

The study of development of public-participation in housing practice under changing socio-economic, political and urban environment in Amsterdam, from Dutch Golden Age to contemporary period

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### **Prologue - writers' thoughts and motivations**

As an architectural student, how to define our role as architects is always in the discussion in architectural academics. Architects always seem to be so revolutionary and influential, in which modernist architects shaped the environment with industrialized mass-produced housings, while contemporary architects have started emphasizing human rights in architecture and developed participatory architecture. However, it should be also noted that architects are only one actor in many others who are interdependent in the operational system of the world, and architecture is always the product under the provided context in any place. Therefore, instead of just imagining that architecture is playing a dominant role in human life, and designing by isolating architectural practices from the context of the world, it is more important to consider how to exert influence by architecture in relation to other operational actors of a society. Contemporary participatory architecture undeniably illustrates the way to empower human rights through architecture in theory, but thinking of how to achieve public-participation under socio-economic, political and urban situations of a society is the key for its realization.

## Section1: Introduction

"We shape our buildings; thereafter they shape us."(Churchill, 1943) As the built environment shapes our life, it is therefore crucial for us to think upon our right to shape our living environment. The notion of public-participation, influenced by democratic movement, has been thriving in Europe since the 1960s under the housing environment that was greatly shaped by standardized modernist buildings(Jones et al., 2005); while architects reflected that "planning should act as a more direct advocate of the values, preferences and needs of the people who are affected by planning decisions"(Albrecht, 1988, p.24) Netherlands is one of the countries which followed this trend. In 2001, the Dutch National Housing Report stated that self-build housings should be promoted to recapture the self-build tradition of the history of the Netherlands.(Lloyd et al., 2015) Different architectural programmes focusing on participatory design arose accordingly, such as the exhibition organized by Amsterdam Center for Architecture(ARCAM) in 2019 which studied possibilities of self-build construction in Amsterdam. ("the right to build", 2019) However, public-participation not only happens with architectural participatory notion, instead it was already exercised differently in the history of Amsterdam according to the governmental urban planning visions. Therefore, in order to improve participatory design in housing practice in the future, it is important to identify the factors influencing public-participation in a wider perspective through studying its developmental history.

The housing development of Amsterdam provided valuable insight for public-participation. From the 13th century to nowadays, distinctive urban planning visions of Amsterdam were identified in three major periods: the Dutch Golden Age(17th century), post-industrialization period(20th century) and contemporary period(21st century), in which the city was developed from a small fishery village to a metropolis city.(Fig. 1) In the first two periods, distinctive housing policies were implemented to cope with different socio-economic, political and urban challenges in the large-scale expansion events.

This led to development of representative housing typologies, such as the canal house and social housing, which provided different capacities for public-participation. In the contemporary period, the rise of notions of public rights led to new forms of participatory architecture in new residential projects. However, the current research on public-participation in each period has its own research insufficiency. Firstly, for the first two periods, without the participatory notions which only arose after the 1960s, although the public did shape the urban environment in the past, the economic and functional system was the main considerations for urban planning. Literature of Amsterdam history therefore recorded the urban development mainly from these perspectives accordingly, but not from a perspective of public-participation. Secondly, for the contemporary period, as public-participation was only regarded as an architectural notion not long ago, contemporary participatory projects and hence their analysis were implemented sporadically focusing on physical aspects of spatial production. The current trend and macroscopic situation of participatory architecture in relation to the entire socio-economic, political and urban environment have not yet been explored. Therefore, with different deficiencies identified in different visions, this paper aims to study public-participation holistically by using both contemporary visions of public-participation and governmental visions of urban planning to re-evaluate the participatory situation in housing practice in each period of Amsterdam. This paper will set the framework to study public-participation with theories; analyze the interrelationships between socio-economic and political environment, and the architectural forms of public-participation in housing practice in each period of Amsterdam; and discuss how the current situation of public-participation in Amsterdam is influenced by the planning visions and participatory visions of the past.(Fig. 2) These findings of public-participation and their influences on the housing environment, illustrated by the history, can then act as important parameters for government and architects to reconsider their values on public-participation in wider perspectives.

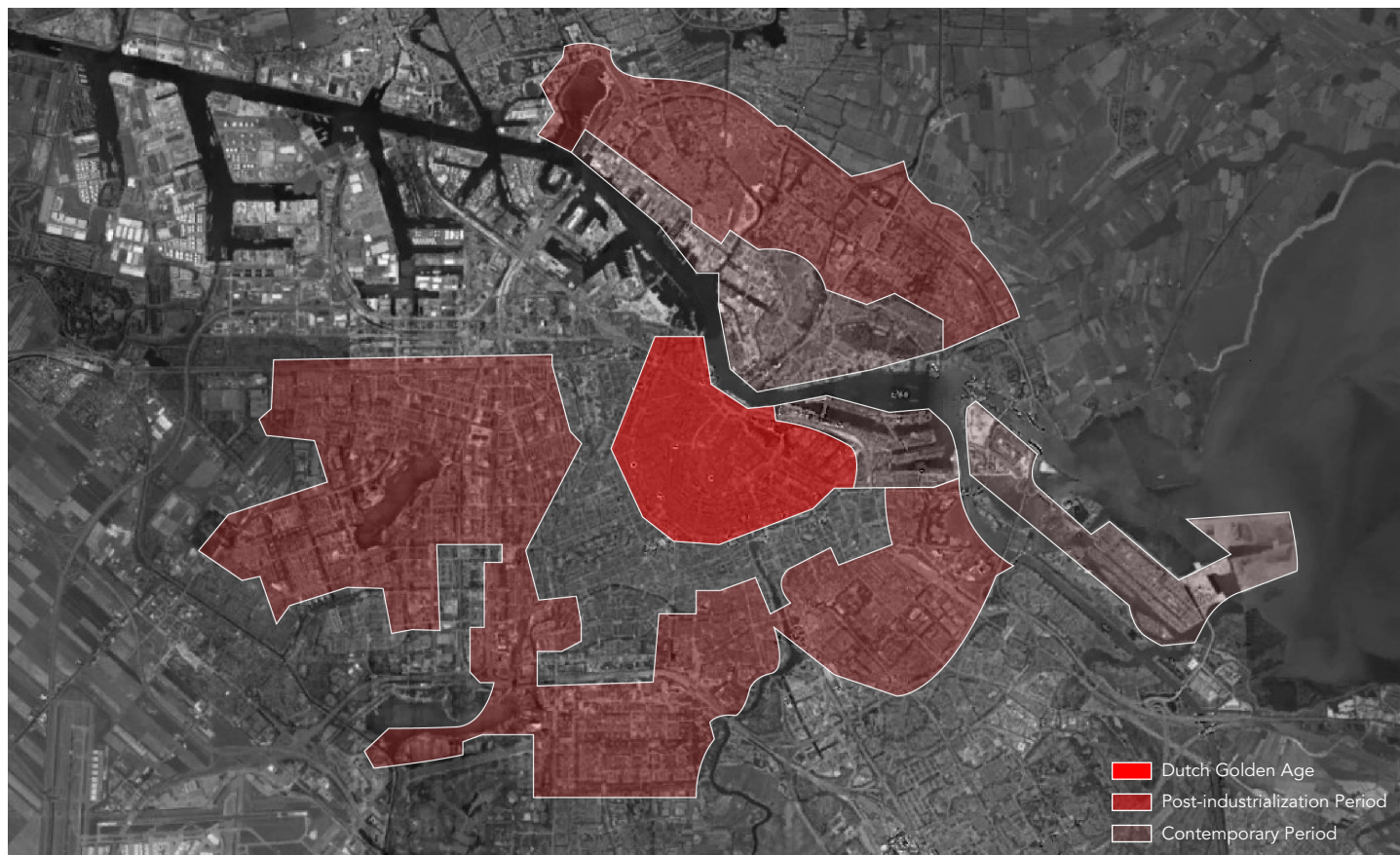


Fig. 1. Amsterdam territories developed in three periods under the scope of study (Own edited work. Image from "Amsterdam · Netherlands", 2023)

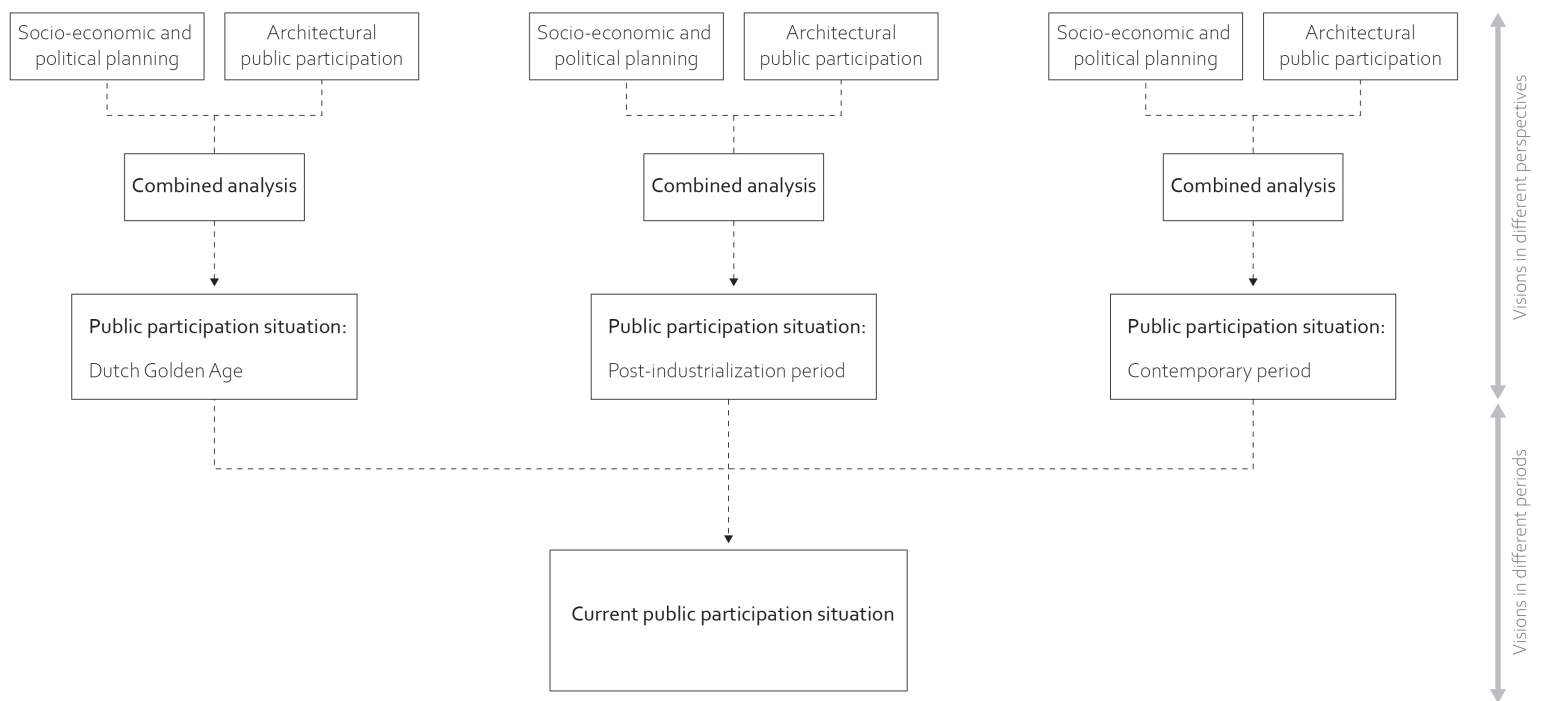


Fig. 2. Methodology to combine both visions of top-down urban planning and bottom-up public-participation to analysis public-participation in three periods of Amsterdam (Own work)

## Section 2: Definition of public-participation and the framework for the study

To analyze public-participation holistically, it is first important to understand the theoretical values of public-participation, and to decide the framework to analyze public-participation in Amsterdam.

The political and social values of public-participation is explained in the literature *Architecture and Participation* published in 2005. It was edited by a group of professors and researchers of public-participation in Sheffield University, Peter Blundell Jones, Doina Petrescu and Jeremy Till, who aimed to better clarify the existing unclear situation of public-participation in Europe by collecting theories suggested by different influential practitioners and theorists who researched or practiced public-participation before. Several key aspects of public-participation are referenced from this literature to define the analytical framework. Firstly, architectural public-participation means to “plan with users”, in which spatial configuration of buildings should change with the needs of users, rather than be in any defined forms.(De Carlo, 1969, p.15, as cited in Jones et al., 2005) This means that “decision-making-capacity” should be provided to the public. Secondly, a full control on decision making by the public is impossible due to their lack of professional knowledge.(Till, 2005, p.34) Any forms of public participation must include “order” provided from authority. Thirdly, the “*Ladder of Citizen Participation*”, proposed by public policy analyst Sherry Arnstein(1969, p.217), suggested that there are three main levels of public-participation: “non-participation”, “degrees of tokenism” and “degrees of citizen power”, in which the public are excluded from participation, included in participation but ultimately control authorities, and given the right of decision-making to influence the urban environment respectively.

Therefore, the analytical session of this paper integrates

the above theories, and evaluates the levels of public-participation by analyzing the balance and imbalance of “order” and “decision-making capacity” in the housing environment under planning visions in three periods of Amsterdam.(Fig. 3) Firstly, two literatures, *A Planning History of Amsterdam in the Dutch Golden Age* (Abrahamse, 2019) and *Het Nieuwe Bouwen Amsterdam 1920-1960* (Bosma et al., 1983); and the journal *Amsterdam in the 21st century: Geography, housing, spatial development and politics* (Savini et. al., 2016), which provide objective descriptions of the socio-economic and political background and authorities’ planning visions in three periods respectively, are used as the main background references. Afterwards, the authorities’ planning visions are re-organized and re-interpreted in terms of “order” to control the public; while the “decision-making capacity” left for the public, which have not been illustrated in the literature, are then analyzed from the “order” in a counter way. To analyze architectural public-participation in relation to the entire urban environment, “order” and “decision-making capacity” are analyzed in both urban and building scale. The former indicates the popularity of public-participation by analyzing the house planning politics and distribution of participatory architecture in the urban environment; while the latter indicates the decision-making-capacity provided for each individual by analyzing building regulations and flexibility for personal customization in different housing typologies. Primary and secondary sources, including drawings, images, literature and reports for representative urban and architectural projects, will be incorporated to support the analysis. After the levels of public-participation have been analyzed, the discussion session integrates the chronologically separated analysis of public-participation in three periods, and studied how the historical development of public-participation influenced the current situation of public-participation in housing practice in Amsterdam.

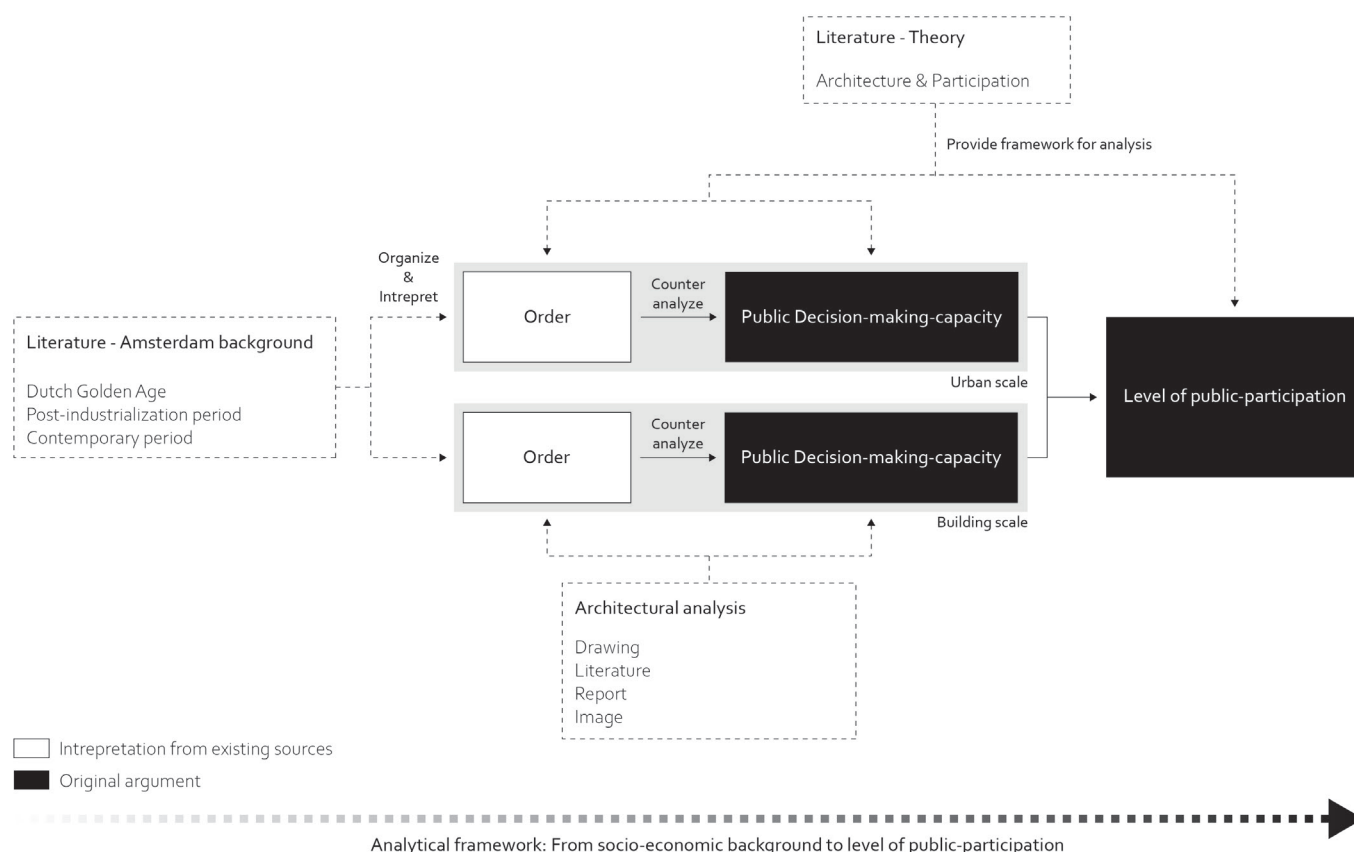


Fig. 3. Analytical framework. Relationships between background literature, theory literature, analytical sources and main analysis (Own work)

## Section 3(a): Analysis - Public-Participation in the Dutch Golden Age

### **Background of urban planning**

The literature *Metropolis in the making : a planning history of Amsterdam in the Dutch Golden Age*, written in 2019 by the cultural heritage agency and urban-planning researcher of Amsterdam, Jaap Evert Abrahamse, studies the background of the Amsterdam expansion plan in the 17th century in terms of "functionality, aesthetics and financial revenue" (p.458). These aspects formed the order for public-participation, while the less mentioned public activities are further elaborated and analyzed with decision-making-capacity in this session. According to Abrahamse(2019), Amsterdam replaced Antwerp and became the economic center in Europe in the 16th century. Immigration and rising population firstly led to a housing shortage within the wall city, and secondly encouraged construction of illegal houses outside the wall, which obstructed the fiscal and defensive system of the city. Therefore, large-scale expansion of the wall city was finally realized in the 1660s to solve these problems. As a huge sum of expenditure was spent for city expansion, the urban planning design therefore adopted an economically-oriented land-parcellation system, which subdivided the residential zone in the radial grid plan into individual plots for sale and revenue.(Fig. 4)

### **Popularity of public-participation in urban environment**

The urban planning design was a top-down process which was only supervised by committee members, well-recognized architects and treasurers, who evaluated the functionality, beauty and potential revenue of the plan. (Abrahamse, 2019) The public were excluded from the land parcellation design and had no right to decide the spatial configuration of each plot. Therefore, similar narrow rectangular plots, with their division number maximized for

profit, were distributed to the public throughout the entire expansion area. This determined the narrow rectangular forms of houses for each inhabitant.(Fig. 5) However, the urban plan was incomplete as plot divisions were the only order provided in the plan. Within this incompleteness, the authorities relied on the effort of the public, in which each inhabitant could purchase the plots as private properties and build their own houses within. Therefore, there was a high popularity of public-participation, in which the self-build houses occupied the entire urban environment.(Fig. 6) Meanwhile, different forms of public-participation still arose in the plan. Firstly, the plan was separated into an inner-residential zone and an outer-mixed use zone.(Fig. 7) As the government valued more on the inner zone and executed stricter regulations for it(Abrahamse, 2019), this led to greater order for public-participation in the inner zone. Secondly, the decision-making-capacity of each inhabitant was tied with their financial status in the capitalist free housing market. According to the additional housing stock study done by Abrahamse in 2010, the plot size increased with the plot price (Fig. 8-9), while an individual could own several plots at the same time.(Fig. 10) This meant that the affluent classes, who were able to afford higher land prices, were provided with greater decision-making-capacity by having more plots and plots with larger size to design. Therefore, levels of public-participation were imbalanced between inner and outer zone, and between the rich and poor, which are further analyzed in building scale below.

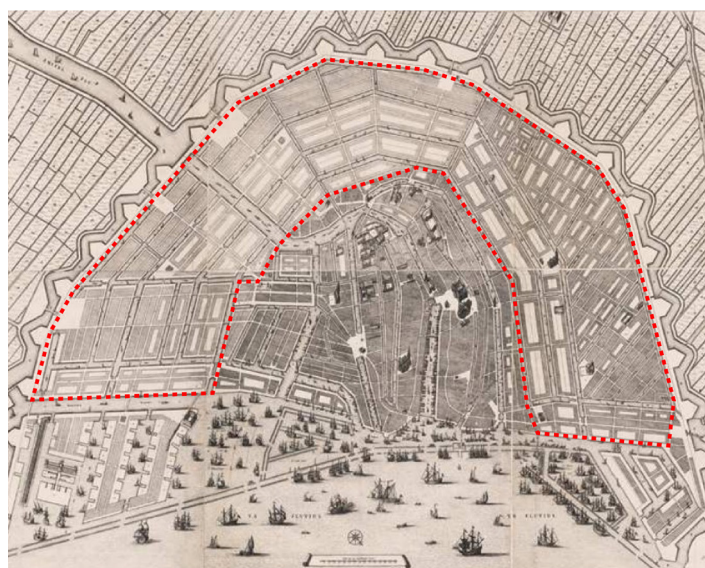


Fig. 4. Urban planning design in 4th expansion. Radial grids of residential zones divided by traffic roads and canals (Own edited work. Image from Abrahamse, 2010, p.167)

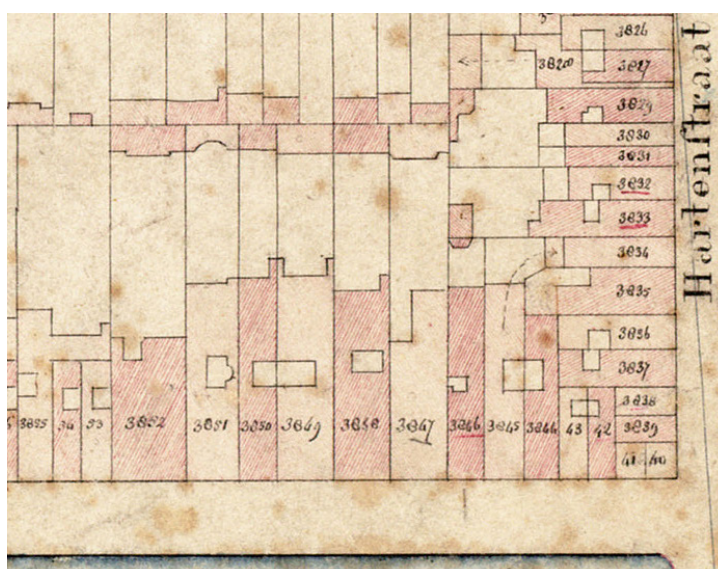


Fig. 5. Similar narrow rectangular houses with inner garden built within the narrow plots through Herengracht ("Grachten", 2023)

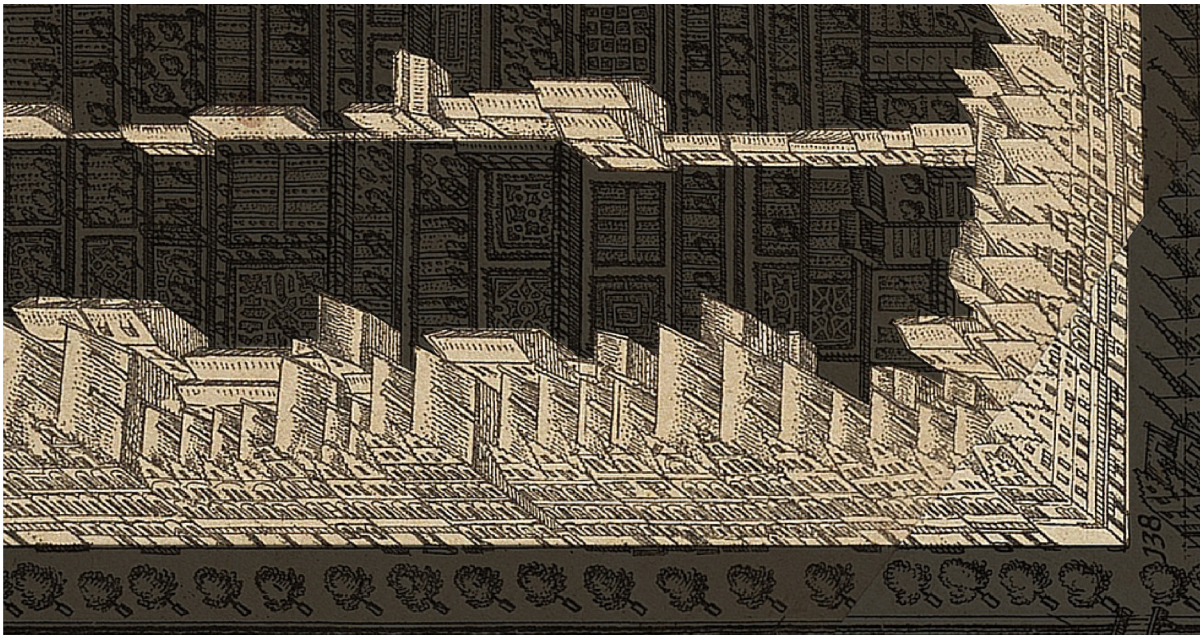


Fig. 6. Self-built houses built in every plot shaped the urban environment (Own edited work. Image from "Grachten", 2023)

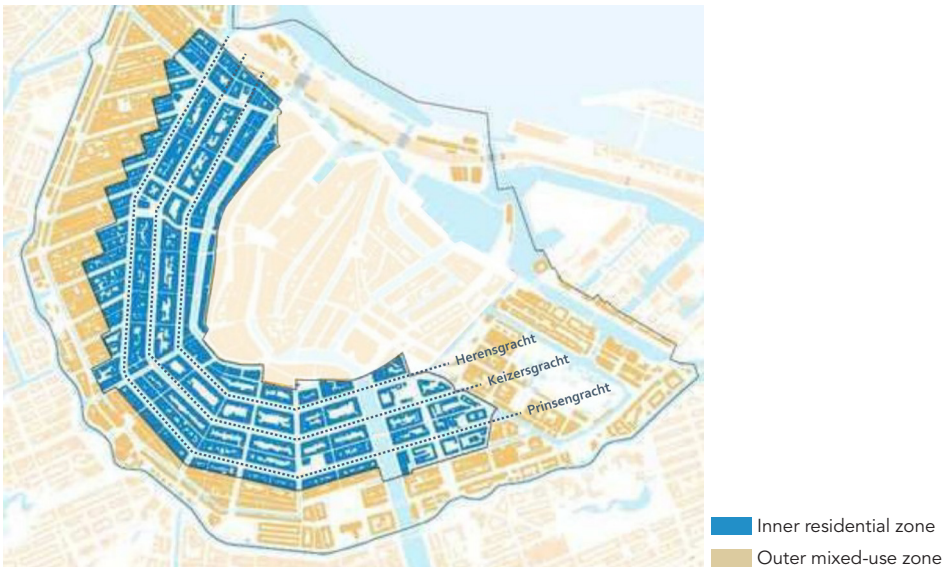


Fig. 7. Inner and outer zones of the expansion plan, separated by canal Prinsengracht (Abrahamse, 2010, p.169)

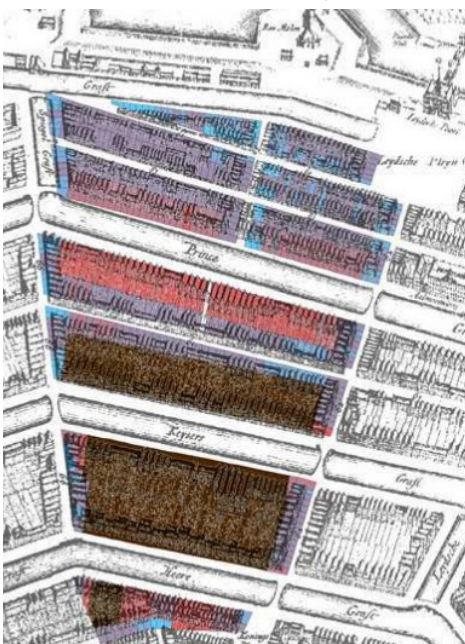


Fig. 8. Plot size, brown is largest and purple is smallest (Abrahamse, 2010, p.180)

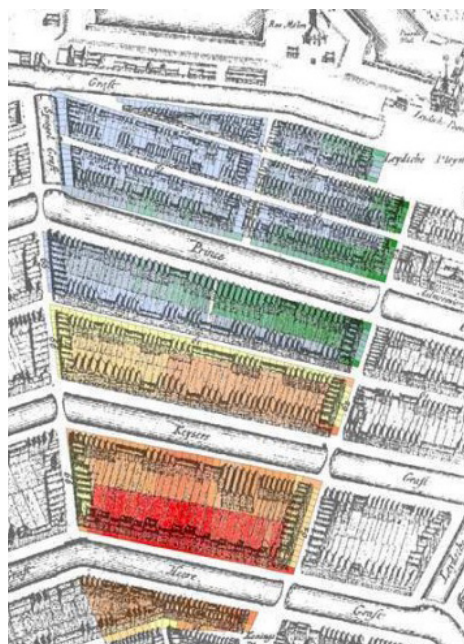


Fig. 9. Plot price, red is highest and blue is lowest (Abrahamse, 2010, p.181)

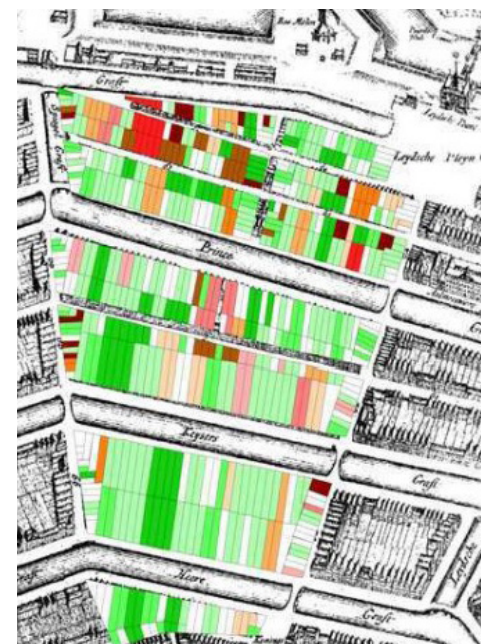


Fig. 10. Total number of plot owned by owner in that plot, red is the most, white-green is the least (Abrahamse, 2010, p.181)

**Public-participation in the inner luxury residential zone**

The orders on decision-making-capacity to design houses in luxury residential zones resulted from the assigned narrow plot, building regulations and construction technology. Firstly, according to the historical canal house documentation ("Grachten", 2023), a large proportion of the houses were 4-6m-wide and packed with each other adjacently, which restricted decision-making-capacity of land-owners. For example, in houses in Herengracht(Fig. 11) and Keizersgracht(Fig. 12), the entrance of the house had to face the public street as there was no other way to enter the house; the side walls were completely blank because they were in contact with adjacent houses; the user spaces were arranged linearly as it was difficult to further subdivide spaces along the narrow width of the house; and the main user spaces were located in front and inner sides where natural light could enter the house. This showed that the defined plot generated hidden rules to shape the spatial configuration of the houses. Secondly, stricter housing regulations were enforced by the government to protect the living environment in luxury zones to raise its economic value. For example, the height and depth of the building was limited to ensure light gain of the houses, while windows facing the inner courtyard were restricted to protect the privacy of inhabitants. In some zones, such as Weesperplein, the government even enforced classicist facades in all houses to ensure the beauty of the luxury zone.(Abrahamse, 2019) These stricter regulations restricted the decision-making-capacity of the public, and illustrated that the government actually manipulated public-participation to achieve its preferred classicist environment, instead of allowing unexpectedly generated environments. Thirdly, construction of canal houses was done by integrating standardized components provided by the local carpenter.(Abrahamse, 2019) The inhabitants made decisions mainly by choosing and integrating components, such as bricks, windows, doors and timber beams, which repeated throughout the construction.(Fig. 13) Highly customized housing design, which differed from mainstream constructions, were difficult as it was hard to find a provider of specifically customized material based on the technology in this period. Therefore, the materiality, facade and form of houses was determined remarkably by the components provided. The resultant environment under these orders could be analyzed from the elevation of Herengracht. Houses were built at similar height, while the street facade was united by the classicist house-front style enforced by the government, and by the regularly spaced standardized components provided by carpenters. Although each inhabitant built their own houses, the housing design actually shared common features.(Fig. 14)

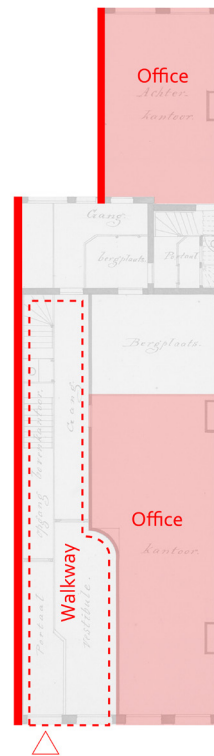


Fig. 11. Constrained arrangement of entrances, walkway, user's space and blank walls in canal houses in Herengracht248 (Own edited work. Image from "Grachten", 2023)

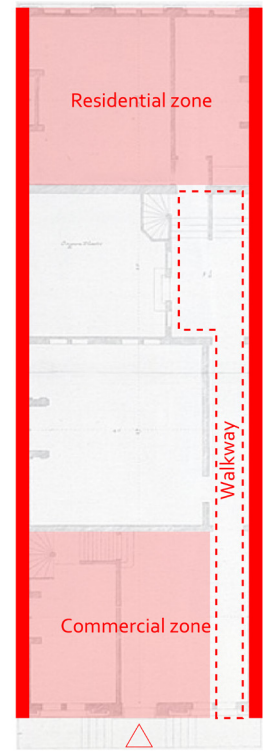


Fig. 12. Similar design constraints as in Fig. 11 in Keizersgracht319 (Own edited work. Image from "Grachten", 2023)

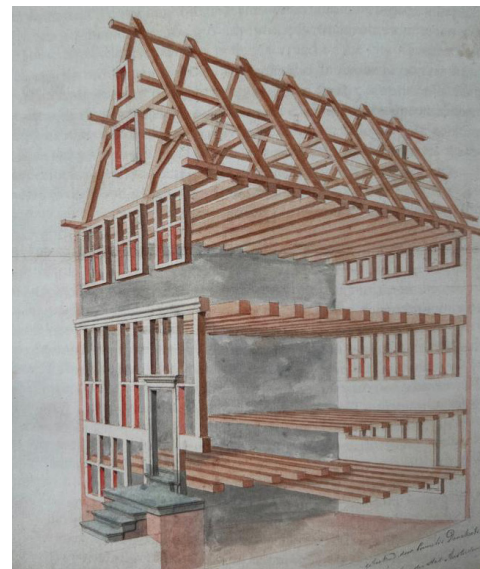


Fig. 13. Standard components, including timber windows, joists and rafters, determined the overall form of the houses (Abrahamse, 2019, p.132)

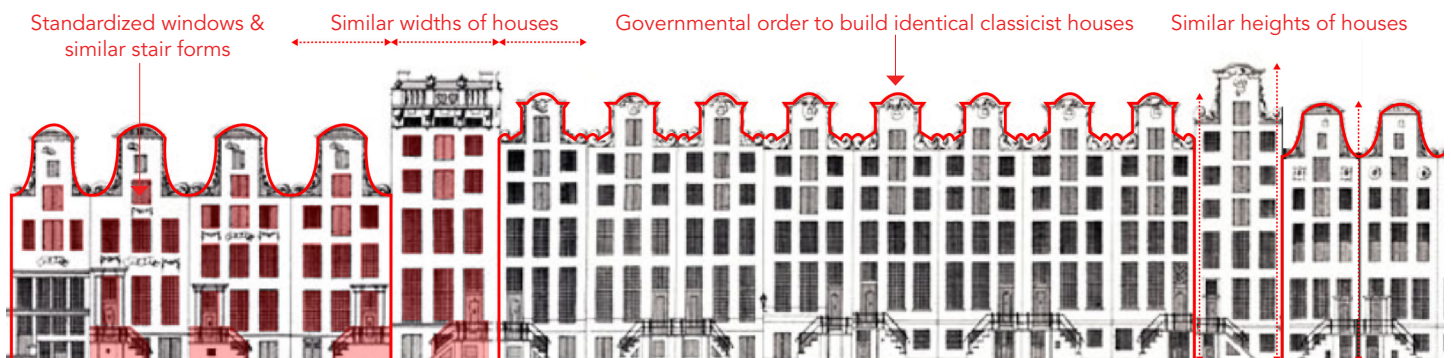


Fig. 14. Repetitive standard components and government preferences united the street facade of Keizersgracht622-658 (Own edited work. Image from "Grachten", 2023)



However, in this incomplete urban planning vision, everything not yet decided by authorities was decided by the public. One of the key features of public-participation in this situation was that the inhabitants actually participated in the housing politics to negotiate regulation. According to Abrahamse(2019), neighborhoods in luxury zones privately signed mutual agreements to ban construction of warehouses in housing plots, and sometimes they even cooperated to create a united classicist district facade. Moreover, private agreements between government and inhabitants were sometimes implemented in the form of servitude. These political activities illustrated that the public had a certain capacity to negotiate the regulations with the government and neighborhood under the incomplete housing policies. As mentioned by Till(2005), these democratic acts of negotiation and reaching consensus between public and authorities are fundamental for ideal public-participation, such that the hopes of the public could be realized in a mutual-beneficial way. Architecturally, although the form and materiality of houses were somehow determined, there were still lots of decision-making-capacity in spatial design left for inhabitants. For example, the inhabitants could still decide the size and the programme of spaces according to their desires, in which spaces could be partitioned according to the daily routine of users in houses for living, or partitioned to obtain more divided spaces in houses for rental purposes.(Fig. 15,16) The canal houses built by Jan Hartman in 1663, in which the houses incorporated a church,

gallery and chapel for religious purposes(Fig. 17), indicated that even highly personal programmes were allowed to be built within the house. Some affluent owners, such as the owner of Herengracht plot 218 and 220, was even able to combine two or more plots to build a wider house, which alleviated the design constraint due to the narrowness of plots.(Fig. 18) Further traces of personalization can be observed from the elevation of the canal district, in which canal houses differed in colors, cornice and roof shapes, and decorations.(Fig. 19,20)

Therefore, the luxury residential zone consisted of canal houses that provided capacities for personalization, but also united in form and style. The orders ensured well-functioning and manifestation of the beauty of houses in the urban environment, while the decision-making-capacity, although restricted to a certain extent, satisfied the daily needs of the inhabitants. The background enabling this relatively balanced form of order and decision-making-capacity for the public was the initial incompleteness of plan and regulations, in which the public built their own house and the government subsequently supervised and negotiated the environment created by the public. This canal district, which appropriately balanced beauty, function and personalization, was later regarded by the government as a reference for development of the self-build urban environment in future.(Lloyd et al., 2015)

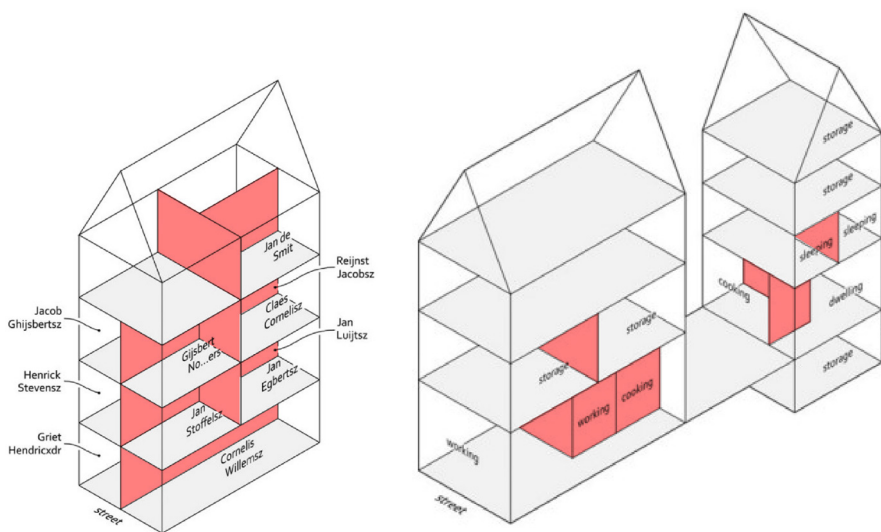


Fig. 15,16. More partitioned spaces for rental houses(left) & less partitioned and larger spaces for living houses(right) (Own edited work. Image from Tussenbroek, 2018, p.19-21)

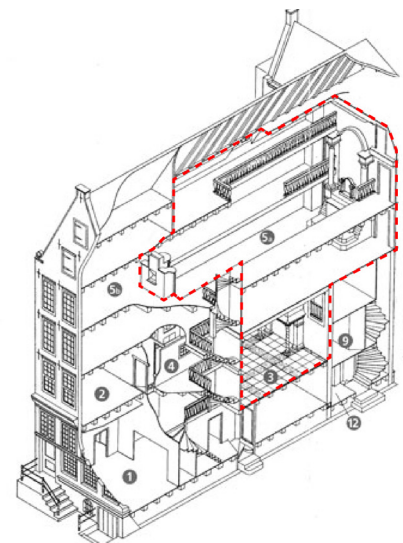


Fig. 17. Canal house with built-in church and chapel (Own edited work. Image from "Museum our lord in the Attic", 2023)



Fig. 18. Client combined plot 218&220 in Herengracht to build a 11m wide house (Own edited work. Image from "Grachten", 2023)

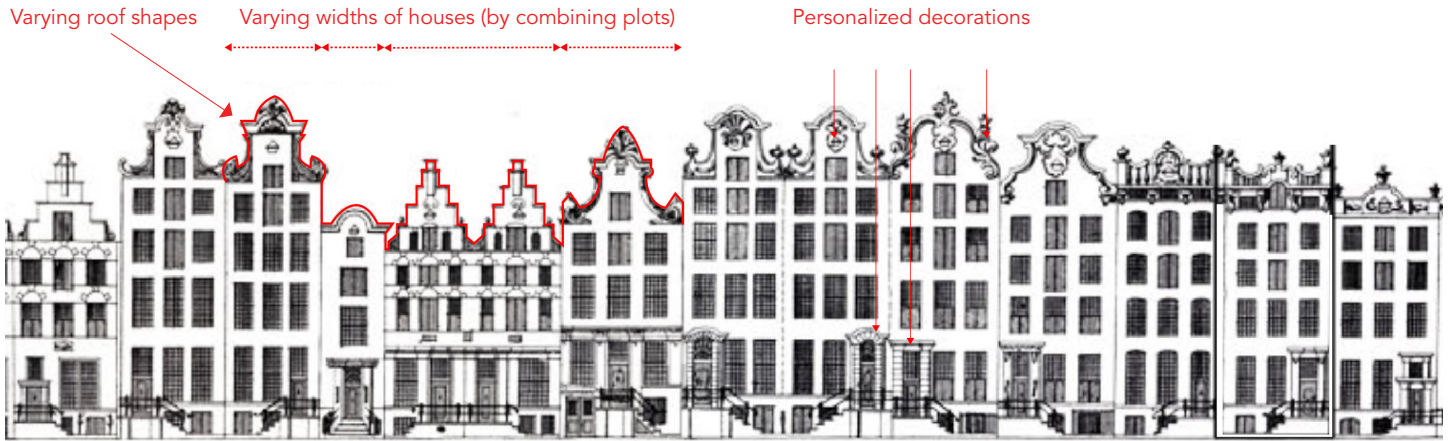


Fig. 19. Traces of personalized design from the street facade (Own edited work. Image from "Grachten", 2023)



Fig. 20. Variations in houses' colors (Abrahamse, 2010, p.169)

### **Public-participation in the outer mixed-use zone**

According to Abrahamse(2019), as the government did not expect high revenue from the inelegant mixed-use outer zone, which was an under-developed area for both residential and industrial use, the zone was less regulated. The lack of order led to greater decision-making-capacity for public-participation. This could be illustrated from the environment in Jordaan Quarter in 1612 where the working class and the poor lived.(Fig. 21) Houses of different storeys and height were built, and the house fronts faced different directions. The policies to use brick walls for aesthetics and fire safety didn't apply in Jordaan district(Abrahamse, 2017), so there was a great variety in housing materiality that both classicist style and wooden houses were built in the district. However, these greater decision-making-capacity did not result in a better living environment. As mentioned by Abrahamse(2019), unrestricted workshops and industry pollute the neighborhood's environment, while alleyways between houses and constructions within the inner garden(Fig. 22), which were strictly forbidden in inner zones, were allowed and led to overcrowding in Jordaan district. This area illustrated how the lack of order from authorities could lead to unsuccessful public-participation. Firstly, the poor did not have enough resources to construct a high quality living environment without authorities' aid. Secondly, a large proportion of plots in outer zones were actually owned by affluent classes.(Fig. 10) The affluent classes made use of the plots for profit, such as constructing workshops or subdivided rental houses, and



Fig. 21. Great variation of houses in Jordaan district (Own edited work. Image from "The Amsterdam Jordaan", 2023)

conditioned a poor living environment for the poor through public-participation. Compared with the inner residential zone in which inhabitants cooperated to improve the living environment, conflicts rather than consensus evoked for public-participation, as the rich and poor design individually with their diverged desires in an undefined area without negotiating with each other. These resultant poor conditions aligned with the theory that full public form of public-participation was unrealistic.(Till, 2005) The environment was only improved after the government had exerted order to control industries and building regulations.

### **Summary**

Overall, the political and economic background of Amsterdam in Dutch Golden Age led to a planning environment in which public-participation in Amsterdam was practiced in the level of 'degrees of citizen power', in which high decision-making-capacity to influence the living environment were distributed to the public throughout the plan. However, balanced forms of public-participation only existed in the inner zone for the rich; while the decision-making-capacity out-balanced the order in the outer zone, as there lacked authorities' guidance to aid the participation of the poor and restricted the activities of the rich in this zone. Although high decision-making-capacity was provided, the rich dominated the participatory power in this period.

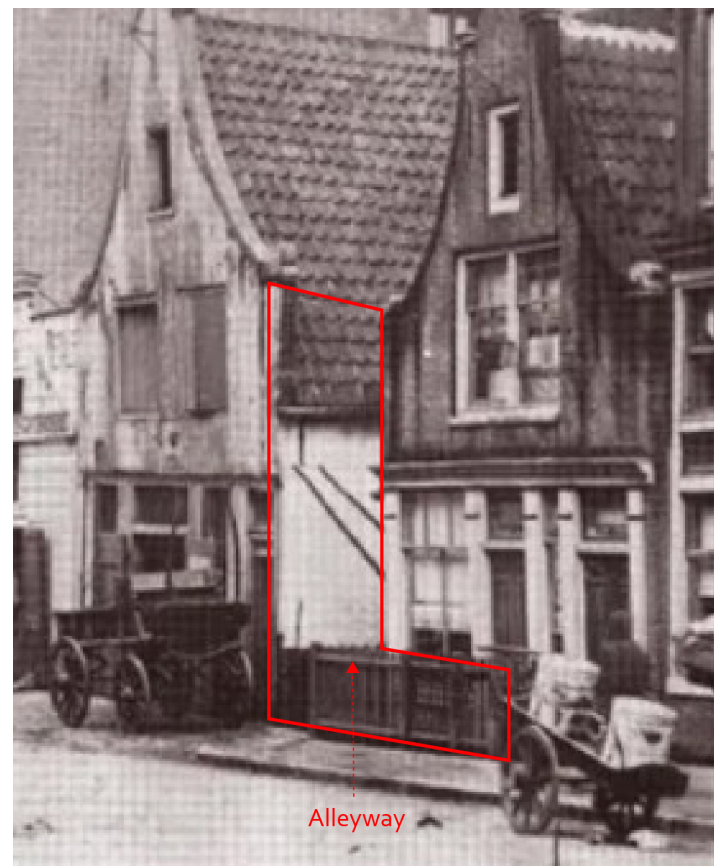


Fig. 22. Alleyway between houses in Jordaan district (Own edited work. Image from "Geschiedenis", 2023)

## Section 3(b): Analysis - Public-Participation in the Post-Industrialization Period

### **Background of urban planning**

The housing development was entirely different in the post-industrialization period due to different governing backgrounds after the industrial revolution in the late 19th century. The background of urban planning in this period is provided in the literature, *Het Nieuwe Bouwen(The New Building), Amsterdam 1920-1960*, written in 1983 by Koos Bosma, who was a professor of Architectural History and Heritage Studies at VU University, a member of the Institute of CLUE(Cultural Landscape and Urban Environment) and ARCAM(Architecture Centre Amsterdam), and who opposed utopian top-down planning.(Wagenaar, 2016) Bosma(1983) pointed out that the urban planning in the 20th century was under total control by the government in the initial stage, which was followed by the criticism and involvement of modernist architects in later stages. The population in Amsterdam, which remained stagnant in the 18th century due to war, grew significantly again in the late 19th century due to industrial revolution and immigration of workers.(Postuma, 1989) This unprecedented demand on housing development led to the implementation of the Housing Act in 1901, which aimed to provide cheap mass-produced social housing to the working class who could not afford high rental prices. Afterwards, the post-war housing crisis and the huge expansion of Amsterdam territories further led to the general expansion plan in 1920, which aims to erect more social housing under a functional plan in the expanded territories. The huge design restriction in the plan was criticized by modernist architects, who were increasingly involved in the plan after CIAM(International Congresses of Architecture) suggested the urban concept of the functional city in 1933.

Similarly, only visions of the government and architects, but not the public, was mentioned in this literature. This session analyzed public-participation under the planning visions of both the government and architects in the post-industrialization period.

### **Popularity of public-participation in urban environment**

Public-participation was highly restricted in the post-industrialization period, which could be explained in several aspects. Firstly, the general expansion plan was a highly top-down plan controlled by the Urban Development Department Division, which was a collaboration of few architects, urban planners and economists, and supervised by the government.(Bosma et al., 1983) According to Bosma(1983), visions for more flexible schemes, which obstructed the planning process, were always avoided by the government. For example, the idea to incorporate the needs of diversity of human life within the plan, suggested by social democratist Dirk Hudig, was banned because it created uncertainties. While the public were not even consulted in the planning process. Secondly, the plan was a highly definite plan in which relationships of residential, working and recreational areas were explicitly defined according to the top-down prediction of population and economic growth done by the department division.(Bosma et al., 1983)(Fig. 23) Therefore, the public could no longer freely allocate spaces of any programme within the houses

according to their own necessities as in the Dutch Golden Age, and the defined programmes enforced a similar daily routine for the public. Thirdly, social housing was housing complexes which combined living units together. Compared with individual houses, in which the spatial configuration and system of each house were separated, the wall partitions, structure and mechanical service in housing complexes were interdependent. Therefore, inflexible partitioned spaces were usually defined for the public. Moreover, the same mass-produced housing typologies, L-shape or linear shape housing block with standardized units, erected throughout the residential zone for the public.(Fig. 24) The choices of housing conditions were further limited. Lastly, under the Housing Act, social housing was provided to inhabitants as governmental rental properties instead of private properties, inhabitants therefore had no right to modify the inside environment. Therefore, this top-down planning politics acted in a way mentioned by modernist critics De Carlo(1969, as cited in Jones et al., 2005), which was to maximize the profit and the efficiency of the plan by conditioning the public through the built environment, and by forcing inhabitants to adapt to the defined inflexible cage. In general, the level of public-participation under governmental control in the post-industrialized period was 'non-participation', and this situation didn't change even after the increased involvement of modernist architects in 1933, which is illustrated by the analysis of their respective housing projects below.



Fig. 23. Zoning in general expansion plan determined interrelationships of residential, work, traffic and recreational programme ("*Algemeen Uitbreidingsplan*", 2023)



Fig. 24. Mapping study in expansion area of Amsterdam New West. Similar L-shape and linear housing blocks repeated throughout the plan (Own work)

### Public-participation in social housing in Sloterveer

The Sloterveer project was one of the early government-led projects approved in 1940, in which cost and efficiency were the main concerns of the project under the economic and housing crisis during the war period. (Bosma et al., 1983) Indeed, the garden city idea, which aimed to provide a certain degree of independence for residential neighborhoods, was considered in the plan. However, the independent character of the project was only envisioned in green areas and amenities, but not within the housings. Moreover, the number of single-house family dwellings, which enabled higher decision-making-capacity, was greatly restricted due to its expensiveness. (Bosma et al., 1983) Therefore, the garden city idea did not contribute much for the public-participation in housing practice. The resultant housing environment was representative for the entire general expansion plan, in which the mass-produced housing typologies sharing great similarities in form and materiality were systematically arranged with green spaces throughout the plan. (Fig. 25) Meanwhile, the housing typologies could still be categorized into three-to-four storeys high medium-rise housing blocks, duplex housings and separated individual houses, which varied in decision-making-capacity.

A mapping analysis was done on the master plan to study the distribution of the housing typologies in Sloterveer. (Fig. 26) Majority of the housing complexes in Sloterveer plan were medium-rise housing complexes. One typical example was Kuiperplantsoen. According to the elevation, identical dwellings repeated throughout the entire building, which assumed each inhabitant as an average unit. (Fig. 27,28) Within the housing complexes, services such as stair, courtyard view and logistics, and the spatial arrangement in each unit had been already defined by the structural walls. Arrangement of furniture, such as beds, sofa and kitchen table, were even illustrated in the plan, which further determined the lifestyle and habits of inhabitants. (Fig. 29) Therefore, medium-rise housing left no decision-making-capacity for the inhabitants to modify the living environment.

Meanwhile, the duplex housings, which also shared a remarkable proportion of the total dwellings, enabled small decision-making-capacity. In Roland Holstbuurt, the units were also repeated and were partitioned inside in the same way as medium-rise housings. (Fig. 30,31) The key difference was that inhabitants in duplex housing were provided with a private garden which allowed personalization. Each house had different fences and greenery, which developed a different relationship to the outer environment according to the preference of the inhabitants. (Fig. 32) However, as the garden was the only space allowing customization, in which installation and construction were prohibited, this limited decision-making-capacity had only little impact on the overall functions of the house. Finally, separated individual housings enabled relatively higher decision-making-capacities. Individual houses shared the same basic housing forms, while the inhabitants were able to modify the facade and the garden, and built spatial extensions on the house to influence the spatial configuration of the house. (Fig. 33) This method also generated a customized but united environment in a different way from the canal district. However, individual houses were in very limited amounts, the entire housing environment was still dominated by repetitive large housing complexes. Therefore, in short, public-participation in housing practice in Sloterveer was either prohibited, enabled with strict restrictions, or enabled in houses that were in small amounts.



Fig. 25. Repeating linear housing blocks enclosing a courtyard in Sloterveer (Kras et al., 1983, p.100)



Fig. 26. Mapping of social housing typologies in Sloterveer (Own edited work. Image from "Waarderingskaarten Aup Gebieden", 2023)



Fig. 27. Side view of Kuipantsoen (Havinga et al., 2019, p.10)



Fig. 28. 48 identical units repeated throughout the elevation of Kuipantsoen (Own edited work. Image from Havinga et al., 2019, p.9)

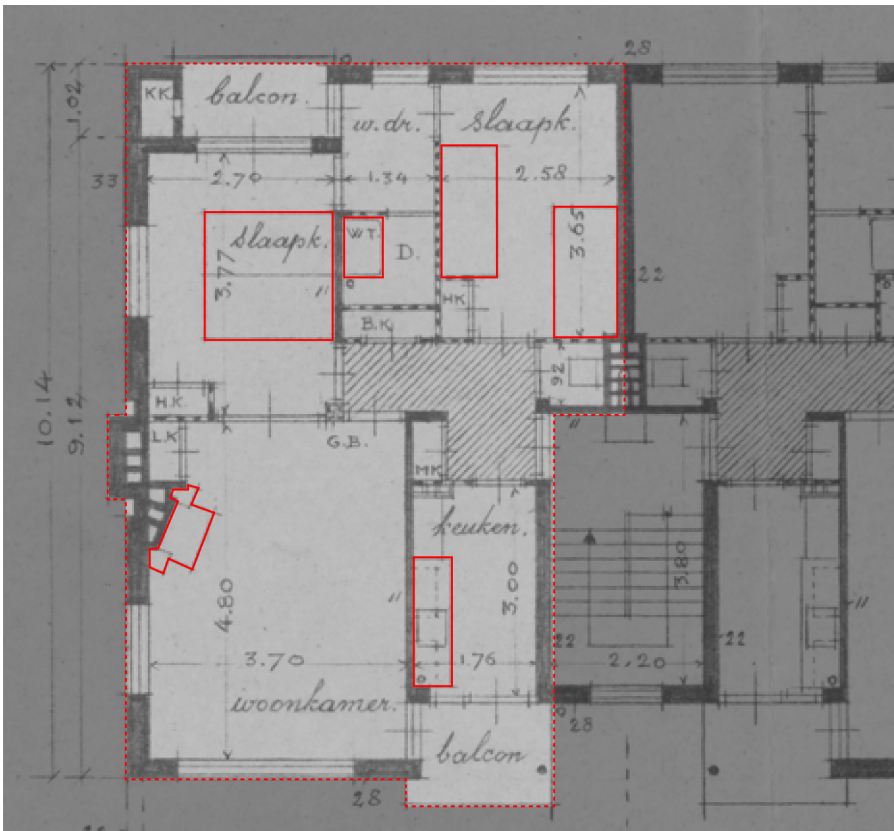


Fig 29. Defined partition, windows and furniture(red) (Own edited work. Image from "Erfgoed van de Week", 2023)



Fig. 30. Repeating L-shape arrangement of housing blocks enclosing courtyards in Roland Holsbuurt ("*Amsterdam · Netherlands*", 2023)

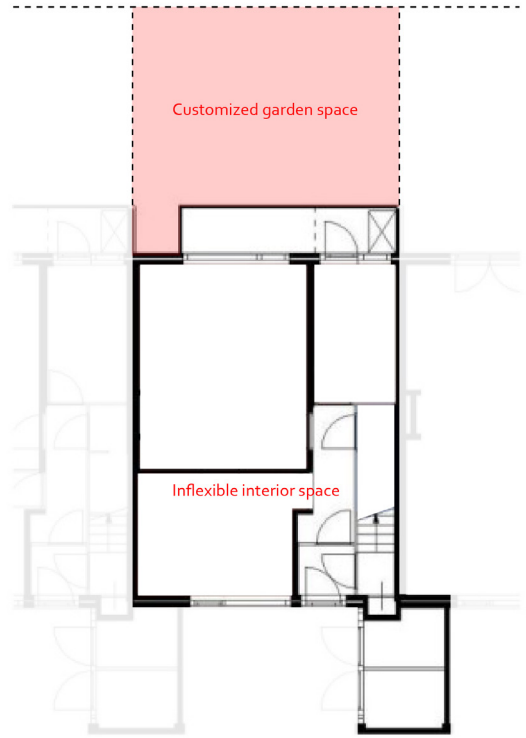


Fig. 31. Partitioned interior living spaces and customizable outdoor garden space (Own edited work. Image from Veen, 2013, p.75)

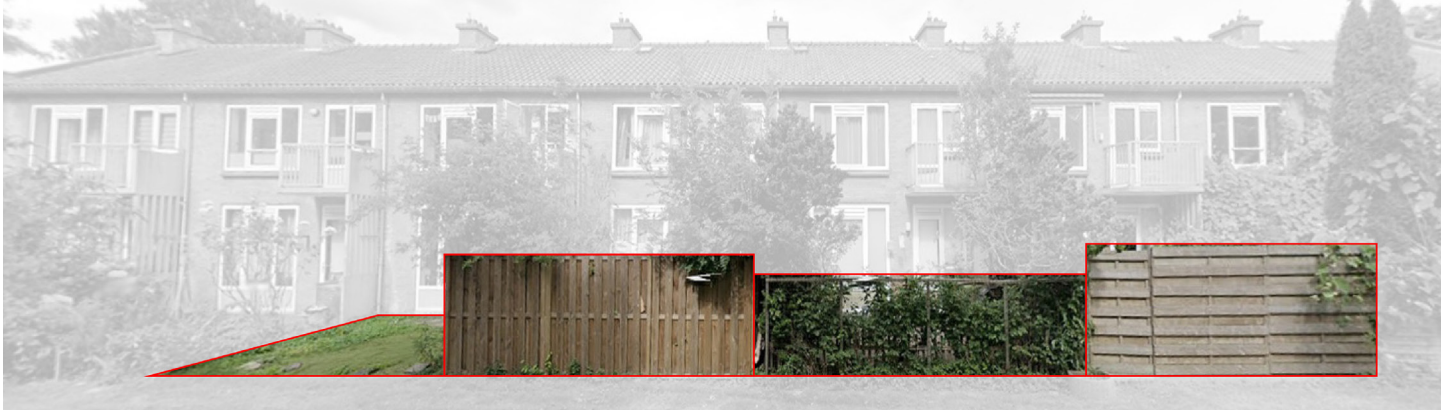


Fig. 32. Different customized fences and greens in different gardens (Own edited work. Image from "*Amsterdam · Netherlands*", 2023)

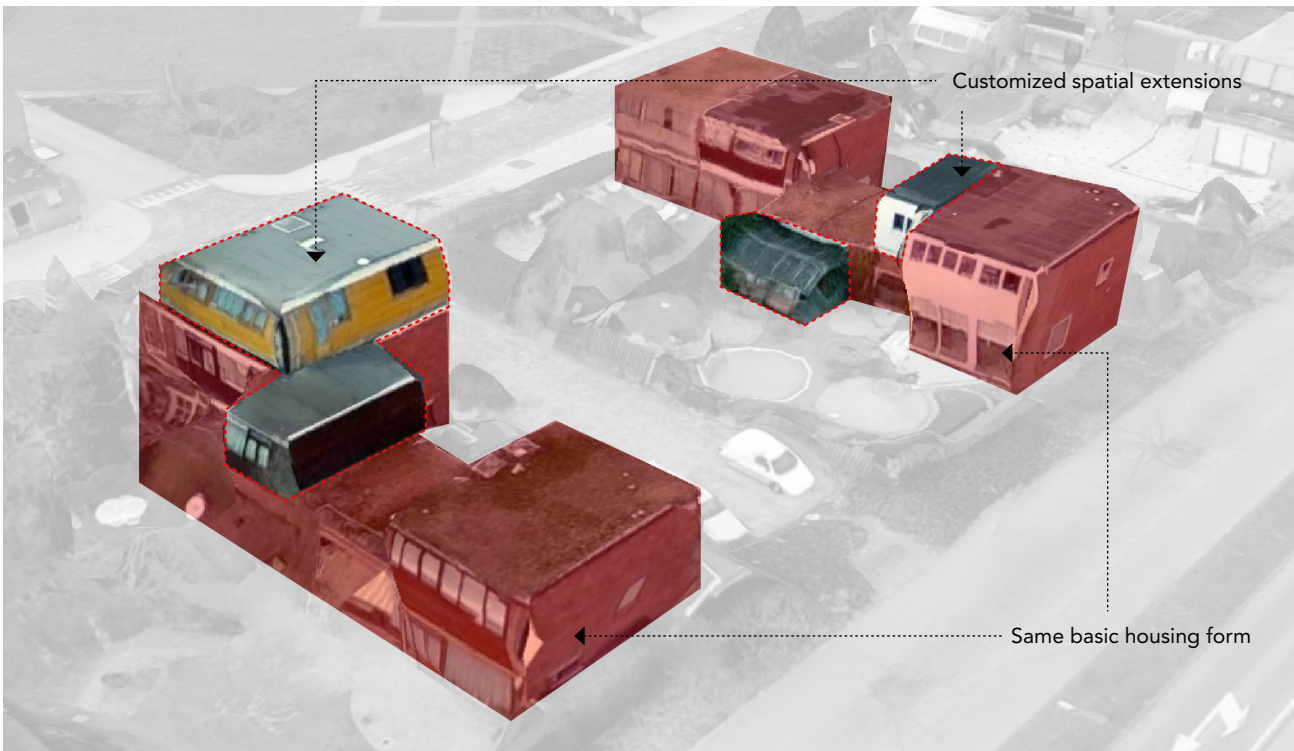


Fig. 33. Same basic building forms and customized spatial extensions in individual houses (Own edited work. Image from "*Amsterdam · Netherlands*", 2023)



### **Public-participation in social housing in Bijlmer**

The Bijlmer project implemented in 1966 was a housing project remarkably involved by architects in the later stage of urban development. It was led by the governmental department, but based on the modern idea of "Functional City" of CIAM.(Leeming&Shakur, 2003) However, the key value of the modernist movement was also to provide the city with economic and functional benefits with industrialized technology. Although modernist architects did consider spatial flexibility for users(Bosma et al., 1983), the Bijlmer project actually shared the non-participatory character with government-led projects. The project was also a top-down plan in which urban functions were defined with 11-storey-high social housings arranged in a hexagonal pattern.(Fig. 34,35). With the modernist idea of "minimum housing" , only two types of small rectangular units were defined throughout the entire length of the floor, showing that the diverse spatial needs of inhabitants were not taken into account again.(Fig. 36) The defined interior spatial arrangement also defined the lifestyle of inhabitants.(Fig. 37) Although the modernist idea of flexible partition was perhaps adopted in one wall within the unit, having only one flexible partition connecting with the small corridor had only little influence on the overall spatial configuration of the unit. Therefore, the capacities for public-participation in Bijlmer housings were not better than that of Slotermeer, in which at least slight modifications of the garden were allowed. According to the participation outcome diagram suggested by Muf architecture/art(2005, as cited in Jones et al., 2005), who concentrated on architecture for the public realm, public-participation brought the public a sense of ownership and pride, which could encourage them to regulate the environment. In Bijlmer, lifeless and criminal environments were accidentally shaped by architects, in which one of the reasons could be that inhabitants were not encouraged and provided with the right to regulate the living environment through public-participation.

### **Summary**

As Till mentioned(2005), the modernist housing idea was not invented by architects, but had already been "invented and dramatized by the capitalist system".(p.8) The above analysis showed that under the urgency of the economic and housing crisis, both architects and governments developed the same housing visions concentrating on efficiency, but not public rights. Although modernist architects always criticized the restricted requirement offered by the government, the freedom they strived for was only utilized to improve the spatial qualities of mass-produced housing from a top-down perspective, but not from a bottom-up perspective.



Fig. 34. Bird eye view of Bijlmer project ("*Bijlmer (meer) en de Bijlmer-ramp, Amsterdam Zuid-Oost*", 2023)

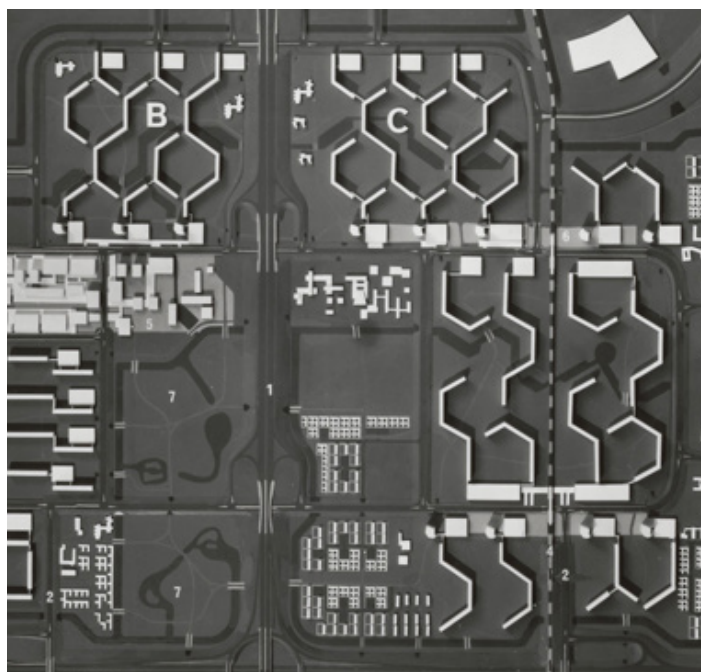


Fig. 35. 11-storey-high housing blocks repetitively arranged in a hexagonal pattern ("*Erfgoed van de Week*", 2023)

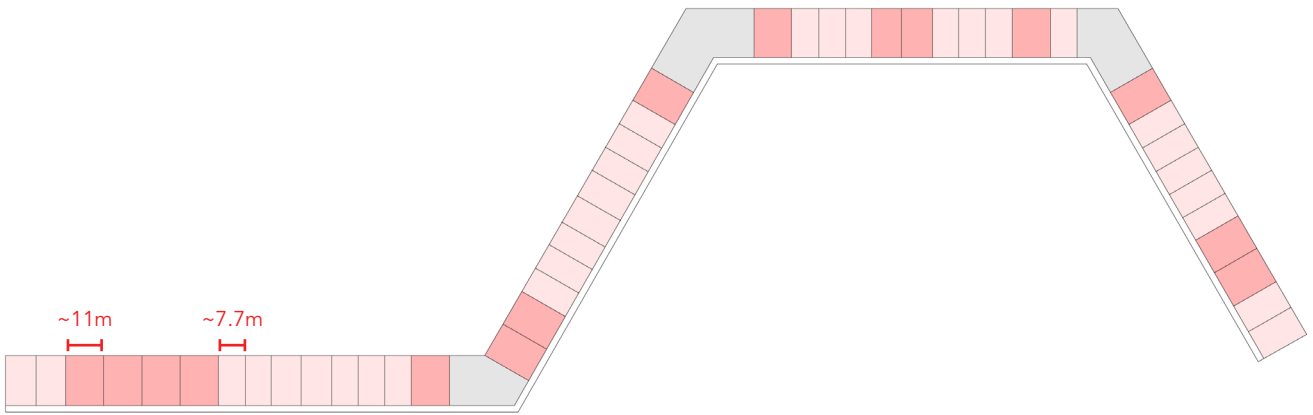


Fig. 36. Parti diagram of the floor plan, with only two types of rectangular unit for all inhabitants (Own work)

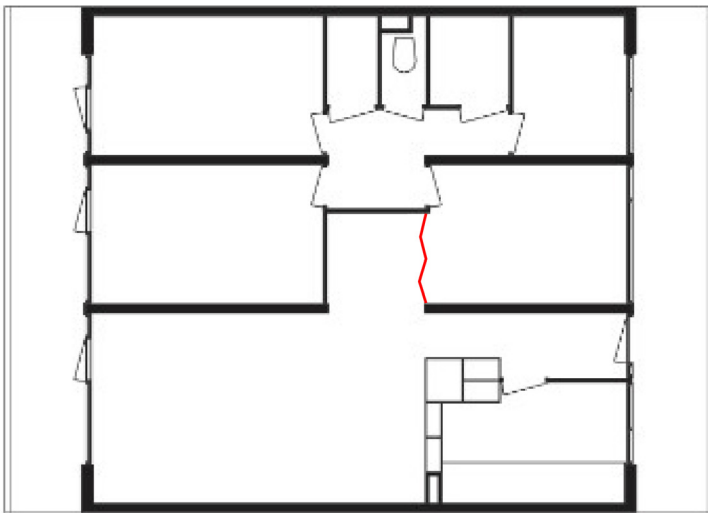


Fig. 37. Inflexible partitioned space with the flexible partition indicated in red (Own edited work. Image from Wilkinson, 2021)

## Section 3(c): Analysis - Public-Participation in the Contemporary Period

### **Background of urban planning and changes in public-participation**

In the contemporary period (the 21st century), there was no large-scale urban expansion event as in the previous periods, but changes in demographic, socio-economic and political backgrounds still led to new housing politics in newly developed residential areas within the city's territory. These backgrounds are mentioned in the journal *Amsterdam in the 21st century: Geography, housing, spatial development and politics*, written in 2016 by Federico Savini, who is an associate professor in University of Amsterdam specializing in environmental planning, institutions and politics. The journal provided two main aspects in the new policies, which led to more potential for public-participation in housing practice when compared with the post-industrialization period. Firstly, to balance the loss of inhabitants to suburban areas due to suburbanization and high housing prices in Amsterdam, the government promoted owner-owned housing to attract middle to affluent classes.(Savini et. al., 2016) The proportion of owner-occupied housing rose from 12% to 28% from 1998 to 2014 (Hochstenbach, 2016)(Fig. 38), and even reached 80% in the new residential project along IJburg. As mentioned, private properties provide rights for inhabitants to modify their own space, at least for the interior design of the house; while higher capacities for spatial customization are also identified in private houses in the later architectural analysis. Secondly, as the huge economic crisis in 2008 illustrated that utopian large-scale planning was prone to entire economic and functional failure, the government adopted a more capitalistic

and organic approach of splitting up the plan and co-production with private enterprises.(Savini et. al., 2016) This situation provided more opportunities for different private enterprises, with the notions of public-participation, to realize their participatory design ideas. Moreover, there was a rise of participatory notions in the late 20s in the Netherlands, in which the government targeted to raise the proportion of self-built housing to one-third of total housings by 2040 (Lloyd et al., 2015), while architects also reflected that urban planning should realize the needs of the public who are affected by planning decisions.(Albrecht, 1988) In this period, decision-making-capacity was provided intentionally by architects and the government under an ordered environment, the new tension between decision-making-capacity and order was illustrated in the housing project developed in the new residential area.

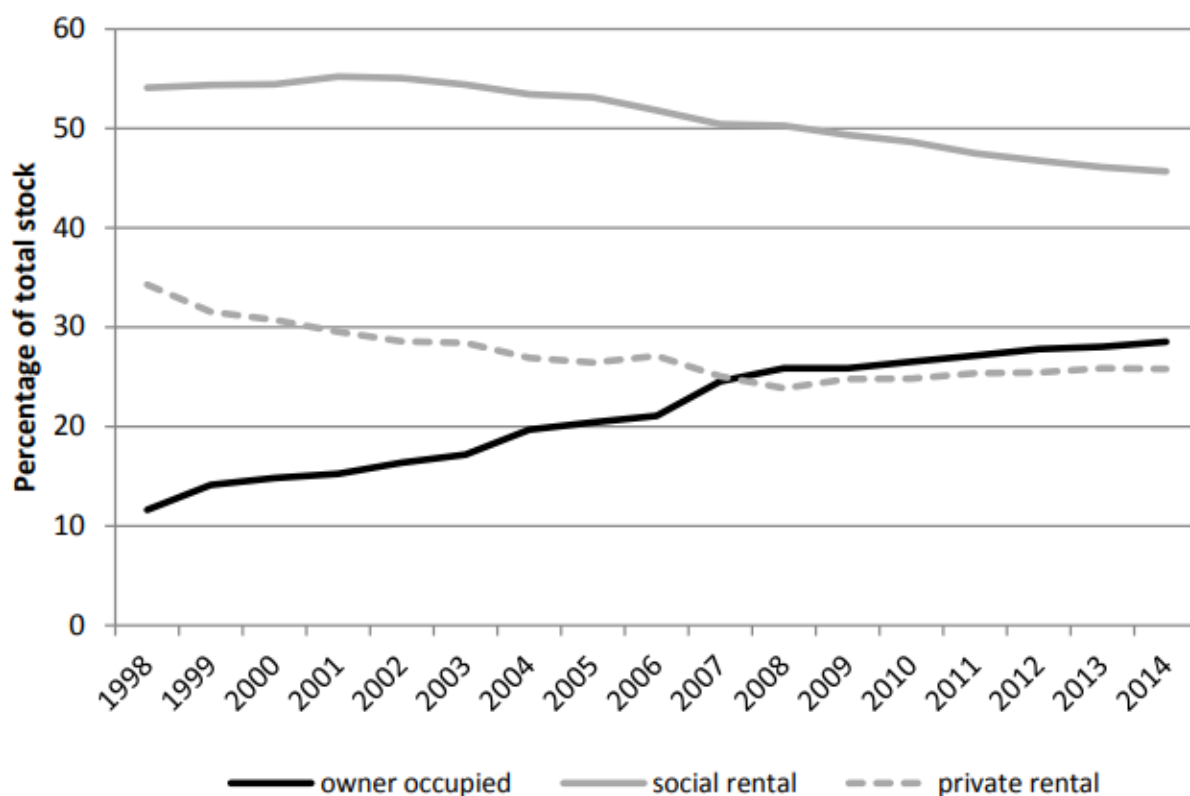


Fig. 38. Housing stock trend from 1998 to 2014, with the rise of owner occupied houses and fall of social rental houses (Hochstenbach, 2016)

### Public-participation in Borneo-Sporenburg

Borneo-Sporenburg was an experimental housing project developed in 1992 in the newly developed residential area IJburg. The main characteristic of the project was representative for contemporary self-build projects, in which participatory vision of architects was realized under mass-producing vision of the urban planning. The architectural firm West8 was selected to design the project according to the government's requirement of high-dense and low-rise residential area (Buurman et al., 2005), in which several private housing complexes were arranged closely in bays throughout the plan. (Fig. 39,40) Compared to private plot in Dutch Golden Age, the decision-making-capacity within private properties were now restricted by their mass-produced and defined nature in a way similar to social housings. However, apart from interior designs, customization was also enabled in terraces of 40-50m<sup>2</sup> within the private houses. In the northeast corner of the plan, diverse facilities, such as enclosed spaces and tents, were built within the terraces of private housings. (Fig. 41,42) Therefore, private housings still provided more capacities for inhabitants to define new spaces. Meanwhile, the participatory vision of West8 was significantly illustrated in the "modernist canal districts". (West8, 2022) 60 identical rectangular housing plots were firstly defined in one bay in the same way as the land parcellation system of the Dutch Golden Age, and contemporary construction technology benefited the customization capacity of the self-build houses. For example, half of the volume of house Borneo 12 was cut longitudinally to provide more lateral daylight within the house (Fig. 43); while cantilevered structure of house Borneo 18 covered a car park and a terrace facing the river. (Fig. 44) The district elevation illustrated how the contemporary order and decision-making-capacity shaped new urban characteristics, in which houses with great varieties in materiality and spatial quality were united under the stricter modernist guidelines of architects in housing formal dimensions and modernist style. (Fig. 45)



Fig. 41. Undefined customizable garden spaces in private houses ((Own edited work. Image from "Neutelings riedijk]borneo Sporenburg housing". 2014)



Fig. 39. Bird eye view of Borneo Sporenburg (Bush-King, 2023)

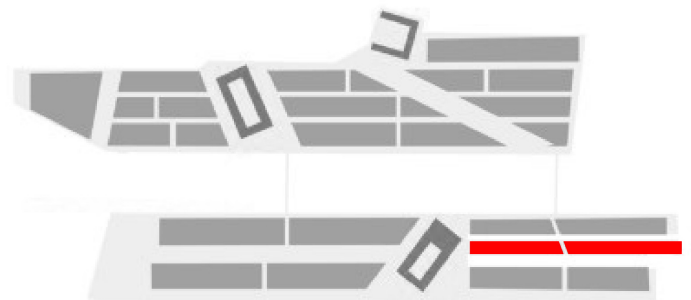


Fig. 40. Mass-produced housing complexes arranged in bays, with one bay as self-built district (red) ("*Borneo sporenburg*", 2007)

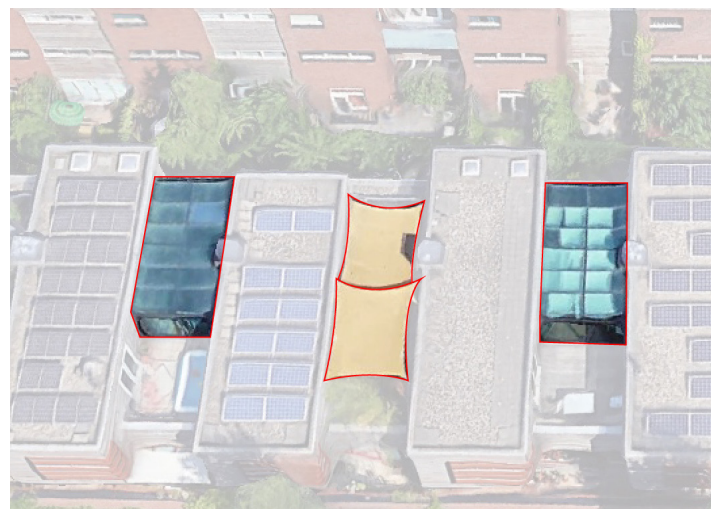


Fig. 42. Spatial extensions and tents built in the garden spaces. (Own edited work. Image from "Amsterdam · Netherlands", 2023)



Fig. 43. Halfed volume house for more daylight in Borneo 12 (Own edited work. Image from "Borneo 12", 2023)

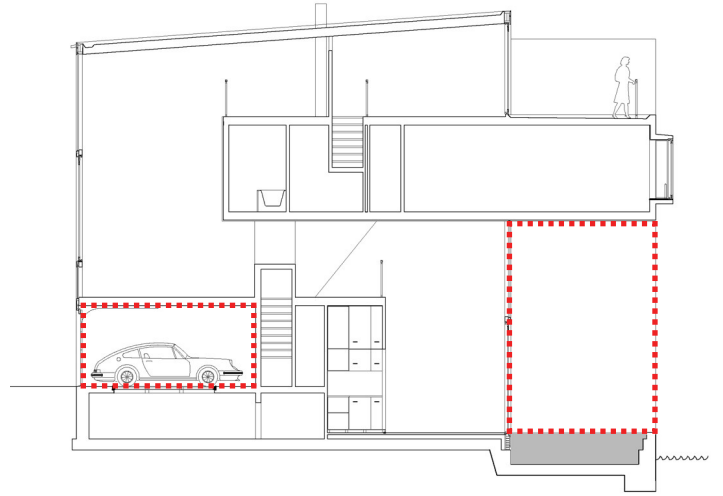


Fig. 44. Built-in carpark and terrace in Borneo 18 (Own edited work. Image from "Borneo 18", 2023)

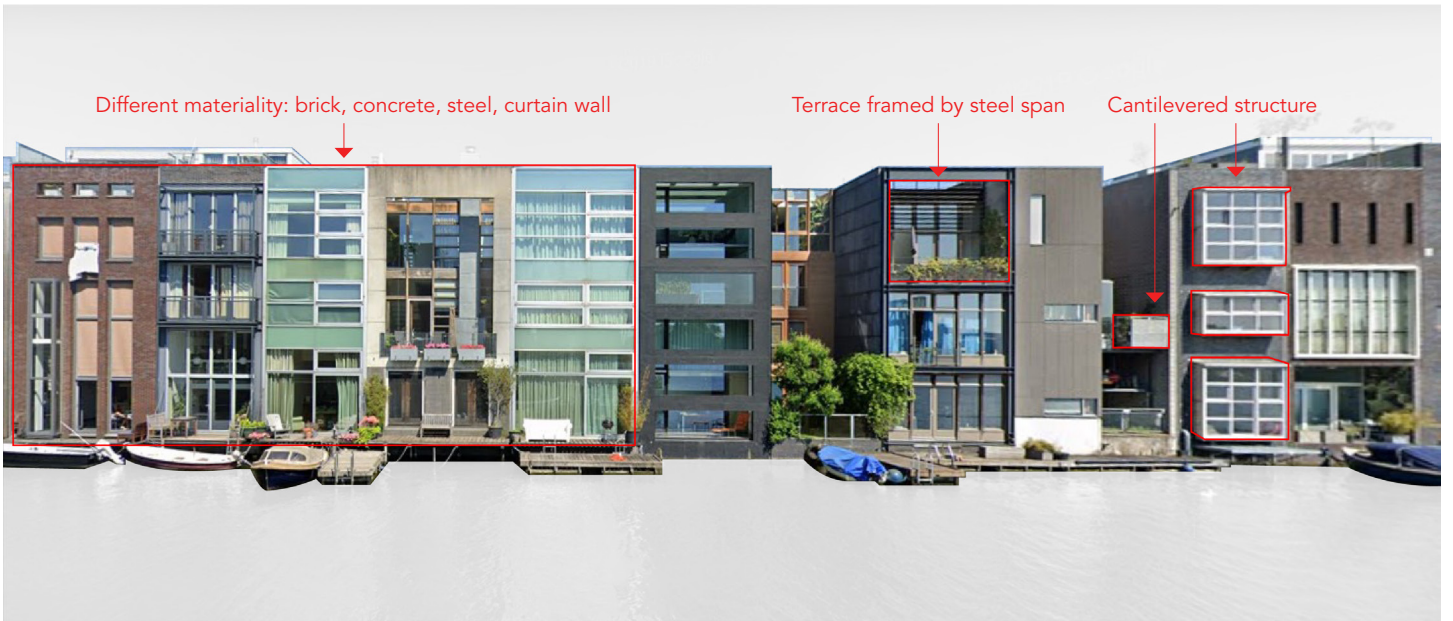
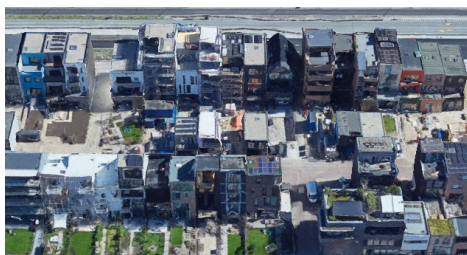
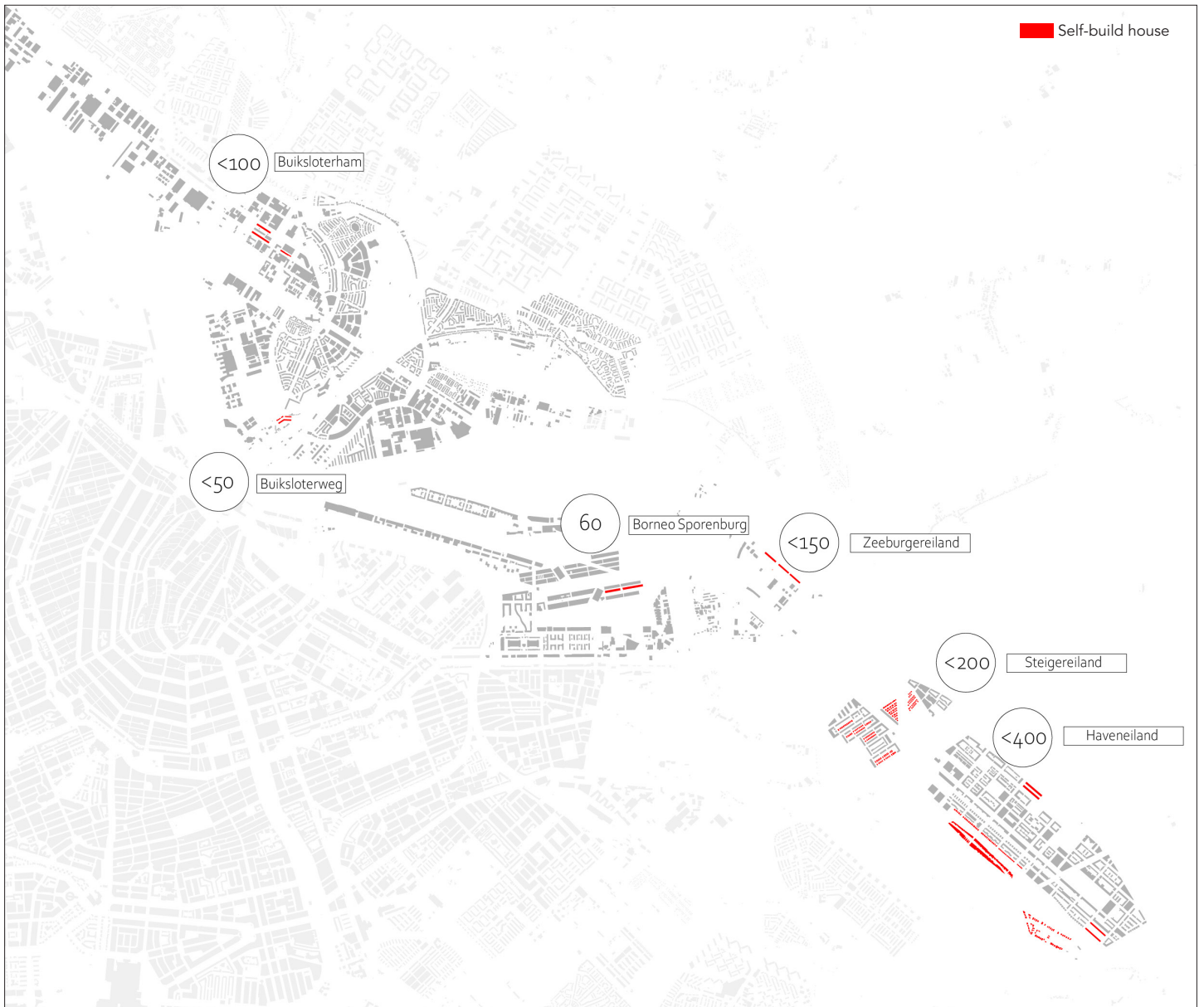


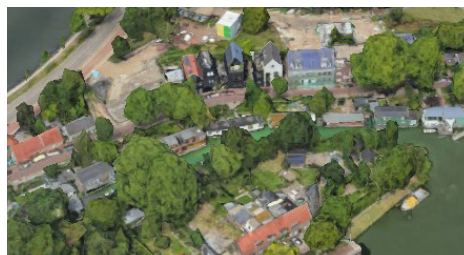
Fig. 45. Advanced technology enabled different space and materiality of self-built houses in self-built district, while houses were built in same height, similar width and same modernist style (Own edited work. Image from "Amsterdam · Netherlands", 2023)

### **Popularity of public-participation in new residential area**

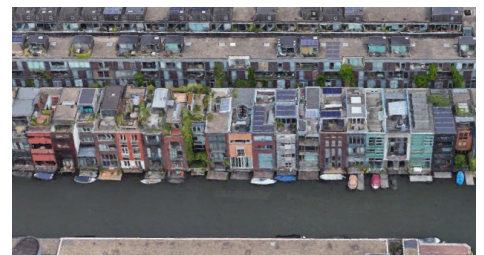
Compared to the Dutch Golden Age in which public-participation was initiated by the public through the incompleteness of the plan, public-participation was intentionally permitted by the government and architects in the contemporary period, which led to several limitations for its popularization. Firstly, the location and the amount of participatory housings were all determined by the government and architects. In Amsterdam, as individual self-build houses were less efficient to stimulate the housing stock than mass-produced housings, the proportion of self-build houses still remained below 5% even with the rise of participatory notion.(Lloyd et al., 2015) A further mapping study was done to study the distribution of self-build projects in new residential area.(Fig. 46) Compared with the Amsterdam central in which canal houses occupied the urban environment, contemporary self-build projects were scattered in the urban plan of new residential areas. Moreover, each self-build project only occupied small zones of the residential area, in which the environment was still dominated by medium-to-high-rise housings. For example, only 60 dwellings out of the 2500 were self-built houses in Borneo-Sporenburg.(Buurman et al., 2005) This illustrated that the demographic and economic visions still overrode the visions for public-participation in urban planning politics. Secondly, detailed sets of regulation, such as energy and dimensional requirement of each space in houses, were now clearly illustrated in the housing decree.(Overveld et al., 2013) As the public generally lacked knowledge to design with the strict regulation, and self-build houses were also more expensive than other housing typologies(Lloyd et al., 2015), these lowered the accessibility and attractiveness of self-built housings for the public. Thirdly, compared with the Dutch Golden Age in which inhabitants directly consulted the carpenters for constructions, architects were now involved in the process of public-participation as mediators. Apart from the government, architects now could also exert their own preferences within the design process. For example, the self-built district in Borneo-Sporenburg was defined as "modernist canal district" by West8 without consulting whether the public preferred modernist style houses. Political scientist Carole Pateman, who studied participatory democracy, described this mode of public-participation as "pseudo-participation", in which decisions were ultimately made by architects who were more knowledgeable for design, and the needs of inhabitants were repressed in the process.(1970, p.68, as cited in Jones et al., 2005) In this case, orders were exerted from architects to satisfy their personal visions, but not to regulate the unexpected outcome generated by the public. Therefore, although public-participation was enhanced through promotions of self-build houses, public-participation was not easily accessible and was manipulated meticulously by the government and architects, and hence the level of public-participation in the new residential area was 'degrees of tokenism'.



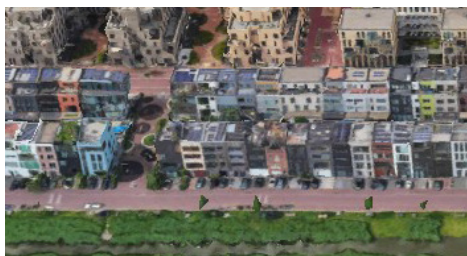
Buiksloterham



Buiksloterweg



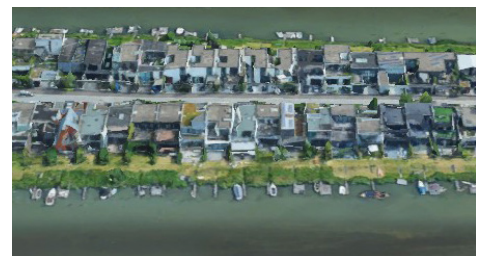
Borneo Sporenburg



Zeeburgereiland



Steigereiland



Haveneiland

Fig. 46. A mapping of completed self-build projects in new residential areas according to the governmental self-build housing data (Haan, 2023), while the number of houses is estimated through identifying personalized house on Google Earth. ("Amsterdam · Netherlands", 2023) According to the mapping, self-built projects were scattered and only occupied small proportion of housing stock in new residential area. There are larger self-build region in Steigereiland and Haveneiland, but majority of houses were still medium-to-high-rise housing complexes. (Own work)

### **Renovation and changes in public-participation in social housing area**

It should be noted that apart from the new residential area, public-participation in social housing area developed in the post-industrialization period was also influenced by the new housing policies. The proportion of social housings fell gradually (Fig. 38), as certain social housings were now identified as owner-owned housings, while in some cases such as Bijlmer, social housings were demolished and replaced by new private housing projects. ("The Renovation of the Bijlmermeer", 2014) (Fig. 47) The new private properties provided a slightly higher capacity for public-participation. A more significant change for the participatory environment was that architects started to renovate social housings with participatory notions. One example was the Klusflat project carried out by NL Architect and XVW Architect during the renovation of Bijlmer in 2011. In the project, although the structural walls still exerted orders in spatial configuration, adjacent units could now be combined as larger units if needed, and the architects provided greater decision-making-capacity for inhabitants by removing partition walls for further customization within the unit. (Fig. 48,49) The facade of the housing complex was now renovated with colored panels chosen by inhabitants, which vitalized the sterile defined environment. (Fig. 50) According to the architect, the key value of this project was to provide lower-income inhabitants with the right to build with an affordable price. (Crook, 2017) This example, which defined the mass-produced structural frame while enabled customized partitioning in an unit, showed that public-participation could be inclusive for inhabitants of different economic classes by adopting partial participatory scheme instead of self-build houses, and indicated the possibilities to popularize public-participation under mass-produced housing environment. Nevertheless, the non-participatory mass-produced structure continued to dominate the area, and renovation projects for partial participation were still not yet a common practice.

### **Summary**

Public-participation in housing practice in the contemporary period could be regarded as a combination of self-build movement from the Dutch Golden Age and top-down visions from the post-industrialization period, in which capacities for public-participation started to grow within an inflexible environment under the contemporary participatory notions. Although public-participation remained at the level of 'degrees of tokenism' under manipulation from authorities, one key aspect in this period was that participatory design with different public-ideology arose. New high-end self-build houses provided relatively high decision-making-capacity but were difficult to popularize, while partial participatory design provided less decision-making-capacity but was more possible to popularize. As the territory stopped expanding while buildings only retained and grew, it was the time for different stakeholders to consider in what way their participatory ideas could empower the public rights under an increasingly built environment.

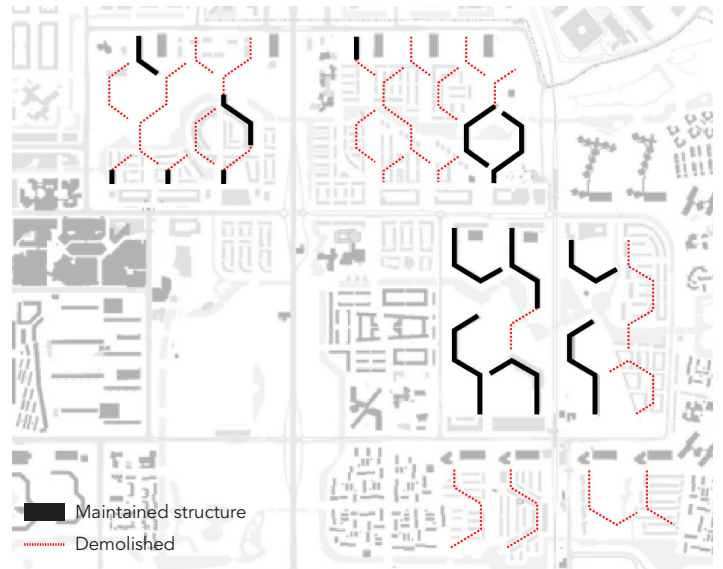


Fig. 47. Renovation of Bijlmer project, with majority of original housing blocks (red) demolished and replaced by private development (Own edited work. Image from "The Renovation of the Bijlmermeer", 2014, p.11)



Fig. 48. Modification of the walls allowing combination of units (Parool, 2017)

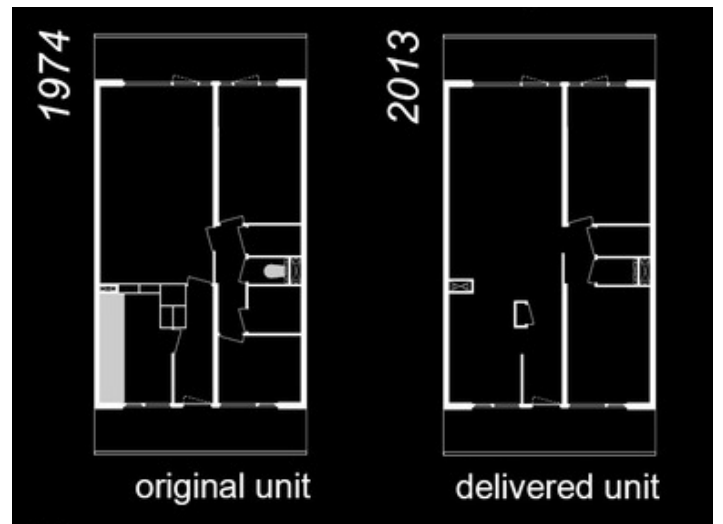


Fig. 49. Reduced partitions in renovated units for more future customization (Leiva, 2017)



Fig. 50. Customized colored panels brought vibrancy to the concrete environment (Wever, 2014)



## Section 4: Further discussion

### **Public-participation from three periods to nowadays**

The above analytical section indicated that public-participation arose in levels of 'degrees of citizen power' under the incomplete plan in Dutch Golden Age, 'non-participation' in fully controlled plan in post-industrialization period, and 'degree of tokenism' under controlled participatory movement in the contemporary period. This also indicated that public-participation in the history of Amsterdam was more influenced by socio-economic, political and urban planning visions of the government, rather than by architectural participatory ideas. Even with the participatory notion, the mainstream contemporary participatory architecture only suggested new style and physical functions for public-participation, while the value, purpose and realization of public-participation was still shaped by the top-down urban planning politics. Meanwhile, this session links the chronologically separated analysis, and discusses how the urban planning visions in each period further led to the current imbalanced and individualized situation of public-participation in housing practice in Amsterdam.

For the imbalance in public-participation, instead of redeveloping the same area with new vision, the government implemented a particular urban planning vision in different areas in each period, and different housing typologies with different participatory-capacity were hence allocated into different corresponding areas. As overall participatory characteristics of each housing area are maintained (with only sporadic renovation projects), forms of public-participation in housing practice is regionalized in Amsterdam due to the separated housing development history. There is still no residential zone with mixed private and social housing politics in urban-scale, e.g. significant proportion of self-build houses provided within a social housing environment, exist. Moreover, as different areas were orientated for different economic classes under the planning visions, the regionalization of participatory

architecture led to the polarization of participatory-capacity between the affluent class and lower-income class. Self-built houses in Amsterdam Center were dominated by the affluent class as houses were provided under the rich-privileged free housing market; cheaper non-participatory social housing was assigned for the lower-income class according to Housing Act; and self-build or owner-owned housings in latest residential area was utilized to attract affluent class for gentrification. Also, the proportion of the private rental house had kept rising and reached 28.5% in 2019 in Amsterdam, indicating an increasing number of lower-income classes are living in the private rental houses shaped by the affluent class. (Hochstenbach & Ronald, 2020) Even if the social housing area is redeveloped into a private housing area with higher participatory-capacity in the future, the lower-income class are just envisioned to be replaced by the affluent class under gentrification policies, rather than empowered through public-participation. It should be noted that this current imbalance of participatory power is different from that in the Dutch Golden Age, which was a public-led imbalance state that both economic classes were assigned under the same unregulated housing market, and the affluent class dominated the land plots to construct. This experience in the Dutch Golden Age even illustrated that the current segregation of affluent and lower-income residential zones has benefits for public-participation, as it reduces the conflicts between the poor and the rich, and facilitates the negotiation process by grouping people with similar desires together. However, the government has both segregated the economic classes and assigned them unequal housing policies in the later development, which resulted in a state-led imbalance of participatory power between the economic classes. (Fig. 51) The housing development history in Amsterdam showed that the authorities planning visions, with or without the visions of public-participation, never functioned in a way to empower the participatory rights of the lower-income public.

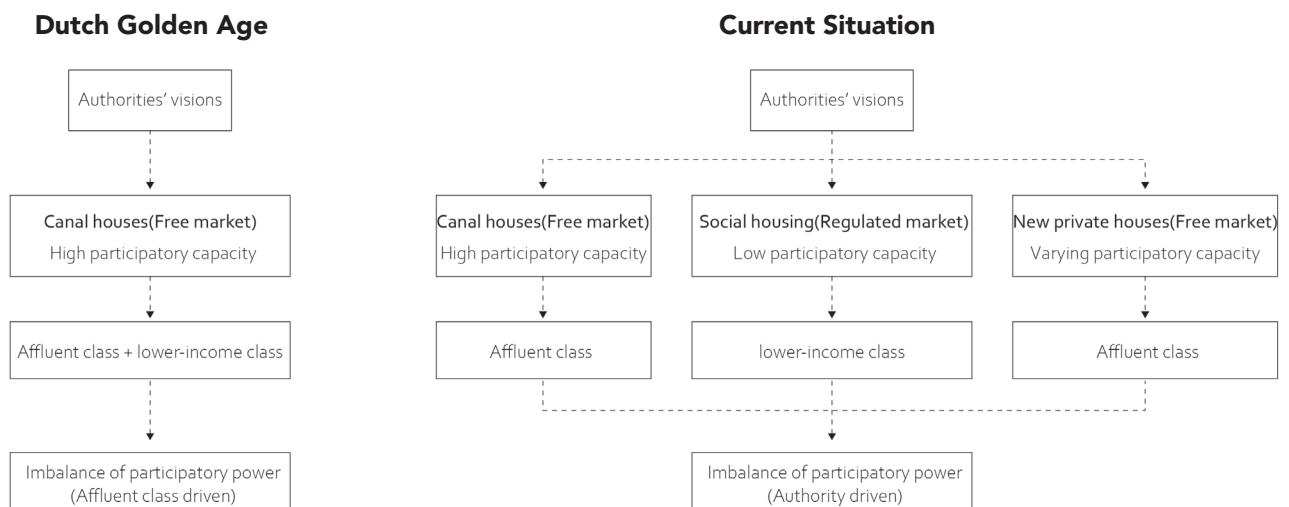


Fig. 51. Comparison of imbalance participatory situation between the Dutch Golden Age and current situation (Own work)

For the individualization of public-participation, although the changes of building regulations, technologies and participatory notions provided different participatory means, these means were all exercised as an individual act. This was also ascribed to the authorities' planning vision. Firstly, in the canal district, the land parcellation systems defined plots only for individual houses, but not as larger plots for collective development. As the public was not involved or adequately consulted in the top-down plot design process, there was also no collective process of spatial negotiation of the individualized plots. Secondly, the individualized plots were then provided and developed individually at different times, rather than collectively. According to the canal house documentary ("Grachten", 2023), the still significant variances between canal houses and the differences in their built year indicated that most canal houses were likely built with individual considerations without reaching mutual consensus with neighborhoods. (Fig. 52) The consented case mentioned by Abrahamse(2019), in which identical houses in Herengracht 571-581 built by different clients at the same time, was not a common case. This also showed that having a collective appearance did not necessarily indicate that there was a collective process. Meanwhile, the contemporary vision to recapture the participatory architecture of the canal district extended the individuality of public-participation. In Borneo-Sporenburg and other contemporary self-build projects, the duplication of individual plot systems maintained the independent development of each house (Fig. 46), while the modernist collective-appearance of the projects was achieved by architects, but not by the consensus from

the public. According to theories in Architecture and Participation(2005), collective participation is a democratic approach to balance desire, reduce conflict and boost the public's senses of belonging(Pateman, 1970, as cited in Jones et al., 2005); while this approach needed an initiator to provide a platform to generate consensus.(Richardson & Connelly, 2005, as cited in Jones, 2005) The lack of collective platform and collective process in Amsterdam led to several limitations on public-participation. Firstly, public-participation was only exercised to satisfy individual needs by individual houses, but not as a democratic act to shape a consented urban character which maximized the satisfaction of all individuals within a community. Secondly, the individualized participation also led to the imbalanced participatory situation mentioned above, as the defined and individualized plots disabled the possibility to allocate spaces according to both the economic ability and daily needs of the public through collective negotiation. Indeed, there are already ideas challenging both the imbalanced and individualized participatory situation. One example is the WEGO suggested by MVRDV in 2017, which suggested an inclusive and collective participatory approach under the current unequal social environment. (Fig. 53)(However the architects' influence on the character of the place was another concern.) However, experimental collective participatory ideas were not yet realized in the urban environment of Amsterdam. The ongoing self-build projects, such as Centrumeiland and Sluisbuurt(Haan, 2023), still preserve the individualized self-build method as their participatory ideology.

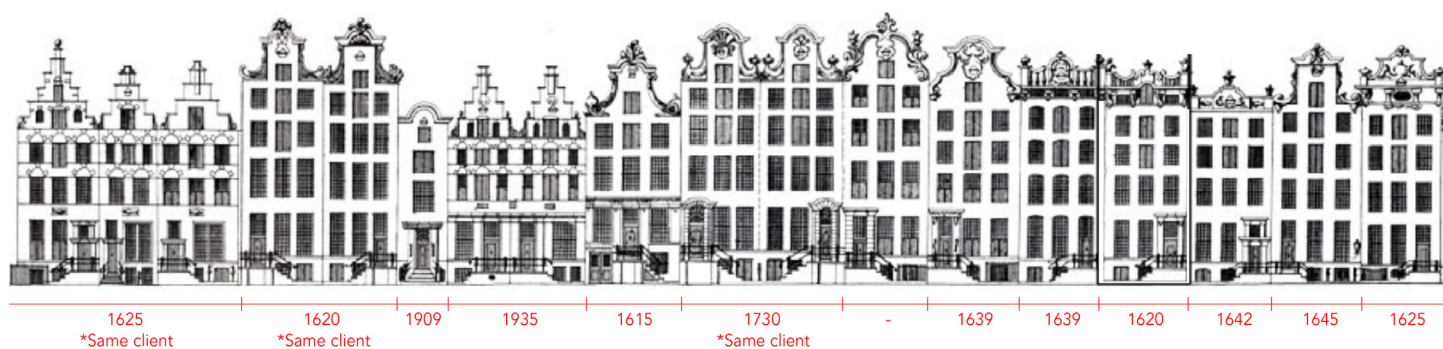


Fig. 52. Study of the built year of canal houses in Keizergracht 278-312 (typical canal district), which illustrates that individual houses were built in different time under the free market (Own edited work. Image from "Grachten", 2023)



Fig. 53. WEGO, an inclusive participatory idea under an unequal social environment. Every inhabitant negotiates spaces of different sizes according to their personal needs and economic status under the same system ("Dutch Design Week: The Future City is wonderful", 2023)

## 5 Conclusion

### **Reflection of the methodology, results of the study and its limitation**

The above study shows that under changing socio-economic and political backgrounds of Amsterdam, different architectural visions and theories had different popularity in different periods; while different stakeholders, including historians, theorists and architects, might also construct their visions only according to the popular trend. The methodology of this paper, to integrate architectural visions in different perspectives popular in different periods, and use them as a combined lens to study history, provides several insights in the result. Firstly, the analytical session, which combines visions in different perspectives, shows that visions in different perspectives could be interdependent with each other, in which participatory vision depended on political and economic visions in each period of Amsterdam. This suggested why even without the participatory notion in the past, public-participation was exercised at a higher level in the Dutch Golden Age than in the contemporary period. These interrelationships of visions illustrate that studying different visions collectively helps develop a deeper understanding of a vision in broader scope. Secondly, the discussion session, which articulates interrelationships of visions in different periods, shows that innovative contemporary visions could be shaped unawarely by historical visions. Although public-participation is regarded as a contemporary notion, its current imbalance and individual visions in Amsterdam were already shaped by the urban planning history, and by how it was exercised in the past. This stressed the value of using contemporary vision to study history, in which when the visions are discovered to have been exercised in the past, the problems of contemporary vision can be identified through studying how the vision was developed from the past.

For the results and limitations, as this historical paper only focused on major urban areas developed in three periods in the history of Amsterdam, there are still some urban areas, developed between the periods, that have not yet been analyzed. However, still a number of paradigms of representative participatory housing practice in relation to urban planning politics are illustrated by the analytical session of this paper, which suggested ways for advocates of participatory visions, including the authorities, architects and theorists, to further explore more paradigms with a deeper understanding of public-participation. Moreover, the discussion session of this paper indicated the current challenge of public-participation in housing practice of Amsterdam, and positioned its advocates between a dilemma: should they follow the history and continue to promote rich-privileged, individualized and pseudo participatory design according to the current socio-economic and political visions of authorities in Amsterdam? Or should they confront the history and the planning visions, and reconsider public-participation as a public-driven, more equalized and collective practice? It should be noted that the aim of this paper is not criticizing the former practice, as the purpose of this paper is to evaluate the theoretical levels

and situation of public-participation in Amsterdam, but not to study which forms of public-participation are more suitable for Amsterdam. Public-participation in reality still has to be considered in further fundamental aspects, such as its compatibility with authorities' development visions, and what forms of participation do the public actually want. Nevertheless, this paper identifies that there is much improvement capacity for the current situation of public-participation in housing practice in Amsterdam, which can be re-considered by its advocates after they have evaluated the suitability of practicing public-participation.

## Reference

- Abrahamse, J. E. (2019). *Metropolis in the making : a planning history of Amsterdam in the dutch golden age* (Ser. Architectural cross-roads, vol. 6). Brepols.
- Abrahamse, Jaap Evert & Kosian, Menne & Schmitz, Erik. (2010). *Urban Economics Urban Development, Land Use and the Real Estate Market in Early Modern Amsterdam*. W. Börner, S. Uhlirz & L. Dollhofer (eds.), Proceedings of the 15th Vienna Conference on Heritage and New Technology. 163-186.
- Albrecht, J. (1988). *Towards a theory of participation in architecture: An examination of humanistic planning theories*. Journal of Architectural Education (1984-), 42(1), 24. <https://doi.org/10.2307/1424997>
- Algemeen Uitbreidingsplan*. (2023, March 17). Wikipedia. Retrieved April 13, 2023, from [https://nl.wikipedia.org/wiki/Algemeen\\_Uitbreidingsplan](https://nl.wikipedia.org/wiki/Algemeen_Uitbreidingsplan)
- The Amsterdam Jordaan*. (2023). Webcamsue. Retrieved April 13, 2023, from <http://www.webcamsue.nl/amsterdam/jordaan.html>
- Amsterdam · Netherlands*. (2023). Google maps. Retrieved April 13, 2023, from <https://goo.gl/maps/wgo2LMGG91cUBoU26>
- Arnstein, S. R. (2019). *A ladder of citizen participation*. American Planning Association. Journal of the American Planning Association, 85(1), 24–34. <https://doi.org/10.1080/01944363.2018.1559388>
- Bijlmer (meer) en de Bijlmerramp, Amsterdam Zuid-Oost*. (2023). Mokums. Retrieved April 13, 2023, from <http://www.mokums.nl/bijlmer.html>
- Blundell-Jones, P., Petrescu, D., & Till, J. (2005). *Architecture and participation*. Routledge.
- Borneo 12*. (2023). MVRDV. Retrieved April 13, 2023, from <https://www.mvrdv.nl/projects/161/borneo-12>
- Borneo 19*. (2023). MVRDV. Retrieved April 13, 2023, from <https://www.mvrdv.nl/projects/161/borneo-18>
- Borneo sporenburg*. (2007, January 1). Sigitkusumawijaya architect urbandesigner. Retrieved April 13, 2023, from <https://sigitkusumawijaya.com/?p=229>
- Borneo-Sporenburg*. (2022, January 31). West 8. Retrieved April 11, 2023, from [https://www.west8.com/projects/borneo\\_sporenburg/](https://www.west8.com/projects/borneo_sporenburg/)
- Bush-King, S. (2023). *From polder to pavlova paradise*. *Architecture Now*. Retrieved April 13, 2023, from <https://architecturenow.co.nz/articles/from-polder-to-pavlova-paradise/>
- Buurman, M., Kloos, M., & Zuyl-Moores, J. (2005). *Impact : amsterdamse stedenbouw na 1986 = urban planning in amsterdam after 1986*. ARCAM.
- Crook, L. (2017, March 14). *Colossal Amsterdam Housing Block brought up to date with customisable apartments*. Dezeen. Retrieved April 11, 2023, from <https://www.dezeen.com/2017/03/11/colossal-amsterdam-housing-estate-up-to-date-customisable-apartments-architecture/>
- Dutch Design Week: The Future City is wonderful*. (2023). MVRDV. Retrieved April 11, 2023, from <https://www.mvrdv.nl/projects/297/dutch-design-week:-the-future-city-is-wonderful->
- Erfgoed van de Week*. (2023). Gemeente Amsterdam. Retrieved April 13, 2023, from <https://www.amsterdam.nl/kunst-cultuur/monumenten/erfgoed-week/>
- Federico Savini*. (2023). Academia.edu. Retrieved April 11, 2023, from <https://uva.academia.edu/FedericoSavini>
- Geschiedenis. (2023). Jordaan.nl. Retrieved April 13, 2023, from <https://jordaan-info.jouwweb.nl/geschiedenis-1>
- Grachten*. (2023). Amsterdamse Grachtenhuizen. Retrieved April 11, 2023, from <https://amsterdamsegrachtenhuizen.info/gracht/index.html>
- Haan, G.A.K.B. de. (2023). Do-it-yourself plots. Retrieved April 18, 2023, from <https://maps.amsterdam.nl/zelfbouwkavels/?LANG=en>
- Havinga, Lisanne & Colenbrander, Bernard & Schellen, H.L.. (2019). *Heritage attributes of post-war housing in Amsterdam*. *Frontiers of Architectural Research*. 9. 10.1016/j.foar.2019.04.002
- Hochstenbach, C. (2016). *State-led gentrification and the changing geography of market-oriented housing policies*. *Housing, Theory and Society*, 34(4), 399–419. <https://doi.org/10.1080/14036096.2016.1271825>
- Hochstenbach, C., & Ronald, R. (2020). *The unlikely revival of private renting in Amsterdam: Re-regulating a regulated housing market*. *Environment and Planning A: Economy and Space*, 52(8), 1622–1642. <https://doi.org/10.1177/0308518x20913015>
- Judd S. (2008). *'We shape our buildings...thereafter they shape us'*. *Dementia*. 2008;7(2):163-165. doi:10.1177/1471301208091161
- Kras, R., Hellinga, H., & Rebel, B. (1983). *Het Nieuwe Bouwen Amsterdam 1920 - 1960*. Delft University Press.

- Leeming, K., & Shakur, T. (2003). *Welcoming Difference or Wily Dispersal? Emerging Problems of Urban Regeneration in the Multiply Deprived Area of Bijlmermeer (Amsterdam)*. *Global Built Environment Review*, 3(3), 61-72. <http://www.edgehill.ac.uk/gber/pdf/vol3/issue3/article4.pdf>
- Leiva, S. (2017). *DeFlat / NL architects + XVW architectuur*. ArchDaily. Retrieved April 13, 2023, from <https://www.archdaily.com/806243/deflat-nl-architects-plus-xvw-architectuur>
- Lloyd, M. G., Peel, D., & Janssen-Jansen, L. B. (2015). *Self-build in the UK and Netherlands: Mainstreaming self-development to address housing shortages?* *Urban, Planning and Transport Research*, 3(1), 19–31. <https://doi.org/10.1080/21650020.2014.987403>
- Museum our lord in the Attic*. (2023, January 9). Museum Ons' Lieve Heer op Solder. Retrieved April 13, 2023, from <https://opsolder.nl/en/museum-our-lord-in-the-attic/>
- Neutelings riedijk|borneo Sporenburg housing*. (2014). Neutelings Riedijk. Retrieved April 13, 2023, from <https://m.blog.naver.com/PostView.naver?isHttpsRedirect=true&blogId=wdh36&logNo=200000301515>
- Overveld, M. van. (2013). *Praktijkboek Bouwbesluit 2012*. SDU Uitgevers.
- Parool, Het. (2017). *Klusflat Kleiburg has a chance to win the European architecture prize*. DPG Media Privacy Gate. Retrieved April 13, 2023, from <https://www.ad.nl/amsterdam/klusflat-kleiburg-maakt-kans-op-europese-architectuurprijs~afdb7572/>
- POSTUMA, R., VAN DER VALK, A., & WALLAGH, G. (1989). *Planning for Rule and Order in Amsterdam*. *Built Environment* (1978-), 15(1), 17–27. <http://www.jstor.org/stable/23286679>
- The Renovation of the Bijlmermeer. (2014). Bijlmermeer Renovation Planning Office
- The right to build*. (2019). The Right to Build | AEX. Retrieved April 11, 2023, from <https://www.architecture-exhibitions.com/arcam-%E2%80%93-architectuurcentrum-amsterdam/the-right-to-build>
- Savini, F., Boterman, W. R., van Gent, W. P. C., & Majoor, S. (2016). *Amsterdam in the 21st Century: Geography, housing, Spatial Development and Politics*. *Cities*, 52, 103–113. <https://doi.org/10.1016/j.cities.2015.11.017>
- Van der Veen, M. R. (2013). DUPLEX HOUSING IN SLOTERMEER CASE ROLAND HOLSTBUURT. Technical University Delft, Faculty of Architecture
- Van Tussenbroek, Gabri. (2018). *The Great Rebuilding of Amsterdam (1521–1578)*. *Urban History*, 46(3), 19-21. <https://doi.org/10.1017/s0963926818000561>
- Waarderingskaarten Aup Gebieden*. (2023). Gemeente Amsterdam. Retrieved April 13, 2023, from <https://www.amsterdam.nl/kunst-cultuur/monumenten/projecten/waarderingskaarten/>
- Wagenaar, C. (2016). In Memoriam Koos Bosma. *Planning Perspectives*, 31(3), 459–463. <https://doi.org/10.1080/02665433.2016.1166980>
- Wever, R. de. (2014, June 12). *Amsterdam krijgt Een Onorthodox stadsklooster*. Trouw. Retrieved April 13, 2023, from <https://www.trouw.nl/nieuws/amsterdam-krijgt-een-onorthodox-stadsklooster~b99920a9/?referrer=https%3A%2F%2Fwww.google.com%2F>
- Wilkinson, T. (2021, May 14). *Bijlmermeer estate by NL architects with XVW Architectuur*. *Architectural Review*. Retrieved April 13, 2023, from <https://www.architectural-review.com/buildings/bijlmermeer-estate-by-nl-architects-with-xvw-architectuur>