

Are Micro Houses a Good Solution to the current Affordable Housing Crisis.

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Abstract: The article is devoted to the study of Micro Housing units and whether they are a good solution to the current affordable housing crisis. Having a look at Hong Kong. This study evaluates the market performance and market acceptance of small and micro units from multiple perspectives including design strategies.

Key words: Micro, Housing, Involvement, Affordable.

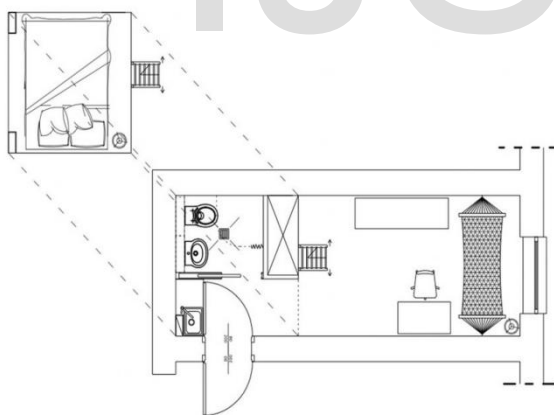
Introduction

Rent and Demand have reached new heights in most major cities around the world. As density restricts new development and housing prices show no signs of letting up, micro-units are being developed as a solution to today's affordable housing crisis. With an interest in all new and emerging asset classes.

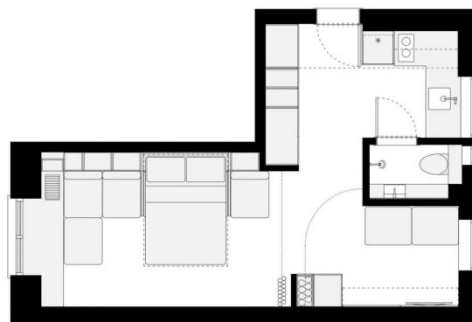
Micro homes are the "next step up" from tiny houses; they range from 35 to approximately 75 sq. m. and must encompass an independent kitchen, bathroom, and at least one window. These dwellings can be modular, pre-fabricated, or custom builds, and use materials and finishes comparable to traditional homes. They are spatially-evolved from apartment living with no shared walls, ceilings, or floors and each unit has an independent outdoor living area such as a porch or piece of land.

Even with less space, micro homes pack all of the basic living essentials of a standard home and come fully equipped with the same level of electric, water and sewer access as standard homes.

The concept of Micro-Homes is catching on in major cities that are facing serious space crunch. The notion is to accommodate more units on a lesser floor space and at an affordable price point. Clustered development is found in dense core neighbourhoods or next to a major transit route.



The Micro Machine
Polish designer Szymon Hanczar has packed a kitchen, bedroom and bathroom into 13 square metres in Wrocław

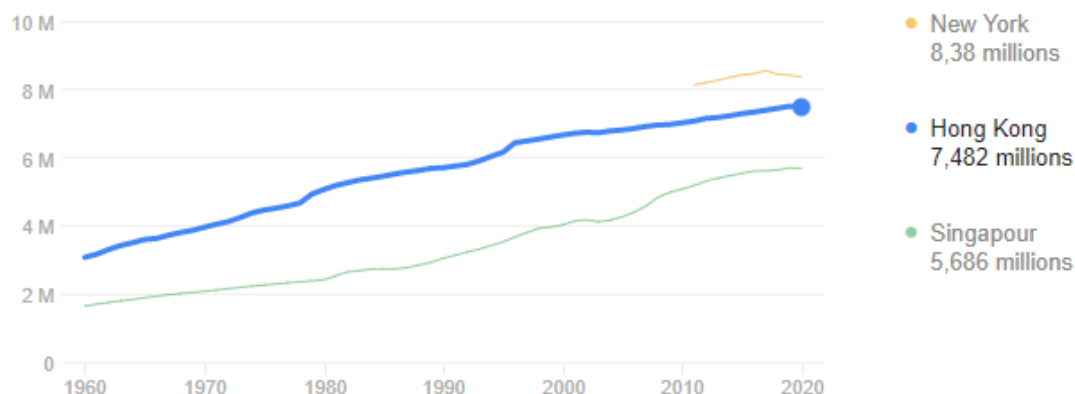


This 33-square-metre apartment in New York is packed full of moveable, folding and expandable furniture.

A Take On Hong Kong

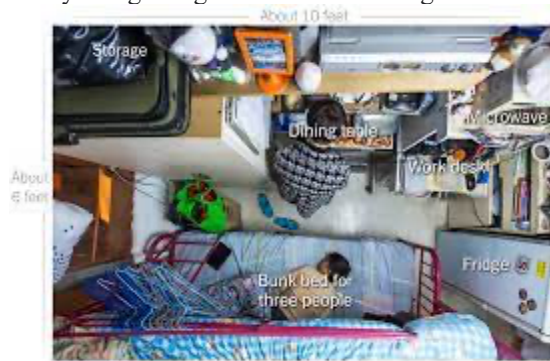
As of 2021, the population of Hong Kong is projected at 7.55 million, up by 0.74% compared with 7.50 million in 2020. Hong Kong is ranked 104th in terms of population and 136th in terms of population growth rate.

7,482 millions (2020)



Hong Kong is home to some of the “micro-est” of homes and apartments. About 7% of land is used for housing in the city and most of it goes to the weather. There sacristry of housing and land has led many people to live in unbearable conditions while paying top dollar. This has led to the rise and coming up of micro houses

Currently Sun Hung Kai Properties is building more than 5000 units of micro houses in the city. Most of which will be located in Sai Kung area. The smallest apartments are the size of two king-sized beds and don't include a kitchen or a bathroom. Despite the space constraints, these tiny apartments continue to attract buyers amid a spike in property rates. However, in July of 2021 the Chinese government had set a goal to eliminate all tiny homes in Hong Kong by 2049, But this might prove to be impossible due to the high population of Hong Kong, the demand for housing and high costs of living in the city. Today Hong Kong is famous for having some of smallest yet most expensive homes in the world.



Inside one of Hong Kong's Typical Micro-Homes



Inside a Seven Victory Avenue Micro-Apartment, developed by Henderson Land Development Co Ltd in Hong Kong

Target Market

Micro-units at an average cost roughly 20-30% below that of conventional units. Taking into account developers' priority to make them feel larger and luxurious while placing them in prime, walk able, trendy locations, it becomes a lot easier to imagine why the micro unit developments are taking hold across the world. It is important that developers provide extensive amenity space in the common space in the development to compensate for the lack of space in the individual units. Common amenities might include a common "living room" with a big screen TV, large gourmet kitchen, pool, fitness room, cafe, rooftop deck, etc. The target of Micro-units is generally for young professionals looking to live in a down town location. The types of individuals that spend most of their day either at work or bouncing from restaurants, to events, to gatherings with friends, but would like to come home to a place that is 100% private and 100% theirs. They feel a bit too old for room-mates and this is an affordable option which gives them the opportunity for their own space, along with a nice place to wake up in the morning, walk right downstairs to the nearest coffee shop or convenient store, and make their way to work.



In 2016, **54.5%** of the global population lived in cities.

5,626,816 young adults moved to urban areas between 2010 to 2012.



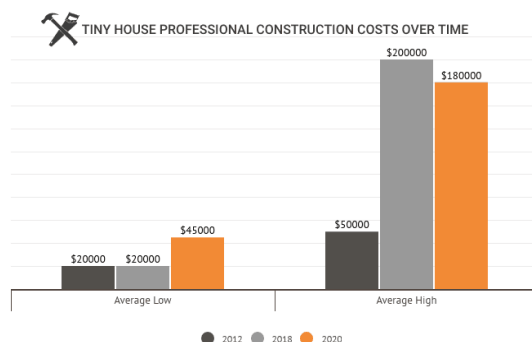
Young Professionals from different works of Life.

Market Analysis

More units mean more operational costs. But the added costs have a pay-off. Developing and operating a rental apartment community with micro units is more expensive, but the premium rent per square foot achieved more than makes up for the added cost.

Anyone in the rental market knows that the cost of privacy and a one-bedroom unit is expensive. That's why most younger generations are stuck looking for room-mates and opting for two-bedroom apartments where the total cost is more expensive than a one-bedroom, but the cost per square meter is significantly less. Some even opt for a three-bedroom. Again, the total cost is even higher, but when you split it between three individuals, it is much less than each of them opting for a one-bedroom. Micro-units operate the same way. Smaller apartment, higher cost per square foot, but because the square meter is so small, it is much more affordable for the renter.

Micro-units are one of the best examples of a win-win in residential real estate, to date. Renters get exactly what they want, the best location, privacy, and their own unit, while operators get exactly what they want – the highest rent per square foot. Every new trend in the real estate industry must be closely monitored and evaluated in order to determine its long-term viability. The micro-unit seems to be the next logical step in allowing the free market to effectively address the world's nation's affordable housing crisis.



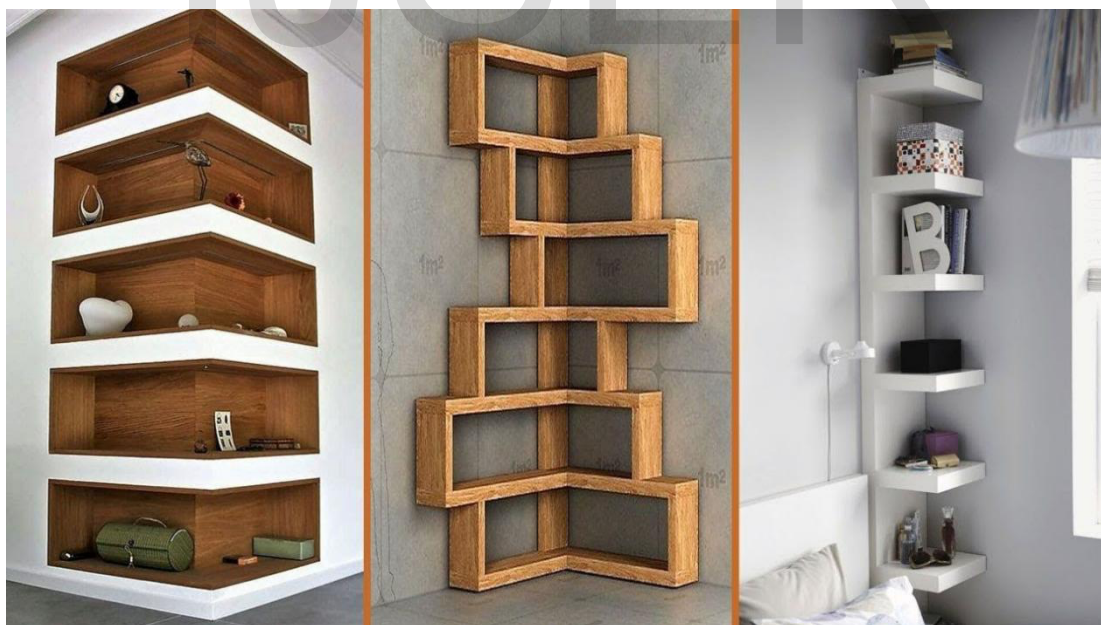
Design Analysis

When it comes to designing comfortable homes when there is little square footage to work with, there are many places to look for a solution. Many designers start, understandably, with the ceiling. When you have vertical space to grow, the possibilities for design open up, from lofted beds to skylights, there are a litany of different ways to make a small space feel bigger and provide the occupant with all the necessary nooks and crannies. Other design possibilities include, downsizing of belongings, strategic usage of space, using movable furniture and making sure it has built in storage, creative shelving, plenty smart design hacks and the sheer will to adapting of an individual to live in such a home.

1. Creative Shelving

If you looking at organizing your home or office, shelving can be the perfect choice. You can appropriately store all your things in the most organized manner. Shelving maximizes the space you have. It makes the most of the existing space available. Your home or office will look even more neat and spacious. More and more home owners and business organizations are increasingly opting for shelving solutions. You can redesign your office by way of archive shelving and mobile shelving. Rotary cabinets and tambour cabinets are also popularly used. Shelving maximizes your storage capacity. Shelving storage systems are not expensive or difficult to install. There are many storage shelving solutions that can be incorporated into your office or home. Shelving units should be correctly installed. They will then add to the aesthetic appeal of your home and office. They will enliven your overall décor and makes your home or office look clutter free. A stress free, clutter free environment is crucial for creativity and peace of mind. Shelving organizes your business files, documents and paperwork ensuring business efficiency and productivity. Shelving can be purchased to suit all your needs and requirements.

They will enliven your overall décor and make your home or office look clutter free. A stress free, clutter free environment is crucial for creativity and peace of mind. Shelving organizes items insuring comfort, efficiency and productivity.



2. Strategic Use of Space

In interior design there is positive and negative space, and both play important roles when it comes to how a room's scheme works.

Striking a balance between positive and negative space is key to creating a well-proportioned room, ensuring it's not too crowded but not too soulless or sparse either. If a room is completely full of objects taking up positive space, it could lead to a cluttered feeling, so balancing the space scales is key to a visually pleasing room. Positive space needs to be filled to a point, for reasons of functionality (everybody needs a bed, for example), but can also be used to make a statement or add character and texture with a beautiful piece.

Having an eye for positive space in rooms is just one technique interior designers use to create perfectly balanced schemes that are neither too crowded nor too minimalist.

'Positive space is where the actual objects are; in bathrooms it is the bath, toilet, basin, lighting, etc, while the negative space is the empty space around and in between everything else, more often than not highlighting and showcasing everything next to it.'

Embracing positive space is all about giving the pieces you choose room to breathe and shine

3. Furniture with Built In Storage

Having ample storage space in your home is important, but it isn't always easy

Built-ins are a very special type of furniture. They could be considered the opposite of free-standing furniture. The main characteristic of built-in furniture is that it allows you to create that smooth transition between spaces and that coherent décor that makes your home feel airy. Built-in furniture looks like a part of the house itself and this allows it to beautifully blend in for an overall minimalist appearance.

Built-ins come with several other advantages. They blend in into the décor rather than standing out and this makes them suitable for minimalist contemporary interiors. And because of that, a large built-in piece of furniture can look more slender and smaller than a free-standing one with the same dimensions.

Moreover, built-ins provide lots of storage. They can occupy an entire wall without making the room feel considerably smaller. They help create a cohesive look throughout and can be combined and coordinated with the rest of the décor. Another great thing about built-ins is that they can be tailored to fit your specific needs. Finally, lighting can also be easily integrated into the built-in furniture and this can also be a great advantage.



4. Smart Design Hacks

There seems to be a trend lately in building tiny, micro houses. It's basically all about finding a way to include as many things and functions into as little space as possible. Such ideas can be as simple as: hidden ceiling storage, getting creative with corners, using platform beds, vertical planting, vertical shelves, making the most of dead spaces, hanging belongings, bringing the outdoors in by allowing in as much light as possible, compact space-saving stairs, suspend shelving from the ceiling, fill every inch of the wall, use drawers within drawers.



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The “Opod”

“OPod 1” is a low cost, micro living housing unit to ease Hong Kong’s affordable housing problems and provide accommodation to citizens of Hong Kong struggling to afford housing



Comprised of 21 units of “OPod” Tube Houses, stack on 2 levels, the project is deployed on an unused urban plot in To Kwa Wan District of Hong Kong. Being a modular and flexible architecture, “OPod” Housing No.1 is able to be set up in less than 3 months, providing accommodation to 20 sets of residents with shared common kitchen and a co-living courtyard.



Each OPod Tube House is 13sq.m in size with private toilet and shower, food preparation area and living room with sofa bed. To facilitate a modern sustainable lifestyle, the “OPod” Tube Houses are equipped with wifi and home automation for better management of resources.

Constructed out of low cost and readily available 2.5m diameter concrete water pipe, the design utilizes the strong concrete structure to house a micro-living apartment for one/two persons with fully kitted out living, cooking and bathroom spaces inside 10 sq.m. Each “OPod” is equipped with smart phone locks for online access as well as space saving furniture that maximizes the space inside. “OPod” can be stacked to become a low rise building and a modular community in a short time, and can also be located/relocated to different sites in the city.

Conclusion

When an area is booming economically, both local and foreign investors start purchasing units, either for living, renting, or most egregiously, holding as a vacant property. When these investors hold large numbers of vacant units in desirable areas, it drives up the prices of everything around them. Fewer homes in an area abundant in demand will result in increased costs of living.

In order to maintain housing that meets the needs of a huge population and a very fast paced economy, the city should also invest in a large stock of public housing. One such great example is the 5000 units of micro houses being built in Sai Kung area by Sun Kung Kai properties.

The current “housing fund” available in Hong Kong could be split into different sectors such as

- Rent Subsidies for people who choose to live on the outskirts of the city
- Invest in urban planners and architects to come up with creative ideas such as the “Opod”.
- All areas are adequately supplied with sufficient public transportation to de-congest the central business district (CBD) area.
- Provide land to property developers who focus on housing.

All in All

All in all the city of Hong Kong has the opportunity to grow its financial status even further if only these housing crisis are recovered or dealt with better. However this is unachievable unless the cost of the current housing market is greatly reduced. Until that happens Hong Kong will continue to fight a losing battle. The government of Hong Kong has a pressing issues in their hands and time is of the essence to act fast. Weather or not the housing crisis of Hong Kong can be solved remains a mister to many and only time will truly tell.

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