International Journal of Engineering Sciences & Management tiny house

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ABSTRACT

This paper describes the increase in population and urbanization has led to widespread concern about the resulting volume of consumption. This is problematic in housing market, where sizes of home continuously grows up. In united state average size of single family doubled from 1950, this leading to a profound environmental impacts. Generally this paper seek towards the problems of overconsumption by considering benefits of tiny houses. This paper has works to improve our understanding about tiny houses.

Keywords: Tiny houses, compact housing, niche market, technological transition.

I. INTRODUCTION

For the first time in 2011, the global population exceeded seven billion people. Projections conclude that by the year 2050, it is expected to reach 9.3 billion (UN, 2011b). While the population is increasing, it is also becoming more concentrated with people flocking to the cities to find jobs and improve their quality of life. Population living in urban areas surpassed3.6 billion in 2011 and is expected to reach 6.3 billion in 2050. Urban areas are expected to absorb much of the population growth as well as some of the rural population leading sprawling cities and urban densification (UN, 2011b). The increase in population and urbanization has led to widespread concern about the resulting volume of consumption. More people require more food, goods, and space to thrive. When combined with continued development, population has led to an unsustainable consumption level (UN, 2011a). Despite the fact that this problem was evident as early as the 1980s, little progress has been made to combat the problem (Tukker, Cohen, Hubacek, & Mont, 2010). Statistics suggest that mobility, food, and home building and demolition make up a substantial portion of this consumption, composing as much as 80% of environmental impact throughout the lifecycle (Tukker et al., 2010). This is especially problematic in the housing market, where home size continues to grow. In the United States the average size of a single family home has doubled since 1950, leading to a profound environmental impact (Wilson & Boehland, 2005), these goods and services (Tukker et al., 2010). In general, it seems necessary to change the way we think about our purchases. One trend that has developed along the lines of SCP is a shift toward minimalistic housing. Although living in spaces with limited square footage is a reality for many people, this trend goes beyond that. These people are working to change their own mindsets about what is "necessary" to their life and happiness. Places are sprouting up around the world in sizes that many people considerbelow the range of comfort. This trend was solidified in the United States in 2002, when the same year saw the establishment of the Tumbleweed Tiny House Company as well as the Small House Society.

II. LITERARURE REVIEW

Charlie Kilman (Jan 17,2016)

The tiny houses comes in various shapes and sizes. It is very important to note multinationaltiny houses is built on trailer bed in order to circumvent zoning codes and restrictions, some about homes owners think that their 1000 sq. ft.houses is tiny houses and dream of Thoreauvian cabin nestled in the words, because of this tiny house industry is still in its infancy. Tiny houses constitutes varies widely source to source.

Rerat (2012)

As attention to sustainability has grown, interest has been shifted to the implement of more environmentally friendly housing. Traditionally this means more attention is paid to utilizing recycled and reclaimed materials, choosing more environmentally heating and lighting systems and improving our efficiency.

Simms& smith (2008)

The many individual have been questioning the whether current consumption levels are acceptable and whether the several movements have been established in hope of returning the sustainable trends. Our current connection will be between living a good life and consuming resources and fossil fuels is notmore good to our environment.

III. BENEFITS

The use of tiny houses is because of it is very easy to construction. Generally tiny houses required less construction time as compare to other. This tiny houses are ecological due to this land required to this tiny construction is less. This is tiny houses also used for construction of hotels, nursing homes, dormitories, office space for telecommuting, small scale business space, In-law suites, retiree housing, disaster relief. Estimated cost of tiny houses is very low and it is suitable for ordinary peoples. This required less land for construction.

Drawbacks

Tiny houses are more frequently built up on wheels because of this zoning regulations requires larger houses or won't allow such a structure to be placed on that area. Variance can be sought and it received ,but these is frequently expensive and take long time to get(if you do at all). Permits for building (if foundation not built up on wheels) are only allowed for buildings up to code-specifically with size. Banks don't want to give loan for this tiny houses because this is too small for a mortgage and it is not as recognizable. If wheels are on your tiny house, you can get an RV loans but you will have to built up it according to RV specs(which can be exacting). Some manufactures, like tumbled tiny house offers their own loan programs but most other don't due to the artesian nature of the structures.

Problematisation

This paper will be seek for addressing the problems of overconsumption by considering benefits of intentionally downsizing in favour of small homes which provides a good quality of living life. So this trend has not be fully assessed in academic literature. There will be a lack of information on factors for motivate individual to change the living life style. Tiny houses have a demonstrate reduce impact on the environment as compared to large or big conventional houses. The benefits of reducing consumption, however only for extending the limited members of the population which have chosen to live in tiny houses.

Limitations And Scope

These tiny houses are trend includes the individual and communities all across world. It for the purpose of this research, shall not be all of them can be examined. Instead this study will be focus on the surveying some of the biggest voices in industry. And those that are represented into media(or social media). That focus not be includes peoples who always be living in small houses, but will instead work to understand the trend of intentionally down scaling size of living established regardless of the primary motivation. In addition this paper will be focus on the permanent conventional living space such a tiny houses or cabins and tiny apartment rather than considering more rudimentary housing types. For purpose of this study is due to the tiny housing will be defined as any separated established of less than 40 squares meters or any conjoined apartment of less than 20 squares meters. It focus on the motivation and other trends which are in tiny house. This increases the network of small tiny houses.

Methodology

General methodology for this paper is includes utilizing primary and secondary data extracted by using various techniques including literature and popular media review, two types of interviews and a case study of students housing in land, Sweden. Information for this research paper will applied in an including analysis, its mean that the approach focus on a 'detailed reading of raw data by an evaluation or research.'

IV. TREAND IN CONSUMPTION

In order for understanding basis for the growth in interest in the tiny housing. First trends surrounding that movements must be understanding. This section will explain the trends in U.S. housing market towards more expansive place. This is the part of increase in section consumption faced by households.

1. Housing trends in the united states

From 1950s average size of single family homes in the united states has been grown steadily and despite the fact that the family size has been decreased. This growth will be contributed the cultural construct that 'bigger is better' and

that large house is symbol of that high status. Generally actual size of homes is about 100 square meters means 1076 feet

2. Counter trends

Despite rising individual consumption and irresponsible resource use. There is hope yet for our ecological futures. Many of individual has been begins questioning whether current of consumption levels are acceptable and whether quality of life can be maintain without destroying the environment. Some movements has been established in hope for returning to sustainable trends. Current connection between the living a good life and consuming resources or fossil fuel is not good for us and for our environment. In these movements sustainable housing has not been overlooked.

V. CONCLUSION

If the housing market in North America continues to favor large extravagant homes and expansion into the suburbs, the outcome for the environment will be devastating. The larger homes are, the more raw materials they consume and the greater impact they have on the environment (Wilson & Boehland, 2005). Furthermore, larger homes typically require more energy to heat and cool, and more stuff to fill them creating a cycle of unsustainable consumption. The tiny housing movement counteracts these effects by building smaller and smarter, and by requiring residents to think more actively about what they really need. At this stage, tiny houses are still somewhat of a novelty in most parts of North America. This is one aspect that influences the high volume of readers on tiny house blogs and websites. By choosing to intentionally downsize their dwelling and to simplify their life, residents of compact housing can reduce their environmental impact. Although this is not the motivation behind every tiny home owner's choice, the effect is the same. At this stage, however, that impact is quite limited due to the small number of individuals living in tiny housing.

REFERENCES

- 1. Merete Mueller, TINY:A story about living small. Documentary. Directed by Merete Mueller and Christopher Smith. 2013. New York. NY: Speak Thunder Films, 2013.film
- 2. Ryan Mitchell, Tiny House Living: Ideas for Building and Living Well in Less than 400 Square Feet, (Cincinnati, OH: Betterway Home, 2014).
- 3. Erika Lane Austin, et al., "VA's Expansion of Supportive Housing: Successes and Challenges on the Path toward Housing First," Psychiatric Services, Vol. 6, No. 25 (2013): 641-647.
- 4. Haskett, Mary E., and Staci Perlman and Beryl Ann Cowan, "Supporting families experiencing homelessness: current practices and future directions," (New York, NY: Springer, 2014).
- 5. Nicole Lara Dodd, "Permanent Supportive Housing in Tampa, Florida: Facilitating Transition through Site, Program, & Design." Master of Architecture Thesis, University of South Florida, 2008.
- 6. Nicole Lara Dodd, "Permanent Supportive Housing in Tampa, Florida: Facilitating Transition through Site, Program, & Design." Master of Architecture Thesis, University of South Florida, 2008.
- 7. Andrew Heben, Tent City Urbanism: From Self-Organized Paths to Tiny House Villages. (Eugene, OR: The Village Collaborative, 2014).
- 8. Don Mitchell and Lynn A. Staeheli, "Clean and safe? Property redevelopment, public space, and homelessness in downtown San Diego," The politics of public space 2006): 143-175