

## **The “Futurity” of Older Inner-City Apartment Blocks**

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## 1. Introduction

Starting-point for the research works presented in this paper was the experience of massive residential vacancy coming along with the transformation processes in the older inner-city apartment-building stock in cities of east Germany. Among these mostly Wilhelminian style buildings, dating from the period of roughly 1880 to 1920, a vacancy of up to 30% occurs. This means a waste of resources not only looking from a socio-economic, but also from an ecological point of view. Sustainable urban development first of all means to adequately (re)use the existing developed space, buildings, facilities and structures. This especially in regions in transition with reduced economic growth and receding population.

The main questions put forward within this interdisciplinary research-project, integrating competencies of architects, building engineers and social scientists and aiming towards an analysis of the chances of older inner-city apartment blocks in future developments were:

- Which groups of households are interested in this kind of apartments/buildings (“*demand-side*”) and what are their preferences?
- What kind and level of rehabilitation/renovation or modernisation is appropriate (“*supply-side*”) with respect to technological state of the art as well as the socio-economic context? What kind of measures towards environmentally sound and healthy housing(-conditions) are reasonable?
- Which general trends of development can be identified for this kind of building blocks in typical neighbourhoods.

As the core of research a written survey (questionnaire) was conducted among households living in selected neighbourhoods representing three different but typical dynamics of development (“dynamic self-runner”, “intermediate/staid” and “heterogeneous/declining”). Furthermore a typology of building quality and a multi-dimensional concept of residential satisfaction was developed.

Answering the above cited questions, this paper present major results of the survey, analysing preferences of different types of households and their willingness to move into as well as their willingness to stay in these apartments. The results are furthermore discussed with respect to necessary/appropriate renovation works and the attitudes of users concerning measures towards environmentally sound and healthy housing.

## 2. Design of the survey

The basic foundations of the works were derived from extensive studies of literature and own exploratory interviews with experts for urban planning and development in several Saxonian cities [1]. The second source for the design of the survey was an analysis of existing statistical data on building stocks, vacancy rates, building activities and the development of households on demand-side. Resting on this gained information a comprehensive list of possible influencing factors was derived and translated into a questionnaire comprising 39 questions.

Following a case-study approach three residential areas were selected for the survey. This means that the results can not claim to be representative for the whole stock of older inner-city apartment blocks in statistical terms. Nevertheless the areas were chosen very carefully in order to catch different constellations typical for the development of older inner-city residential areas in the context of structural changes and transformation processes. As a result the findings gained from the survey certainly are instructive also beyond the local context of the specific case-study areas. The areas finally selected in close co-operation with local experts of the public housing administration can be described as portraying an area with dynamic development, an average, rather staid area and a rather heterogeneous area with

development problems. Beside that the areas were kept comparable as far as possible with regard to characteristics like extension, high percentage of older inner-city apartment blocks, number of dwellings, presence of buildings with low quality standards and the situation regarding nuisances resulting from traffic. Formally designated redevelopment areas (“redevelopment statute”) were explicitly excluded. All areas are located within the city of Dresden, which was chosen because of the relatively balanced share of buildings dating from different periods to avoid distortions resulting from a disproportion of the different types of buildings within the whole inventory. Within the areas a total of about 2250 households lived in older buildings already rehabilitated and another 450 households in buildings with rehabilitation needs.

Within the selected areas and building stock every sixth household was contacted directly by interviewers handing out the questionnaire and also collecting it in after one or two days. 340 questionnaires were returned which is roughly 12 % of the population.

### 3. Results

The analysis of the results rests on three concepts: A typology of households based on Metzmacher et al. [2], a typology of housing quality and a concept for residential satisfaction and usability [3].

The typology of households combines age of household members with vocational status and life-style issues, especially regarding models of (familiar) cohabitation (for an overview see Figure 2 and Table 1). The typology of housing quality integrates technical shape of the building and equipment of the apartments (Figure 1). The concept for residential satisfaction and usability rests on the general satisfaction with the *apartment* reported by the participants and their *willingness to stay* in the apartment. For specific purposes (e.g. the identification of households “fully satisfied”) an integrated conception of residential satisfaction was used, regarding satisfaction with the *neighbourhood* and perception of burden stemming from the *traffic* situation and *housing costs* in addition.

| Apartment               | very good equipment | good equipment | average equipment | simple equipment |
|-------------------------|---------------------|----------------|-------------------|------------------|
| Building                |                     |                |                   |                  |
| good technical shape    | QT 1                | QT 2           | QT 3              |                  |
| average technical shape |                     | QT 4           |                   | QT 6             |
| bad technical shape     |                     |                | QT 5              |                  |

Figure 1: Typology of housing quality (“Quality-Types of Buildings”, [3])

For the general analysis of the usability of older inner-city apartment blocks for different user groups *potentials of influx of new households* (potentials of influx) and *potentials of residential stability* (potentials of stability) were distinguished. Potentials of influx were assumed for those types of households that moved in under conditions of a comparable free choice i.e. later than the year 1992. Potentials of stability were assumed for households with at least medium housing satisfaction and no intention to move out of the apartment.

### 3.1 Attractiveness for a wide range of user-groups

Housing in older inner-city apartment blocks is not restricted to specific user groups. A wide range of types of households can be found though their potentials of influx and stability and certainly their preferences differ.

It is characteristic for the areas under investigation that up to 70% of the residents living in older inner-city apartment blocks moved in later than 1992, roughly 60% even later than 1995. About fifty percent of the households that moved in later than 1992 lived in older inner-city apartment buildings before. It is no surprise that in general the more mobile and younger types of households play a major role with respect to influx of new residents while at the same time the older households hold a comparable higher share of residential stability (Figure 2). It can also in general be stated, that younger households more often live in lower quality apartments while older households rather tend to live in better quality. Nevertheless trying to estimate the attractiveness of older inner-city apartment blocks for different user groups it is interesting to look at differences in detail.

#### 3.1.1 Potentials of influx

Concerning this issue the largest group is made up by young households with open family planning (all members below 35 years old; no children) and expanding family-households with children younger than six years old. Both types have a superproportional share of potential of influx compared to their share of the total of surveyed households. With respect to the absolute figures the second large group is formed by the consolidated family-households (all children are 6 years and older) but we can see that relatively their potential of influx is lower. Although they make up a share of around 23% of the surveyed households only 16% of the households that moved in later than 1992 belong to this group.

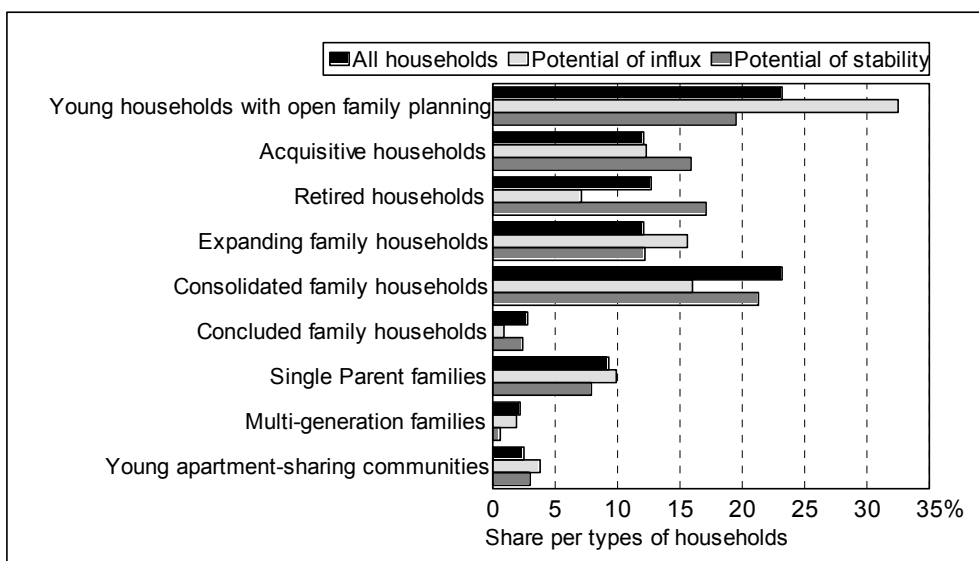


Figure 2: Types of households living in older inner-city apartment blocks and their potentials of influx and residential stability [3].

#### 3.1.2 Potentials of stability

To keep the residential areas from entering into a process of decline, special attention has to be paid to acquisitive households, retired households, expanding family households and young apartment-sharing communities. These types of households have a comparable high potential of stability i.e. at least a medium housing satisfaction and no intention to move out of their apartment.

Finally, acquisitive households, expanding family households and young apartment-sharing communities but also young households with open family planning and single parent families seem to be those interest groups for the (re)use of older inner-city apartment blocks that combine both: a comparable high value of influx *and* stability. Beside the general result, that the older inner-city apartment blocks are attractive for a wide range of types of households one might want to figure out the most “adapted” user. Trying to do so especially the young households with open family planning can be regarded as an interesting target group: They have a high potential of influx and might then develop into acquisitive households or expanding family households, both with comparable high potentials of stability.

### 3.2 Preferences of residents

Particularly in the situation of a demand-side dominated market the preferences of residents can be regarded as a guideline for the refurbishment and development of the older inner-city apartment buildings stock. Beside the ‘address’ – quality of the local environment/neighbourhood – the following issues are in the centre of attention: properties of the apartment like size, layout and equipment and type and technical shape of the building itself. The survey showed that especially households with a high residential satisfaction reflect the properties of the neighbourhood as most important issue concerning their satisfaction (for general results: Figure 3). At the same time households less satisfied and intending to move to a high extend indicate deficiencies of the apartment and or building as the reason (Figure 4).

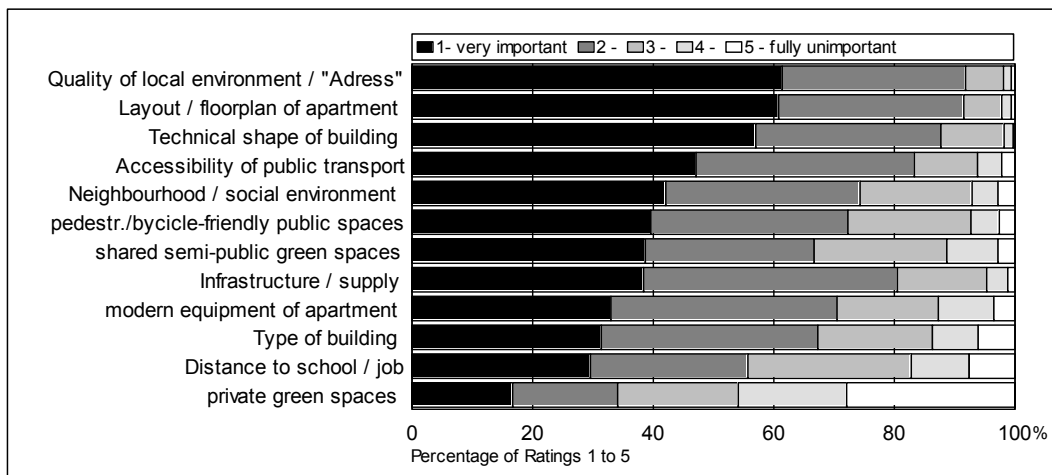


Figure 3: Importance of different characteristics of the housing-situation (all participants, [3])

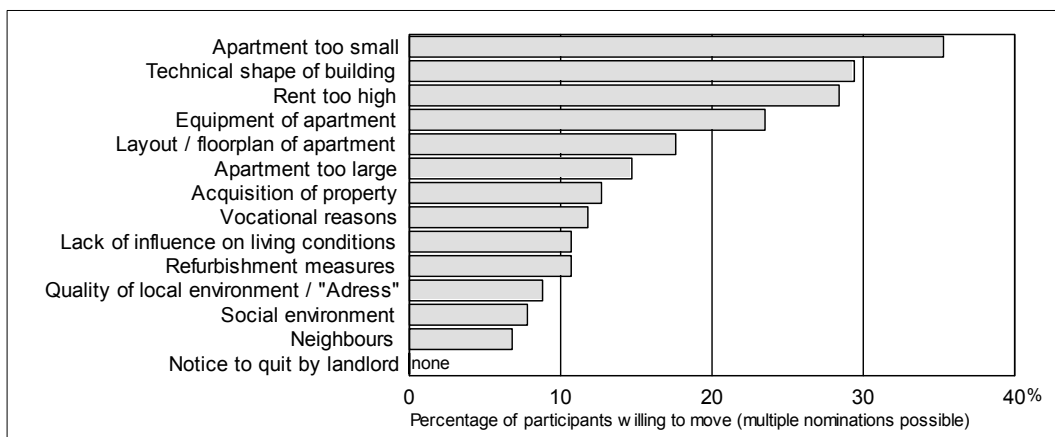


Figure 4: Reasons to move out of the apartment [3]

Analysing the different quality-types of buildings, the biggest group of households (around 30%) with representatives of all types of households (and all levels of income) lives in QT2-buildings. But even the lower QT5 and 6 are target of influx of new residents (Table 1).

Table 1: Housing-situation of households satisfied with their apartment by types of households [3]

| Types of households<br>- - well below average,<br>- below average,<br>o average,<br>+ above average,<br>++ well above average,<br>none = no households | Type of Quality / QT (E=Equipment of apartment, S=technical Shape of building) |                           |  |                                      |                             |  |
|--|--|---------------------------|--|--------------------------------------|-----------------------------|--|
|  | Very good E,<br>good S<br>QT 1   | Good E,<br>good S<br>QT 2 | Average E,<br>good/<br>average S<br>QT 3 | Good E,<br>average/<br>bad S<br>QT 4 | Average E,<br>bad S<br>QT 5 | simple E,<br>average/<br>bad S<br>QT 6 |
| All participating households   | -  | ++                        | o  | o                                    | o                           | -                                      |
| Young households with open family planning   | -  | ++                        | -  | --                                   | -                           | o                                      |
| Acquisitive households   | ++   | ++                        | o  | -                                    | none                        | none                                   |
| Retired households   | -  | ++                        | o  | +                                    | --                          | none                                   |
| Expanding family-households (with child(ren) below 6 years)  | o  | ++                        | -  | o                                    | --                          | --                                     |
| Consolidated family-households (all children 6 years and older)  | o  | ++                        | o  | o                                    | -                           | none                                   |
| Concluded family-households (all children 18 years and older)  | none   | ++                        | none                                     | none                                 | none                        | none                                   |
| Single-parent families   | none   | ++                        | ++                                       | none                                 | o                           | none                                   |
| Young apartment sharing communities  | none   | none                      | ++                                       | none                                 | o                           | none                                   |

Distinguishing quality of the apartments from quality of the buildings it can be observed, that in general a better equipment of the *apartment* comes along with higher residential satisfaction. Nevertheless also lower qualities of equipment are tolerated, in particular if accompanied by lower rent. At the same time a bad shape of the *building* more often leads to higher dissatisfaction and willingness to move out. Especially looking at the subgroup of “fully satisfied” households here the young households with open family planning again appear as an interesting target group. They are the user group that is able to arrange with a wide range of housing qualities. Beside an average share of households living in apartments with good equipment the fully satisfied representatives of this type distribute equally over all other quality-levels of equipment (very good, average and simple quality).

In this context it is a further interesting result that the restoration and refurbishment-measures prioritised by the residents differ from those that have already been carried out by the building owners (Table 2). It is thus understandable, that households, that had the chance to influence the refurbishment-process to a high degree show a higher satisfaction and a much lower tendency to move out of the apartment than others.

Table 2: The 10 most frequently carried out restoration and refurbishment-measures and those prioritised by inhabitants

| Measure already carried out / existing<br>(percentage of all participants) |         | Measure not yet carried out but desired<br>(percentage of participants were measure was not yet carried out) |         |
|--|---------|--|---------|
| Measure  | Percent | Measure  | Percent |
| Modernization heating system   | 67,8    | Increased insulation (windows)   | 70,5    |
| Toilet inside apartment  | 64,1    | Modernization heating system   | 67,0    |
| Bathroom with tiles  | 63,9    | Increased insulation (building)  | 62,4    |
| Intercom   | 59,3    | Increased noise protection (windows)   | 52,1    |
| Hot-Water-Supply   | 53,0    | Noise protection (surrounding apartments)  | 50,9    |
| Increased insulation (windows)   | 52,9    | Bicycle storage  | 47,8    |
| Kitchen with tiles   | 52,0    | Hot-Water-Supply   | 46,7    |
| Reinforced electric installation   | 50,3    | Reinforced electric installation   | 45,4    |
| Increased noise protection (windows)                                       | 44,7    | Intercom   | 44,2    |
| Bicycle storage  | 42,4    | Bathroom with tiles  | 40,0    |

A special section of the questionnaire dealt with health- and environment-related issues and measures. In general it can be said, that these issues do not yet play a major role with respect to the choice of an apartment. On the one hand 30% to 40% of the participants in general indicate that environmental or health-related issues were relevant for the decision. On the other in most cases these concerns were restricted to 'soft' issues like existence of urban green spaces and recreational areas, low traffic loads and silence in the neighbourhood. Issues of relevance furthermore were the use of (environmentally) sound paints and building materials, the natural lighting situation and the dryness of walls and absence of mould. Concerning possible environmentally responsible restoration and refurbishment-measures in particular energy-saving heating-systems, the use of solar energy for heating and warm water supply and the use of environmentally friendly building products in the interior were regarded as being desirable.

### **3.3 Unwanted social effects**

Dealing with processes of reuse, refurbishment and upgrading of older inner-city apartment blocks always brings about the question, to what extent unwanted social effects like gentrification, segregation or polarisation (small-scale segregation) might be provoked. For the types of neighbourhoods under investigation – with high rates of vacancy and in the general context of economic contraction – the development in deed is dominated by processes of abandonment and reoccupation. As already described above up to 70% of the residents moved in later than 1992. This means that with respect to unwanted social effects the process might rather be described as the (re-)development of a specific milieu than as an alteration of an existing one.

Unfortunately there is no data for the initial situation in the neighbourhoods before reuse and refurbishment processes started. Therefore indications of social changes were derived by comparing the groups of households that moved in before and after 1992. Compared were types of households and in particular education, income, age and vocational situation of household members. In general the results indicate, that relative to the needs to stabilise these neighbourhoods at all, concerns as regard unwanted social effects caused by refurbishment and (re-)development activities can be postponed. Nevertheless going into detail some indications of change can be observed for the different neighbourhoods and should be kept in mind for the evaluation of future developments.

#### **3.3.1 The heterogeneous area**

Among the households that moved in later than 1992 the share of households with members having an academic education is higher (above 40%) than among those that already live there longer (roughly 25%). This is an indication for a change of the social structure from a former workers quarter to a more academic profile. On the one hand this might be seen as a welcomed increase of social diversity but on the other also as a beginning gentrification-process. Regarding student-households as a "pioneer-group" for gentrification processes the latter interpretation is furthermore underpinned by the recognition, that also the share of households with members being a student is the highest among the three areas under investigation.

#### **3.3.2 The staid area**

The staid area stands for the type of areas, that is regarded as comparably unproblematic and stable at the moment. This is mirrored by the income situation. Although the share of high-income households (8% above 2500€/month) is the same as in the heterogeneous area, the staid area has the highest share of households with a high per capita income. 40% of the households here have a per capita income above 750€ while this rate is only 33% among all participating households. This reflects the high share of residential households with medium income (1250 – 2500€/month) of nearly 19% compared to only 15% among all participating households. So – beside the quite comfortable social situation today – with the

highest share and influx of retired households this type of areas might face processes of segregation by age in future.

### **3.3.3 The dynamic area**

Among the participating households within the dynamic area also indications for an increase of the share of households with academic profile are discernible. But different from the heterogeneous area, this means here a tendency towards homogenisation. The share of households with household members having an academic education was already above 50% among the households living there longer and is above 60% among the households that moved in later than 1992. At the same time the share of high income households today is more than twice as high as in the other areas (21%) although it is at a comparable level among the households that live there longer (11%). An interesting detail furthermore is the rate of households with double income but no children. Beside general indications for a growth of this group of households in all areas, in the dynamic area the "DINKI"-households ("Double Income, No Kids") hold a share of 67% of the households with double income that moved in later than 1992. This is nearly twice as high as the share in the other areas.

## **4. Conclusions**

The research showed that older inner-city Wilhelminian style apartment stocks in cities / regions with development problems nevertheless have a considerable potential for future development. Given an adequate (refurbishment-)quality these buildings are attractive for a wide range of user-groups and fit with different life styles and preferences. This includes the existence and use of buildings/apartments with lower quality standards although the main focus of interest lies on buildings of QT 2 (good equipment of the apartment and good shape of the building).

With respect to social effects of refurbishment processes indications for (eventually unwanted) processes of social changes were detected. Nevertheless in the view of more urging general development problems it can be stated as a final conclusion that such concerns can be postponed and existing potentials and ongoing development initiatives should be supported.

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