









## Strategies for Further Development of Large Housing Estates: Case of Germany

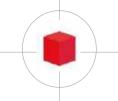
Dr. Bernd Hunger
Chairman of Center of Competence for Major Housing Estates
Kompetenzzentrum Großsiedlungen e.V.

International Workshop: Strategies for Large Housing Estates, 6-7th July 2023

















### **Center of Competence for Major Housing Estates:**

**Members of the Centre of Competence – a competent network** 

**Housing companies** and cooperatives

**Municipalities** 

**Associations** of housing and construction industry

**Business companies** 

**Associations** 

**Architects** 

**Urban planners** 

**Engineers** 

**Individuals** 

Redevelopment agencies

### **Structure of the Report**



### 1 Review and Background

What initial characteristics of large housing estates are relevant for future development?

### 2 Urban Planning and Construction Dimension

- In what way the existing infrastructure can be transformed to withstand future challenges?
- What are the opportunities and limitations for additional construction development within the existing urban fabric?

#### 3 Social Dimension

- How can housing distribution policy ("Belegungspolitik") influence social segregation dynamic?
- Which forms of partnership have proven to be successful in community work?

### **Stereotypes about Large Housing Estates**





"Monotonous and inhospitable"



Little to no values of living environment



"Only the poor live here"



Absent or insufficient infrastructure



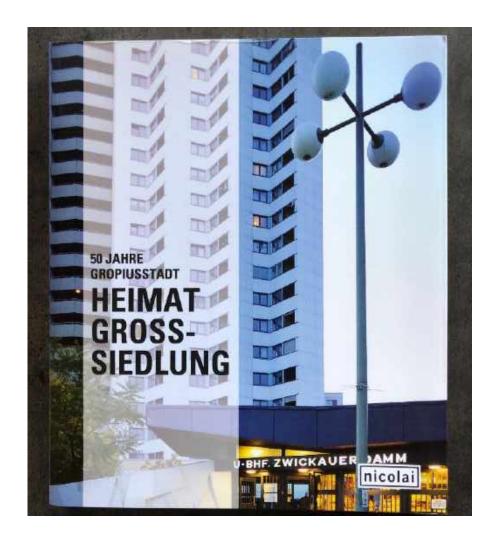


"All residents are on the right"

### Our Motto: Large Housing Estates are Homes

Residents and critics assess established living environment diametrically opposite.









Photos by Dagmar Weidemüller.

















# What are "Large (Major) Housing Estates"?

## Large (major) housing estates:

- Are relatively uniform in construction (so-called 'ensemble effect').
- Predominantly characterized by rental housing construction.
- Group of housing estates is considered 'large' starting from approx. 500 residential units or 1,000 inhabitants.



Neues Bauen movement, Garden city movement, Reform-siedlungen modernism, 1920s – 1930s



'Urbanity through Density', West Germany ('Urbanität durch Dichte') mid. 1960s – 1980s



Rebuilding of German cities: structured and decentralized city 1950s – 1960s

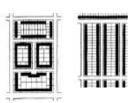


Complex residential construction, East Germany 1970s – 1980s

### **Diverse Typology of Large Housing Estates** 1920s - 1980s



**Housing estates** 









of 1920-30s

Cologne, Germaniasiedlung

Cologne, Blauer Hof

**Housing estates** of 1950-60s









Housing estates



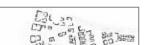






of 1970s (West)





Berlin, Mellerbogen

Berlin, Hofgarten

**Housing estates** of 1970-80s (Complex residential construction East)









Leipzig Grünau

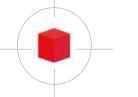
Berlin, Hellersdorf

Photos: Archive Kompetenzzentrum Großsiedlungen.







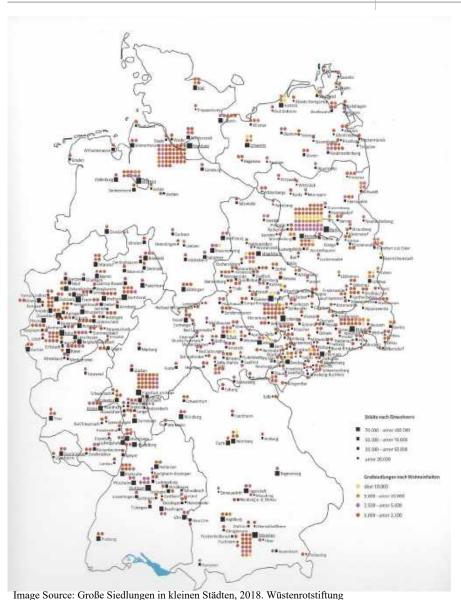


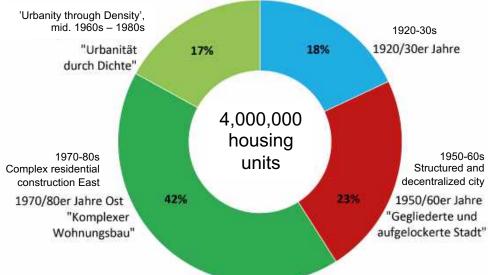












### Position on housing market:

- 39,5M residential units (2011 Census).
- out of which 20,6M are rental apartments.
- 20% of total housing stock is a share of large housing estates.
- approx. 8,0M residents.

### **Criticism of XIX Century Housing Construction**

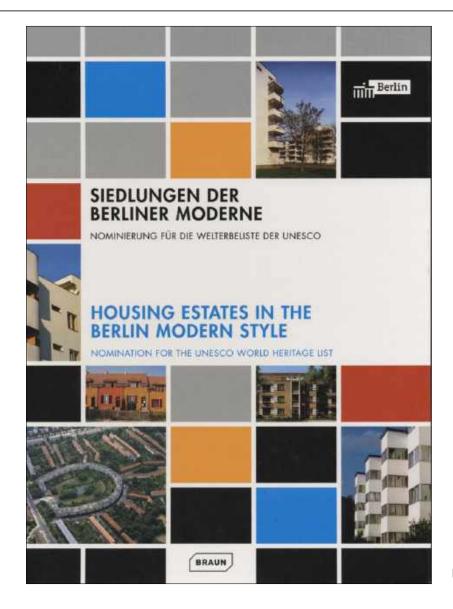
"Berliner Mietshaus", the size of the backyard corresponds to the turning radius of a fire brigade ladder





## A new form of living environment becomes World Heritage





Book Cover: Siedlungen der Berliner Moderne, 2009

## Construction of housing estates in the 1920 – 1930s





Berlin, Hufeisensiedlung



Berlin, Weiße Stadt

### **Special features:**

- Light, air and sunshine.
- Open urban landscape, contradiction to the historic city morphology.
- Separation of living and working spaces.
- public amenities and services.
- stock of rental housing provided through housing cooperatives and public housing companies to a wide range of social groups.
- Appropriate scale and high design quality of the built environment.

## Construction of housing estates in the 1950 – 1960s





Bremen, 'Neue Vahr' housing estate (GEWOBA Bremen)



Lübbenau (WIS Wohnungsbaugesellschaft im Spreewald, Lübbenau)

### 'Decentralized Urban Landscape' Special features:

- Free-standing residential clusters in open green areas.
- Most of the residential areas are well-equipped with public amenities.
- Car-oriented city.
- Impressive construction achievement:
   Overcoming housing shortages, a
   precondition for urban renewal the historical inner city districts

### Construction of housing estates in the 1970 – 1980s 'Urbanity through Density' in the West and 'Complex residential construction' in the East





Bremen, Osterholz-Tenever



Cottbus, Quartier Turower Straße

### **Special features:**

- Industrial construction and complex planning.
- Green spaces and a center system as the fundamental framework for urban structure.

(Photos: Archive Kompetenzzentrum Großsiedlungen)

## What were the social and cultural prerequisites for the design of large housing estates?



- Housing estates were built for neighborhood relatively homogeneous from cultural and social stand points:
  - Guiding principle: social equality in provision of living environment.
  - no parcels or individual land plots, open spaces instead of privately enclosed spaces.
  - no differentiation between main and back facades.
- Promises of emancipation: housing for a wide range of population; education and career opportunities for all.
- Reminder of bomb war: 'never again' creating of narrow streets.
- High level of <u>mutual trust</u> is a prerequisite for the functioning "open urban landscape".

Current challenges within large housing estates are not a 'planning mistake', however, changed social conditions are the cause of the status quo.

### **Structure of the Report**



### 2 Urban Planning and Construction Dimension

- In what way the existing infrastructure can be transformed to withstand future challenges?
- What are the opportunities and limitations for additional construction development within the existing urban fabric?

### Renewal of the existing housing stock





Documentation of examples for the conversion of the housing series WBS 70 In the former German Democratic Republic

DOKUMENTATION AUSGEWÄHLTER BEISPIELE



### Large Housing Estate Neubrandenburg Oststadt, Robert-Koch-Straße

Neubrandenburger Wohnungsgesellschaft mbH (NEUWOGES)





## Large Housing Estate Neubrandenburg Oststadt, Robert-Koch-Straße

Neubrandenburger Wohnungsgesellschaft mbH (NEUWOGES)













Umbau der Erdgeschosszone

Fotos: NEUWOGES

## Complex modernization of nine-story apartment buildings Overview of the solutions

- Improvement of living spaces via redesigning floor plans.
- Renovation of plumbing, ventilation, and electrical systems.
- Roof reconstruction as well as insulation of basement ceilings.
- Setting up bicycle storage rooms on the ground floor.
- Barrier-free entrance via creating of a ramp system.
- Facade and balcony renovation, including new color scheme.
- Redesign of the outdoor facilities.

## Large Housing Estate Greifswald, Ostseeviertel, Gedserring / Rigaer Straße

Wohnungsbau- und Verwaltungsgesellschaft mbH Greifswald (WVG mbH)







Hoch C Landschaftsarchitekten M. Bredt

## Large Housing Estate Greifswald, Ostseeviertel, Gedserring / Rigaer Straße

Wohnungsbau- und Verwaltungsgesellschaft mbH Greifswald (WVG mbH)









### **Complex transformation of quarters**

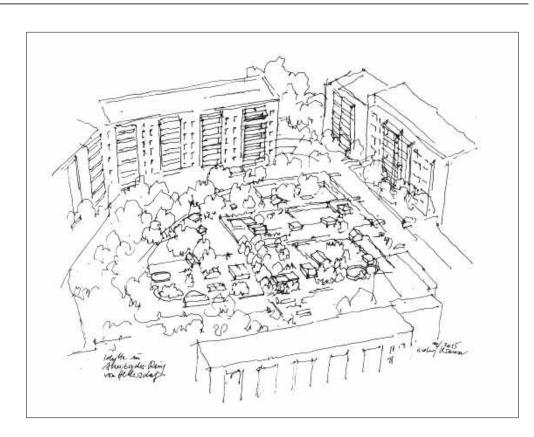
- Selective demolition of residential blocks.
- Measures for energy efficiency, e.g., insulation of facades.
- Differentiation of the housing stock through floor plan changes.
- Installation of elevators.
- Creation of apartments for seniors; apartments suitable for assisted living with nursing services.
- Redesign of living environment.

## **Green space - Crucial for Residents' Satisfaction** with Housing and for Climate Adaptability









Berlin - Hellersdorf: Tenants' Gardens in a Residential Courtyard

Fotos: Dagmar Weidemüller Grafik: Ludwig Krause

# Kompetenz-zentrum Groß-siedlungen e.V.

### Thuringia: The Projects for "WBS 70" Brochure



Rudolstadt



Jena, Smartes Quartier





Arnstadt



Saalfeld/Saale, Rainweg



Gera, Eiselstraße



Sondershausen

Deutscher Bauherrenpreis

vtw

### Lessons for the Second Cycle of Modernization Principles for Renewal



From individual buildings to the quarter as a whole

Greater variety of housing options, both in terms of quality and price

Unity of living and built environments

Integration of renovation with services and support

**Sufficient additional space:** The rise of electromobility has led to new demands for parking spaces and storage facilities for e-bikes. In areas undergoing renovation, solutions are also sought to address the lack of insufficient storage space.

### **BAUEN IN NACHBARSCHAFTEN**





ERGÄNZENDER WOHNUNGSBAU IN GROSSEN Wohnsiedlungen und Stadtquartieren

## New construction within the existing housing stock

- Building within the existing stock vs. preserving and expanding the open space system: Is a new view necessary due to the pandemic and climate change?
- How can acceptance be fostered among the existing neighborhoods?

### 1. Expansion and Renewal of Existing Housing Stock



Potsdam-Schlaatz
Potsdamer Wohnungsgenossenschaft 1956



Dirk Laubner



PWG 1956 eG

B. Rechenbach

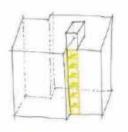
- The WBS 70 cube house was extended by two floors. The foundation had to be reinforced as lightweight frame construction was not approved.
- Almost all construction measures were carried out while the building remained occupied. The basis for a smooth renovation process was early discussions and cooperative collaboration.



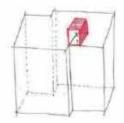
Abbruch Drempel Offnung Decke Treppenhaus (TH)



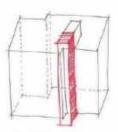
Notdach Bitumon, genchweißt



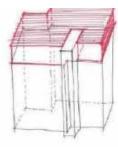
Abbruch Außenwand Abbruch TH



TH-Erweiterung um zwei Geschosse



Neuer Autzugsschacht Neue Treppen und Podeste



Aufstockung um zwei Geschosse

Grafiken: PWG 1956 eG

### 2. Adding Extra Floors



## Bremen Stadtteil Walle – Arndtstr.: Complementary housing construction to existing residential buildings





Image Source: Gewoba Bremen

### 3. Detached Built-in



#### **Bremer Punkt - GEWOBA**



Image Source: Gewoba Bremen



Nikolai Wolff

- Barrier-free, flexible housing adaptable and diverse geometric design.
- A new "building layer" is created without undermining the existing stock.
- The offering is primarily targeted towards the existing neighborhoods.
- Fast construction using prefabrication methods, minimal impact on the surroundings.



### **Limits of Infill Development in Large Housing Estates**





May 31st, 2020

SONNTAGSZEITUNG

FRANKFURTER ALLGEMEINE SONNTAGSZEITUNG 31 MAI 2020 NR 22

### WOHNEN 55

### Verkannte Großwohnsiedlungen

Dichte ist nicht alles. Große Siedlungen sind Quartieren aus der Gründerzeit in mancher Hinsicht überlegen. Nicht nur mit Blick auf den Klimawandel.

Ein Gastbeitrag von Bernd Hunger

ichter Baten in der Stedt ist angestagt. Manchmal gelungt et
bespielhaft und bereichert den
Stedtraum, manchmal ist es zu
eng, monotom und rendlesgerheben. Manreilst sich die Augen, dass Verfechter dichteren Blanens, wie Christoph Meidder in
einem Artikel vom zu. Ma in deser Zeitung, ausgerechnet der Abstand geleitende Corons-Pandernie als Angument für
eine hohere stäglebalusche Dichte heranziehen. Andere Fachleite sehen die Pandemie ehr als Anhaes, über die Kristonlessigkeit der Stadistrukturen und Wohnwerhältniese nachmulenhen.

Die Altronderen haben getau die getan, aus der Erfaftung zwiese Wellteriegund beatstrughaler Wohns erfallunisse herau. Die niedrige Dichte der bewunderten Siedlungen der upper Jahre war keine Patrwerschwendung, sondern hatte ihr Virsache in den notwendigen Gertengröfien, die für die erentuell motrenlige Selbst ersongen reichten. Die Großtagigkeit der Freifstum war ebenno wie die armitisch Ternung des Wohnens von den Arbeitstätten eine Reaktion auf die grigensichen Zusände in den Gründerzeitgustrieren und Altstäden. Licht, Luft und Sonne warn gefragt.

Auch den Planern der nach den Prinzs-



Licht, Luft und viel Grün: Die großen Wohnsiedlungen sind oftmals beliebter, als ihr Ruf vermuten lässt.

für den Aufenthalt im Grünen. Und eben auch für die Krisenfestigkeit, für die Rokustheit und Hershilität der Stadtstruktur.

Aler nicht ur aufen, auch im Gebäutenen prälen Klimswandel und Wihnqualität zuweilen widersprüchlich aufenander. Die beträtigte Wichnquelaufe werden immer tiefer und kumpalter gebaut, um Energie zu spären. Die Konseneut zei, dass die Wohnungen häufig nur "über Ede" nach berachtbarten Hammelstehtungen oder ger um erneitig ausgenöbte sind Bader and komfortadel ausgestatet, legen aber in der Regel mit entster-

mehr Familien mit Kindern als anderswu. Hier wichst die Zukunft der Stadt heran. Von Wehnform bestehet aus dem Lat-

Fine Wehnform bewust aus dem Leitlald der europsinchen Stedt seruddammem ist allein schon angesichts ihrer quantitäten Bedeutung selbsten in den Großsiedlungen leben etwa seht Millionen Haunhält im zwazug Pruzent de-Mieswohnungsbestandes der Bundesrepablik. In den Großsiellen sich Anteil deutlich höber, im Berlin zum Beispiel lebt geler Zweite in einer zwischen zun und 1980 gelauten Wehnstellung. Ihr Bau hat die Wehnungsnott Uhreumiden Stellpätzte und eingeschossig leben Einkaußsterten innerhalt der Webnertsembles sind, mit dem Blöck der Resiliere betrachtet, nicht untergenutte Un-Räume, sondern Flächerpotentale, deren zukulnfüger Nutzen noch ungewiss ist. Sie sind in der Regel gestalterisch unbefreigend, aler mach die zur einmal wießerchossig

Wenn die Gründerzeitbehauung so gefragt wäre, wie sie von den Jüngern

der Dichte propagiert wird, dann wähen ganze. Veireit so gebaut werden. Die Umfragen zu den Wohnbedurfinsen zeigen aber: Mentschen wollen rehigt und im Grünen wohnen. Ein gepflegtes Wohnumfeld für den ungewungenen Auseinhalt im Freien und eine sichere Nachbarschaft spielen eine große Rolle. Ernet wenn diese Bedriffunse befriedigt sind, quest als Zugsbe, wichen ist die lebendige Stadiktulur, die aber nicht umbedingt direkt vorm Flau

sein muss. Jeder weiß das, der Kinder hat oder schon älter ist.

Gefragt werden auch zuktunftig durchgrünte Stadtlandscheften sein, in denen Wohnqualikit, Erholungswert und Flexilaßität für zuktunftige Amsprüche – seien es Krisen oder neue Nutzungen – zusammenspielen.

Der Auser ist Scattplaner und Scattssondage in Berlin und lebes des "Aumperenterennen Simbsachunger «V.", das sich als bendoswense Neurwerk für die Belange der Englissellerung unseren. The COVID-19 pandemic and climate change are pushing a new way of thinking:

- On the balance between open spaces and built environment.
- On resilient spatial structures.
- On the limitations of densification.

The balance between compact development and open spaces typical for large housing estates meets the demands of climate change.

## Large Housing Estates have Promising Urban Planning Potential.....



- <u>Climate Protection</u>: High potential for energy efficiency (compact construction, centralized supply of primary energy). Green spaces and low sealing are advantages in climate change.
- <u>Construction</u>: Serial construction methods open up a possibility for efficient renovation and the provision of new qualities.
- <u>Infrastructure:</u> facilities are adaptable to social and demographic changes.
- Neighborhood context (Quartiersbezug): Coordinated action between municipalities and housing companies within existing neighborhoods is easier than in structures with fragmented ownership structure

Planning pre-condition: Integrated neighborhood concepts.



### ...but the estates face significant social challenges

- Neighborhood: Large housing estates house a larger share of households
  - with low-income;
  - with migration background;
  - with social benefits (under SGBII)
     than other city neighborhoods.
- Government support: they relieve other districts of social integration tasks and therefore need state support
- Social Cohesion: Large housing estates <u>are not the cause of social conflicts</u> but more likely to become hotspots for social conflicts than other neighborhoods. Social cohesion within the neighborhoods therefore requires special attention



## The rapidity of socio-structural changes requires proactive actions

- not only already disadvantaged residential areas require further support, but also <u>currently stable neighborhoods require preventative</u> <u>interventions</u>.
- In disadvantaged neighborhoods, the following services are severely contested:
  - available housing.
  - provision of healthcare services.
  - availability of childcare and school placements.





- Create balance between housing provision for
  - a wide range of households with different incomes and social status ("breite Schichten")
  - disadvantaged households.
- Take into account the capacity of existing neighborhoods in the allocation of housing:
  - allowing flexibility in housing distribution quotas to address social cohesion within neighborhoods.
  - implementing upper limits of housing distribution quotas for neighborhoods that are clearly overwhelmed. (controversially discussed in Germany)

### Social Cohesion and Integration: Key Success factors



- Sensitive housing distribution policy with flexibility in housing allocation for housing companies.
- Collaboration between public and private actors neighborhood management and social management departments.
- Intensive and individualized support, including case-specific engagement.
- Special attention to education and care for children and adolescents.

Example: Facade art in the High-Deck housing estate with social value. Local youth were trained as painters and decorators. Project by "Stadt und Land" housing company.





### **Education as a Key to Facilitating Integration**

Example: Educational network by housing company degewo



- Was founded in 2007 by the union of 14 schools of Gropiusstadt large housing estate.
- Collaborates with kindergartens and youth centers.
- Common goal: Improvement of the educational opportunities.



## Example: Schools create tile murals in the neighborhood



- Damaged and dirty walls were restored with tiles painted by children.
- The first tile mural was created five years ago in passage between buildings. It remains graffiti-free. The 12-meter-long surface depicts colorful high-rise buildings.
- Since then, several follow-up projects have been carried out.
- Murals became a trademark of degewo's neighborhood of Gropiusstadt!





Fotos: degewo

### Network of Housing companies creates Neighborhood Management in Dortmund Scharnhorst Ost





## Cooperation of several housing companies in one neighborhood







Playground planning, photo safari, hallway design with children, intercultural picnics, planting campaigns, neighborhood help, energy-saving parties, photo competitions,

Upgrading and image improvement in the neighborhood; Planting activities with children.



Children's play projects take place weekly in four districts.

Werden Sie

## Further development of large housing estates: Challenges at a glance



### **Political Perspective**

 Special political attention and financial support to districts that make a particularly high contribution to social cohesion of the city as a whole.

### **Urban Planning Perspective**

- Modernization and diversification of the housing stock.
- Infill development with modernization of the existing housing stock.
- Design of the living environment adaptable to climate change.
- Sufficient and high-quality social infrastructure.
- Preparation for new forms of mobility.

### **Social Perspective**

- Sensible housing distribution policy.
- Diverse neighborhood work as a community task.
- Education, education: the best kindergartens and schools in disadvantaged neighborhoods.



Kompetenzzentrum Großsiedlungen e.V.

### Thank you!



### The Team of Center of Competence for Major Housing Estates



Dipl.-Ing. (FH) Ralf Protz Director of Center of Competence for Major Housing Estates



Dipl.-Ing. Dagmar Weidemüller Urban planner / research fellow at Center of Competence for Major Housing Estates



Maria Melnikova
Urban planner / Guest researcher at
Center of Competence for Major
Housing Estates



Dr. Bernd Hunger Chairman at Center of Competence for Major Housing Estates