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The renewal of what was tomorrow's idealistic city. Amsterdam's Bijlmermeer high-rise

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One of the finest and best-known examples of a CIAM-planned area is the Bijlmermeer in Amsterdam, one of Europe's leading examples of high-rise estates. Over the years, the Bijlmermeer has been a shining example of the high expectations and ideas of CIAM-planning, the disappointment, problems and stigma of numerous improvement trials and nowadays of a radical redesign and integrated approach. This paper describes and analyses developments in the Bijlmermeer and places them within an international and historical context. The aim of the paper is to show how negative developments strengthened each other and how the early improvements were not sufficient. Nowadays, drastic renewal is taking place, with overall promising results, although there are still major problems. The paper will show that the present policy in the Bijlmermeer goes further than possibly any other measure in the world. As a consequence, there is only a marginal future left for high-rises in the Bijlmermeer. The paper will also show what conditions support the success in the Bijlmermeer: connecting the area within the region, an integrative approach, no fear of radical solutions, financial support and the participation of inhabitants.

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Introduction

In recent years, there has been a growing interest all over the world in improving the large-scale housing estates of the 1960s and 1970s. Despite historical variations in economical development, housing policy and social-cultural traditions, the kind of problems are very much the same across different countries around the world. High-rise estates are associated with problematic living conditions, deprived areas, isolated locations, a poor population, a negative image, social isolation, pollution and crime (Turkington *et al.*, forthcoming; Krantz *et al.*, 1999: p.1). In short: they

are not the most popular areas in town. One of the finest and most well-known examples is the Bijlmermeer high-rise, located in the south-east extension of Amsterdam in The Netherlands. Over the years there has been only one thing constant in this area: the ongoing call for change (Luijten, 2002). In the beginning, in the 1960s, the area was promoted as the most modern place to live, with its daring and innovative design influenced by the ideas of the CIAM-movement ("Congrès Internationaux d'Architecture Moderne"). Later on, the area became well known for its numerous problems. The media found it easy to report time after time about disappointed residents, pollution, drugs, crime and other misery. Since the 1980s, the Bijlmermeer has continuously received attention because of a wide range of innovative meas-

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ures and promising experiments to improve the living conditions. Nowadays, the Bijlmermeer is in the lime-light because of an integral, very radical solution. After thirty years of being the most impressive, expensive and largest example of modern housing it is now the most impressive, expensive and largest renewal area in the Netherlands. The Bijlmermeer probably is the most discussed area in the whole country. The developments, the solutions and the experiences are significant from both a city and national point of view.

This paper reports on the approaches used to improve this famous high-rise estate over the last 30 years. We distinguish several phases: upgrading the environment, improving the management, fighting crime and safety, setting up participation projects and formulating integral approaches. The last phase will result in demolition on a large scale. The Bijlmermeer is renewing its own future and stands out as *the* leading example of Dutch renewal policy, not only because of the size of the operation, but primarily because of its integral approach. The question can be asked whether other high-rise estates around the world will be renewed as radically as the Bijlmermeer? Will the exponent of tomorrow's idealistic city become history? Without doubt the solutions and experiences in the Bijlmermeer provide ideas and useful knowledge for many other problematic large-scale housing estates.

The article starts with a short introduction to the emergence and ideas of high-rise estates in European countries like the Netherlands. After that, we describe the origins, the problems, the former solutions and continuous improvements and the most recent renewal developments in the Bijlmermeer. We then analyse the shift in renewal approaches and, before ending the article with some concluding remarks, we analyse the conditions behind the ongoing renewal, which appears to be successful.

The rise of high-rise estates

Between 1960 and the mid-1970s high-rise buildings were constructed in all western countries. Peak productions in housing were reached during this period, with a significant part in high-rise. The high-rise wave was an answer to the enormous housing shortages, especially in cities, in most European countries. There are numerous reasons for these shortages: the Second World War (a freeze on new building, war damage and lack of materials), poor housing quality, the internal migration to cities and in later years international labour-motivated migration and the continuing decrease in the average number of persons per dwelling. During the 1950s, reducing the housing scarcity was given highest priority in all countries. The State played an important role in organising and financing new initiatives. However, despite all the political priorities and efforts, housing shortages still

persisted in most countries at the beginning of the 1960s.

As far as we know, there has never been a period in house building in which the similarities between countries have been as great. High-rise estates dominated the building in this era, and these years proved to be the time of peak housing production in the Netherlands and many other European countries. [Fig. 1](#) illustrates the Dutch high-rise wave, that started around 1965 and disappeared ten years later as quickly as it had appeared. In countries like France, Sweden, Germany, Britain and the Netherlands the majority was built as public housing. Housing production had to be optimised by reducing the variation in dwelling types, repetition of construction patterns and using new construction techniques.

Besides the shortage argument, high-rise housing should be seen as the result of a period in which planners and politicians aimed to build in the tradition of the CIAM movement philosophy. This group of European architects, with the Swiss architect Le Corbusier (1887–1965) as leader, met between 1928 and 1959 to work out modern ideas about architecture. In the ideas of these modern architects, high-rise served as a potent symbol of a 'new architecture for new people' in a modern age of multi-family living, communal facilities and social equality. The modern architect had the task of supporting and creating a new, modern, and egalitarian society, where everybody was equal. In the eyes of architects, town planners and civil servants, high-rise was the symbol for this modern society. The following design principles played a central role (Mentzel, 1990: p. 369): repetition, regularity, symmetry; the separation of functions; the use of open blocks; uniformity, straight lines; the large-scale nature of housing blocks and open spaces; the use of modern materials and building methods; the provision of communal facilities. Another feature is the location: almost always on the outskirts of town, away from the city centre and amidst industry, railway lines and highways, though carefully separated from these functions ([Turkington et al., forthcoming](#)). A last characteristic was the production process—quicker, cheaper and more efficient. High-rise with prefabricated components, standardisation and rationalisation of the building process did fulfil all these aspects. This resulted in a factory-like working style. Le Corbusier compared the production of houses in 1921 with the production of cars (the Model T Fords), and argued for standardised and industrialised housing units in series ([Hilpert, 1978: p. 27](#)). Applying industrial methods significantly reduced the average time taken to produce a dwelling, in France, for example, by two-thirds ([Power, 1993: p. 47](#)).

The Bijlmermeer: the idea

As in other countries in Europe many high-rise apartment buildings have been built in the Netherlands

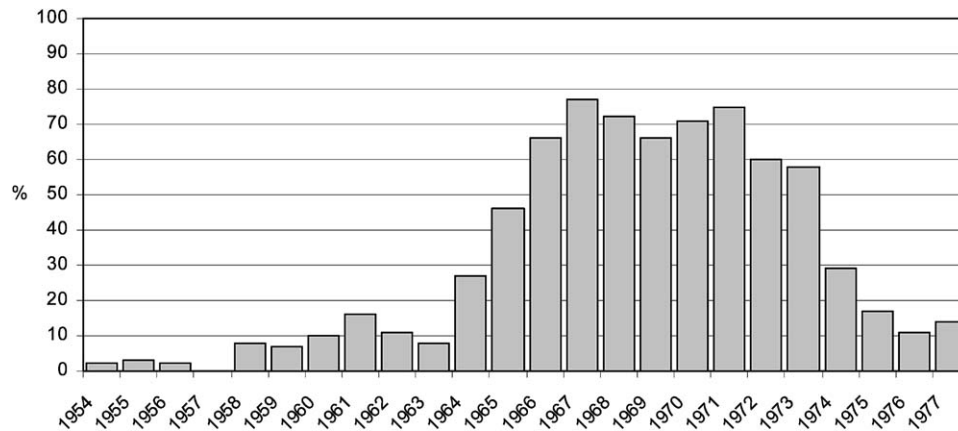


Figure 1 The high-rise wave in the Netherlands: dwellings in high-rise (over five storeys) as a percentage of all social sector flats.

since the mid-1960s, the Bijlmermeer being the most extreme case and most well-known. It was built in response to the enormous housing shortage in the Netherlands as a whole and Amsterdam in particular, to create “a modern city where the people of today can find the residential environment of tomorrow”, as the information folder announced in 1968. Between 1968 and 1975, 13,000 dwellings in 31 very large blocks (300–500 dwellings each!) were built, each 10 storeys high and 200–300 meters long. The balcony access apartments were laid out in a honeycomb pattern, as previously built in Park Hill, Sheffield and Toulouse-Mirail near Paris. About 90 percent of the area consisted of high-rise. All of the ideas of Le Corbusier and the CIAM on modern living were applied: separation of functions (living, working, recreation), a great deal of space between the apartment blocks, large-scale park-like landscapes, parking garages and separation of traffic flows by an orthogonal system of raised main roads (three meters above ground level).

Contrary to the long-term process of individualisation of home life, the Bijlmermeer Plan emphasised collectivity (Mentzel, 1990: p. 365). The designers imagined that the new social spaces would compensate for the limitations of high-rise living. Covered walks linking buildings would be lined with shops and recreate the feel of traditional streets. Using communal facilities would encourage neighbourliness and collective life (Blair & Hulsbergen, 1993: p. 284). The dwellings themselves were, and in some respects still are, of high quality: large floor space, luxurious sanitary facilities, central heating and their own store-room. Most of the dwellings are in the social rented sector, though definitely not in its least expensive segments. The aim of the planners was to attract households with children and a middle-income, because the city of Amsterdam already had enough dwellings for low income groups.

The Bijlmermeer: three groups of problems

With the urban design philosophy of the thirties and the techniques of 1965 ‘the city of the year 2000’ was built in seven years. However, soon after its realisation problems began and multiplied in the following decades. All these ‘troubles in Amsterdam’s high-rise paradise’ are described in Van Kempen and Wassenberg (1996). Verhagen (1987) gives a colourful description of the situation in the mid 1980s, describing early protests against the then high rents, the deviant behaviour of some residents, the negative image building in the media, the mix of cultures, the first black town in the country and the policy changes that led to the start of building new single family houses nearby.

We divide the problems into three groups of connected issues. First of all, there is the unfinished character of the district. A lot of ideas and planned facilities, like stores and spaces for sport and recreation were not realised because of lack of finances, this despite a plea from the neighbourhood association for the promised amenities to be realised (Wijkopbouworgaan, 1980). Research has shown that the absence of such amenities can be a great stain on a neighbourhood (Greenberg, 1999: p. 604). Other facilities, like public transport, were realised too late. The Bijlmermeer became, instead of a city district with the appropriate level of facilities, a satellite town of Amsterdam without good transport links to the centre of the municipality (Luijten, 1997: p. 17).

The second category of problems is the enormous liveability-problems in the Bijlmermeer. It became clear very quickly that the normal process for managing the stock was not sufficient for high-rise blocks. The numerous uncontrollable semi-public and collective spaces like entrees, alleys, corridors, 13,000 storage spaces on the ground level, 110 kilometres of galleries and 31 parking garages turned out to be blind

spots rather than cosy places where people could meet each other. Because the flats were in the hands of 16 different housing associations, all based in downtown Amsterdam, management was chaotic. [Kwekkeboom \(2002: p. 78\)](#) states: "Each of the buildings has got over 400 apartments, contain thousands of square metres of public and semi-public space, and elevator and intercom unlocking systems that require constant maintenance. Because the buildings were almost built in the same period, they all began to show signs of wear at the same time. The rubbish collection system is laborious, and some residents had the inclination to dispose of garbage bags in the quickest manner, by 'air mailing' them over the balcony." In 1972 Oscar Newman visited the Bijlmermeer ([Newman, 1972](#)) and blamed the problems on the numerous indefensible spaces in and around the high-rise estates, where 'eyes on the street' were missing (in [Wijkopbouworgaan, 1980, p. 30](#)). No one was willing to assume responsibility for the large tracts of public green space, which had been laid out in such a way that any form of surveillance was impossible ([Luijten, 1997: p. 17](#)). Alice Coleman worked out Newman's ideas in her famous book 'Utopia on trial', in which she states that a wrong design was the main cause for all the problems. Ideals in housing and living environment (Utopia) were based on the ideas of Le Corbusier and the CIAM movement as the base behind many high-rise estates ([Coleman, 1985](#)).

Surveys held among residents uncover the most important grievances: pollution, degradation, vandalism and lack of safety. Almost 80% of all residents mention these aspects as the main problems ([Helleman & Wassenberg, 2001: p. 36](#)). [Greenberg shows \(1999: p. 619\)](#) that crime and physical deterioration are the most critical factors associated with poor neighbourhood quality. Adding, for example, more public services and recreational opportunities are important, but, as the study shows, will not succeed unless crime is halted and physical decay is stopped.

The third group of problems refers to the housing market. Demand and supply did not match properly. Even during the construction of the flats there was insufficient demand for them ([Kwekkeboom, 2002](#)). The intended inhabitants, middle-class families, preferred other towns around Amsterdam where single-family houses with gardens were built. Many new inhabitants in the Bijlmermeer moved on to these areas, and others decided not to come at all. Socio-economic factors, like increased incomes, more free time and mobility, led to a process of individualisation which did not go hand-in-hand with the collective living of the Bijlmermeer ([Blair & Hulsbergen, 1993: p. 286](#)). In 1974, the turnover rate was 30 per cent. The pressure of the housing market meant that new residents were initially found, but it was clear that many people did not favour high-rise. Letting the flats become a severe problem, which was thought unthinkable in a period when the housing shortage

was at the top of the national political agenda. The Amsterdam area was one of the tightest housing markets in the country, but obviously not in the Bijlmermeer!

As a result dwellings were allocated to people with less choice, who did not want to wait long and accepted the Bijlmermeer as second best. They were mostly starters in the housing market, with low incomes, different facility wishes and for example no cars (leading to empty parking garages). From the late 1970s, the gap between supply and demand was closed by rentals to poorly-housed, low-paid workers, needy social groups and immigrant ethnic minorities.¹ The Bijlmermeer became more and more a single-class, low-income and unemployed, ethnically diverse and increasingly non-white urban enclave ([Blair & Hulsbergen, 1993: p. 287](#)).

In short, to summarise, a lot of the planner's ideals changed into disadvantages. Privacy became anonymity, the collective and egalitarian ideas did not catch on, the advantages of traffic security turned into disadvantages of social insecurity, parking garages were hardly used and instead of friendly meetings in the covered walks and hallways, the numerous semi-public spaces were filled with litter, drugs-dealers and homeless people. The Bijlmermeer changed from a citadel of modernism to that of a problem estate, a place of poverty, of aliens and illegal immigrants, petty crime, unemployment, with a high incidence of truancy and drug abuse ([Blair & Hulsbergen, 1993: p. 289](#)). Thanks to all this and the negative stories in the media the image of the Bijlmermeer got worse every year. As a matter of course, this did not help to solve the vacancy problem and led to a critical financial situation.

The Bijlmermeer: early solutions

Many solutions were tried. The first one was to stop building new high-rise. Originally, another Bijlmermeer-south was planned, later replaced by a single-family housing area which 'emptied' the old Bijlmermeer. In 1983, as a reaction to all of the occurring and growing problems, a rehabilitation program was drawn up. The aim was to adapt and to improve the existing spatial concept. At the beginning of the 1980s the Bijlmermeer started to become less isolated when the metro was realised. Public services like a sports hall, indoor swimming pool, police station and mosque were built and at the end of the 1980s a big shopping centre was completed. Management was consolidated into one large housing association called New Amsterdam, rather than being dispersed over 15 different associations (one refused to join). Rents were reduced and people were given free use of the

¹In 1975, before Suriname, the former colony of the Netherlands, became independent, thousands of Surinami people moved into vacant dwellings in the Bijlmermeer. Nowadays, they still form the largest group in the area.

parking garages. Structural improvements were made on the buildings. Entrances and the immediate surroundings were improved, covered walks between parking garage and flat were closed, extra elevators and security cameras were installed, the buildings were colour painted, storerooms were closed or transformed into houses with a garden and some of the dwellings were divided up into smaller homes to meet the demand for single-person and two-person households (van Kempen and Wassenberg, 1996; Luijten, 1997; Kwekkeboom, 2002). Assistance for and welcoming of new inhabitants was initiated as well as other social actions, such as co-operation between the maintenance-team and the inhabitants, were started. Employees of the housing organisation say that "all thinkable measures have been tried and tested in the area". Regrettably, without great success.

During the 1980s vacancies rose again, and in 1985 around 25% of the apartments were unoccupied. These high turnover rates and the level of vacancy led to a critical financial situation of the housing association. It also destroyed or even prevented the existence of sustainable social structures.

Urban renewal in the 90's

Despite all the efforts the dwellings remained unpopular and the liveability problems were not resolved. Extra maintenance, surveillance, manpower, management, participation and control could not match the huge scale of the area, individual housing preferences and the behaviour of some of the inhabitants. The Bijlmermeer was unable to gain a respectable position in Amsterdam's regional housing market. Worse still, the new consolidated housing association had run up so much debt that it was close to bankruptcy, along with its guarantor, the municipality of Amsterdam (Housing Department Amsterdam, 1987). After years of debate, maintenance experiments, adaptations and partial solutions, it became clear that the urban concept had to change structurally. The Bijlmermeer's physical layout was considered to be a fundamental mistake in urban design: too massive, with too much high-rise and especially having too little differentiation in the housing stock. Only one dwelling type was available: a high-rise rented apartment.

As an answer to this monotony, radical plans were introduced in 1990 and worked out in 1992. Step by step, these plans are still being realised. The plans included the demolition of a quarter of the housing stock, another quarter sold and the remaining part improved or upgraded, while new types of houses were planned, including owner-occupied low-rise dwellings. Previously, inhabitants who wanted a single-family dwelling were forced to move out of the Bijlmermeer. Improvements in the residential environment should encourage present inhabitants to stay and offer a housing career in their own neighbourhood, as well as attracting newcomers. With this

differentiation of living forms and ownership categories, the renewal parties intend to differentiate the population structure and to stop the ongoing concentration of poverty.

Improvement and differentiation of the urban environment was also included in the plans. The lack of facilities and liveability problems are part of the environment, as we have already shown. Thus, following the plans, more functions are being introduced into the living area, like small shops and firms. Parks between the blocks have been, for safety reasons, cleared of bushes, leaving only trees and greens, easy to look through and hard to hide in. The separation of traffic, one of the basic principles of the Bijlmermeer layout, has been mostly changed, by lowering the dike roads to ground level and mixing motorised and non-motorised traffic. The argument of social safety wins over traffic safety. Most of the 31 large parking garages have been demolished or converted into other functions, while in some blocks parking fields are created next to the block.

Besides the physical renewal the plans are supplemented with both social-economic measures and an intensification of the maintenance to improve liveability. All three elements are important. The Bijlmermeer can be considered as the precursor and the spearhead of Dutch renewal policy, which targets a diverse urban population by transforming the housing stock from the social rented sector to a mixed housing stock. Where traditional urban policy was predominantly concerned with housing issues, the new policy also has goals concerning the social and social-economic position of the residents (see Priemus & van Kempen, 1999, p. 404). Social renewal in the Bijlmermeer is strongly focused on job creation. For example an employment advice bureau has been established, there is education for adults, ethnic entrepreneurship is encouraged and the unemployed are involved in the building activities. Other social interventions support multicultural activities and religious celebrations.

The third element in the plans is to improve safety and liveability and reduce degradation and vandalism. There are watchmen to patrol the buildings and daily management tasks on site. While these measures increase safety, it also helps to combat unemployment. Police patrols in the Bijlmermeer were intensified because of a national redistribution of police forces in favour of the big cities. Measures were taken to reduce pollution by introducing an outdoor underground garbage collecting system, instead of the stinking containers in the 'internal streets' within the blocks. And several participation projects were carried out to involve people in their own living environment.

It is also worth mentioning that the relative location of the Bijlmermeer itself has changed radically. In many European cities, large housing estates were planned far out of town on cheap land available in large quantities and the Bijlmermeer was no exception. In the first years, living in the Bijlmermeer meant

living far away from the rest of the world, hardly connected by public transport and far away from shops, work and leisure. However, since the mid 1980s, various facilities have been opened close by: a metro line to the city, a new stadium for Ajax football club and large cinemas and theatres. This whole area is called the 'Amsterdam ArenA'. One of the most expensive office areas in the Netherlands was built just opposite the railway station. All these positive developments nearby have helped to rebuild the image of the Bijlmermeer, provide demand for extra housing and create a lot of jobs at all levels. In fact, the location of the Bijlmermeer has changed from an isolated 'satellite of a core city' into a national hot spot, the 'core of a network city' (Kloos, 1997: p. 71).

In 1999, after the first years of renewal, a broad evaluation took place (Ouwehand, 1999). The question arose of whether the physical renewal should be intensified, whether more high-rise dwellings should be demolished, renovated, sold or refurbished.

Listening to the people

These new plans are made in close consultation with the residents. In 2001 a large questionnaire was conducted in the areas to be renewed researching which physical renewal measures residents supported (Fig. 2: Helleman and Wassenberg, 2001). The response rate was extremely high (77%), with more than 3500 households participating, 79% of whom were born outside the Netherlands and represented 81 different nationalities. At present, about 40% of the population comes from Surinam and the Netherlands Antilles, another 40% from other countries, particularly West Africa, and only 20% have Dutch roots.

The results were remarkable, with almost 70% of the inhabitants agreeing that it is 'a good idea' to demolish one or more of the remaining high-rise blocks. The respondents visualise the demolition of the whole building rather than just part of it. Even when it includes their own house, 60% still support demolition! Renovation and the sale of dwellings are less desirable options, but still over 40% support the idea to sell some flats.

Why are the inhabitants in favour of demolition? Firstly, there is the disappointment with the current situation. In spite of all the renewal efforts, problems still exist. The survey confirms the assumption that the inhabitants blame the concept of the high-rise estate. Almost half of the inhabitants are content with the dwelling itself, for example because of the size, but only a quarter is happy living in a high-rise estate with all the afore-mentioned problems.

Another explanation is the benefits for inhabitants when their house is demolished. For example, present inhabitants of the high-rise blocks are given preference for the newly built houses in the Bijlmermeer. If they prefer to leave the Bijlmermeer, they are given high priority to choose from almost every vacant dwelling in Amsterdam, suitable to their type of household, instead of waiting years for vacant social dwellings. For many this is a great opportunity. Moreover, in the Bijlmermeer, as in the Netherlands in general, residents who are forced to move because of demolition receive compensation for their relocation costs, which varies between €3000 and €4500. Many people consider demolition more of an opportunity than a disadvantage. People can, which some already wanted, move out of the Bijlmermeer and even receive some money or get a new dwelling of a type they prefer. The rents of the new houses are comparable to the present high-rise flats, which are still above the average rents for social housing in the city. If their new house is more expensive, the Dutch rent subsidy compensates for it.² Research in the Netherlands supports this explanation (Kleinhans and Kruythoff, 2002), showing that many movers were able to take advantage of their priority status. Their certificate of urgency gives them a head start over regular house-hunters and, as a consequence, the majority of relocated residents improved their housing situation.

²Depending on the household composition, the age, their taxable income and the rent people can receive a contribution to the housing costs via the rent subsidy (rental allowance). The aim of the rent subsidy is to enable people on a low income to live in a dwelling of good quality. In this way the mixing of income groups at neighborhood level is achieved (Ouwehand & van Daalen, 2002: p. 44).

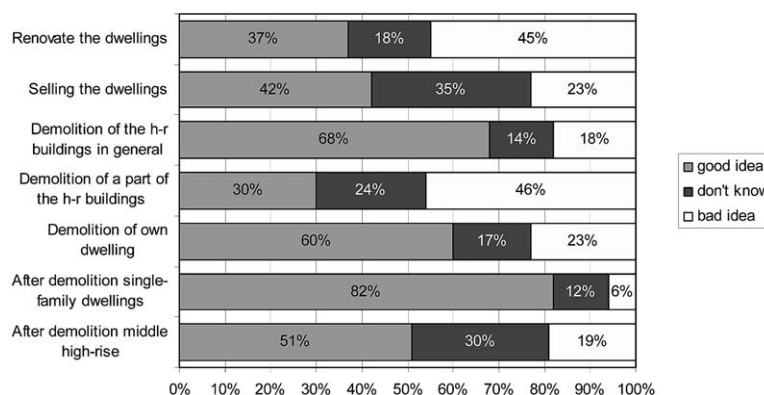


Figure 2 Opinion about the physical renewal per measure (in percent). Source: Helleman & Wassenberg, 2001.

A third reason to support demolition is the great success of the new housing developments in the 1990s. Because of the popularity of the new houses, renovating the old high-rise blocks has become a much less attractive solution. A comparison of the 2001 survey with two similar earlier surveys in the Bijlmermeer confirms this view. In 1995 a survey was carried out among inhabitants of three blocks in the so-called F-neighbourhood (one of the first renewal projects) and in 1999 a similar, but smaller survey was carried out in two buildings (Grunder and Grubbehoeve). Although the surveys did not involve the same respondents, it is possible to distinguish a pattern (Table 1). A growing number of people dislike renovation and support demolition and new building. The 2001 survey supports this conclusion.

Urban renewal in 21st century

After the evaluation and the resident survey, in 2002 the 'Final Plan of Approach' was approved for the urban renewal of the Bijlmermeer for the period until 2010. It is called the 'final approach' because it concerns the last areas in the Bijlmermeer not physically renewed yet. The Final Plan agrees with the residents' opinions, as researched in the survey mentioned above. According to their preferences, more differentiation is needed, and, indeed, almost 70% of the thirteen remaining high-rise blocks will be demolished and replaced with new buildings.

The total investment—the investments in the

ArenA area not included—is over €1.6 billion. About €450 million of this investment will produce no returns, which is about €35,000 per household. This includes all physical and management costs and not the social and economic measures. Of this, almost 50% is contributed by the City of Amsterdam and over 50% by the housing corporation sector, primarily by the Central Fund for Housing (Kwekkeboom, 2002: p. 79). The latter is a national public housing fund, paid by all housing associations and therefore by all tenants of social housing (see Ouweland & van Daalen, 2002: p.84). The renewal is also supported by a grant from the European Communities URBAN fund for related social-economical measures.

Fig. 3 shows at the top the situation in 1992, before any plan was started and below in 2010, after the whole Masterplan has been carried out. It is easy to see that little will remain of the characteristic honeycomb structure of the large blocks that were built. After the renewal of the Bijlmermeer is finished, more than half of the original high-rise blocks will have disappeared and been replaced by low-rise apartments and single family dwellings (Table 2).

Although 15,000 dwellings per year (of the total dwelling stock of 6.6 million) are being demolished in the Netherlands, the revitalisation of the Bijlmermeer is the largest Dutch restructuring project so far. Only in Hoogvliet, a satellite city of Rotterdam, are similar numbers of dwellings in one area being dealt with. In the new Bijlmermeer 15 blocks, or parts thereof, will remain of the original 31. Six of them, in

Table 1 Opinion about the physical renewal per measure in 1995, 1999 and 2001 (in percent^a)

	Survey 1995 (1500 dwellings, response 55%)		Survey 1999 (800 dwellings, response 63%)		Survey 2001 (4900 dwellings, response 77%)	
	good idea	bad idea	good idea	bad idea	good idea	bad idea
Renovation of dwellings	62	21	73	21	37	45
Sale of dwellings	38	25	53	24	42	23
Demolition of high-rise blocks in general	65	20	63–74 ^b	19	68	18
Demolition of a part of high-rise blocks	43	39	37	49	30	46
After demolition single-family dwellings	78	9	81	12	82	6
After demolition low-rise flats	65	12	63	22	51	19

Source: Helleman & Wassenberg, 2001.

^acategory 'no opinion/don't know' is left out of consideration.

^b63% wanted to demolish both buildings, 11% one of the two buildings.

Table 2 Physical renewal in numbers

	1990	demolition	new construction	2010
High-rise	12.500 (100%)	6.550	0	5.950 (44%)
Low-rise apartments	0 (0%)	0	4.600	4.600 (34%)
Single-family dwellings	0 (0%)	0	2.850	2.850 (21%)
TOTAL	12.500 (100%)	6.550	7.450	13.400 (100%)

Source: Projectbureau Vernieuwing Bijlmermeer, 2002

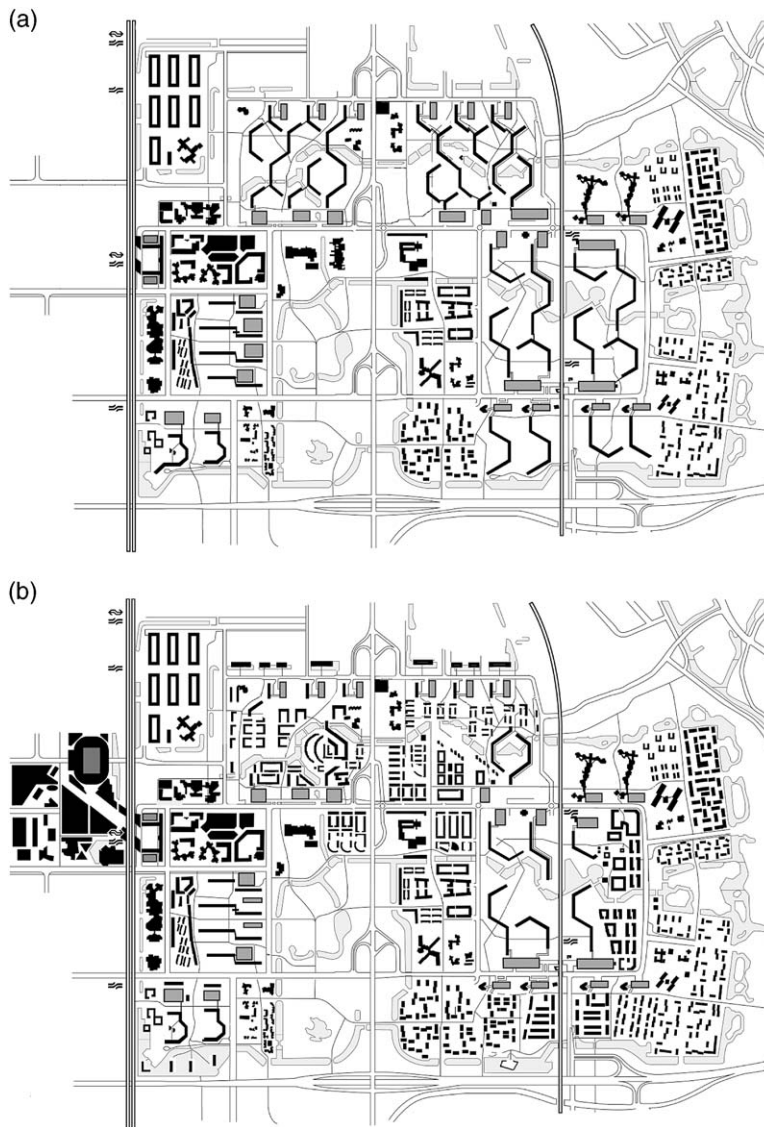


Figure 3 The situation in 1992 (above) and in 2010 (below), before and after physical renewal.

the eastern part of the area, together form an ensemble. This is called the 'Bijlmermuseum', which will remain on the instigation of active residents who were against demolition. In the middle of this area is the monument on the site where the El Al Boeing crashed into an apartment block in 1992.

The total amount of dwellings will have grown slightly by 2010 compared with 1992 (+7%), a precondition set by the central municipality of Amsterdam. A consequence of the change of high-rise into low-rise is that large parts of the public area will vanish, which will reduce the costs of maintenance. There will be a greater variation between neighbourhoods, including suburban areas with dwellings on the waterfront and real urban life styles with new apartment buildings. Whereas there used to be only one living environment, namely living in high-rise, the new living environments should attract new occupants and offer opportunities to people who until now had to

leave the area when, for example, they wanted a single family dwelling, an owner occupied dwelling or an apartment designed for elderly persons. These new types are being built, within new environments.

When new houses are completed in the Bijlmermeer, they are first offered to people who have to leave their homes because of the demolition activities. As a second priority, the rest of the residents in the Bijlmermeer are then offered the dwellings. Third and fourth, people from Amsterdam and the rest of the country (and the world!) get priority. Until now, almost all new developments have been taken by people from the first two categories. This illustrates the popularity of the new living environments and the dwelling types offered within them.

The integrated policy of the 1990s is continued in the 'final approach' in the 21st century. There is a wide belief that an integral approach is necessary because the problems cannot be solved by new hous-

ing developments alone. That is why the plans also include new parking facilities, public transport, educational facilities, recreational facilities as well as more social and economic facilities like business spaces, churches, mosques, hotel, day-care centres, and studios. Besides that, the 'Amsterdam ArenA' area will be developed further on. This new centre also houses two major education institutes and an academy striving to assist young and unemployed people with basic education. The social-economic renewal, the second constituent of renewal, started at the same time as the physical renewal. Recently, an overview has been made of the results of the last eight years (Stadsdeel Zuidoost, 2002). About a hundred projects, both large and small, have been set up at a total cost of €56 million. Some examples are a Women Empowerment Centre, sport and play facilities, a centre to care for drug addicts, surveillance by guards and cameras, facilities for entrepreneurs starting out in business and school facilities. The third ingredient, better maintenance to improve liveability, also has to be intensified, especially as the last blocks will not be demolished before 2008. Intensive maintenance is necessary to guarantee a safe and quiet living for the remaining residents.

Conditions for success

We began this article by mentioning that many large scale housing estates suffer from similar problems. In all countries, questions emerge about which measures have to be taken to prevent or solve problems. Obviously the answer lies in the location-specific situations. Different areas ask for specific solutions. Nonetheless, many analogous high rise estates are in a position comparable to the Bijlmermeer and may consider similar renewal approaches.

For some reason, the renewal of the Bijlmermeer remains an exceptional example because of the scale

of the area and of the renewal approach. However, five conditions can be distinguished that support the success so far. These conditions are characteristic of the Bijlmermeer approach. Identifying them can be useful for the transferability of the approach to other estates in other circumstances. The first condition for success is the improvement of the surrounding Amsterdam ArenA area, which is being used as a catalyst to improve the nearby problematic high-rise area. This removed the isolation of the Bijlmermeer area and made it part of the network city. The second condition is the integrative approach, in which a combination of three different strategies is set up. These are worked out separately, but in combination with each other. The physical renewal results in more popular housing types and environments. Social and economic renewal results in an improvement in the personal situation of deprived people. Improvement of the liveability and maintenance results in a safer and cleaner place to live. All three mingle with each other, and it is seen as essential that all three inter-related problems will be tackled.

The third condition of the Bijlmermeer's renewal is the search for radical solutions. Even with improvement, renovation, maintenance and residents' involvement the Bijlmermeer did not become an attractive proposition, and vacancies and high turnover rates persisted despite the pressure on the Amsterdam housing market. Liveability problems, like a lack of cleanliness and safety, caused major problems over the years. Moreover, the Bijlmermeer never rid itself of its very negative stigma. As an ultimate and radical solution low-rise flats and ordinary single-family houses will replace half of the high-rise blocks. This radical solution puts the Bijlmermeer approach on the frontline in Europe. An interesting question is whether other high-rise estates in Europe will follow the example of the Bijlmermeer. At the moment, demolition is not being considered in most countries,



Figure 4 31 blocks laid out in a honeycomb structure.



Figure 5 13,000 dwellings in 10 storey high rise apartments.



Figure 6 Park-like landscapes between the blocks.

at least not to the same extent as in the Bijlmermeer (Turkington et. al., forthcoming). This is rightly so, as demolition should not be the starting point of any renewal process, it should rather be, as argued above, considered in relation to measures that can solve social and economic problems. In the Bijlmermeer, these approaches proved not adequate enough to solve the problems that are correlated with the urban design and the housing type (high-rise). Demolition here is the drastic, but only way.

The fourth condition is financial. This includes costs for the whole project and for individual inhabitants. First of all, there is money for major investments, in which an important factor is the role of the Central Housing Fund, which pays half of all costs, but which is not government money. The whole renewal process is very costly because technically reasonable and dwellings not yet paid off are demolished. The other financial condition is the residents.

New dwellings are sold at moderate prices or have the same rather high rent level as the former high-rise blocks. People who cannot afford it get allowances.

The fifth and last condition for success is the way it is done, together with the inhabitants. In other cases demolition goes together with a lot of protest, displacement of poor people, breakage of social networks and loss of affordable housing. In the Bijlmermeer, inhabitants have an important vote in the whole process, something that was not the case in other countries in the past and even nowadays is lacking. Blair and Hulsbergen (1993: p. 294) conclude: "Most renewal approaches are one-off design strategies, initiated without surveys of development needs or guidelines to measure the success and benefits of renewal for the inhabitants. [...] There is a high failure rate of urban renewal projects in meeting the needs of residents. Words and political promises are not translated into workable concepts; designs are



Figure 7 Half of the 13,000 dwellings are demolished.



Figure 8 Parking garages demolished.

only partially pursued.” More recent research by [Turkington et al \(forthcoming\)](#) supports this conclusion. Residents must not only have a say, but the starting point of the renewal approach must be that the present inhabitants will profit, either by getting a better house in a better area in the Bijlmermeer, or if they prefer

it, somewhere else. To offer alternatives to inhabitants is one of the basic elements for success in renewal. In this way social networks, can be preserved and a stronger bond to the neighbourhood can exist.

Nevertheless it would be wishful thinking to suspect that all the problems like litter, crime, drug



Figure 9 More of the demolished dwellings.

abuse, and unemployment will be completely solved. This might be a major problem in the future for various reasons. Firstly, economic growth has had very little impact at the neighbourhood level. Secondly, improving some of the blocks results in a concen-

tration of problems with drug addicts, crime and safety in the remaining blocks (van Veghel and Wassenberg, 1999; Ouwehand, 1999). The results halfway pointed to a displacement of problems, where the renewal works like a waterbed: sit on one place and it goes down there, but another spot comes up (Ouwehand, 1999: p. 100). This was one of the reasons both for making the final plan immediately rather than leaving some blocks, and for intensifying the integral approach: the only way to solve all the problems instead of spreading the problems by relocating residents. At this point we support the thesis of Crump (2002) that demolishing and relocation of inhabitants is not the answer to spatially-concentrated poverty. Poverty is a social-economic problem and should also be solved by social-economic measures.

Another concern is where all the drug addicts, delinquents, tramps and other people with anti-social behaviour will move to, when the safety situation is seriously addressed in the Bijlmermeer. People who destroy the living climate are not welcome in the newly built areas, but neither will they disappear. Allowing the continued spread of the problems is not a sustainable solution, it is the roots of the problems that need to be addressed, however difficult this will be (Figs. 4–13).

Conclusions

The Bijlmermeer originated on the drawing-board as the peak of modernity and as a shining example of housing where 'the people of today could find the residential environment of tomorrow'. Unfortunately, it became clear at an early stage on that residents avoided this city of tomorrow. Problems occurred and, in spite of numerous improvements, only grew. The history of the Bijlmermeer is symptomatic of high-rise estates as tomorrow's idealistic cities. The outcomes of the high-rise wave of the 1960s could orig-



Figure 10 Removal of high rises.



Figure 11 Renovation: storerooms transformed into houses and gardens.



Figure 12 New houses and gardens under the flat.

inally be formulated in a positive way: high-rise offered the ultimate, ideal, egalitarian and modern dwellings, ideally designed and located. Soon criticism arose, which interpreted this as: high-rise offers too many, similar and not attractive dwellings for non-existent average people in the wrong place.

The failure of tomorrow's city resulted from the start in renewal strategies. The ideas in the 1960s were astonishing, the problems were astonishing, the several measures were astonishing and the present renewal is astonishing. When the renewal is finished in about 2010, the Bijlmermeer will have been for 40 years a shining example for people who are interested in large housing estates all over the world. Right now, the renewal approach for the Bijlmermeer aims to demolish over half of the original high-rise blocks and

to relinquish the original ideas behind the area. It has to be emphasised that this demolition is not based on the idea of deconcentrating poverty, as is the case in many American cities (Crump, 2002: p. 582). The inhabitants choose the measures and the new houses are being built, at moderate prices, for them. Problems are being tackled using an integral approach. History has proven here that neither maintenance, nor social-economical measures, nor participation, nor physical measures alone are sufficient to solve the large problems. The biggest problem in the Bijlmermeer was, and still is, that several factors occur in combination. This implies that strategies have to be in combination too. A combination of continuous liveability problems, a long history of partial improvements, changes in the surroundings of the Bijlmermeer, a firmly set



Figure 13 New houses and new entrances to upper floors.

negative image and pessimistic future prospects led to the understanding that a radical redesign was inevitable.

This drastic redesign involves an intensive process with residents, in which their preferences are one of the starting points of the renewal. The challenge in the Bijlmermeer is to end up with a neighbourhood that is attractive to those of the present residents that want to stay, that gets rid of its negative stigma, that will offer several kinds of dwellings and living environments and that offers future prospects for both residents and the housing association. Conditions for success are the incorporation of the problematic high-rise area into the wider region, the integrative approach, the radical solutions, an adequate financial structure and decent participation of the residents involved. If this approach is successful, it will be an example for other cities with problematic large housing estates.

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