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**Chapter VIII****SOCIAL HOUSING DESIGN****A. Quality and standards**

1. The quality and standards of social housing are related to a range of fundamental requirements within national and local policies. They refer both to spatial planning issues and to the architectural design; at the same time they are closely linked to the planning and maintenance of technical and social infrastructures, as well as to health aspects. Moreover, in recent years, other topics have also been discussed within social housing frameworks – among them the challenges and opportunities produced by cultural diversities and different lifestyles in social housing areas, gender aspects in planning, ecology, energy consumption, and questions relating to management and maintenance. A number of countries have therefore developed more flexible planning tools, introducing, for example, market elements and competition procedures as well as experimental housing programmes in order to find new solutions.
2. Ownership of or control over land is crucial in the implementation of urban planning, especially of master plans for new (housing) areas and of related infrastructure. Some western European countries have developed quite sophisticated instruments either for the purchase of designated building land by public bodies (Austria, Italy and others) or to exercise strong control rights over building land in housing areas. Transition countries do not on the whole have such instruments, while countries from the Eastern European, Caucasus, and Central Asian region rely largely on low private ownership of land.
3. It is generally accepted that adequate spatial planning and architectural design contribute greatly to the sustainability of social housing and are important for the success of housing policies.<sup>1</sup> Not always, however, has social housing construction been developed within the framework of a city's overall urban planning strategy. This may be due to the marginal role which social housing has been given in some countries – especially in countries which have privatized most of their former public rental sector and have not yet introduced new social housing programmes on a significant scale, or to a lack of integrated administration procedures. The goal must therefore be to prevent urban development from becoming too diffuse or too monofunctional.
4. Spatial planning is more and more connected to social planning; those countries which have a longer and continuous tradition of social housing policies (such as the Scandinavian countries, Austria or the Netherlands) aim at using social housing as a way to foster social cohesion by spatial inclusion into larger housing areas. At the same time, the model of a “compact city” is strengthened to provide a better basis for social sustainability, to create more self-contained socially mixed urban communities, and to improve the mix of uses and the quality of community activities and services.<sup>2</sup> This emphasis on social and spatial integration becomes even more important when building for the most vulnerable groups (see, for example, the success of the Cyprus Government's housing estates for displaced families).

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<sup>1</sup> *Report of the workshop on social housing, Prague 2003, para. 23*

<sup>2</sup> *Report of the workshop on social housing, Prague 2003, para. 25*

5. The standard of social housing will always reflect specific national conditions; however, there is a general agreement among experts that social housing standards have to be similar at least to the average housing quality in the country, in order to avoid stigmatization and consequently social segregation, and also that social housing has to be placed among other residential buildings.<sup>3</sup> In other words: “A social rented sector designed for the poor will be poor by design”.<sup>4</sup> Generally, social housing qualities are today higher in northern European countries, and some countries reach almost exemplary standards: Denmark, the Netherlands, Luxemburg, Austria.<sup>5</sup>

6. Social inclusion in housing estates can be supported by the design and the layout of the immediate housing environment, by offering user-friendly shared indoor or outdoor spaces, and by communication areas. The immediate housing environment can also facilitate access for disabled persons or for parents with prams.<sup>6</sup>

7. Privacy is equally important; it is understood as a multidimensional phenomenon that supports social interaction and self-identity.<sup>7</sup> The layout and design of social housing can encourage personal control of accessibility and visibility with others, avoid conflicts between different groups of users, and reduce maintenance costs. “There is empirical evidence that controlled access to shared spaces and facilities, as well as visual overlooking of residents – “the community of the eye”- are likely to reduce littering, anti-social behaviour, damage to property, or theft.”<sup>8</sup>

8. Architecture plays an important role in achieving social cohesion, as a good design helps to prevent stigmatization of certain housing areas as has happened in many large housing estates all over the ECE region within the mass housing production of the 1960s and 1970s. Functional and architectural monotony can be avoided, and the overall image of a housing area can be improved, by a mix of different developers and/or different architects within one area, and by more competition (see chapter VII).

9. The architectural layout also greatly influences the feeling of security within large housing estates. Empirical studies show that social housing residents – particularly women – are very sensitive to problems of insufficient lighting or dark staircases or courtyards and so on, and that new “concepts of security can help to stabilize social housing areas”.<sup>9</sup> Identification and social control by residents are increased by the creation of smaller units or by dividing large estates into separate buildings – see, for example, new planning concepts for problematic housing estates at La Plaine de France<sup>10</sup> or at the Rennbahnweg Social Housing Estate, Vienna.

10. Quality of the architecture and standards of social housing can also greatly influence the integration of immigrants. “Situated at the limits of familial and societal space, the habitat is a determining place in the cultural adaptation process which an immigrant must go through in his

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<sup>3</sup> Lujanen 2003

<sup>4</sup> Priemus 2003

<sup>5</sup> Healy 2003

<sup>6</sup> Lawrence 2002, p. 65

<sup>7</sup> See, for example Halpern 1995, Lawrence 1987, McCarthy and Saegert 1978

<sup>8</sup> Lawrence 2002, p.62

<sup>9</sup> Frey 2002

<sup>10</sup> Conseil général de Seine-St.Denis 2003

host country”.<sup>11</sup> Social housing design must, however, respect cultural diversities and different lifestyles. Experience with housing projects focussing on integration – for example in Germany, the Netherlands, Austria – indicates the importance of flexible or open floor plans and of low-barrier communication areas. With immigrants from various cultures, separate meeting facilities for women can be an option, for example. Similarly, within apartments, non-defined “neutral” rooms allow for increasingly diverse lifestyles.

11. New forms of living and working under one roof are already acknowledged in many new social housing estates. These include, for example, special spaces for homeworking or separate rooms to be rented temporarily within the same building. Floor plans of existing social housing estates are being evaluated to respond to these new challenges.<sup>12</sup> New solutions include “smart homes” with new technical features which, in the case of social housing, may also contribute to close the “information gap”, that is, to provide access to new sources of information and communication for low-income and vulnerable groups.

12. Flexibility of floor plans may contribute to coping with future demands in housing. Such buildings have been built in several countries (for example, the Netherlands) since the 1960s, and are part of experimental programmes in various parts of the ECE region (see also chapter 9). Experiences show that flexible layouts may also help tenants to identify with their own living environment.

### **B. Health aspects**

13. Health considerations may be seen as one of the driving forces of the development of social housing in Europe. In fact, the fight against such illnesses as tuberculosis or cholera in the nineteenth century focused on the improvement of housing conditions as such epidemics were seen as a threat not only to the poor but to society as a whole.

14. Accordingly, to the WHO, health is “not merely the absence of disease and infirmity but a state of optimal physical, mental and social well being”.<sup>13</sup> Health is the result of the direct pathological effects of chemicals, some biological agents and radiation, and the influence of the physical, psychological and social dimensions of daily life. These dimensions can be considered in relation to the characteristics of housing units, the immediate housing environment, the residential building and the neighbourhood. These aspects are even more important in social housing as the poorer or more vulnerable households often have no alternatives to staying on their estate.

15. Health aspects – as focused on in the late nineteenth-century social housing programmes - have primarily included sanitation and natural lighting and the ventilation of rooms. Protection against noise has only been added later, mainly as a reaction to increasing car traffic (on the relation between noise and health:<sup>14</sup> while the quality of indoor climate can be seen as a new

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<sup>11</sup> *Pinson 1995*

<sup>12</sup> *Atelier Qualité 2000*

<sup>13</sup> *WHO 1946*

<sup>14</sup> See *Bonnefoy/Rodrigues, 2003*

challenge to be tackled both by technical solutions and by the education of residents.. But health in housing estates is also connected to the structural safety of buildings and to fire safety.<sup>15</sup>

16. Another potential threat to health is overcrowding, which has been shown to be linked to increased rates of various viral and bacterial affections.<sup>16</sup> Studies found the worst levels of overcrowding in countries of southern Europe, but even northern European countries show some higher percentages – more than 10 per cent - of overcrowded dwellings. Most social housing programmes aim therefore at reducing overcrowding rates, with the ideal of providing one room per person. Some countries – such as Austria – allow one more room for younger families, for example those with two adults aged under 35.

17. Damp walls or floors or insufficient heating are clearly potential health threats. Some 13 per cent of all European dwellings contain damp patches which are strongly associated with respiratory diseases.<sup>17</sup> Insufficient heating rates are even more alarming, reaching up to 74.4 per cent in Portugal (45 per cent in Greece, 55 per cent in Spain, 21 per cent in Italy;<sup>18</sup> while there are no comparable data available for a number of countries including ECCAA countries where the situation can be assumed to be even worse. While such “fuel poverty” is almost no problem in central and northern Europe, these countries have also made considerable efforts to reduce dampness, especially in larger housing estates. Social housing programmes have been used to replace old health-risky dwellings, giving residents of such buildings priority access to social (subsidized) housing.

18. Most social (or subsidized) housing estates include green spaces and open areas; their quality concerning maintenance and accessibility may, however, differ. This is closely connected to the quality and structure of the overall management, and to the degree of responsibility residents themselves feel – or are given - for their immediate housing environment. Some social housing programmes have therefore focused on integrating environmental improvement through relevant treatment of outdoor spaces and through stronger partnerships of all stakeholders – such as efficient cooperation with the tenants, which can avoid costs relating to vandalism. This has, for example, been successful in the requalification of large social housing estates in France.<sup>19</sup> It can also be used to establish or to improve children’s or youth playgrounds.

19. Most European countries are facing new challenges as a result of their ageing societies. While there is a general agreement to prevent, as far as possible, any kind of institutionalization, new solutions for care and for the provision of daily goods to senior residents, as well as for disabled persons, have come up. In the best examples these new solutions are being integrated into “normal” housing estates,<sup>20</sup> and home modifications are carried out - and are subsidized by the state for those who cannot afford them – in existing social housing (the “easy house”).<sup>21</sup>

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<sup>15</sup> See *ECE Compendium of Model Provisions for Building Regulations*, and the annual reports of the *World Fire Statistics Centre*

<sup>16</sup> *Healy 2003*

<sup>17</sup> *Healy 2003*

<sup>18</sup> See: *Healy 2003*

<sup>19</sup> *Déplace 2003*

<sup>20</sup> *Feuerstein 2002*

<sup>21</sup> *Braubach 2003, Como 2002*

20. Health monitoring and rating systems –for both the public and the private housing sectors – have been established in some countries, notably in the United Kingdom<sup>22</sup> and in France.<sup>23</sup> They may be seen as early warning systems for potential health risks and as indicators for public intervention, primarily in social housing estates.

### C. Ecological aspects and energy saving

21. Environment-friendly construction practices have grown dramatically over the last 20 to 30 years, with strong impacts on land use, coastal areas and water resources, forest resources, air pollution, and health hazards.<sup>24</sup> Such positive changes have always been accompanied by major public interventions (direct or indirect regulations), and they have been implemented or at least planned in connection with social housing.<sup>25</sup> Suggestions refer to the functional and spatial planning of sustainable neighbourhoods, with a special emphasis on central and eastern European countries.<sup>26</sup>

22. Environmentally-friendly planning strategies try to strike the right balance between the principles of the compact city with higher densities and shorter daily commuting distances and those of the green city.<sup>27</sup> There is also a clear connection between the urban form and the level of energy consumption; compact buildings with volumes of more than 6,000 cubic metres, with at least three floors and built within closed blocks, need significantly less energy for heating than any other type of building.<sup>28</sup> But energy consumption is also influenced by the thermal qualities of outer walls and roofs, by “thermal zoning” of different rooms, by solar architecture, by building techniques –for example, the regaining of heat from air ventilation, and by the right use of flats (heating, regular opening of windows and so on.). In the case of social housing, this requires sufficient information to all stakeholders, especially to the tenants.

23. Building regulations and subsidy conditions have greatly contributed to energy reduction in several countries. While “low energy buildings” have in many cases become the normal standard in new housing (as in Sweden, Finland, Germany, Austria) new solutions aim at the “passive house” (which needs no additional heating energy under normal circumstances). Such solutions are even more interesting in the case of low-income target groups in social housing where energy costs are often higher than the actual rental costs.

24. Where additional energy for heating is still needed, it is increasingly provided from renewable sources: solar energy, wind energy, natural soil heat, use of warm air from industry or even from the subway system (Vienna), hot thermal water, waste incineration, or timber.<sup>29</sup>

25. Social housing can act as a model for ecological, energy-saving construction as it is clearly connected to public regulations; that is, the State or city can bind its subsidies to conditions concerning the use of certain materials, to thermal qualities, to energy contracting

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<sup>22</sup> Ormandy 2002

<sup>23</sup> Bretin/Louis 2002

<sup>24</sup> Der-Petrossian 1999

<sup>25</sup> UN ECE Report on the Workshop on Social Housing, Prague 2003, Annex, para. 24

<sup>26</sup> UNECE Guidelines on sustainable human settlements planning and management 1996, p. 42

<sup>27</sup> Proceedings of the Workshop on Social Housing Prague 2003, para. 40

<sup>28</sup> Kleindienst/Kuzmich 1999, p. 25

<sup>29</sup> Ecological Building Practices in Europe 2001

models and so on. Such pilot projects within social housing have already been carried out or planned in a number of countries (among them Germany, Austria, France, Belarus, the Czech Republic, Ireland, Poland, Romania).<sup>30</sup> Pilot projects in European social housing include such experiments as car-free housing estates (Hamburg, Vienna and others). Vienna has also established rules for the recycling of left-over building materials and of wrapping materials, and has carried out experiments with the environmentally-friendly transport of building parts by inner-city trains.

26. New housing estates are more and more characterized by ecological optimization based on a set of indicators such as the Sustainable Process Indicator<sup>31</sup> which works along the lines of the “ecological footprint”. Such life-cycle aspects – including energy balances of building materials, repair cycles and so on - have been employed by social housing associations much more frequently than by private developers. At the same time, consumer information concepts include “building passports” or “energy passports” to provide future residents with appropriate comparable data on ecological qualities and energy consumption.

#### **D. Competition among developers**

27. Social housing has often been in a pioneering role, resulting in new standards in housing in general. This can be shown by such developments as the English garden city movement, the buildings of the Amsterdam school in the Netherlands, the housing estates from the 1920s in cities like Berlin, Frankfurt or Vienna, the HLM estates in France, or the social housing estates in post-war Sweden and Finland. New building methods were in many countries closely connected to social housing programmes, and in most cases this meant more than simply building a large number of individual dwellings, such estates being planned together with public infrastructure and communal facilities, and within an overall urban concept.

28. On the other hand, quality has been insufficient in those cases where social housing was left to monopolistic types of developers or where public regulations were too tight. This has often resulted in high construction costs while it has also hampered the development of innovative and flexible solutions to cope with new challenges. Consequently, such social housing estates have received a poor image, and “solutions” have been sought in the abolition of social housing as a whole.

29. Today, the introduction of certain market elements into social housing development and construction is widely seen as a means to achieve flexible and more diverse solutions. The aim is to promote the competition between developers which originally emerged in the home-ownership sector and has been taken over by Governments within their public management reform efforts. This has clearly been the case in the United Kingdom<sup>32</sup> with extended compulsory competitive tendering procedures. Other countries have introduced such forms of quality competition for public subsidies without changing their social housing policies as a whole.

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<sup>30</sup> See: *Questionnaires to the Prague Workshop on Social Housing 2003*

<sup>31</sup> SPT, see: *Krotschek/Narodoslawsky 1996*

<sup>32</sup> *Walker 2003*

30. Example: Housing developers competitions in Vienna, Austria: in 1996, Vienna introduced compulsory competitions in all cases of subsidized new housing. Since then an interdisciplinary jury, consisting of independent experts (with the city itself in a minority role), has been judging each project along three sets of criteria: planning qualities, ecology and costs, the latter including cost guarantees by the developer concerning future rent levels and future maintenance costs. These competitions have led to a significant increase in quality while reducing construction costs by almost 15 per cent. This experience can be seen as a successful way of introducing market elements into a social housing system.

31. Experiences in all western European countries show that it is essential to divide the roles of developers and constructors; that is, developers normally do not have their own construction units but choose the architects and the construction companies according to compulsory public bidding procedures. This results in a network of different actors with different responsibilities: developers, constructors, local administration and so on.

32. Parallel with such regular competition procedures, special competitions have been announced within national or European experimental programmes. These include, for example, the Danish "Ecohouse '99" project with its innovative indicator system and several EU programmes aiming at increased transnational competition within the housing construction sector.

### **E. Conclusions**

33. The quality and standards of social housing refer both to spatial planning and to the architectural design. Social housing construction has to be seen within the framework of a city's overall urban planning strategy. As spatial planning is more and more connected to social planning, those countries which have a longer and continuous tradition of social housing policies aim at using social housing as a way to foster social cohesion by spatial inclusion into larger housing areas. The implementation of spatial planning on the scale of masterplans and of related infrastructure requires appropriate instruments of public ownership and/or control of designated building land, which have been developed by a number of ECE countries.

34. Architecture plays an important role in creating good housing areas. Monotony can be avoided by a mix of different developers and/or architects within large housing areas.

35. The standard of social housing will always reflect specific national conditions; however, experience all over the region indicates that social housing standards have to be at least similar to the average housing quality in a country, in order to avoid stigmatization and social segregation. In most countries social housing is therefore placed among other residential buildings.

36. The architectural layout very much influences the feeling of security within housing estates; it can therefore help to increase residents' identification with their housing environment and to decrease vandalism and related costs. Standards of social housing can also greatly support the integration of immigrants and of other vulnerable groups.

37. Health considerations may be seen as having been one behind the driving forces behind the development of social housing in the past, including sanitation, ventilation of rooms and

noise protection, but also structural safety and the fire safety of buildings. Health is also connected to sufficient green areas and open spaces, the quality of which is closely connected to the quality and structure of the overall management of housing estates. Stronger partnerships between all stakeholders, such as efficient cooperation with tenants, can help to reduce costs relating to negligence or vandalism.

38. Most European countries are facing new challenges as a result of ageing societies. In order to avoid institutionalization of aged or disabled persons, new solutions are being developed for care and for the provision of daily goods, especially in social housing estates.

39. Social housing can act as a model for ecological, energy-saving construction as it is closely connected to public regulations. Therefore, new social housing estates all over Europe include pilot projects aiming at “ecological optimization” in construction and maintenance.

40. Social housing has often been in a pioneering role, resulting in new standards in housing in general. New building methods have been closely connected to many social housing programmes, and in most cases this has meant and means more than simply building a large number of individual dwellings, such estates being planned together with public infrastructure and communal facilities, and within an overall urban concept.

41. The introduction of certain market elements into social housing construction is focusing on more flexible and more diverse solutions, for example by promoting stronger competition between social housing developers. Experience in many countries shows that it is particularly essential to divide the roles of developers and constructors, resulting in a network of different actors with their own responsibilities: developers, constructors, local authorities and so on.

## **F. Recommendations**

### **1. Quality and standards**

(a) Social housing should be developed within the framework of a city’s overall urban planning in order to avoid diffuse or monofunctional urban areas. Appropriate instruments to foster public ownership of, or control over, designated building land should be developed.

(b) Diversity of architecture should be encouraged by a mixture of different developers and/or architects within large housing areas.

(c) Social housing should be used as a way to foster diversity and social cohesion in urban areas by spatial inclusion into larger housing areas. Social housing should therefore be placed among other residential buildings or even integrated into the same buildings.

(d) The standards of social housing estates should not be lower than at least the average housing standards in a country, to avoid stigmatization and social segregation.

(e) User-friendly shared indoor or outdoor spaces should be part of such housing schemes, in order to provide communication areas for residents.

(f) Identification and social control by residents should be facilitated by appropriate planning to increase the feeling of security and responsibility, and to decrease maintenance costs.

(g) Social housing should be used as a means of integrating immigrants but it should also respect cultural diversities and different lifestyles. This can, for example, be achieved by means of flexible floor plans and low-barrier communication areas.

(h) Homeworking should be supported by the layout of housing estates, and new technical features should be used to supply vulnerable groups with efficient access to information.

## 2. Health aspects

(a) Health aspects should be considered in all stages of planning, making use of existing sources such as the ECE Compendium of Model Provisions for Building Regulations.

(b) Residents of old health-risky dwellings should be given priority access to social housing.

(c) Environmental improvement in the immediate housing area should be enforced through relevant treatment of outdoor spaces and through stronger cooperation with all stakeholders, particularly with residents.

(d) The challenge of ageing societies should lead to new integrative solutions for care and for provision of daily goods instead of any form of institutionalization of aged or disabled persons.

(e) Health monitoring and rating systems should be applied to all forms of social housing.

## 3. Ecology

(a) Social housing should be regarded as a model for ecological, energy-saving construction which can be strongly influenced by public regulation.

(b) Energy consumption should be much reduced by appropriate building techniques, by “thermal zoning” of rooms, by the planning of compact buildings, and by sufficient information to all stakeholders.

(c) As far as it is still needed, energy should come primarily from renewable sources.

(d) Social housing estates should be characterized by ecological optimization based on clear indicators, and consumers should be given comprehensive information about ecological qualities and energy consumption.

**4. Competition among developers**

(a) Monopolistic structures in social housing development should be replaced by new forms of competition. The introduction of market elements into social housing development should therefore promote competition between developers, with compulsory competitive tendering procedures.

(b) Public regulations should be reconsidered with an eye to higher flexibility in order to achieve innovative solutions and to reduce construction costs.

(c) The roles of developers and constructors should be divided, resulting in a network of different actors with different responsibilities.