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Experimental tiny house settlements in the European context

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Abstract

The increasing quest for affordable housing and the impelling necessity to reduce the consumption of increasingly expensive energy sources has resulted in recent years in the growing interest of the public toward so-called “tiny houses”: small residences with minimal floor area to be heated and maintained and highest exploitation of all available inner space. “Tiny house” is in reality a quite inappropriate and scientifically inaccurate term to describe what should be rather simply called “small house” or “minimal dwelling”.

However, given the current great commercial popularity of the term “tiny house”, I will keep using this phrase throughout the paper. I will in any case exclude from my discussion the tiny house on wheels (since it is topologically closer to a trailer or a caravan than to a proper house and fits better in temporary camping areas than in a stable settlement), focusing instead on modular and container-like houses.

I will also exclude multi-story housing from my discussion to focus solely on single-family houses with a garden (either as detached houses or as row house groups).

In the European context, the so-called “tiny house” – which is already quite common in countries with large buildable land such as Australia and the USA – has to face the restrictions of densely inhabited urban areas and rigid building regulations, which are normally more suitable for more traditional housing forms.

In this paper, I will illustrate the broader historical development of minimal dwellings and the change of paradigm which has taken place in the last 100 years, concerning both social targets and public reception of the small house.

The content of this paper is based both on theoretical research on texts and paradigmatic examples and on my own direct experience as a planning architect currently involved in an ongoing planning process.

Keywords

housing issues, minimal dwellings, tiny houses, urban ecology, participation and governance, urban planning challenges in the 21st century

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Introduction

What are the basic thoughts from which the idea of the “tiny house” has developed?

First and foremost, a “tiny house” can be seen as the most natural reaction to high construction or energy costs, along the lines of “I need to downsize my house because I cannot afford a bigger one”.

But a “tiny house” can in some cases be more than a simple response to material constraints. It can also be an expression of a radical philosophy of life in which reduction to the essentials is seen as a means to achieve personal freedom and happiness. The phrase “less should and could be enough” (Aureli, 2013) seems to me to be able to summarize this concept in an appropriate way.

Historically, we can observe great variation in the conception and reception of “tiny houses” (also known as minimal housing), and this reflects changes in the social structure of the population and their evolving expectations for the future. We can describe the pursuit of minimal housing around 1920 as part of a top-down policy used mainly by social democratic or, more generally, leftist governments and administrations to improve the living standards of the working class. On the other hand, the pursuit of minimal housing around 2020 – nearly a hundred years later – can be defined more as a bottom-up movement led by an impoverished middle class to free themselves from the crushing pressures of consumerism and integrate a commitment to environmental issues into their own lives: In other words, it is about the idea that minimizing the “ecological footprint” of one’s home can contribute to the global fight against climate change.



Figure 1. Dickelsbachsiedlung in Duisburg. Aerial view (Google Earth 7.3.6, 2023. 51°24'26"N 6°46'09" E. Available at www.google.com/earth/index.html [accessed 21. Juli 2023])

Figure 2. Dickelsbachsiedlung. View on the inner path which divides the gardens of the housing units (Duisburg, Andrea Contursi, 2020)

The tiny house in the planning culture of the 20th century

The idea of maintaining living comfort while minimizing living space is not new and can hardly be limited to the current “tiny house” movement. Nevertheless, it is a topic that has been addressed by several planners over the past century.

I would like to briefly explain the role that minimal dwellings in general played in the context of modernist urban planning in Europe during the interwar period. In the context of great economic and political instability in some Central European countries (Germany, Austria, Czechoslovakia), this period was characterized by the rise of social democratic or generally left-wing governments and administrations that placed the problem of mass housing at the centre of their official political agenda (with the mostly infamous examples of “Red Vienna” and “New Frankfurt”). In 1918, the German architect Hermann Muthesius wrote a research paper entitled “Kleinhaus und Kleinsiedlung” (Muthesius, 1918). In this book, he summarized the numerous housing experiments that were being conducted throughout Germany

at the time, beginning with the projects initiated by the so-called reform movement”. Central to these was the idea of pushing for the development of “Kleinhaussiedlungen”, working-class housing estates in which each family was given a tiny garden for growing vegetables, which supposedly could ensure a degree of autonomy for large families even in difficult economic times (which were common at the time of the Weimar Republic, with its political and economic instability and recurring inflationary crises). Given that the average family still had many members and individual living standards were much lower than they are today, small row houses with gardens were generally considered a suitable solution for low-income families and were intended to provide a healthy alternative to large apartment blocks (the so-called “Mietkasernen”) with their cramped small apartments, courtyards, and lack of green spaces. A consistent feature of these housing complexes was, of course, the standardization of the housing units and all technical components in order to reduce planning and construction costs. For some scholars – especially those with a Marxist background, such as Manfredo Tafuri or his colleague Francesco Dal Co – such housing estates

represent just another way of improving the quality of life of workers only to the extent necessary to further ensure the productivity of the system, and they are therefore seen as an instrument for the recurrent processes of reorganization of the capitalist productive apparatus:

“The dream of a human-minded socialism mystifies its very true nature as a tool conceived in order to stimulate the process of production.” (Dal Co, 1971, p. 106) In other words, housing is described by him as an organic part of the assembly line, pursuing of course another goal than really satisfying the expectations of the people for whom this kind of housing was conceived.

A paradigmatic example: The “Dickelsbachsiedlung” in Duisburg

The “small house settlement” was very popular in Central Europe at that time. In addition to the best-known examples (most notably the settlement of Hellerau near Dresden), there are a number of lesser-known examples throughout Germany from the period 1910 to 1940. The Dickelsbach Settlement in Duisburg – planned and realized by some members of the Duisburg City Planning Department (architects Karl Preziger, Hermann Brauhaeuser, Heinrich Baehr) – is one of the most paradigmatic examples of what a “small housing estate” should be. The Dickelsbach estate was built almost in the same years (between 1925 and 1928) as the more famous Kiefhoek estate in Rotterdam by De Stijl architect Jakobus Johannes Oud. Not only is the urban layout of both estates very similar (long rows of houses along a north-south axis with gardens at the back), but the brief was also the same: Both were designed exclusively for large families with at least four children, and all houses had rear gardens where families were allowed to grow vegetables or even raise chickens to ensure some degree of self-sufficiency. The standardized typical floor plans were also very similar (Grunsky, 1975).

What is particularly impressive in both cases is

the reduction of sanitary facilities to the bare essentials: since a proper bathroom was considered a luxury for members of the working class, the only sanitary facilities available were limited to a tiny water closet on the landing of the interior staircase. I think this detail captures very well the idea of the extreme reductionist approach that inspired these projects: It fits very well within the framework of the so-called “Existenzminimum” approach. However, the perfectly organized structure of this settlement – which of course included some basic community facilities such as playgrounds, stores, a medical centre, a school, etc. – did not contribute to a more general vision of the city as a whole that took into account, for example, its location in relation to working places.

This lack of organicity and fragmentary character was a common feature of many of the housing developments that emerged as part of the Weimar Republic’s housing program. As Italian scholar Manfredo Tafuri writes about Ernst May’s projects for “the new Frankfurt”: *“The settlement was thus to be an oasis of order, an example of how it is possible for working class organizations to propose an alternative model of urban development, a realized utopia”* (Tafuri, 1976, p. 119).

But he also adds: *“The closed economy of the settlements reflected the fragmentary character of the undertakings that left intact the contradictions of the city, which was not controlled and restructured as a system in relation to the new decentralized position of the productive centers”* (Tafuri, 1976, p. 115).

Are there possible alternatives to this reductionist “Existenzminimum” approach, in which the typical division of bourgeois housing into rooms with specialized functions is simply transformed into a reduced version intended for working-class families, without fundamentally questioning its functional programme?

A project by Swiss architect and later Bauhaus director Hannes Meyer, the “Co-op Room” (or “cooperative room”, conceived as an exhibition space as part of an exhibition on cooperative design in Ghent in 1924), can be



Figure 3: Ouds Kiefhoek real estate in Rotterdam. Aerial view (Google Earth 7.3.6, 2023, 51°53'27" N 4°30'47" E. Available at www.google.com/earth/index.html [accessed 21. Juli 2023])



Figure 4: Hannes Meyer's „Co-op Zimmer“ as it was displayed at the „first international co-operative exhibition“ in Ghent in 1924 (ETH Zürich: gta Archives, 1924)

seen paradigmatically as a very radical attempt to redefine the space for modern living in terms other than that of the traditional family home. Italian scholar Pier Vittorio Aureli describes this

paradigmatic project as follows: “Meyer defined the room rather than the flat as the main unit of dwelling, thus avoiding the whole problem of the “Existenzminimum”, which was concerned with the minimal dimensions of a family home. Meyer’s project postulates instead a situation in which the space for an individual implies that the collective space is not restricted by any norm” (Aureli, 2013, p. 15).

In other words, with the “Co-op Room”, not only the form but also the traditional functional scheme of the dwelling has been radically revolutionized, in a way which gives priority to collective life rather than to the private sphere of the traditional family. In both cases, we can conclude that to a large extent (100% in the case of the Central Station embankment and partly in the case of Gustava Zengala overpass) the land belongs to the state and is transferable to Riga municipality. The preferred scenario would then be for the municipal development department and construction board institutions, in cooperation with residents and the neighbourhood association, to determine the application of the best spatial and social functions for each territory.

A similar process could eventually take place in the switch from traditional single-family house to “tiny house”.

Contemporary alternative prototypes for (semi-)urban living

Today, the original concept of small house settlements for large families is outdated, as households have become much smaller on average and many people live single (Statistisches Bundesamt, 2023).

Of course, since the end of World War II, perceptions of basic living needs have changed, which naturally required larger houses. The post-war dream of the German working class was typically the detached single-family house with two floors, a basement, a carport and at least 150 square metres of living space.

But in recent years, the downsizing of average

households in Western Europe and the ever-rising cost of energy, construction and land have made this dream increasingly unaffordable not only for low-income households but also for a large proportion of the middle class.

This situation provides a new positive argument for reviving the idea of the tiny house or “minimal dwelling”.

In addition to tiny houses on wheels – which are much better suited to rural areas and less sparsely populated areas with sparse infrastructure – prefabricated modular homes can be considered as a typology that fits better into urban or semi-urban contexts (e.g., peri-urban areas, suburbs, small towns, etc.).

The “tiny house” has gained massive popularity in recent years: In general, they represent a suitable solution for singles, childless couples, or small families in general who want to live in a natural environment but cannot afford or simply do not like a traditional single-family home. The living space is small and varies from about 30 to 65 square metres. The interiors are not differentiated and divided into rooms with specific functions, as in a traditional house or apartment, with all functions – except for sanitary facilities – located in a single room. The garden is a constant element and generally plays a very important role, along with the idea of experiencing nature as an extension of the domestic living space. Often, the willingness to move into a “tiny house” is driven by a desire for a minimalist lifestyle, particularly characterized by a reduction to the essentials combined with a sensitivity to environmental issues. As a rule, this involves heavy prefabrication methods in order to cut costs and times (prefabricated modular houses).

Unlike the reductionism of the 1920s, the contemporary “tiny house” does not pursue the goal of rationalized mass production, but rather an individual dream of freedom and self-reliance: in other words, it is more about the desire to free oneself from certain standards of comfort that were common until a few years ago but are now

perceived as superfluous and costly to maintain, forcing people to work more and earn more money in order to afford them.

However, there are some problems to solve: Given the high population density in Central Europe and the scarcity of buildable land, where can suitable sites for individual tiny

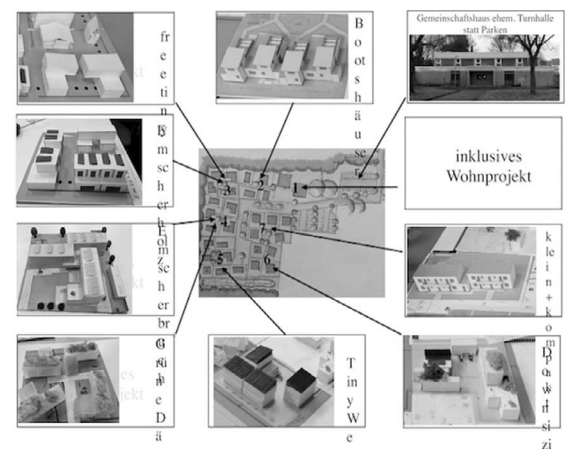
houses or small house developments be found? And how can they be integrated into existing or planned urban structures without the risk of urban sprawl or chaotic urban development?

While more and more companies have begun to produce modular homes in recent years, they have generally given much less thought to the question of how these homes might fit into the densely populated area of Central Europe.

The most important question to ask, therefore, is this: Can the “tiny house” actually become a valuable alternative in a context generally characterized by strict urban regulations and scarcity of buildable land?

Figure 5. Dortmund-Sölde: The results of the last work-shop with various cluster concepts.

(Dortmund, various workshop participants, 2023)



The “Tiny-House-Siedlung” in Dortmund-Sölde: A short report on an ongoing experimental project

The tiny house settlement in Dortmund-Sölde represents the first significant attempt in Germany to build a large-scale neighbourhood consisting entirely of modular “tiny houses”. This still ongoing project is also characterized by its participatory approach, through which the settlers – organized in small groups or “clusters” – are directly involved in the planning process. Throughout it each cluster continues to develop its architectural concept independently from the others. The results are then discussed with the city planning department and other groups in regularly scheduled meetings and workshops. Each group has a different idea of what private homes and community spaces should look like. While some groups continue to lean toward individual homes, others are trying to give their clusters a more distinct urban character. I am directly involved in the planning of one of these clusters as an architect and developer: Our group is called “Downsizing”, and we are among those who care deeply about urbanity. In fact, we plan to build our houses next to each other and group them around a common central square (“piazza”). In this way, despite the common vision, each house will keep its individuality, related to the personal priorities and ideas of each settler. In addition, certain facilities (laundry room, storage room, technical room) will be shared and located in a common technical house, instead of being assigned to individual housing units.

This approach is not arbitrary, but it arises from the awareness that – given the high cost of buildable land and the limited resources of middle-class settlers in this historical phase – detached houses would cause an unnecessary and – at least for us – unaffordable waste of land. It is interesting to observe how this approach (from the individual towards the collective) has already influenced the development of some other clusters, which

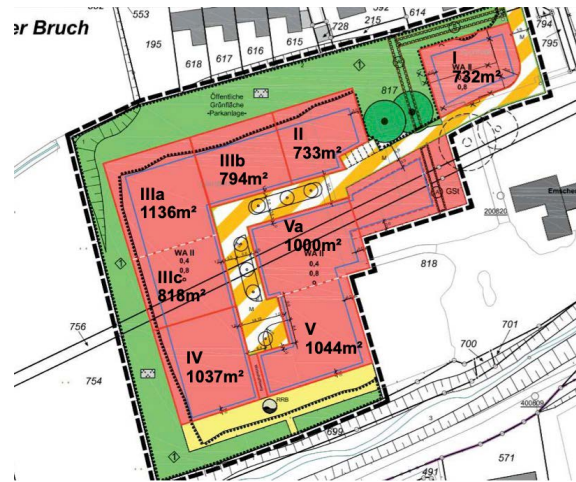
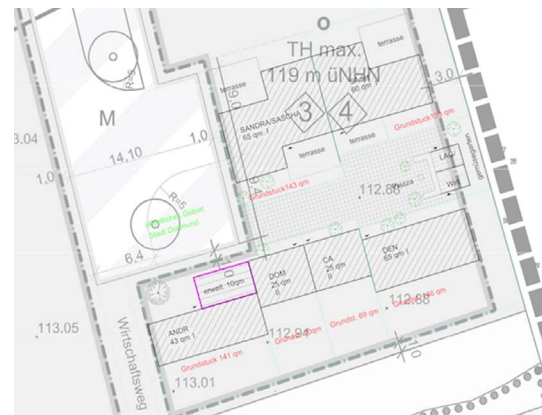


Figure 6. Temporary master plan for the “tiny-house Siedlung” in Dortmund-Sölde. (Dortmund: Stadtplanungsamt Dortmund, 2022)

Figure 7. Site-plan of the “downsizing” cluster, current stage. (Dueren: Andrea Contursi and studio_MMSD, 2023)



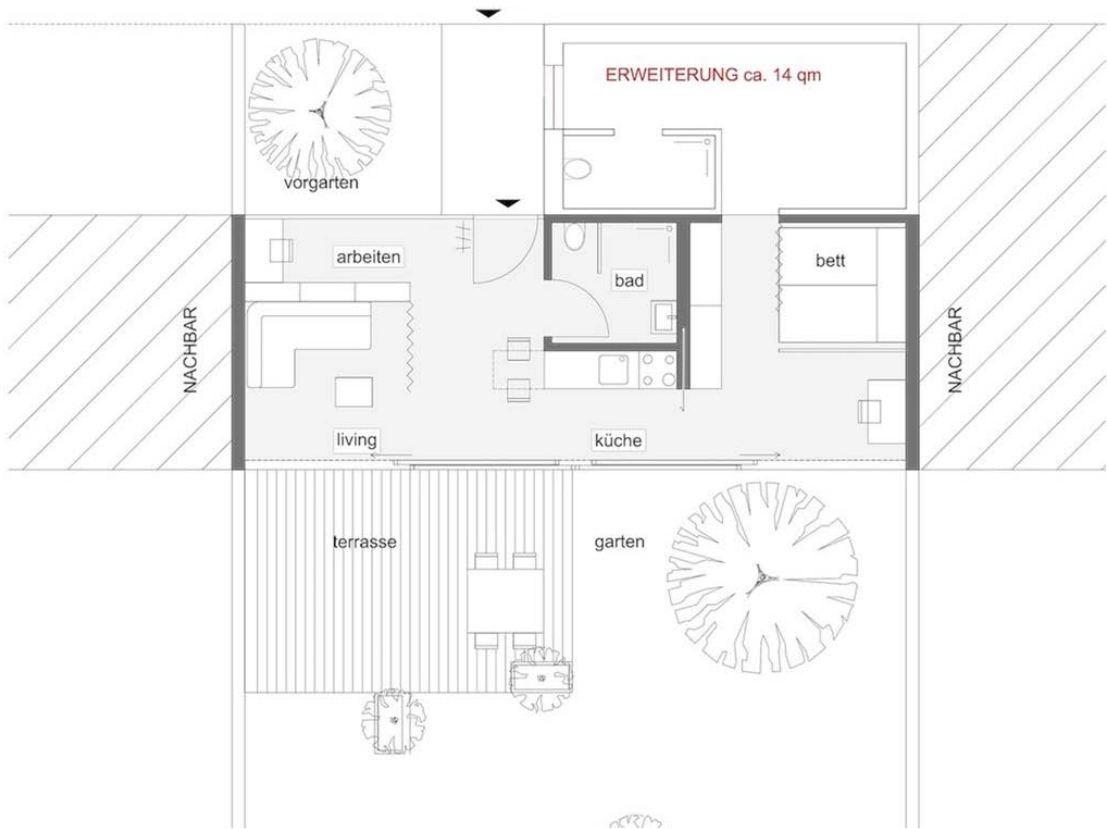


Figure 8. Dortmund-Sölde: Plan of single housing unit, current stage. (Dueren: Andrea Contursi and stu-dio_MMMSD,2023)

have already switched from detached houses to agglutinated structures in the mean time. In any case, this awareness does not yet seem so widely established throughout the “tiny house movement”, since the developers of other tiny house settlements currently under development (e.g., in Ulm-Burgrieden in South-West Germany continue to emphasize the idea of individual detached houses. Given that the Dortmund project is still in the making (even the final master plan has not been approved yet), it would be early for a consistent critical reflection on it. We need to look forward to the next steps in order to verify if the switch from single detached houses to agglutinated structures is actually going to be accomplished and if the good intentions (participatory approach,

mediation between individual and collective interests, etc.) are really going to materialize into a fine and truly functional urban fragment.

Conclusions

If in the 20th century small house settlements were conceived with the idea – or the illusion – of solving the housing problems of the working class from above, the contemporary tiny house movement can be considered a bottom-up phenomenon, based on the persuasion of their

members to embrace a different attitude towards their private life.

If rightly managed by city administrations and planners, the “tiny house” movement could open new unexplored perspectives for the future of housing in Europe. Unfortunately, the construction of new “tiny houses” remains today in many cases dependent on casual or individual initiative (normally one has to be lucky enough to have available space on their own plot of land). Moreover, current planning regulations – which, for example, in Germany encourage new builders to simply replicate the typological characteristics of the house next door – do not help in this effort, with the consequence that many households simply have to give up the hope of fulfilling their dream of a small house.

Hence, a joint effort of groups of engaged citizens and enlightened planning authorities is required in order to manage this phenomenon and reconfigure it as a valuable alternative to unorganized suburban sprawl. Therefore, it is necessary to set conditions in order to make the construction of dedicated tiny house settlements possible, allowing at the same time the interested parties to actively participate in the planning process. Also, the difficult question of how to connect such settlements physically, functionally and socially with the other parts of the preexisting city should not be underestimated. In this way – possibly with the help of a rightly managed participation process and adequate coordination at the level of town and regional planning – the “tiny house” movement could potentially become the incarnation of a new “ascetic” attitude, which would allow people to live according to their real personal needs and with less conditioning by consumerist attitudes. In general terms, precisely the spread of this “ascetic” attitude could help even more people in learning independently their own “limits of growth” and effectively contribute to the fight against climate change and the environmental crisis.

It seems to me quite appropriate to end the article with an interesting quote from Pier Vittorio

Aureli’s book:

“To say enough means to redefine what we really need in order to live a good life... where less is just enough” (Aureli, 2014, p. 22).

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