proposed model entrance

(o) Lighting:

Install sufficient quantity of lighting particularly near the entrances and on pathways. To grant high level of security, motion detectors can be implemented which allow the lights to go on automatically in case anything comes within a certain distance of the home.

LIMITATIONS

There are a number of limitations highlighted which associated with this research:

Timeframe

One of the key factors which affected the extension of this research is time limitation and therefore the number of participants has been restricted. Hence this study must be completed by November 2012; the time frame is tight. In respect to the unlimited character of the architectural research and number of participants, and the other hand the tight timeframe, it is cautious considered to target a specific number of participants.

Generalisation

This study's qualitative findings will be generalised to the overall population of Queensland residents. However, participants in this study living in Queensland, mainly within Brisbane suburbs. Therefore, the collected data will be from households in just one area of one territory in Australia which consequently restricted the results of this research to the one geographic location.

Bias

The use of semi-structured interviews is more likely to be subjected to reporting bias. In this manner, it may possibly the participants attempt to frame responses to be fit with "socially acceptable" belief rather than expressing their actual requirements and expectations in reality.

Resources

Since there are less study within this type in Queensland context, there is limitation with data sources and literatures to be refer in the specific consideration.

e) Socioeconomic statues

The participants of this research will not be restricted to any specific suburbs; therefore, there may be variation in the socioeconomic status of the samples. It may result in considerably different levels of expectations, requirements and quality of life.

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Appendix B: Participants Characteristics

Participants	Gende r	Age	Live in QLD (years)	Live (km from CBD)	Wor k (km from CBD)	occupation	Material Status	Dependants	Living Arrangement
P1	Male	65	65	15 km	3 km	Full-time Construction Industry	De-facto	N/A	Renting with one other person
P2	Male	58	41	3 km	.5 km	Full time Accounting	Single	N/A	Home Owner Live with 2 other people
P3	Female	60	35	2 km	2 km	Full-time Clerical	Divorced	2 Children	Home Owner Live alone
P4	Male	58	49	7	5 km	Part-time Tradesman	Married	2 Children	Home owner Live with one other person
P5	Male	62	32	5 km	2 km	Full-time Design Industry	Married	3 Children	Home owner Live with one other person
P6	Female	61	52	5 km	N/A	Retired School teacher	Divorced	2 Children	Renting with 1 other person
P7	Female	57	30	7 km	5 km	Full-time Cosmetic Industry	De-facto	1 Children	Renting with 2 other people
P8	Male	65	42	3 km	1 km	Full-time Design Industry	Married	1 Children	Home owner Living with 1 other person
P9	Male	59	59	16 km	11 km	Full-time Tradesman	Married	3 Children	Renting with 2 other person
P10	Female	51	51	5 km	5 km	Full-time Retail	Single	N/A	Renting with 2 other people
P11	Female	68	68	10 km	N/A	House Wife	Married	2 Children	Home Owner Live with one more people
P12	Female	62	40	10 km	N/A	Retired Clerical	Married	2 Children	Home owner Living with 3 other people

Appendix C: Participants Characteristics

BABY BOOMERS PRIORITIES LIST

Priorities worksheet is created to clarify where the baby boomers would rather live and how they want to live as the starting point of a designing procedure. This worksheet will associated with architect and housing system to consider what place might be a good fit for baby boomers preferences, their needs and their life style.

Name:	
Age:	
Gender:	

Use the rating scale to select the priority number.

	Scale						
Priority Item (Relationships)		BETWEEN		MOST PREFER			
Close to children	1	2	3	4	5		
Close to grandchildren	1	2	3	4	5		
Close to parents	1	2	3	4	5		
Close to other family	1	2	3	4	5		
Close to friends	1	2	3	4	5		
A place where you have the chance to make new friends	1	2	3	4	5		
A place where you know your neighbors	1	2	3	4	5		
A close-knit community	1	2	3	4	5		
Other:	1		1	1			
Note:							
					—		

BABY BOOMERS PRIORITIES LIST

	Scale					
Survey Item (Region)		BETWEEN		MOST PREFER		
Staying close to your current city or town	1	2	3	4	5	
Fully experiencing four seasons of weather	1	2	3	4	5	
Warm weather climate	1	2	3	4	5	
Cold weather climate	1	2	3	4	5	
Near the beach	1	2	3	4	5	
Near the mountains	1	2	3	4	5	
Near a lake	1	2	3	4	5	
Near the desert	1	2	3	4	5	
Other:			1	1		
Note:						

	Scale					
Survey Item (Resources)	LEAST PREFER	BETWEEN			MOST PREFER	
Financially affordable	1	2	3	4	5	
Lots of entertainment activities (e.g., concerts, theater)	1	2	3	4	5	
Close to shopping	1	2	3	4	5	
Close to parks, hiking trails or other outside activities	1	2	3	4	5	
Lots of outdoor recreation	1	2	3	4	5	
Lots of choices for dining out	1	2	3	4	5	
A nearby place of worship (e.g., church, temple, mosque)	1	2	3	4	5	
Close to a hospital	1	2	3	4	5	
Close to doctors' offices	1	2	3	4	5	
Close to a college or university	1	2	3	4	5	
A place with easy access to an interstate highway	1	2	3	4	5	
A place with public transportation (e.g., bus or subway)	1	2	3	4	5	
A place with easy access to an airport		2	3	4	5	
A neighborhood where you could walk to shops and services	1	2	3	4	5	
Close to work	1	2	3	4	5	
Close to volunteer opportunities	1	2	3	4	5	
A golf community	1	2	3	4	5	
An active adult community (age-restricted)	1	2	3	4	5	
A gated community	1	2	3	4	5	
Other:						
Note:						

Appendix D: Proposed Model for Baby Boomers dream home

