

Tiny houses: a radical new solution for addressing urban housing affordability, or a just another niche market?

Abstract: The emergent tiny house movement originated in the USA in the late 1990s; driven by housing affordability issues and sustainability goals. Tiny houses are generally very small (under 40m²), often mobile, and more affordable than conventional houses. The tiny house movement is most active in those OECD countries with the most unaffordable housing markets, and somewhat perversely, with the largest houses. These countries include the USA, Canada, Australia and New Zealand. This paper reports the results of a pilot study that investigated the tiny house movement in Australia, and its potential to address some housing affordability issues. The method included a questionnaire and a series of semi structured interviews with Australian tiny house enthusiasts. A wide range of actors were interested in building tiny houses, although few had actually done so. The primary reasons given for wanting to build a tiny house were economic freedom and environmental sustainability. On the other hand, respondents reported a number of barriers, including the price of land, complex and rigid local government planning schemes and the inability to source finance. Although tiny houses mostly appealed to younger singles and couples and retirees, these demographics are also vulnerable to housing affordability issues. If planning policy allowed more flexible housing choice, such as tiny houses, granny flats and the like, within urban areas, this could address some intractable urban issues, such as sprawl, housing affordability, and energy and water efficiency.

Introduction

Housing Affordability

Declining housing affordability in Australia is increasingly of concern, particularly in capital cities. Currently all major markets in Australia are ranked as severely unaffordable, a trend that has been increasing over the past 3 decades (Cox & Pavlevitch, 2014; Worthington, 2012; Yates, et al, 2007). This decline in housing affordability is not unique to Australia, and is common to other Organisation for Economic Co-operation and Development (OECD) nations such as Canada, New Zealand and the USA (Berry et al, 2006; Cox & Pavlevitch, 2014; Yates et al, 2008). Multiple reasons exist for the continued rise in house prices including, on the demand-side, population growth and in migration to urban areas, easily accessible housing finance, tax incentives such as negative gearing, and a 'strong cultural preference for owner-occupied detached houses' (Worthington, 2012, Pawson et al, 2015). Others have mooted it primarily a supply side issue, with inflexible and slow responses to the need for new housing stock, lack of infrastructure, and generally inefficient planning processes and development assessment (Cox & Pavlevitch, 2014), although the scholarly consensus tends to view it as a complex combination of factors, primarily on the demand-side (Pawson et al, 2015; Yates et al, 2007).

Unaffordable housing affects all sectors of the housing market, for example, resulting in reduced rates of homeownership; during the period 1994/5 – 2011/12, home ownership declined from 71% to 67% (ABS, 2013). Nonetheless, the greatest concerns about housing affordability is in the rental market, with low income households paying an average of 30% of their gross weekly income on rentals (ABS, 2013; Berry et al, 2006; Burke 2007; Dodson & Sipe, 2007; Yates et al, 2006). The situation is worse for extremely low income households; housing costs in major cities for those on benefits ranged from 79% of total income (Adelaide) to 104% (Brisbane) (The Salvation Army, 2014).

A lack of affordable housing can lead to increasing socio-spatial differentiation, a vicious circle of multiple disadvantages and an increasing mismatch between housing supply and demand (Berry, 2003; Berry et al, 2006; Coiacetto, 2007; Dodson & Sipe, 2008; Worthington, 2012). It has particular impacts on specific demographic sectors; Indigenous, youth, seniors and singles. These groups face a paucity of housing choice, particularly in proximity to employment opportunities, and in response may move to the outer suburbs, rent long-term, enter into share-house arrangements, or live in sheds or caravans (Yates et al 2006). One particularly vulnerable group is older, single women aged over 55, who are significantly more likely to experience poverty than men. Such women are becoming homeless at increasing rates because of lower levels of superannuation and property ownership due to periods of unemployment, the gender income gap, marital breakdown and the demise of traditional nuclear family roles (Petersen & Parsell, 2014). Older women do not fit within the general classifications of homelessness and may live in substandard and temporary accommodation such as sheds, garages, or caravans, or moving between the homes of adult children (Petersen & Parsell, 2014).

Additionally, Australia also has some of the largest houses in the OECD, with house sizes increasing by nearly 20% over the past 2 decades (Cox & Pavlevitch, 2009; 2014; Martin, 2009; Worthington, 2012; Yates et al, 2006). In general, the larger the home, the more unsustainable, with greater heating and cooling costs, and higher resource use (Wentz & Gober, 2007; Wilson & Boehland, 2005). Housing is second only to transportation in its contribution to the greenhouse gas (GHG) emissions (Jones and Kanmen, 2011; Carlin, 2014). Secondary environmental impacts of unaffordable housing also occur when workers move to the outer suburbs and regional areas with inadequate public transport, resulting in increased GHGs from private vehicle emissions, fragmentation of the landscape, and increased vulnerability to the impacts of climate change (Dodson & Sipe, 2008).

This declining housing affordability is well recognised by policy makers, researchers and others, but has proved a relatively intractable problem (Worthington, 2012; Yates et al, 2006). A plethora of government and non-government enquiries into affordable housing have been conducted, including the most recent inquiry by the Senate Economics References Committee (SERC) (2015), which recommended a number of policy interventions that would potentially add to demand without ‘...inflating house prices and exacerbating affordability problems’ (2015; p. xvii). Suggested policy interventions included taxation and housing grant reform, changes to infrastructure funding, urban planning and zoning processes, strategies to address rental affordability, provision of low cost or social housing, and to allow ageing in place or downsizing (SERC, 2015). Others have suggested landuse planning reform (for example, by allowing denser development in currently single residential suburban areas or developing vacant State land), development of innovative housing forms and methods of finance such as structured financing arrangements or allowing mortgage financing for manufactured homes (Pawson et al, 2015).

In theory, many of these could be addressed by the tiny house movement, which has been mooted as having potential to address some aspects of housing affordability (Shearer, 2014). But how realistic is that assumption?

What is the tiny house movement?

The tiny house movement originated in the USA in the late 1990s, responding to affordability issues, the desire to live more sustainably, and later, to the Global Financial Crisis (Mutter, 2013). For example, a Google Trends search showed that in the period 2004 to 2015, the phrase ‘tiny houses’ occurred significantly more often in the social and mainstream media¹. Nonetheless, it is still a very minor component of the housing market, even in the USA, and is even ‘tinier’ in Australia, with very few tiny houses having been built.

Of course, small houses are not new in Australia; and include granny cottages, converted sheds or containers, relocatable houses, prefabricated houses, mining camps, studio or student units, beach shacks, caravans and even houseboats. In the context of the tiny house movement, however, the definition is somewhat narrower (although it can include all the above dwellings), being very small (<40m²), often built on a mobile foundation, such as a trailer base, and constructed in temporary locations due to mobility or legal issues (built without the permission of the Local Government Authority (LGA). Figure 1 shows some of the diversity of tiny houses, although these are all (with the exception of the first) situated in the USA.

The temporary nature of tiny houses however, has less to do with a desire for continual mobility (such as ‘grey nomads’) but because of regulatory and financial constraints. Regardless, providing a definition for a tiny house is complex, as one person said on a forum, ‘*This movement is about FREEDOM and no one should be told what to do or judges <sic> for their decisions*’ (Tiny House Australia Forum, 2015).

¹ Google Trend search on ‘tiny houses’, 2004-2015 (Google Trends, 2015)



Figure 1. Tiny houses. Clockwise from top left, Australian 'Tiny Abode' (picture courtesy of owner); Macy Miller's tiny house; Richardson Architects 260 square foot house; the Wheelhaus Wedge.

In theory, if housing affordability is largely a supply-side problem, increasing housing supply by allowing more infill development should help constrain price rises (Cox & Pavlevitch, 2014). Encouraging tiny houses (or granny flats) in the single family residential zones could address some aspects of unaffordable housing, and at the same time, increase urban densification. This could allow more people to live in proximity to health and other services, as well as employment, transport and family. This accords with Australian metropolitan strategies, which promote increased densification, aimed at reducing private vehicle use, energy and water use, and reducing urban sprawl (i.e. Buxton & Taylor, 2011). In practice, however, densification strategies have done little to curb price rises, particularly in inner urban areas. This high cost of urban land exacerbates unaffordable housing; many seeking more affordable housing tend to purchase in the outer suburban areas, negating any environmental benefits, particularly in transport (Dodson & Sipe, 2008). Moreover, regional and remote areas of Australia frequently have high unemployment rates, lack of infrastructure, services, educational and health facilities and public transport.

Additionally, Local Government Authority (LGA) planning schemes and land use zonings often impose constraints on affordable and alternative housing forms (Gabriel & Jacobs, 2006; Glaeser & Gyourko, 2002). Planning scheme regulations generally restrict additional dwellings, temporary occupation and number of houses per lot. Different LGAs have different and highly complex land-use codes, land subdivision sizes, minimum house sizes, restrictions on dual occupancy, permissible water and power sources, types of buildings permitted, and headworks and infrastructure charges and parking requirements. Many LGA planning schemes for example, disallow dual occupancy, except in with highly restrictive and costly conditions (for example, a requirement that the properties share a wall and roof, are of specified maximum sizes and provide wheelchair access). Because of unaffordable land and planning constraints, alternative housing forms (like tiny houses) are more commonly built (or temporarily placed) in suburban backyards, on the urban fringe or in rural areas.

Tiny houses are however subject to additional constraints that include economic barriers such as the difficulty of sourcing mortgage funding and insurance for a non-conventional or temporary dwelling. In addition, if potential tiny house owners wish to enter into land sharing arrangements to reduce costs, this raises further issues regarding tenure, future resale, and reduced access to grants such as the First Homeowners Grant or stamp duty concessions.

More fundamentally, and potentially of greater import than planning schemes, landuse zoning and financing, are social barriers. Alternative housing forms, such as co-housing and intentional communities are found throughout Australia, even in capital cities, but have never been particularly popular. This is possibly less about housing form than an often overt desire of the founders of these to seek separation from mainstream society (Meijering et al, 2007). Arguably too, living in alternative housing, no matter how affordable, is contradictory to the contemporary Australian view of housing as a means to achieve personal capital growth. Challenging social norms may be the most fundamental barrier of all.

Nonetheless, tiny houses have a number of benefits; they are significantly cheaper to build than large houses, particularly if wholly or part owner-built; some tiny houses can cost less than \$20,000 to build. Of note, now that tiny houses have become so popular in the USA and Europe, some bespoke tiny house builders are constructing high quality tiny houses some of which cost double per square meter than do standard houses (Carlyle, 2014). Tiny houses are also more environmentally sustainable than standard houses, including overall sustainable design and reduced energy and water use (Carlin, 2014; Mutter, 2013). But how great is the potential for tiny houses to address some aspects of both housing affordability and urban sustainability, or are they merely a 'tiny niche' market?

A niche market may be defined as, '...one in which supply has become adapted to meet the needs of a specific specialised group, and displays a reluctance to meet demand from another source' (Rugg et al, 2002). It is acknowledged that there are multiple niche and submarkets within the housing sector; such as student rentals (see Rugg & Rhodes, 2008; Rugg et al, 2002); the so-called 'creative class' (Florida, 2000; Lloyd & Clark, 2001); cohousing and intentional communities (Lewis & Wright-Summerton, 2014); and of course, green or sustainable niches (Seyfang & Smith, 2007). The differentiation of the property market into niches is well recognised in the property development industry, which frequently gains competitive advantage by specialising in niche markets (see Coiacetto, 2006). A subset of affordable housing, social housing, is often considered a niche market in itself, and may be actively promoted by government policy such as subsidies (Schelkle, 2012). Niche markets may also form as subsets within certain demographic groups, for example, single women not in the workforce; or young adults living at home.

Aim and Research Questions

Tiny houses appear to offer a solution to some of policy interventions proposed by the SERC (2015), for example, allowing changes to urban planning processes and ageing in place. Tiny houses can be substantially more affordable, as well as more sustainable, with a smaller ecological footprint than a standard detached house. But, is there any real potential for tiny houses to address aspects of housing affordability in urban areas in particular; and what form of tiny house is best suited for this purpose? Moreover, is there a significant demand for tiny houses, or is the demand really for greater access to affordable and sustainable housing, which might be met by any number of innovative products?

Research design and methodology

Given the paucity of scholarly research exists on the tiny house movement (Mutter, 2013) this project used an exploratory multi method approach to investigate the possible potential of the tiny house movement to address aspects of housing affordability in Australia. More specifically, the aim of the project was to explore the drivers and barriers of the tiny house movement, in the context of the broader socio-economic housing market. The study employed both quantitative methods (a survey and planning scheme analysis) and qualitative approaches (social media analysis, ethnographic research and semi-structured interviews). Of note, the research is still ongoing, so this paper only reports on the results of the survey, social media analysis, and some small scale ethnographic research. Future phases of the study will include a series of semi-structured interviews, expansion of the existing phases, and planning scheme analysis.

Survey

A large scale online survey was created, and posted on a number of tiny house forums in Australia. The survey was divided into 5 sections; and Question1 (have you built or are building a tiny house)

aimed to differentiate between those respondents and others who are only interested in the subject. If answering in the negative, then the following two sections; about your tiny house (location relative to CBD, size and ownership of lot, mobility, builder and building material), and institutional context (country, region, cost, financing) were automatically skipped.

The following 2 sections were on the perceived drivers and barriers of tiny houses, and were 5-point Likert scale questions, ranked from strongly disagree to strongly agree. These drivers and barriers included housing affordability, debt reduction, home ownership, freedom, mobility and environmental sustainability; and barriers to building a tiny house including planning schemes, building codes, finance, cost, property value, land prices, etc. A final demographic section included questions on age, gender, employment and so on, as well as an open ended question for any further comments and a request to participate in future research (interviews). The survey was posted on tiny house Facebook forums, groups and sent by email to contacts of the researcher known to be interested in tiny houses. As the survey was online, it was not limited to Australian respondents, but the results reported in this paper are from Australian respondents only. As the research is still ongoing, with only limited responses to date, only descriptive statistics such as frequencies and crosstabs are reported. This paper primarily reports on the drivers and barriers to building tiny houses, with some basic demographic statistics.

To date (June 30, 2015), 56 respondents had completed the survey, with the majority from Australia (6 from the USA, 1 from Europe and 20 who did not answer). Australian respondents were primarily from the east coast, Victoria, NSW and Queensland. Only 10 people had built (3) or were intending to build (7) a tiny house, and all of these, the exception of 1, were from Australia, but 30 respondents stated that they were intending to build a tiny house. Estimates of the cost of building a tiny house ranged from \$10,000 to \$150,000, the higher end of which is comparable to the cost of building a standard house. The respondents were skewed towards women (20 women, 15 men and 20 no response) and of those who provided their age (n=35), the majority were older (40-49, n=8; 50-59, n=10; 60+, n=8) with only 9 under 40. Of the 35 valid responses for employment status, 21% were employed full time, with the next highest employment status being part time (8.9%) and retired and self-employed (respectively 7.1% each).

Drivers

The commonest reason for wanting to build a tiny house was the desire for freedom, and then to reduce overall costs and live sustainably (Figure 2). In general, predominant reasons were economic (highlighted in green on Figure 2), with few selecting religious beliefs, marital breakup or illness.

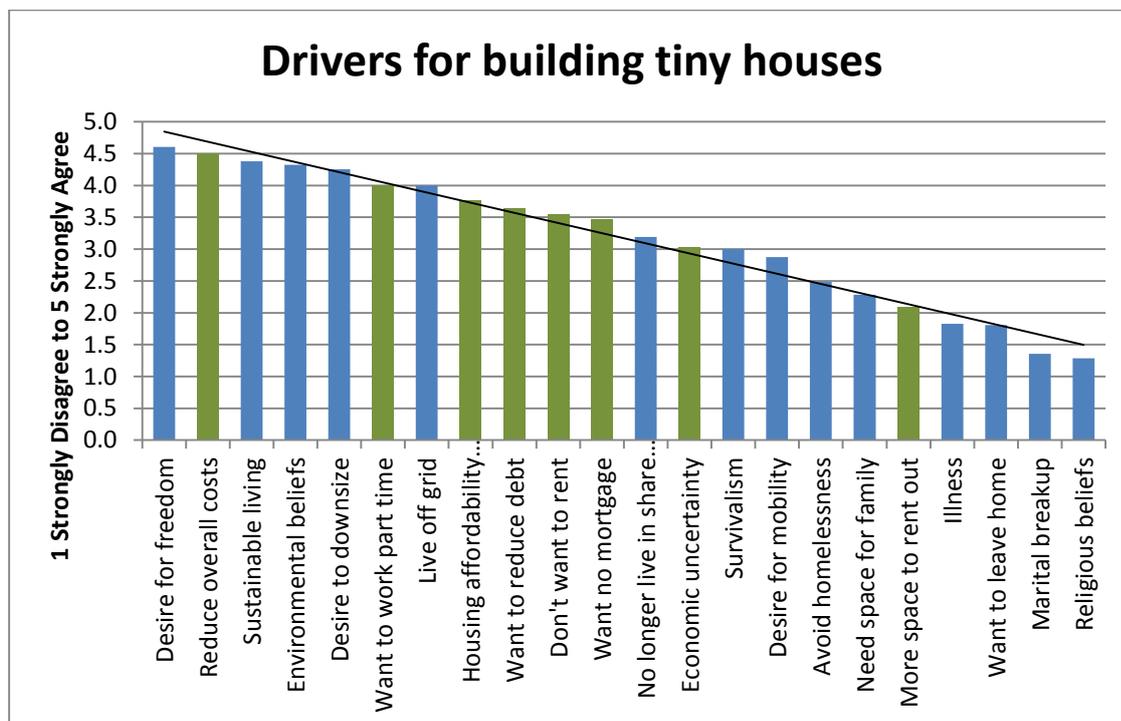


Figure 2; Drivers to building tiny houses

Responses to the open ended question on the survey were slightly different, with common themes being affordability (in some cases, to stave off potential homelessness) and the desire to live in a tiny house community. Commonalities included the age of respondents, with most who commented further being female and older than the sample in general.

Barriers

Unlike the drivers to building tiny houses which were strongly economic, the most common barriers were seen as planning and legislation; complex planning schemes, cost of applying for a building permit and restrictive building codes (Figure 3). Nonetheless, economics featured strongly, with the primary barrier being that land was too expensive, nowhere to park the tiny house and a desire to own land. Social issues included concern about neighbours' complaints, lack of privacy, the need for more space, and being too small for family.

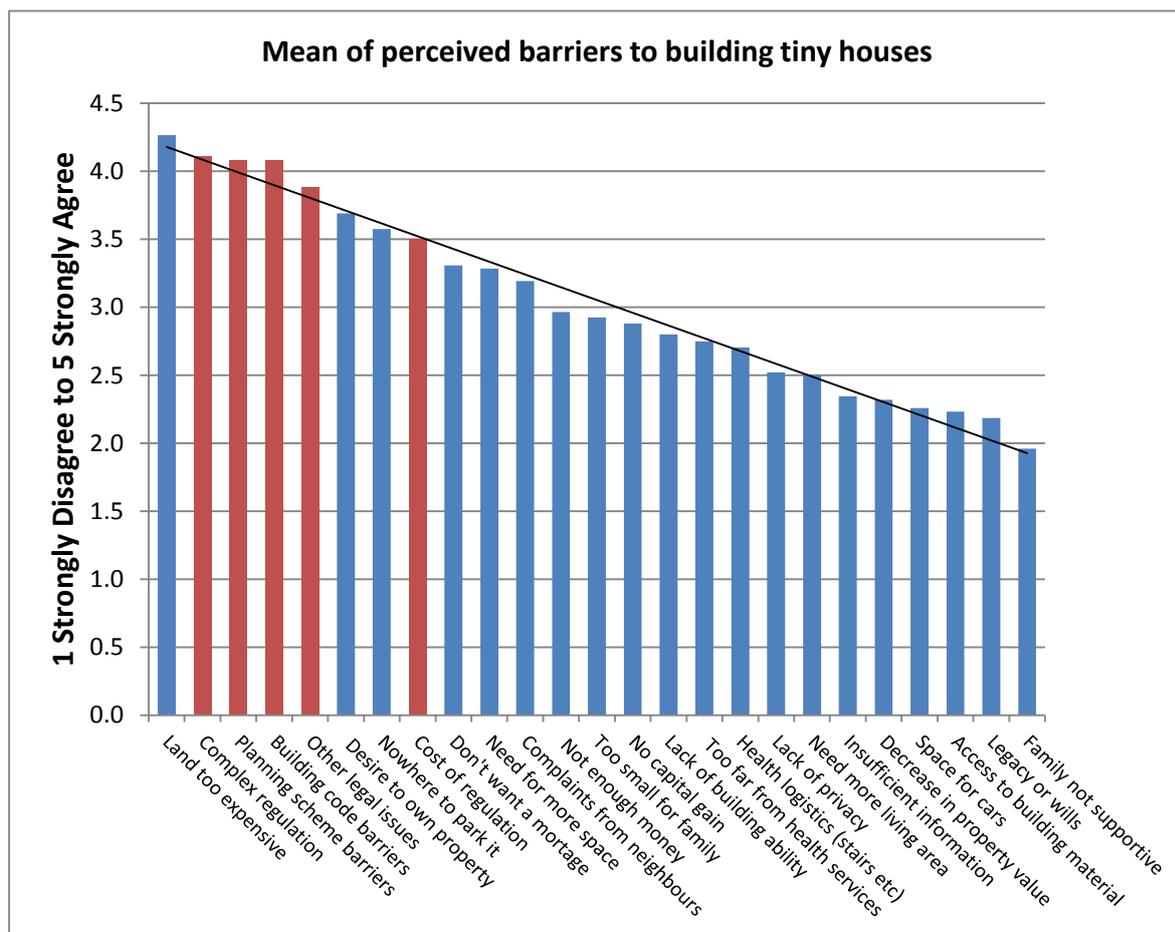


Figure 3; Barriers to building tiny houses

With regard to the open-ended answers, barriers were also strongly related to the regulatory environment, economics and finding suitable land (i.e. affordability), and some related to the logistics of mobile tiny houses and/or design. Interestingly, the demographics of those commenting on this question were markedly different to those commenting on the previous section, with more male than female respondents, and fewer elderly people.

Qualitative analysis

Social media analysis

Second, the research aimed to collect qualitative information about perceived drivers and barriers of the tiny house movement. Firstly, a review of which online information sources existed, such as tiny house Facebook groups and pages, blog sites, discussion groups, media articles, etc. These included the Tiny House Australia forum, Tiny House Blog, Tiny House Living, Living off the Grid, and other mainstream media articles. After reviewing the plethora of information sources, the initial phase of the research concentrated on the Facebook Page, Tiny Houses Australia (THA, 2015), as this was considered to be the most active, and central source of information for tiny house advocates.

Kingdom (OECD, 2015). The primary drivers for an interest in tiny houses were economic and social, and the major barriers were economic, regulatory and social/logistic. Thus, the following sections have been differentiated into these three key factors; economics, social and logistics, each of which will be discussed in turn.

Economics (freedom, downsizing, affordability)

Unsurprisingly, the predominant finding was that interest in the tiny house movement was strongly influenced by housing affordability and general economic issues, and included the perceived affordability of tiny houses in comparison to current housing stock, a desire to own property without a high mortgage, and wishing to reduce living expenses and overall debt.

Needing to save money. Long term plan is to build a small house on a shared block with family most likely (Female, 60+)

We want kids, but can't both find good jobs (maternity leave etc.) so we're cutting back on housing expenses in order to live on one wage (Female, 18-29)

Similar to the findings of Petersen and Parnell (2014), a number of older respondents (men as well as women) expressed a fear of becoming homeless. Older respondents also tended to consider the possibility of some form of sharing with children to address multigenerational housing affordability problems.

She (respondent's daughter) just got this job or we would be looking at homelessness (Female, 50-59)

With lack of rentals do not wish to be left in a position of being semi homeless (Male, 60+)

If we want to have a chance to live well when retired, we have no other choice than off grid and as cheap as possible. Both don't have enough super (Female, 50-59)

Economic issues were also expressed as barriers, such as locating the tiny house and high land prices, particularly in the city.

The main barrier for me is finding and affording land. The idea of parking on someone else's property is good but filled with potential difficulties. (Female, 60+)

The biggest problem is finding somewhere to park it (Male, 30-39)

Other, but less significant economic barriers included insufficient cash or ability to access mortgage finance, potential impact on property values, and lack of capital gains. Some also expressed concern that building a tiny house would detract from the value of their property or have no potential for capital gain.

Price is an issue. You have to remember that most tiny house owners are not able to get a mortgage. 80k is a lot of money for people to save/ come up with without some sort of high interest loan...especially if you are expecting upfront payment. (Female, THA)

I hope the growing interest will make tiny-house living attractive enough to developers to build them. At an affordable price (Female, 40-49)

Community

The strongest overall driver was a desire for 'freedom', and then the desire to live in a community. Many also expressed a strong desire to live a more sustainable, downsized and less consumerist lifestyle. Although this study was not investigating rental affordability per se, others expressed a dislike of renting, and an unwillingness to live in units or 'high rises'. These social drivers seem on one hand related to economic factors, but also to the archetypal Australian 'cultural preference for detached dwellings' with a backyard (Worthington, 2012) and general issues with rental affordability (Yates et al, 2006). In support of the work of Petersen & Parsell (2014), many older women expressed both a concern about potential homelessness and having to live with family, but also a yearning for a more community-focussed lifestyle, based on sharing.

'I want to live in a community where I have my own space but am surrounded by people who actually speak to me and share the big things (mowers, gardens etc.). We need to strive for more affordable land usage and more community (Female 60+)

There are tons of people out there just waiting for tiny house communities. If my ideas and my ideas for tiny houses for disabled people with tons of storage and downstairs bedrooms, and communities with community gardens and solar run pool for exercise, and a community built around helping each other. It would take off like a forest fire (Female 50-59)

Moving to clusters of tiny houses - and more open sites hospitable to them - would affect very useful changes at a number of levels (Female 60+)

Social issues were strongly linked to economic factors (such as urban land prices), with a number of commenters expressing a desire to remain in or in close proximity to urban areas, and the unwillingness to be mobile or to relocate from employment, family, social networks and services.

They don't understand that a building is like a car and that it decreases with value and that land is what goes up in value. Cheap land can be found everywhere except in the city or within close proximity, yet they don't want to leave their jobs in the city....where are they going to live in their tiny in Carlton or Brunswick? (Male, THA)

Where to put it! I want to live close to public transport, cafes, shops, etc. (Female, THA)

How to source the land with ocean views or walking distance to ocean, cafés resources and services, close to Grandkids (Female, THA)

We would like to find land an hour or less from a hospital that allows tiny house building to retire on as that is all we can afford to own. The positives would be the affordability and the negatives would be lack of affordable, appropriately zoned land in the desired locations (Female, THA)

Logistics and planning

Despite the popularity of the movement, very few people had actually built a tiny house, particularly a tiny house on wheels such as typified by the US tiny house movement. The logistical problems included the regulatory system (the legality of building a tiny house, complex planning schemes, and regulations on mobile tiny houses) and economic issues (inability to source finance, insure the tiny house or pay various planning or certifying fees).

Generally it is the regulatory regime which is stopping them from being able to be cheaply built in-situ (i.e. not on wheels) and in a situation which is capable of being financed if need be through 'normal' banking/loan processes (Male 50-59)

The other key issue is around titling and the related issue of the availability of a small lot: subdivision for rural community titles e.g. "Crystal Waters" in the Sunshine Coast region is banned under most regional plans throughout Queensland, so too multiple occupancy or 'multiple dwellings' in rural areas under most planning schemes; having title to a property is a key in gaining finance, and the only locations where this might be possible is on suburban lots flagged for increased density including 'multiple dwelling' or small lot 'dwelling houses (Male 50-59)

Other issues were the design and utilisation of space; for example, a few respondents mentioned their unsuitability for disabled people and the impracticalities of the more typical tiny house design with a bed in a loft, accessible by a ladder. Commenters also mentioned that tiny houses were too small in which to raise a family, and had no space for storage (Shearer, 2015). Many also mentioned the sheer complexity of building a tiny house, particularly on trailers.

Complexities of trailer design & manufacture, road-worthiness of trailer (Male 30-39)

I'm not sure, exactly, how mobile they will be once built. I understand they are not campers; however, in an event a tiny house should be moved, how easy/difficult are they to relocate. They always seem so 'top heavy' to me (Male 40-49)

These barriers were considered challenging, particularly for the archetypal very tiny house on wheels, likely a major reason why very few had actually built a tiny house.

Conclusion

Drawing on the qualitative analysis of social media, the survey data and the ethnographic research, this paper has highlighted some of the drivers and barriers of the topical tiny house movement. It also explored whether tiny houses are a realistic option to solve some of Australia's housing affordability problems, or are likely only to form only a tiny niche of the overall housing market (Shearer, 2015).

A number of complex and interrelated drivers and barriers to building tiny houses were listed, particularly around economics, logistics and social issues. Many of these however are relevant only in urban areas as, for example, any search on a real estate sales site will reveal thousands of properties in regional Australia for sale under \$150,000, including in coastal areas and with existing houses. Further, regional councils are often considerably more flexible than urban councils regarding house form, planning permission and building codes.

This highlights the fundamental issue with Australian housing affordability---that it is essentially an urban problem. Many comments made by research participants emphasized this, saying that they wanted affordable living in *relatively close proximity* to hospitals, schools, family, employment, public transport etc. There exists a strong and unfulfilled need for affordable housing in urban areas, and this research indicates that the desire for smaller, well designed and more sustainable houses forms an increasing part of the overall housing market.

Tiny houses per se are not going to address the underlying dynamics of land supply and demand in urban areas, particularly in capital cities. Tweaking landuse planning reform in urban areas, for example, by allowing tiny houses/granny flats or denser development in single family residential areas, is likely only a bandaid solution, because the problem lies not in the form of housing but in the affordability of land (Pawson et al, 2015).

Those who actually want to build and live in a very tiny house, however, particularly on wheels and/or off-grid, seem to comprise a small, albeit extremely passionate niche of the overall housing market, perhaps similar to the existing niche for cohousing and intentional communities (Lewis & Wright-Summerton, 2014). It seems unlikely however, that sufficient demand exists to make this type of tiny house a realistic and viable alternative for the housing affordability crisis. In the words of one forum respondent, '*...is the tiny house movement partly about aspirations and dreams?*'

Innovative niche solutions to pressing issues, such as housing affordability, albeit starting small, could however trigger more widespread and even radical change (Seyfang & Smith, 2007). It is unclear however if the stated desire for 'community' is reflective of an increasing dissatisfaction with the current consumerist system, or a real wish to live in a co-housing or intentional community, particularly given that such housing forms are readily available, yet relatively unpopular.

Of note, even if policy makers, industry and NGOs meet some of the demand for smaller, more sustainable housing in the urban area, this will do little to address the fundamental dynamics of the affordability problem. Smaller dwellings are the norm rather than the exception in the city, particularly the inner city, albeit in the form of apartments rather than detached houses. This has however, done little to address the affordability issue, and in some cities, Melbourne for example, has a surplus of very small apartments, built off-plan by developers. The emphasis on size and location alone may also result in a concentration of low income people in too small, poorly located and inadequate dwellings.

This is of course, only a pilot study, and further research is needed, particularly on the regulatory, economic and policy barriers to alternative housing forms in the urban area. A promising source of enquiry would be to further explore the social barriers to building smaller houses and other alternative housing types, such as co-housing. Perhaps the underlying question is how can tiny houses be incorporated in the bigger picture of housing, density and affordability?

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