

## Metrics of Assessing Affordable Living

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### 1 ABSTRACT

Providing good-quality, appropriate and affordable housing for all in most of urban places around the world is a major challenge. Political leaders such as mayors, governors and other politicians struggle to develop mechanisms to satisfy the requirements for even basic provisions in both developed and developing countries. The problem is global but the answers are very culturally specific and the types and locations of new dwellings shapes our cities. While choices are made with the intention to alleviate poverty and improve quality of life, outcomes observed suggest that some solutions drive occupants even further away from affordable life.

### 2 INTRODUCTION

A city is a direct reflection of its inhabitants, where the design directly influences the living conditions of the people. Modernist urban strategies call for cities to be disassembled into detailed component parts, where each part is optimised for a specific purpose (Geertman & Stillwell, 2002). Such strategies promote separation and segregation; this in turn has led to remoteness and loneliness of many inhabitants, detracting from the quality of urban life.

Master plans are a feature of a modernist planning approach (Sandercock, 1990). Typically, master plans are a description of a resolved city in which change is not part of the picture. The rigidity of this approach fails to respond to the dynamic evolution of the context. Consequently, a move away from prescriptive master plans has been observed (Riddell, 2003). In place of plans based on geometric properties (zones), performance specifications encapsulating observed or desired behaviours have been described resulting in a variety of outcomes (Hopkins, 2012). However, there is an urgent need to investigate new forms of description, prediction, and intervention in the design process particularly for affordable social housing. What is required is a different mind-set by architects and urban planners.

It is important to point out that when designing affordable social housing the focus should not be limited to the provision of affordable housing, but rather the provision of affordable living. Usually, we understand affordability as “inexpensive; reasonable priced,” which is the definition in the Oxford Dictionary as illustrated with the sample phrase in this source as “affordable home.” An etymological dictionary will show that “affordability” derives from “forward, onward, to put forth, to contribute, advance, accomplish.” Therefore, the notion of enabling outcomes and creating opportunity could be a guiding characteristic of design.

### 3 AFFORDABLE LIVING AND THE HOUSE WE CAN AFFORD

We all need housing and we prepared to pay a significant proportion of our income towards it. But what we desire and what we can afford are two very different things. Each time we start looking for the place to live, disregarding our social status, we very soon come to realization that we cannot afford, what we want. We need to compromise and translate our wishes to wishes that we can afford. We make decision base on elimination of features that we can live without, constantly checking if what ‘I want’ is the same as what ‘I need’. We make choices by ranking what is important to us. Far too often we realize that we are not in control of our decision on where and how to live. Homes located near opportunities for work, entertainment or good schools all seems to be too expensive, and we need to decide whether is better to have smaller house or live further out and commute. And the tighter is our budget the smaller amount of choices, and therefore those who are poor often have no choice at all. Most of them will end up in housing, which is affordable, but the living is not. Since this housing types will be located at the periphery of the city or in more central areas but economically devastated where work, schooling and even safety are chronically limited. Far too often affordable housing is very far from opportunity. And the reason behind it maybe that housing is most of the time treated in isolation. And this does not only refers to affordable, or social housing, developers, architects, planners, and politicians treat housing as separate element to other part of the city.

Housing is undoubtedly the most important component of a city and therefore should not be treated in isolation. Furthermore affordable housing should be approached not as a product to house the poor or a container for undesirable elements, but as a framework for enabling social processes of complexity facilitated by the adaptability of a particular form. And this is what this paper is all about.

### 3.1 Market Feedback

In November 2011 the Grattan Institute issued a report on “Getting the housing we want”, written by Jane-Frances Kelly, director of Cities Program at the Grattan Institute. The report clearly identified a mismatch between the housing Australian say they want and the housing that is provided. The report tested a hypothesis that housing demand and housing stock do not align. The Grattan Institute interviewed 700 residents of Melbourne and Sydney in order to identify their housing preferences. The results are very surprising, not because it is very clear from the report that housing in Australian cities do not match the choices and trade-offs that people would make if they could, but because it illuminates the choices and compromises people make when selecting their homes.

The data from the survey illustrated a substantial shortage of semi detached houses and apartments. In the introduction to the report we read:

New supply is not reducing the mismatch, and there are barriers to delivering more of the housing people say they want. These include difficulty of land assembly and preparation, the risk and uncertainty of planning systems, and the cost of materials and labour for building over three storeys. Indeed, the incentives facing developers and builders are skewed away from infield development, and towards building more detached houses at the edge of our cities” (Kelly et al, 2011b).

The biggest problem with infield development is that developers are unable to provide the type of housing, which people want for the price that they can afford, without losing all possible profits. The opportunities to make profit at the edge of the city, by developing greenfield sites are to strong to be rejected by developers and the sprawl continues together with unaffordable life styles.

New developments at the edge of the cities require new infrastructure, roads, utilities, etc. Most of the time the densities of these developments cannot support public transport, schools, and commercial activities and therefore residents are force to commute and drive in order to reach shops, utilities, schools, clinics, etc. The time, energy, cost of fuel and car maintenance are often forgotten when calculating initial cost of new home they choose to live. Most of the time, we all look at the price of the house and not the cost of living there.

The Grattan Report states that the average cost of commuting from outer-suburbs in Melbourne is more than \$500 a week and \$300 a week for inner-suburbs. For people living in the CBD areas of Melbourne is anything between \$0-50 (BITRE, 2011). A simple mortgage calculation for what you need to pay for the loan of \$300 000, at interest rate at 7.5 % for the loan period of 25 years is equal to \$511 per week, which means that one can spend extra \$ 300 000 to buy accommodation which does not require commuting. The challenge is to identify how commuting can be afforded at \$500 a week, yet the threshold of a higher down payment on the more expensive home is beyond many, hence the trap of higher ongoing costs.

The 2008 Housing Affordability Report from the Australian Conservation Foundation and the Victorian Council of Social Service we read that on average, low-income earners spend greater proportion of total weekly household budget on energy, water and transport, 8.44 percent, than wealthier households 5.99 per cent. Dodson and Sipe (2005) show that oil and mortgage vulnerability is worsening each year. People on low incomes are therefore forced to live in outer-suburbs where they are more vulnerable to increasing petrol prices and hence to increases in interest rates or rental prices.

The question is why people choose to live in outer-suburbs where the life is most of the time unaffordable? What are the main drivers in decision-making processes? Can they choose to move to the inner suburbs instead and live more affordable lives? The answer most likely will be “no”.

### 3.2 Problems with inner suburbs

One of the biggest problems with increasing development of housing within inner suburbs is the resistance of existing residents and their fear of change. The residents in established inner-suburbs are extremely resistant to change. Any suggestion of population growth or increase of density brings anxiety and fear to the community. Even people who understand benefits and necessity of population growth they want all the

benefits without making any changes to the way they live. And most of the people cannot see any benefits from having more households in their neighbourhoods. Therefore any new developments within inner suburbs are very problematic.

But there is another problem in inner suburbs related to residential mobility. Australian Bureau of Statistics 2008 suggests that residents who own their homes are almost 30 % less likely to move compared with private tenants. Furthermore, those with mortgage over 20 % are also less likely to move (Andrews, 2011). There are many barriers that prevent people from moving and therefore utilizing existing housing stock more efficiently. The most cited factors are usually transaction costs, the amount of choices available within the same area, real estate commissions, and preferential treatment for home ownership in asset tests for welfare (Leigh, 2011). People often choose to stay in their original property even if down-sizing, or reduction in commuting time due to different job opportunity, would have been good enough reason too move (Henry, 2009). Leigh (2011) believes that a 10 % reduction in stamp duty would possible increase people mobility by over 2 %. This in turn may increase house prices by 1.6 %. Henry (2009) suggests that stamp duties should be replaced by land-tax based on the value rather than size of holding. The same idea is repeated in Australians for Affordable Housing (HousingStressed.org.au) publication titled: Addressing Housing Affordability in Australia: A 4 point plan for the next 5 years (2012). Unfortunately stamp duties are part of Australian tax system and are very unlikely to be abolished. The stamp duties in Victoria (Melbourne) reached 5 % in 2011 (Larocca, 2011). What is also unfortunate that the first paragraph in Addressing Housing Affordability in Australia we read:

Australians for Affordable Housing are proposing a four point plan that will deliver 30,000 new affordable housing units each year and lift 250,000 households out of housing stress (HousingStress.org.au, 2012)

In the same report we read about how we can increase the supply of affordable rental housing and build more affordable housing through an Affordable Housing Growth Fund. Affordable Growth Fund is proposed as “banded” model. The three bands are described below.

- Band A provides a deep subsidy to ensure rents are set below 25 % of household income and provide secure tendencies, similar to current public housing model.
- Band B provides a mid level subsidy to secure dwellings at least 20 % below market rent, for example further investment in the National Rental Affordability Scheme or programs that assist households in private rental market to secure long term leases with stable rents.
- Band C includes funding to enable low cost home purchase schemes for low to moderate income households, for example shared equity schemes and community land trusts (National Affordable Housing Summit Group, 2008).

The report ends with a suggestion that \$3.5 billion over 5 years should be spent to build a minimum of 150,000 new properties and to assist over a quarter of a million households move out of housing stress. Unfortunately if implemented this scheme will provide housing at the peripheries, since land at affordable prices is only available at the edge of the city and therefore poor people will become poorer and vulnerable people will become more vulnerable. To sum it up one may say that as long as we keep on solving problems of affordable housing in isolation, we will be creating more problems and instead of bringing people out of poverty, we will be putting them in poverty again and again.

#### **4 A DEFINITION OF AFFORDABILITY**

Until 2006 the definition of Affordable Housing was rather limited. Definition used by the Victorian Government in response to the Melbourne 2030 Audit did not take into account indirect cost of assessing access to employment, services and facilities as well as household expenditure on utilities such as water, gas, and electricity. In 2006, however, a paper prepared by the National Affordable Housing Forum defines affordable housing as housing which is reasonably adequate in standard and location for lower or middle income household and does not cost so much that a household is unlikely to be able to meet other basic living costs on sustainable basis. It goes further to suggest the requirements for reasonable accessibility to work opportunities, services, and facilities. It also includes consideration of cost of transport. In 2008 Housing Affordability Report, there is also strong suggestion to the Victorian Government to consider index of housing affordability that includes the broader concept of affordable living. If Government adapts this

definition of affordable living as a guiding principle in delivering affordable housing, than affordable housing will no longer be able to end up at the city edge, the periphery.

## 5 THE HOUSING WE WANT

In another report from the Grattan Institute, *The housing we'd choose*, we find illuminating data that suggests that, in addition to the problem on having mismatch of the housing we want and the housing we have, we also have very strong ideas about how we want to live, which could make provision of affordable housing in Australia close to impossible (Kelly et al, 2011a). The report suggests that the dream of owning your own home is still automatically associated with detached house on the big plot of land:

We're born and bred in Australia – we're ingrained and conditioned to have that attitude towards detached home.

At the same time, people very clearly describe their concerns about apartments. Most of Australian see apartments as the way of housing people who cannot afford to live in the house. The fear of not owning the land on which your household is located is probably one of the major reasons why apartments are still not considered as first choice. The problems associated with them include: lack of outdoor space, proximity of neighbours (next door, below and above), privacy, overlooking, overhearing, and lost of control. All of the above are preconceptions, which are impossible to get rid of. Furthermore it is impossible to suggest that you may have less noise and less overlooking and in some cases plenty of outdoor spaces if you decide to live in apartment.

One of the most interesting finding from in Grattan report was answer to the question posed to 706 people: What matters most when you choose housing? The survey included 57 variables, divided into four broad categories and presented in groups of eight. Each participant of the survey was asked to identify one variable that matter most and one that mattered least to their housing choice from the group of 8. The four categories were: dwelling features (number of rooms, presence of a garage, whether house was detached), safety and security (safety for people and property, secure parking, away from jails), convenience and access (near family and friends, proximity to work, access to health and services), attractiveness of environment (near the park, a particularly clean and unpolluted area, a natural environment that is attractive).

The most popular answer to the question: What matters most when you choose housing? was the number of rooms. Little traffic congestion in the area came as the least important feature. Proximity to work, school or facilities did not rank highly, indicating that people assume that they are going to drive in order to satisfy their daily living requirements. Safety for people and property came as second most important variable. It will be interesting to find out how people visualize this "safety". Do they prefer to live in gated communities, with guards at the gate, or behind tall fences, with secure locks on the doors, or apartments with security guards?

Most interviewed people preferred large dwellings, and as mentioned before detached houses were the most popular, followed by semi-detached (not commonly available in Melbourne). People valued proximity to the city and most preferred to be closer to the center rather than far away. But if the choice was between living in the city in an apartment and living in a big house away from the city, most of the respondents chose a house.

It is therefore not surprising that 74 % of Australia's housing stock is in detached houses. This has changed very little in the past 30 years; in 1976, detached houses comprised 78 % of the stock. Melbourne's built area has nearly doubled in the past 30 years and may double again in near future; as with many cities, we cannot afford or sustain the horizontal expansion. The cost of infrastructure associated with development of detached houses, the cost of road building and provision of facilities, utilities, schools, nurseries, and jobs cannot be achieved without making dramatic changes to the way we choose to want to live. If we don't change the affordable housing will be put even further away and will make lives very unaffordable. If we try to provide affordable living instead of affordable housing we will need to not only change the perception of what is desirable but also the structure of land allocation. The problem we are now facing is that we don't have exciting alternatives. It is the time we come up with some new ideas, which will allow people to dream about better futures.

## 5.1 Detroit versus Medellin

There are many lessons that we could learn from countries around the world. Over past 50 years developing countries were always looking to the West for ideas and inspiration and examples of better quality of life. But this is changing now and the best lessons we can learn are no longer from the West but rather from developing countries.

In the first half of the 20th century a very large, poor workforce was attracted to the US city of Detroit to support the boom of automobile industry. These workers came from the South looking for a better quality of life, but since they were the lowest paid workers housing them became significant problem. There was no affordable housing to accommodate them. Landlords saw opportunity for business and started to subdivide apartments into small units, providing minimum spaces and getting maximum profit. Most of the migrant population from the South was black. Most of the original population was white and did not welcome blacks into their neighbourhoods. The moment black people move in to the area the white population started to move out. The prices of the housing stock started to go down but this did not stop landlords to keep on increasing the rent values. And since there was never a shortage of people willing to rent, the landlords didn't bother with maintenance and upkeep. The tenants themselves preferred to send their money back home where they came from to secure their future when they returned. As a result, the areas where the migrant population lived slowly degenerated. Those who had a little extra money moved out to more desirable areas, to be replaced by more who had none. Within few years the areas of town previously occupied by middle classes and considered, as desirable places to live became the places to be avoided. After the automobile industry collapsed, huge parts of Detroit became deserted. Today land value in these areas is close to zero (Brugmann, 2010).

With an opportunity to benefit from improvements made, residents will respond differently. We can contrast Detroit with the example seen in developing countries in South America, where the value of land in favelas rises the moment a migrant worker claims a piece of the land for a shelter. Favela dwellers typically cannot afford to construct anything significant at the start, but slowly and gradually they are able to build their capital. If they start earning some money by running small business or scavenging, they invest it in their house and in their business. Often they will latter extend their house in order to accommodate tenants, supplementing income that is again used to improve their house or to invest in business. Through this slow evolution is observed the incremental development and improvement in such areas of informal housing. This is very different to the conditions we observed in Detroit. In Detroit the moment the first migrant worker moved in, the value of the land decreased. In favela the moment the migrant worker moves in the value of the land increases. There is another substantial different between the two. As oppose to Detroit favelas do not offer affordable housing, they offer affordable living. Residents of favelas run their businesses from their homes, the work, shop, entertain each other in the same place. Their quality of life may be very poor but they can see opportunities and the way out of poverty. And what we can observe over and over again in favelas in places in Colomboas such as Medellin and Bogota as well as in other cities in South America where action brings people out of the poverty; meanwhile in the developed world, we still follow the same trap of putting people into poverty.

We can not only observe the phenomenon of people being housed in so called affordable house but not being able to afford to commute to work, or even in some cases to afford to come for the interview. We can also observed how inner city areas next to social housing and consider less desirable to live in. It is obvious that we have to rethink our affordable housing models on many levels.

## 6 AFFORDABLE FUTURES

Renzo Piano noted in an interview with Peter Buchanan:

What architecture and planning suffer from is a desperate lack of imagination. We need to think about more alternatives and where we might be going, and of new paradigms. We have all sorts of possibilities open to us, and we don't have the imagination to conceive of and use them. What we need now is brainstorm and dream: to stop trashing the world we need culture that is more deeply satisfying. [...] There's terrible dearth of real imagination in thinking about the environment. Most ideas are not exciting. And we are not going to stop people trashing the world unless they are exciting about the alternative. That's the problem. People are not dreaming up sufficiently exciting alternatives." (Piano, 1999, pp 71-72)

Profound societal change has happened in recent history. At the beginning of the twentieth century, when the effects of the Industrial Revolution were choking cities and the solution was identified of encouraging people to move out of cities, into the new idea of suburbs, London Underground came up with series of posters advertising all the advantages of suburban life. Ebenezer Howard's Hampstead Garden Suburb offered people the luxury of dreaming about better futures away from pollution of the industrial city. Railways offered a means to move easily back and forth from suburb to workplace. Yet the public had to be introduced to the idea and convinced of its benefit. An advertising campaign sold the message and sold the dream.

It is important that we can inspire people once again and allow them to dream about alternative futures. Ebenezer Howard managed to sell the idea of the suburban house very well but this was over 100 years ago. It is time we came up with ideas for the 21st century and leave behind models which are not sustainable and which lead us to unaffordable life styles. So what might these new alternatives be?

If we seek an alternative to building affordable housing in the areas where the consequence will be unaffordable living, we will have to look for an alternative approach. This approach could start with re-conceptualization of affordability. If affordability is to be considered as the opportunity for a better quality of life, then we may want to start with looking for sites not at the edge of the city but closer to the center. In the first instance, this may seem impossible to achieve since the land prices in Central Melbourne, as in many cities, are unaffordable and unavailable, if we look a little bit harder and slightly out of the box, the reality is different and full of opportunities. Central Melbourne has substantial pockets of land created by two different grid systems intersecting, creating odd and triangulated sectors of land that are either used by car parks, planted with struggling shrubs or just left as traffic islands. There is no current perceived value to these pockets sites, they are seen as elements of the road structure.

We propose that such left over land can be reconceptualised. In our proposal, we illustrate how such remaindered land can benefit the surrounding areas, bring better road structure and specific benefits to the local communities, by creating opportunities to create affordable housing in the middle of the city that will have all ingredients of affordable living. There are other opportunities related to mix use and, air rights and mix-price housing, where rich and poor can live together in the same location. We have numerous examples from the past. It has been done in ancient Rome, in 18th and 19th century Paris and London, manifesting a range of different forms and configurations. We seek to terminate approaches that keep repeating our 20th century mistakes instead of looking for new 21st century ideas, which can bring back our cities to the new century full of hope, dreams, and opportunities and therefore affordable lives for all.

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