

# The Urban City and Residential Development

## A New Urban Renewal

Establishing criteria for the improvement of living space generation in existing residential projects with particular attention to the concept of density

### **Abstract**

Christoph Lammerhuber

Christoph Luchsinger

Isolde Rajek

Manfred Schenekl

Commissioned by the MA 50 Magistrate, Residential Construction Research



**Technische Universität Wien**  
**Fachbereich für Städtebau**

Christoph Lammerhuber, pool Architektur ZT GmbH  
Univ.Prof. Dipl.-Arch. ETH Christoph Luchsinger, TU Wien,  
Fachbereich Städtebau  
DI Isolde Rajek, rajek barosch landschaftsarchitektur, Wien  
Dr.phil. Manfred Schenekl, Historiker, Wien

Collaborators:  
Klara Hrubicek  
Dorothee Huber  
Mag.<sup>a</sup> Brigitte Ott (Lektorat)

Commissioned by the MA 50 Magistrate, Residential Construction  
Research

Vienna, October 2013

# Residential Development and the Creation of an Urban City – For a New Urban Renewal

Establishing criteria for the improvement of living space generation in existing residential projects with particular attention given to the concept of density

## Abstract

The aim of this research project is to establish measures and interventions for the improvement of the living spaces provided by existing residential projects dating back to the 1950s and 1970s and examine the extent to which density can represent a relevant concept within the context of urban planning and residential development policies. This includes an assessment of the possible degree of effectiveness re-densification measures can achieve. The catalog of measures and considerations on the concept of density were developed, tested and illustrated on the basis of existing residential projects built in the 1950s and 1970s.

## On the Relevance of the Concept of Density

### Within the Context of Residential Development

Based on theoretical considerations, historical analyses and work on a selection of residential projects, it can be seen that density is not an urban planning category that allows for the calculation of an actual guide number. Density does not supply a measurement that makes it possible to evaluate the quality of an urban planning concept. This is not the case with a ratio of Floor Space Ratio (FSR) to site ratio, nor with a ratio of residents or residential units per hectare, which makes it possible to decide on the quality of an urban planning concept. Sociological theories following a critical degree of (contact) density that changes at a certain point to create an urban environment do not establish a criterion either. Density measured as a relationship of Gross Floor Area to site can, however, provide a defensible, precise target size in terms of the use of a site. In such a case greater density leads to added value as a price-increase factor on the real estate market. This calculation led to extreme construction density during the turn-of-the-century Gründerzeit era up to 1914. This caused squalid living conditions and unacceptable occupancy density that did not ensure enough residential units at a qualitative or quantitative level. The limits of this form of development became evident when expected rental fees could not be met, even in view of the inflated occupancy due, to the low household incomes.

Along with the poor living conditions, which were only

successively eliminated during the 1970s urban renewal program, this speculative residential construction logic also led to the segregation that can still be sensed in Vienna today. A satisfactory supply of qualitative and quantitative living space was only achieved when social democratic community and subsidized residential construction made inroads in this dynamic after 1918 and again after 1945. The construction zoning limitations imposed in these phases brought different density concepts into play. They also led to a different regulation system to secure living space supply. Density limits and a limitation of speculative dynamics within the living space supply can be understood as the central factors of social democratic residential policies in Vienna.

Whether re-densification is motivated by economic, ecological or sociological considerations or not, the key consideration is: who has to bear the consequences of the material result of re-densification? Changes in the level of acceptable density should be viewed as a matter residential distribution policies that are reflected and updated in line with the socio-spatial potential of democracy-driven promises of equality.

The historical-theoretical analysis of the issue of density and re-densification in the context of available residential space makes it clear that a political decision is necessary and should be discussed on the basis of socio-political, social and socio-spatial considerations.

## On the Spatial Potential of the Researched Residential Projects

All of the residential projects analyzed in this study showed a defensible potential for space-generating measures according to urban planning and construction code standards of 10 to 30 percent. In most cases these measures comprised the addition of floors and the optimization of current uses or new construction on open surfaces or green areas, meaning a conversion of existing purposes and surfaces.

However, there would be resistance to such a conversion of the current social space areas and practices. It is precisely the existing structures and the configuration of a project that give social aspects and the individual biographies a sense of security on these sites. The generous green and open spaces in the residential projects of the 1950s and 1960s are an integral part of life in these developments. All current studies on the quality of life and satisfaction point at the importance of these surfaces for residents.

These considerations should not lead to disregard for the high degree of social and political steering potential within 1950s and 1970s developments mainly owned by the City of Vienna or community construction companies. High levels of acceptance among the population can be achieved through community-political measures by improving the supply of living spaces and

broad segments of the population can be addressed for the necessary changes within the city in this way. A renewal of these – in some cases – large residential ensembles can make them anchors of contemporary modern urban development.

## **Residential Development and the Creation of an Urban City – For a New Urban Renewal**

In contrast to the existing turn-of-the-century Gründerzeit developments commonly addressed in classic urban renewal, the residential projects of the 1950s and 1970s contain well-equipped apartments with high-quality ground plans, and sufficient light, and, by rule, large open and green areas. Their specific shortcomings are often the result of later urban development, socio-political changes and perspectives, ecological requirements, or they stem from their generative biographies. Along with deficiencies in their material facilities and equipment, as well as barrier-free access, energy balance and low amount of parking spaces or the lack of private open areas, the developments of the 1950s, generally have fallen short with regard to the current demands made of urban living over time. Although they offer sufficient large green areas that are of central importance in a living environment, these areas are greatly limited in terms of usability. These residential buildings are located directly in green or open areas, yet they lack direct access ways from the residential area to the open areas. Most of these developments have playgrounds and community that have barely been renovated or not at all and do not feature specific functional areas for young people of any kind in many cases. The need for functional spaces and community areas or bicycle garages was rarely addressed over the years.

The demographic profile of these developments also indicates a need for action. The high number of elderly residents makes it apparent that new barrier free access solutions and the optimization of the individual units' ground plans as well as new offerings in the immediate surroundings are needed. Another problem is a greater obstacle for material solutions once these and other deficits have been resolved: the reputation or poor image of 1950s and 1970s residential projects and a certain remoteness, not only in terms of their location, but in relation to their status when discussing the city. These residential projects are hardly mentioned whenever there is a discussion of the present, contemporary, urban development, culture and timeliness of the city. This is the case despite the fact that a large portion of the Viennese population lives in these developments or at least has biographical ties to them. Residential development has always been of great political importance in Vienna. Yet the city has not succeeded in creating a comprehensive understanding of urban development and its conception within the city. Nor has it successfully defined an alternative concept of urban development

to date that gives living, its surroundings and its uniqueness the corresponding status. The aim is to establish a conception of urban development that goes beyond the limited ideas of center, work and consumption of urban renewal thinking in place until now. A city is more than the “mixed city” inside.

At the same time, the upgrading of the developments built in the 1950s and 1970s can be turned into a question of methods, especially if a successful attempt is made to improve the quality of these living spaces while preserving the city in the name of the population and with the population. This would be in line with the call for an expanded conception of urban renewal in the immediate living and residential spaces as part of a social practice. The right to the city means participating in the decisions and design of urban development process and having the right to decide what is to be built and how to use the added value. Re-densification becomes acceptable from this perspective when it is the result of decisions made in close relation to the population and when they represent an improvement in the supply of residential spaces.

## **Urban Renewal Elements**

The study showed that specific shortcomings and deficiencies in quality are evident in the existing 1950s and 1970s residential projects that are markedly different to those in the turn-of-the-century Gründerzeit developments. The improvement and bringing up to date of the Viennese post-war Modernist residential projects therefore requires an urban renewal concept that is tailored and conceived for these projects.

A series of measures was developed and tested while working on actual residential developments that represent a suitable reaction to the specific deficiencies and provide a qualitative improvement of the supply of residential spaces in the selected projects. It was also possible to identify sufficient potential for re-densification measures in the course of the analysis. However, it should be taken into account that re-densification measures in post-war Modernist buildings should first be assessed in the context of social and socio-political, as well as socio-spatial considerations and are only acceptable if they are the result of decisions made with the population and represent a qualitative improvement of the residential project(s). Re-densification driven by purely economic reasons (cost-efficient generation of living spaces) should also be addressed as an issue pertaining to distribution policies. The difficulty in establishing critical values and reliable adherence to them lies in the realm of socio-political decision-making. This means that the question of a quantitative improvement of living space supply via re-densification can also only ultimately be decided within the framework of urban renewal.

Four transformations are recommended as cornerstones for the urban renewal of existing 1950s and 1970s residential projects that should also be understood as stabilizing instances in

sustainable urban renewal.

### **Socio-Spatial Transformation**

All measures should be evaluated in terms of their actual socio-spatial sustainability. Such measures include those related to open and green areas, construction measures in the field of infrastructure and access ways, etc. This cornerstone can also be described by theme: communication and meeting areas, maintenance and care, adjustment and correction, renewal and expansion.

### **Image Transformation**

One considerable deficit of the existing 1950s and 1970s projects is their bad image. Their suitability for an improvement of their image should also be taken into account within the context of urban renewal. Concrete structural, symbolic and narrative aspects should be developed as well to help improve the image of these residential projects.

### **Democratic Transformation**

Transformations in residential projects should also be viewed with a sense of the right to the city, which includes developing and agreeing on measures allowing for co-determination and participation. A democratic transformation is part of urban renewal itself.

### **Ecological Transformation**

Comprises the existing or new Thewosan-plus subsidy program.

### **Catalog of Measures**

+ New spaces: build, intensify and continue development +

- Expansion of space offerings for community areas, children, handcrafts, fitness and sports
- Creation of new functional areas for bicycles and carriages
- Creation of infrastructure for local commerce
- Expansion of space offerings within residential projects for office and business uses (local economy, potential for new networks)
- Improvement of residential space supply via the construction of barrier free units for the elderly, family units, singles, shared units, etc.

+ Renewal of existing developments: expand, remodel, extend +

- Expand access areas, expand building entrances and integrate storage spaces for carriages and bicycles at walkway levels, create sufficient space for mailbox access

and exchanges between neighbors

- Linking of ground level zones with open spaces
- Construction of or expansion to include recessed balconies and projecting balconies, the possibility of building rooftop terraces and green areas
- Installation of elevators and the implementation of measures to enhance barrier free access
- Strengthening of the existing infrastructure and expansion as needed (infrastructure for the elderly)

+ Measures in green and open spaces +

- Create meeting and communication spaces in open areas
- Make spaces to sit and spend time available, repository and storage areas close to building entrances that also work as communication spaces
- Design of multifunctional access zones that are open for additional storage and can be adapted for various functions
- Increase the appeal of existing areas such as playgrounds, meeting areas, etc.
- Refitting of existing parking spaces for temporary and provisional uses with the appropriate design measures
- Preservation of the green areas and development of extensive maintenance measures
- Definition or opening of transition and intersection areas
- Connection to city structures as well as public areas and the landscape
- Make vegetable gardens and community areas available

+ Image and identity strengthening measures +

- Strengthen the character of the residential project, give character to the existing localities and make them identifiable
- Offer historical information on the residential projects, tell the story of the city: 1950–1970 ©WienModerne | zur Rekonstruktion einer Epoche (1950-1970 ©WienModerne | On the Reconstruction of an Era)
- Create an “Urban Development Through Renewal” concept
- Make appropriation possible
- Conceptualize “The Right to the City” within the framework of new urban renewal and develop opportunities for participation
- Create spaces and possibilities for co-determination