

How big is a house? The dimension of contemporary dwelling space

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# CON-TEMPORARY LIVING

Unexpected Housing Solutions  
in Public Spaces

Laura Galluzzo

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## CON-TEMPORARY LIVING Unexpected Housing Solutions in Public Spaces by Laura Galluzzo

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# CON-TEMPORARY LIVING

Unexpected Housing Solutions in Public Spaces

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Laura Galluzzo



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Living conditions have constantly changed over the centuries, and particularly during the last century, they have been radically transformed. From a Western point of view, the notion of temporary living emerged among the other characteristics of habitation, along with its own aesthetic value, as was comprehensively investigated by Davide Crippa and Barbara Di Prete in their book *Verso un'estetica del momentaneo. L'architettura degli interni: Dal progetto al processo* (2011). In this chapter we will analyse the meaning of the word temporary in relation to the change between space and time, time and use, use and memory. Specifically, we will look at the value of the temporary nature of design as applied to the world, the city and its inhabitants, the temporary urban solutions (Fassi, 2012), and finally the key place designed to host people's life: the house. We will then draw up a categorization of the different types of temporary housing and will thus present maps that aim to show the countless number of project proposals, based on a variety of criteria, that have been present-ed by designers internationally during the past century.

## 4.2 How Big is a House? The Dimension of Contemporary Dwelling Space

Riccardo Ronzani \*

→ *New houses for a new society*

The composition and organization of the house have changed throughout history. As Bill Bryson states in his book *At Home: a short history of private life* (2010), "The house is not represented as a system obtainable through the systematic combination of standardized rooms throughout history. On the contrary, the house is an image of a specific society and its culture, and for this reason, it is a malleable concept. Accordingly, the idea of the house moves away from any type of precise and exclusive definition; and instead, is inclusive of multiple possibilities and unconventional solutions".

This is the reason why we can recognize a house when we observe very different buildings.

In contemporary cities, there is a co-existence of multiple and different dwelling types. Citizens have changed from the past and they are still changing: nowadays the city must find suitable homes not only for traditional citizens, but also for university students, international students, foreign workers, tourists, small-town young people, and so on. This is the "liquid society" described by the sociologist Zygmunt Bauman in *Liquid Modernity* (1999). The Polish sociologist writes that contemporary society is no longer a "solid society", as it was in the past, with defined categories of citizens, conditions and roles.

On the contrary, contemporary society has become liquid, and therefore in a state of continuous transformation: a changeable and adaptable society, with dynamic roles and interpersonal relations. This new type of society is characterized by an essential and profoundly different aspect from those of the past: the temporariness of living. Although historically nomadism has characterized many societies around the world, this contemporary phenomenon is a new type of nomadism. Temporary doesn't mean moving houses into space; it means occupying a house for a limited period, and being constantly ready to change work, house, city or your whole life. Flexibility and adaptability are fundamental requirements to transform dwelling

\*

*Riccardo Ronzani is young architect who graduated in December 2019 from the Politecnico di Torino, with a thesis entitled "How big is a house?". During his formative years, he carried out a series of international workshop, competitions, a double degree program between Politecnico di Torino and Milano (ASP program), and a Master Course in Heritage Valorisation. He carried out a mobility period abroad, living and studying for six months in Paris. After two years working in architectural offices in Italy, he is now attending a PhD program at the "DASP - Doctorate in Architecture. History and Project" at the Polytechnic of Turin, on the topic of Landscape and Energy.*



spaces for the needs of different dwellers. Within this complex context of different users – and therefore of different needs, habits and lifestyles – the house is taking on completely new shapes, sizes and characteristics; and the housing market is following this trend. Talking about the real estate market within cities, the biggest issue today is the decrease in buying and selling transactions, compared to the increasing number of rental contracts. In addition, there is the theme of the size of living spaces. Several mass media and magazines write that city houses are becoming much smaller than in the past, and today we are in the midst of this phenomenon. Important brands on the market such as Muji (which has launched a new minimum house) or IKEA (which has developed dynamic and flexible furnishing solutions) are developing solutions to adapt to the needs and economic possibilities of contemporary society. One of the main challenges facing designers is the identification of new, small places within the built urban space where solutions for a minimal living can be developed. This is exemplified by the OPod Tube House, designed in 2017 by James Law Cybertecture as a new housing solution for Hong Kong, and which reuses unused modules of the sewage system. This market is the result of theoretical and practical research that began to develop in the early decades of the twentieth century. Just think of the experiments on minimum dwelling conducted during and after the Second World War. Among them, the quality and originality of the solutions identified bring out the Dymaxion House by Richard Buckminster Fuller (1939) or the futuristic Total Furnishing Unit by Joe Colombo (1972). After these initial experiments, the debate about minimum dwelling was carried out by several architects during the last decades of the twentieth century. Particular attention should be paid to the Nakagin Capsule Tower, built in 1972 under the direction of Kisho Kurokawa. This project is interesting for its underlying philosophy rather than for the formal results of the building itself. Kurokawa imagines a “metabolist building”, which means a building interconnected with the society that inhabits it and observes it from the city, and therefore a building ready to change over time following the changes in society. Therefore, the housing capsules are literally attached to the vertical distribution structure, ready to be replaced. This reflection also led to the choice of which functions to insert inside the capsules and which to outsource from the house to the urban space. For this reason, in accordance with the lifestyle of the new metropolis of the late twentieth century, in these little houses there is no kitchen, but there are a radio, television and telephone. The new capsules, which were to be rethought and reassembled on the building, could look at the new social and urban dynamics to choose what to put in the house and what not. Another very interesting aspect of Kurokawa’s project is that the capsules of the Nakagin Tower were explicitly designed for temporary living,

and therefore to respond to the new “liquid” model of life that was beginning to develop in the 1970s and that now permeates the culture of the globalized world.

→ *Existenzminimum as an architectural challenge*

During recent decades, the attempt to design minimal spaces has become a real challenge for architects, who are trying to show their ability to organize small built spaces. But it wasn't always like that. In the past the challenge was reversed, and it was the large size of the buildings that defined the architects' skills. With a good degree of approximation, this assumption could be valid for the field of architecture in general. Regarding residential buildings, examples of enormous houses can be found since ancient times, from the massive medieval fortresses to the elegant palaces and villas of the seventeenth century. The period that contributed predominantly to the spread of huge and luxurious houses was probably the Modern Era, in which the fashion for huge manor houses spread. After the eighteenth and nineteenth centuries, the abolition of the aristocracy and the imposition of the bourgeois class were such profound changes in the social structure as to significantly reduce the symbolic value given to family residences. The architectural challenge thus began to shift, and was also influenced by the discovery and study of oriental architecture and new ways of conceiving and interpreting space. From the excessively large, we gradually moved towards the reasonably small. The theme of living began to touch on topics such as temporariness, cost reduction, sparing use of space, adaptability, flexibility, and comfort. The research conducted by the modernist movement, in particular conducted by the Ukrainian architect Alexander Klein (1879-1961), led to the birth of the concept of “Existenzminimum” (Bevilacqua, 2010). It means a space for living reduced in size but enough for a respectable life and organized to ensure a good quality of life. Linked to this concept, the discipline of ergonomics was born at the beginning of the twentieth century: it is still fundamental in the design of minimum spaces, and it defines many regulatory aspects for the health of inhabitants. Concerning the perception of space, it must be said that the minimum living space has profound repercussions on the psychology of the inhabitants. The space may be minimal, but it must meet specific requirements to be liveable, such as the presence of natural light and a view of the outside, useful to broaden the panorama. With regard to psychology, the aspect of the temporariness of living takes on greater importance, and is therefore an essential factor in minimum living. There is no limit to what it means to live temporarily: the stay can last a few days or a few years; the only essential condition of temporariness is the presence of a defined end date. This means that temporary housing

ranges from occupying a house for two or three nights (as a tourist); a few weeks (Olympic villages) months (students moving abroad); up to years (for study or work experiences).

From the beginning of the twentieth century to the present day, the theme involved the greatest architects of the time. In 1951, the Swiss architect Le Corbusier drew the project for a small hut as a gift for his partner Yvonne. The project was realized and took the name of Cabanon. The very small house of just over 9 m<sup>2</sup> soon became their favourite residence. The world of architecture looked with amazement at this famous and respected architect who, after a lifetime of projects and research, decided to live in a wooden hut. All his theories on light and space, the knowledge he learned through experience and mastery in shaping shapes and volumes, were essential to the design of this small environment. In the small Cabanon Le Corbusier's design commitment was not only focused on the organization of the space, but also on the flexibility of use of the furniture.

Subsequently, the theme became an interest for many architects, like Renzo Piano. His project for a minimum house is a very small and independent building: a small living module with an iconic "home shape". The project was called Diogene, inspired by the Greek cynical philosopher Diogene of Sinope, who chose to live in a simple barrel. Diogene aspires to be able to be placed in different contexts and moved as needed, aims at essentiality, and assumes a solitary lifestyle. According to the words of Renzo Piano himself, the small house can be useful for different reasons and in different contexts, but it inevitably excludes some specific functions – conversation as well as encounter, hospitality and the social dimension in general are forcibly delegated to the outside world.

#### → *Minimum dwelling conditions*

As described above, the idea that certain functions are externalized from domestic to urban space is fundamental to a minimal dwelling. The presence of a contemporary urban context made possible the outsourcing of some services from the house to the city. In this way, the house could afford to reduce its size, literally eliminating some spaces, delegating functions and rethinking the shapes and sizes of the furniture. So, minimum living is not just a matter of size: it is also a matter of context. The design of a minimal house could not exist if the premise was an attempt to compress the same functions in a small space as in a traditional, larger house. Of course, inside the mini houses, the furniture needs to be studied and planned with meticulous attention and creativity. However, this is not enough, unless you want to build an oppressive and suffocating space. The whole system of the house must be rethought, and the concept of living must be revised. So, the theme of minimum dwelling is also a

matter of meaning.

- *What is the meaning of contemporary living?*

Thinking about that, designers must break out of classical patterns of thought, rejecting traditional and standardised solutions, to design completely new domestic environments. As already said, temporariness is an essential aspect of the minimum dwelling. However, this style is specific to certain categories of the population and excludes others, such as the elderly, or families with children. Therefore, minimum dwelling is also a matter of target. The target population includes young people who live alone, for example university students. It also includes non-local workers, who stay in the city for a limited period. Also, some categories of tourists can be affected by these new housing solutions. Finally, minimum dwelling is a matter of architectural type. The isolated and autonomous hut like Renzo Piano's is not the only possible type of tiny house. Within cities, there is the case of minimum housing inside (or between) buildings already built. This phenomenon was born, at least if we look at the European context, in Paris, where the numerous and characteristic attics were configured as the perfect place to insert small apartments. These attics were designed in the midnineteenth century to accommo-date the humblest sections of the population and the servants of wealthy middle-class families. During the twentieth century, the attics were gradually abandoned by the poor, in part to limit the spread of epidemics, and became simple storage rooms. However, the last years of the twentieth century saw the city of Paris become an increasingly popular destination for new inhabitants. In this new context, real estate prices rose rapidly, and these attics once more presented themselves as opportunities for profit. This is how the Parisian studios were gradually born: extremely small studio flats, which do not always provide optimal and affordable living conditions. These mini apartments change tenants more than two or three times a year, going from university students, to workers on the move, tourists, and single people who find themselves in transient situations in their lives. These houses are very small, ranging from 9 to 20 mq on average, and these small sizes inevitably clash not only with tradition, but also with the laws currently in force. For example, when Le Corbusier described his Cabanon in *L'atelier de la recherche patiente*, he noted that "the construction of such a building is prohibited by regulations". So, we must consider that minimum dwelling is also a matter of regulation.

→ *How small a house can be? A regulatory framework*

In 2002, the French Parliament approved Decree N. 120, which sets

the minimum legal size of the house at only 9 mq. The law was born by observing the phenomenon – not yet admissible by law, but increasingly widespread – of the spread of new studios, to deal with the dynamics of the real estate market. The legislation recognizes the efficiency of this type of house and it tried to adapt itself to a fact already in motion. In Italy, the situation was completely different. Here the provision of minimum standards is contained in Art. n. 3 of the Ministerial Decree of 5<sup>th</sup> July 1975. It imposed the minimum surface area of the accommodation to 28 mq if it is inhabited by one person, or 38 mq if it is inhabited by two people. This regulation refers exclusively to single room accommodation; in the case of accommodation consisting of several different rooms, each room follows the minimum area limitations indicated in Art. n. 2 of the same decree (14 mq per inhabitant; then, 9 mq for a single bedroom, 14 mq for a double bedroom, 14 mq for the living room).

Some aspects of this law must be underlined. First, when we talk about the minimum size for dwelling in Italy, we are required to comply with a regulation limiting this direction. In general, it must be admitted that the decree under consideration is a substantially old law. This is truly astonishing because in recent decades the social structure has been completely revolutionized. Italian legislation does not limit itself to indicating a minimum size, as the French essentially does, but imposes other constraints. For example, in Italy, the inclusion of a bathroom is compulsory if you want to define a house. In France, this is not stated, and this is the reason why studios often share the same toilet. In addition, in Italy no minimum volume measurement is indicated (as in France), but rather a height of 2,70 m. This means that only rooms that are entirely characterized by a height above the minimum can be considered habitable, often reaching higher volume values than in France.

The general and final consideration is that the 1975 Decree has no chance of responding adequately to contemporary problems. A significant example of this is the compulsory presence of the ante-bathroom. The ante-bathroom can be a room of very small dimensions, but still constitutes a significant limit to obtaining mini houses. Thus it must necessarily be wasted space, although there are strategies to make it storage space, or liveable for specific functions. However, despite these strategies, it is still a waste of space: one door for the bathroom is replaced by two (with relative manoeuvring spaces), a new dividing wall must be inserted, the space must be even more articulated, etc. The most interesting aspect of these considerations about the ante-bathroom is that this legislation is not specifically included in the 1975 law, but it is only mentioned in this document. In fact, this requirement was written in the Ministerial Instructions of 20<sup>th</sup> June 1896, and it is one of the items that the 1975 Health Decree left unmodified. An unchanged late 19<sup>th</sup> century law

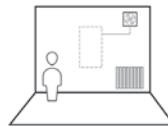
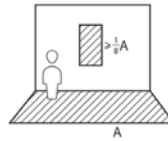
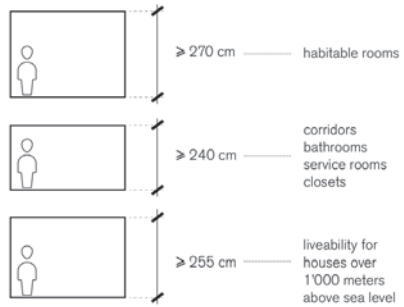
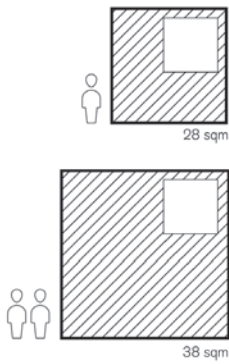
4.1 →  
Scheme  
Ministerial Decree  
of 5<sup>th</sup> July 1975

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# Italy



Ministerial Decree 5<sup>th</sup> July, 1975  
modifications of Ministerial Instructions 20<sup>th</sup> June, 1896



compulsory presence of the bathroom, with all the essential fixtures

is still regulating the organization and size of contemporary homes. This case explains even more significantly the incredible discrepancy in Italy between a changing reality and an inflexible law.

The relationship between architecture and the regulations that govern it is complex, and its analysis deserves to be the subject of an entire book. First of all, it is necessary to talk about the relationship with different regulations, since the regulations are multiple and superimposable. They can be overlapped in the sense that the national regulations overlap with regional ones, then with provincial ones and finally with municipal ones, with a priori addition of the European or international directives. This system is additive and comprehensive. It is additive in the sense that the restrictions or concessions proposed by a rule of a given rank are added to those already imposed or granted by the higher ranking rules. It is comprehensive in the sense that no law of any rank can be left out, but all must be complied with at the same time. After these considerations, dealing with the issue of the minimum size of domestic spaces in Italy may seem anachronistic. Of course, hypothesizing a regulatory revision is reasonable, but the discussion would stop there: until the revision is made, we could not deal with the subject. Yet that is not the case. Precisely because the relationship between architecture and urban rules is complex and difficult to interpret, many theorists have wondered throughout history if it was the form following the law or vice versa.

In 1995, the architect Arno Brandlhuber created a residential project to be inserted in the urban context of the city of Cologne, Germany. The project was completed over the next two years and was called the 2.56 House. This name clearly explains the difficult context in which the architect had to put the project: the lot was only 2.65 m wide. The legal history of the 2.56 House is particularly interesting. In fact, this is an exemplary case of a building that, thanks to the designer's creativity, reinterprets or contrasts the law leading to its revision. In the 1990s, German regulations and Cologne building regulations stipulated that every structure built within an urban fabric (the urban block typology) should be structurally independent. However, when designing this site, Brandlhuber realized that two side retaining walls would further reduce the living space. He, therefore, decided to agree with his neighbours to lean on the existing side structures. The law thus clashed with the agreements made with the neighbourhood. Today in Germany there is a law called *Verweisbaulast*, literally "reference building space", which cites the case of the 2.56 House as a legal precedent, and which allows the possibility of sharing existing structures in case of specific structural or spatial needs.

This means that Brandlhuber's project was able to generate a legal debate. It had significant repercussions in the world of law, so much so that the need to modify the current legislation has emerged. In this case, it was Brandlhuber's design work that demonstrated to the

complex world of rules that an alternative solution was possible. His action – like others in the history of architecture, led him to consider the relationship between architecture and the regulatory system that governs it as a two-way relationship.

This consideration could be especially important and give positive results in specific cases: for example, for the minimum size of the house, the case of temporary living could be treated as an autonomous theme. The fact that today there is no differentiation in the legislation between long-term and temporary living is a clear sign of the static nature of the legislation itself.

Imposing a minimum living area of 28 mq for an athlete or journalist attending the Olympics, or for a worker working at the Expo or other temporary fairs, is totally different from imposing it on a person who lives constantly and permanently in the same place. Until now, the legislation does not provide for the possibility of standards defined specifically for these hypotheses of temporary living.

#### → Society, architecture and regulation

All the reasoning developed here helps us to answer to the question “How big can a house be?” and highlights some important considerations.

First of all, examples of living in tiny spaces can be observed in very different contexts. A tiny house is not synonymous with poverty, and there are examples of minimal living throughout European history; these are seen in a variety of alternative kinds of buildings, such as monasteries, boats, mobile homes, mountain huts and refuges. In some way, we can state that minimum housing started with the beginning of civilization: for example, nomadic houses such as the yurts of the Mongolian steppe. This model of living has been taken up over time in Europe, especially during the twentieth century, and its reinterpretation was not through arbitrary choices. On the contrary, this action was the consequence of a changing society.

Minimal dwelling could be an extremely timely response to the needs of contemporary living even today. The fluid society described by Bauman, the temporary events that travel from city to city, the young “nomadic” inhabitants such as students... in many cases the minimum dwelling could be an adequate response. A particularly efficient response when we consider the current housing emergency or the problem of excessive land use. However, it is a response that is not so easily achievable. Bureaucracy and laws are not keeping up with the increasingly frequent and rapid changes that involve society, economy and technology.

Italian legislators have not yet questioned how changes in social dynamics are affecting the concept and necessity of the home.

At the same time, the issue of how new technologies and new personal



devices – and their continually smaller sizes – are increasingly leading to a reduction of dwelling spaces, has not yet been addressed. This is the reason why in Italy today, it would not only be conceivable but also desirable to revise the regulations. In particular, the case of temporary living deserves, as in other special cases, a specific regulation. A regulation capable of overcoming the stereotypes of living that have remained unchanged since 1975. We can see within the “outside world” (contemporary society, the global market, new social, urban and environmental challenges, etc.) a great opportunity to dialogue with the world of regulations, demonstrating that a change of direction is necessary. While new social, economic and cultural dynamics make clear the importance of a new minimum house parameter, the world of architecture and design would have the essential task of formulating spatial strategies for making the new Existenzminimum effectively liveable. Integration of different functions, shared/collective rooms, site-specifying design approach and attention to some aspects, such as the presence of natural light, or the volume or colours of the spaces. Many design aspects could be considered to transform a small space into a comfortable tiny house. Finally, we can state that if legislation is able to adapt to the contemporary world, it would go from being a limit to becoming a support to design activity. Then, if the design activity engages in the development of spatial strategies for minimum dwelling, innovative concepts of space, house, privacy and house functions will be able to spread throughout contemporary society. In this way, the dialogue between society, architecture and legislation would be more balanced and probably more constructive and efficient.

### 4.3 Materials and Technologies for Temporary Housing Solutions

*Simone Cimino \**

A temporary solution is by definition a structure destined for an established lifetime, whether the design will be dismantled or moved to a different location. Therefore, a smart choice of components related to the life cycle of the design, as well as its transportability, is fundamental to the creation of performing flexible and, preferably, ecological solutions. Depending on this, an accurate selection of materials has to be made.

In the first place, the temporary structure must have minimal environmental impact and be designed to be easily separated and disposed of or, even better, recycled. Philip Jodidio (2011), an accomplished writer in the field of contemporary design, states that architecture is following the common throwaway tendency that is affecting many other branches. Especially in the field of temporary