## The contrasts of urban parks

A first evaluation: In and beyond public green space

A case study research into

the residential participation and experiences in Luchtpark Hofbogen,

Rotterdam,

the Netherlands

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### The contrasts of urban parks

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"Cities have the capability of providing something for everybody, only because, and only when, they are created by everybody."







#### Contents

S	ummary	9
1	. Introduction: Urban green space as socially beneficial nature-based solution	11
	1.1 The case of Rotterdam: How the Dutch city relates to the global trend?	12
	1.2 Societal and scientific relevance: Who benefits from research on urban green space?	12
2	. Theoretical framework: Urban parks and influence on and by humanity	15
	2.1 Urban green spaces: Why is urban green space beneficial?	15
	2.2 Urban green spaces: What is the tipping point of the socio-economic benefits?	16
	2.3 Exclusion and inclusion: How exclusion occurs?	17
	2.4 Exclusion and inclusion: Which factors influence exclusion in urban green space?	18
	2.5 Governance and community participation: How to address green space injustice?	20
	2.6 Governance and community participation: Can local involvement lead to societal support?	22
	2.7 Conceptual model: How do the actors relate to each other?	24
3	. Methodology: The case of the Luchtpark Hofbogen examined	25
	3.1 Study setting: What is the research area?	25
	3.2.1 Interview recruitment: Who was contacted for the interviews?	26
	3.2.2 Interview participants: Who participated in the interviews?	26
	3.2.3 Interview data collection and analysis: What information has been gathered and analysed?	26
	3.3.1 Survey recruitment: Who was invited for the survey?	26
	3.3.2 Survey data collection: What information has been gathered?	27
	3.3.3 Survey variables: Which variables has been requested?	28
	3.3.4 Survey analysis: How is the data processed?	29
4	Results: Involvement and experiences in the Luchtpark Hofbogen	31
	4.1 History of origin: How is the Luchtpark Hofbogen developed?	31
	Frame I: Red tape in Rotterdam	33
	4.1.1 Uncertainty: Is the park generally known to everyone?	33
	4.2 Participation of residents: To what extent were the residents of the area around the Luchtpark Hofbo in Rotterdam involved in the development of the public urban green space?	_
	4.2.1 Participation of residents: Why does participation not succeed in the Luchtpark, and does succeed the extended trajectory?	
	4.2.2 Participation of residents: To what extent are residents satisfied by the participation process?	40
	4.3 Usage of the park: How is the Luchtpark Hofbogen used by local residents, and what are the characteristics of the users and non-users?	42
	4.3.1 Usage of the park: Who uses the Luchtpark Hofbogen?	44
	4.3.2 Usage of the park: How do they use the Luchtpark Hofbogen?	45

	4.4 Experiences and exclusion: How does accessibility differ between residents and who is included or excluded from use of the park? For what reasons do local residents use or not use the Luchtpark Hofbogen?	47
	4.4.1 Experiences and exclusion: Who is included or excluded from use of the park?	48
5.	Discussion: A new example of urban green space in Rotterdam	53
	5.1 Strengths and limitations: Which further research is suggested?	55
6.	References	57
7.	. Appendix	63
	7.1 Topics list	64
	7.2 Interview questions	65
	7.3 Survey invitations	67
	7.4 Survey	75
	7.5 Code tree for interview analyse	84
	7.6 Summaries of interviews	85
	7.8: Analysis syntaxes	92

First middle page: Quote from Jane Jacobs in *The Death and Life of Great American Cities* (1961). Image: Dolmatch, 2016; Second middle page: Image of Station Hofplein before 2006 (ANP; Liukku & Potters, 2018); Image of desolate Station Hofplein in 2018 (ProRail, 2018); Image of today's Luchtpark Hofbogen (Herfst, 2018; Mascini, 2018); Preface: Lyrics of Jain in 'Oh Man' (2018); Contents: Logo of Utrecht University, 2019.



#### Summary

More frequently public green spaces, such as urban parks, are being developed in urban areas to provide beneficial accessibility to nature for all residents as public green spaces have several environmental, economic, health, and social advantages. However, previous research showed many examples of exclusive green spaces. This case study research has examined the recently opened public park Luchtpark Hofbogen in Rotterdam, the Netherlands, to answer firstly, the question if the local community is involved during the development of this park, and secondly how the park is used and experienced by different people. In order to provide an overall conclusion about and recommendations for the Luchtpark Hofbogen both interviews with stakeholders, and a residential online survey were conducted in a zone of 300 metres around the park in the period between March to August 2019. The participation of residents is found to be limited to only some informative involvement and current maintenance, due to a long-term and opaque development process, and minimal interest of residents in the park. Meanwhile, interviews show that the park is increasingly used by a wide public. Nevertheless, only half of the various group of respondents uses the park once in a while. Whenever respondents do not visit the park this is mainly as consequence of personal preferences, in turn exclusive barriers are scarce. Exclusion of specific adjacent residents seems to be no current problem prior to the expansion of the Luchtpark Hofbogen.

Keywords: urban green space, rooftop park, civic participation, inequality of access, exclusion

#### Samenvatting

Steeds meer groene openbare ruimtes, zoals stadsparken, worden ontwikkeld om bewoners van stedelijke gebieden beschikking te geven over de verschillende milieu, economische, gezondheids- en sociale voordelen van groene openbare ruimtes. Desalniettemin, laten eerder onderzoeken zien dat er veel voorbeelden van exclusieve groene ruimtes zijn. Door middel van een case study naar het onlangs geopend openbaar park Luchtpark Hofbogen in Rotterdam is onderzocht of ten eerste de lokale bewoners betrokken zijn bij de ontwikkeling van het park, en ten tweede hoe het park is gebruikt en ervaren door de verschillende bewoners. Tussen maart en augustus 2019 zijn interviews afgenomen met betrokkenen en is een online enquête onder bewoners binnen een straal van 300 meters van het park verspreid, om tot een conclusie te komen en aanbevelingen te doen voor Luchtpark Hofbogen. Hieruit is gebleken dat de betrokkenheid bij de ontwikkeling beperkt is gebleven tot informatie-voorziening en onderhoud als gevolg van de lange en ingewikkelde aanloop en de minimale interesse van de lokale gemeenschap. Toch is uit interviews naar voren gekomen dat het park door een breed publiek steeds vaker wordt gebruikt. Daarentegen gebruikt slechts de helft van de diverse respondenten het Luchtpark Hofbogen frequent. Vaak wordt het park niet bezocht door persoonlijke keuzes en zelden als gevolg van uitsluitende barrières. Uitsluiting van bepaalde nabije bewoners lijkt vooralsnog geen probleem voorafgaand aan de uitbreiding van Luchtpark Hofbogen.

#### 1. Introduction: Urban green space as socially beneficial nature-based solution

Globally urban areas are being increasingly developed into more green urban spaces (Peschardt, Schipperijn, & Stigsdotter, 2012; Yang, Huang, Zhang, & Wang, 2014; Zhao et al., 2013). While population growth, urbanisation and sustainable development are of growing concerns in society, many cities have industrial abandoned spaces and are willing to reuse these spaces (Fuller & Gaston, 2009). To address multiple problems at once, one of the popular solutions is returning the areas to 'the public' in a green manner (Loughran, 2014). Traditionally parks are built in function of the public good related to ideas of democracy, public health, and civic virtue and provide a wide range of ecosystem services (Loughran, 2014; Wolch, Byrne, & Newell, 2014). Urban green spaces are able to provide several benefits to urban residents, which is something that grey infrastructure is not capable to do (Whiting, 2018). Next to ecological benefits such as countering urbanisation effects, and benefits for public health like minimising the risks of diseases, urban green spaces improve the quality of life for residents as well (Yang et al., 2014).

As a result of these benefits, many cities around the world have aimed to add more green space, for example in 2015 New York City, the United States of America (USA), has planted one million trees, because research shows that trees made city dwellers happier and smarter and to help to offset effects of climate change (Whiting, 2018). Besides, in 2009 the new urban park New York's High Line was already opened, when the rooftop of an old elevated railway was transformed from concrete and metal construction to a green environment (Loughran, 2014). Moreover, all over the globe cities intend to develop their city with more green spaces with a variety of motifs "to help protect them from heat waves and floods, and to boost people's physical and mental health" (Whiting, 2018). There are plenty of examples, Singapore has built a small urban farm on top of a mall and in the streets of Paris gardens were constructed and trees planted to make the city greener (Chandran, 2019; Tabary, 2018). In the city of Seoul the government recently planted more than two thousands groves and gardens, while cities as Athens and Melbourne aim to use greenery to reduce the effects of climate change (Whiting, 2018). In China, for example in Nanjing, they have planned to build vertical forests, in terms of high-rise buildings covered with greenery, derived from the city of Milan (Hutt, 2017; McKenna, 2017). Next to the existing vertical forest in Milan, the Italian city wants also three million trees to be planted on flat rooftops turning a disused railway network into seven parks. Although growing urban populations and increasing demand for housing and transport are putting pressure on green spaces, according to the mayor of Italy's greenest city Mantua, "green areas create happiness (...) and are important for the city's future sustainability" and smaller public urban green spaces, which are close to residential areas, can possible provide the desired green space (Peschardt et al., 2012; Whiting, 2018).

Together with the socio-economic benefits public urban green spaces are made into extremely desirable objects, but disadvantages can occur. More tourism, rising real estate values, and increasing economic activity can lead to negative impacts for adjacent residents of the park area. For example, the counter side of public green space is visible in New York. An elevated rail deck was converted into an urban park and the economically advantageous High Line Effect led to growth of visitors numbers in a serene neighbourhood (Loughran, 2014). In the changing environment not all residents felt welcomed in the newly developed green space. This case is not isolated and unique, more urban public places are subject to exclusion based on personal or group characteristics. In Sheffield, United Kingdom, only 36,5 percent of the city's households, especially elderly and more deprived inhabitants, have access to urban green space within walking distance, while in the British city Leicester the accessibility to park spaces is unequally distributed by ethnicity and religious groups (Barbosa et al., 2007; Comber, Brunsdon, & Green, 2008). Also in a smaller American city as Denver people are excluded, like in Los Angeles, the United States of America, where Latinos experience a dominant subgroup (Byrne, 2012; Johnson-Gaither, 2014; Rigolon & Flohr, 2014). Still the development of successful and inclusive public urban green spaces is possible, considering the

project of Millennium Park in Chicago, USA (Groos & Dages, 2008). A public park in which the environmental and economic benefits are connected with civic participation to be a sustainable place (Wolch et al., 2014).

#### 1.1 The case of Rotterdam: How the Dutch city relates to the global trend?

In the city centre of Rotterdam, the Netherlands, a more than century old elevated railway was abandoned and closed in 2010. Plans of redevelopment have led to the upgrading of the first part of the Hofbogen and prospective projects for the entire former railway to establish an oasis in the city centre of Rotterdam (Dirks, 2018; Liukku & Potters, 2018).

The roof area was transformed into a green urban park. On the first of June 2018 the Luchtpark Hofbogen was officially opened and is daily accessible (Goedhart, 2018; Mulder, 2018; RTV Rijnmond, 2018). The aim is to become an involving ideological hub again and an important link between the city centre and the northern part of Rotterdam (Projectbureau Hofbogen, 2013; Rotterdam Tourist Information, 2019; Van der Kleij, Polderman, Waszink, & Van Zuijlen, 2019). The recent city developments ensue the global trend to change derelict environments into urban green spaces. The recent projects have generated universal concerns about the outcomes related to cohesive societies and urban planning, but these developments are mutually different worldwide. The development of the Luchtpark Hofbogen in Rotterdam is a similar case on its own, with a unknown and unwritten future. Where is the development of the Luchtpark Hofbogen in Rotterdam heading to? The quest if the project tends to exclusion or the beginning of a successful inclusive development, led to the following research question:

To what extent were surrounding residents involved in the development of the Luchtpark Hofbogen, and how is the park now experienced by surrounding residents, related to issues of inclusion and exclusion?

Nowadays public park development in cities is more complex. New spaces represent the governmental effort to use urban parks for profit, while changing governance structures breed unevenly developed parks and inequality in public spaces (Loughran, 2014). Conflicts among different goals and priorities requires a difficult balance between multiple projected aims and support in and involvement by society (Campbell, 1996). The aim of the research is to examine the residential involvement during the development of the urban park and residential experiences of the public green space, and to obtain understanding of the inclusion or exclusion of people in parks. To structure the research the next sub-questions will therefore be analysed:

- I. To what extent were the residents of the area around the Luchtpark Hofbogen in Rotterdam involved in the development of the public urban green space?
- II. How is the Luchtpark Hofbogen used by local residents, and what are the characteristics of the users and non-users?
- III. How does accessibility differ between residents and who is included or excluded from use of the park? For what reasons do local residents use or not use the Luchtpark Hofbogen?

The obtained results from the research will provide insights into the involvement of residents during several stages of the project in combination with perceptions of residents, and will provide insights in the in- or exclusion of particular residents in the case of the Luchtpark Hofbogen in Rotterdam. Derived from the results an evaluation could be given about the community participation in the urban green space development, and advice be formed concerning the possible expansion of the public urban green park on top of the former railway in the city.

#### 1.2 Societal and scientific relevance: Who benefits from research on urban green space?

Almost a year after the official opening of the Luchtpark Hofbogen, research on residential participation and the experiences of the park, concerning among others in- and exclusion, is an appropriate moment for study and evaluation. The research is conducted shortly afterwards the

opening and before the projected follow-up projects, in order to examine the long-term effect of the park. Prior to the initial visitors' increase, an intermediate analysis can provide information for further developments in the research area related to urban green space early on.

Currently urban developments are influenced by a multiple of actors, factors and frictions. Varying between for example objectives as sustainability, liveability in cities and of citizens, accessibility, urban exposure and public spaces, conflicting interests affect the decisions, projected goals to be achieved, and societal processes. Well-functioning urban parks can contribute to the solution of these societal problems (Kazmierczak & James, n.d.). The first evaluation can be useful for future projects. A one year evaluation offers the opportunity to measure long-term impact of the park, reflects on success and points for improvement, and can contribute to clarity and future decisions of similar projects in Rotterdam and elsewhere.

Over the last decade urban green spaces have gained increasing attention within research and governance organisations. Especially the use of urban green space is increasingly researched (Peschardt et al., 2012). In particular in the United States and in the United Kingdom lots of quantitative research is focused on the access to parks, how to meet the necessary spatial distribution, and the effects of urban green space on the society. However less research is conducted on experiences related to urban green spaces by the people using them (Wolch et al., 2014). Only minimal research is executed on the concept of public green spaces and the use of these spaces, as well as limited research results in significant associations with regard to differences in use of urban green spaces of groups divided by age, gender, education level, health status, and distances (Peschardt et al., 2012). It is often stated that groups are divided by personal preferences, but unequal park access and use is both part of social exclusion as well as a consequence of exclusionary factors (Byrne, 2012). Inequity of park provision should be researched beyond the cultural explanations of activity differences (Byrne, 2012).

Although a case study is not to be generalised, because contexts differ almost everywhere, the research as a particular case will contribute added value of knowledge related to green spaces in cities in a research field, which is characterised by still limited information (Loughran, 2014; Peschardt et al., 2012). The research combines different subjects in terms of public space, obstructing aims, and in- or exclusion to contribute to still missing literature and a gap in the current theories in a new, recently opened urban park.

The structure of this report is as follows: first of all, the existing literature and knowledge concerning urban green space, social effects such as inclusion and exclusion, and the governance of development projects in for example green spaces will be described in the second chapter. This part will conclude with a conceptual model, which represents the system of the multiple concepts and stakeholders in this research. A pair of methods is used to tackle the different parts of the studied case in Rotterdam, which is proposed in the third chapter. The results out of surveys and interviews are discussed in the fourth chapter. This chapter is divided in four subparts. First, the origin and evolution of the Luchtpark Hofbogen over the years describes the grassroots of the development. Following the sub-questions of the study, the second subpart displays to what extent local residents were involved in the development of the park. The second sub-question is answered in the third part about the use and experiences about the park, while the fourth part continues to delve in the accessibility differences between local residents. If possibly particular people are excluded or included in the Luchtpark Hofbogen, these will be indicated here, before the conclusion answers the research question about the participation and experiences in relation to the Luchtpark Hofbogen.

#### 2. Theoretical framework: Urban parks and influence on and by humanity

Urban green spaces are defined as "outdoor places with significant amounts of vegetations, which exist mainly as semi-natural areas" (Gairola & Noresah, 2010; Zhao et al., 2013, p. 456). Furthermore specified, urban green spaces can be "areas that people pass on their way from one place to another, they may function as a small outdoor room where people can eat their lunch or they may be locally available 'nature parks' where the natural setting can provide some peace and quiet away from the hustle and bustle of the city" (Peschardt et al., 2012, p. 236).

Cities are covering increasingly more land over the globe and green spaces are a limited resource in urban areas. The human population is increasing, cities sprawl, megacities appear as an outcrop, and now more than half of the world population lives in urban areas (Cetin, 2014; Haase et al., 2017; Nieuwenhuijsen, Khreis, Triguero-Mas, Gascon, & Dadvand, 2017; Peschardt et al., 2012). Urbanisation causes urban environmental problems such as air pollution, urban heat islands, and the loss of urban green space (Gairola & Noresah, 2010; Yang et al., 2014). While in some cities the average green space coverage has increased, cities in North America, Europe and the Middle East reported losses of urban green spaces (Cetin, 2015; Hashem, 2015; Yang et al., 2014). The green space coverage in cities in China is following an increasing trend and is more than doubled from 17 per cent in 1989 to 37 per cent in 2009 (Zhao et al., 2013). Despite proven benefits and increasingly adopting urban greening as environmental management strategy cities worldwide experience a consistent declining trend of urban green spaces (Fuller & Gaston, 2009; Hashem, 2015). The abundance of urban green spaces is affected by both natural factors, such as direct extreme weather events or indirect climate changes, and socio-economic factors, like population densities and management (Yang et al., 2014). Today, interactions between people and nature are changed by the rapid urbanisation and research reveals the importance of urban green spaces, one of the most popular resources of the present urban ecosystems (Fuller & Gaston, 2009; Gairola & Noresah, 2010; Zhao et al., 2013). Green spaces in urban areas are recognized as "key ecological service providers to urban dwellers with multiple functions and also an important pillar of sustainable development" (Gairola & Noresah, 2010. p. 44). Cities have to maintain dynamic harmony between urbanity and green space and retain the potential effects of changes on biodiversity and quality of human life, according to several researchers (Comber et al., 2008; Fuller & Gaston, 2009; Gairola & Noresah, 2010). Therefore cities around the world are trying to apply green spaces (Yang et al., 2014).

In dense city areas with increasingly limited access to private or public larger green spaces, perhaps small public urban green spaces, which do not exceed the 5000 square meters in size and are close to people's homes or integrated in daily life patterns, based on the criteria of the City of Copenhagen, Denmark, can provide some of the satisfying outdoor areas (Peschardt et al., 2012). Although smaller and larger green spaces probably differ in use, the general appearances are similar. Urban green space includes private backyards, green rooftops or corporate campuses, public sporting fields, stream and river banks, forests, community gardens, green alleyway and cemeteries (Wolch et al., 2014). Nevertheless, the most well-known green space is the urban park in all sizes and shapes.

#### 2.1 Urban green spaces: Why is urban green space beneficial?

Urban greening is assumed as a way to address present environmental and urban problems (Yang et al., 2014). To advise and to offer a general norm the British non-departmental public body Natural England provides a set of standards, Accessible Natural Greenspace Standards (ANGSt), about the provision and access to natural green spaces (Natural England, 2010). These standards state a minimum of two hectares of accessible green space per 1000 inhabitants and that "no person should live more than 300m from the nearest area of natural greenspace of at least 2 ha in size", 2 kilometres to a 20 hectares site, 5 kilometres to a 100 hectares site, or should be within 10 kilometres of one accessible 500 hectares park (Comber et al., 2018, p. 104; Natural England, 2010). In other areas around the world the standardised amount of urban green space per capita varies

greatly. Due to environmental differences, the public parks standards differ from 0,58 hectares per 1000 population in Bahrain, 7 square meter green space per capita in Tokyo, Japan, 48 square meter in Melbourne to even a minimum of 74 square meter of green space per capita in the capital of Sweden, Stockholm (Hashem, 2015).

The benefits of urban green spaces are well documented and include ecological benefits, improvements of public health and the urban residential quality of life (Fuller & Gaston, 2009; Zhao et al., 2013). Green space in cities is associated with the potency to sustainably counter the negative effects of urbanisation. Urban greening may contribute to improving air and water quality, flood protection, pollution control, and reducing urban heating and noise levels (Gairola & Noresah, 2010; Hashem, 2015; Hartig, Mitchell, De Vries, & Frumkin, 2014; World Health Organization [WHO], 2016). Sometimes urban parks can also provide food for the environment, act as regulator of microclimates and offer a place for urban wildlife (Nieuwenhuijsen et al., 2017; Wolch et al., 2014).

Next to the ecosystem services, urban green spaces are associated with promoting physical activity and enhanced public health. In general, a lack of park access has been linked to mortality and many other lifestyle diseases such as obesity, diabetes and osteoporosis (Nieuwenhuijsen et al., 2017; Peschardt et al., 2012; Wolch et al., 2014; WHO, 2016). People with more access to parks are more active than children and adults with less accessible urban green space, which results in a decrement of the probability of obesity. Urban green space is of recreational, spiritual and therapeutic value as well, including reducing stress, stress-related illnesses such as depressions and mental fatigue, and providing a sense of peace and tranquillity (Cetin, 2015; Gairola & Noresah, 2010; Hartig et al., 2014; Peschardt et al., 2012; Wolch et al., 2014). A Dutch study concluded that respondents with more close green space were less affected by a stressful life event than respondents with less accessible green space near their homes (Van den Berg, Maas, Verheij, & Groenewegen, 2010).

Urban parks can also be a place of social interaction, safety and belonging. Despite some scepticism about the eventual relationship, several empirical studies link urban green spaces with opportunities to encounter people and nature as well as to decrease solitude (Hartig et al., 2014; Nieuwenhuijsen et al., 2017). Green space in cities have the potential to improve social interaction, relations, cohesion, and integration between urban residents and can develop higher community attachment (Cetin, 2015; Hashem, 2015; Gairola & Noresah, 2010; Peschardt et al., 2012). A qualitative urban green space can contribute to inclusion into wider society, due to among others the free public access, the possibility to interact with other people, as alternative to being alone, as well as the opportunity for voluntary involvement, such as participation in design or maintenance in the park (Kazmierczak & James, n.d.). An urban green environment of safety and comfort can possibly be created and sustained with surveillance, security, improved lighting, and sustainable planning process based on public participation (Seaman, Jones, & Ellaway, 2010; Seeland, Dübendorfer, & Hansmann, 2009). Contact with 'nature' is a fundamental component of people's well-being, yet possibilities for human contact with the natural environment have diminished, and there is even significant variation in access to green space within many urban societies (Fuller & Gaston, 2009; Hartig et al., 2014).

#### 2.2 Urban green spaces: What is the tipping point of the socio-economic benefits?

Socio-economic benefits of green spaces in cities are improved attractiveness, more urban tourism, increasing property values, and support of economic activities (Cetin, 2015; Gairola & Noresah, 2010; Yang et al., 2014). Green space in cities can not only prevent negative health effects, but can also be of economic added value.

For example, the world's first green park situated over the ground on top of post-railroad land was the Promenade Plantée in France. The former Parisian viaduct functioned between the nineteenth century and 1969, after which the trajectory in the urban periphery of the twelfth arrondissement became redundant. In 1993 the arcades were renovated and the viaduct was adapted into an almost five kilometres long green promenade (Timmermans, Cilliers & Slijkhuis,

2012). The former railway viaduct became the green heart of the area and served as accelerant of environmental economic progress in the other urban areas as well. The surrounding areas developed due to the new green environment in the neighbourhoods. The values of houses rose by ten percent, the areas became more attractive to live and work and more than 25 thousand square metres new economic activity, such as art galleries, offices and restaurants, emerged (Kostrzewski, 2014; Timmermans et al., 2012; Wang, 2012).

Since in New York the railway was shut down in the 1980s an elevated rail deck along Manhattan has obtained a new influential function. A function which resulted in socio-economic prosperity.

After the railway was disconnected from the rest of the railroad system in New York the top area was used by only a few urban explorers, guerrilla gardeners and local residents (Kostrzewski, 2014, p. 4497; Leong & Tham, 2009). The space beneath the deck was rapidly bought up by private developers and they would like to proceed to demolition of the entire structure on top. However, residents lobbied as well for the preservation, restoration, and reuse of the railway. First individually and later structured as the civic non-profit management organisation 'Friends of the High Line', neighbourhood residents were advocating, with support of politicians and community groups to convince the city government, for an open public green space (Ascher & Uffer, 2015; Leong & Tham, 2009). The tax revenues would offset the costs of the project was the supportive premise. In between 2006 and 2014 the urban park-project was developed in three successive phases, and firstly opened in 2009. The construction of a two kilometres long park made adjacent areas anticipate the projected positive influence. New residential and commercial property developments arose, as results of the so-called High Line Effect. Property values of existing and newly developed buildings increased rapidly, since 2006 29 new projects, including 2558 residences, 1000 hotel rooms, and 40 thousand square metres new business space, were set up, and only in 2010 the property tax increases with 100 million dollars (Ascher & Uffer, 2015; Wilczkiewicz & Wilkosz-Mamcarczyk, 2015). A former industrial and transportation zone tremendously changed to an environment with art galleries, restaurants, design studios, museums, and residences (Kostrzewski, 2014; Leong & Tham, 2009). "Its impact on the cultural, economic, and social life of the area around it has been as or even more significant than much larger and more expensive urban intervention (...) designed to promote economic regeneration" (Ascher & Uffer, 2015, p. 224).

In summary, nature can address multiple environmental and urban problems due to the benefits of urban green spaces. Research shows that green space contributes to ecosystem services, such as improving air quality and reducing urban heat islands, and public health by encouragement of physical activity and reducing stress. Moreover, urban green spaces have socio-economic benefits as they may add economic, cultural, and social value to the city areas.

#### 2.3 Exclusion and inclusion: How exclusion occurs?

The social product urban space can be conflicting, and is constituted by physical existence, social processes and intertwined relations (Leary, 2009; Lefebvre, 1974/1991). "Spatial exclusion zones" emerge from policies concerning unwanted presence, and limit the possibilities and rights to be and cross these public spaces of excluded populations (Bancroft, 2012). To ban people "the excluded individual needs not engage in criminal activity, nor even be suspected of it. Rather, it is the individual's mere presence in a particular area that offends" (Flanagan, 2003, p.329). (Brancroft, 2012, p. 67) "In essence, the spatial exclusion laws target people for who they are, not what they are doing".

Exclusion, or more in particular social exclusion, as the concept has become a core concept in the policy discourse, is a contested and mobile concept. The "umbrella concept" refers to a wide range of processes and categories of excluded people and places of exclusion (Peace, 2001, p.18). Conducted research of Robin Peace on the discourse of social exclusion reveals no less than fifteen kinds of exclusion named in social policy texts from European origin, varying from "new poverty" to "non-material disadvantage" and "exclusion from the minimal acceptable way of life" (Peace, 2001, p.22).

These types of exclusion can be divided in a spectrum of individual or group systems: social, economic, institutional, cultural, spatial and societal exclusion (Farrington, n.d.; Peace, 2001).

The multidimensional concept of (social) exclusion can be broadly and in twofold defined as among others director of the Centre for Analysis of Social Exclusion Tania Burchardt suggests:

"An individual is socially excluded if (a) he or she is geographically resident in a society and (b) he or she does not participate in the normal activities of citizens in that society." (Peace, 2001, p. 28)

Exclusion occurs when there is an inability or failure to access resources necessary for inclusion in society, such as education, the labour market, social contacts, transport or for example urban green space. In other words, exclusion is a state of being stopped or the process that stops people to participate in society (Farrington, n.d.). The limitations of "opportunities open for all" is part of social injustice caused by contributing factors of the conditions of excluded populations such as the lack of access to resources, lack of 'fair recognition', and spatial, personal or economic intensifiers (Farrington, n.d.; Peace, 2001). For example, lack of access is the limited accessibility to health or mobility services, while social and ethnic discrimination, inequalities, and prejudices in society are part of the lack of 'fair recognition'. Strengthened by characteristics in the personal, economic or spatial spheres, such as lack of knowledge, recalcitrant labour market or geographical isolation, exclusion can lead to physiological problems, the loss of identity, and de-integration of social ties (Peace, 2001).

#### 2.4 Exclusion and inclusion: Which factors influence exclusion in urban green space?

Far beyond the borders of urban parks the spatial exclusion of people for who they are instead of what they are doing, can be seen as similar to the uneven access of particular populations to urban green space. Although European research shows that residents in cities such as Brussels, Copenhagen, Glasgow, Madrid, Milan, Paris, and many smaller cities live within fifteen minutes walk of urban green space, within cities urban green space is unequally distributed, recognized as "an environmental justice issue" (Barbosa et al., 2007, p. 188; Wolch et al., 2014, p. 235). Access and use of urban parks is often divided based on differences in age, ethnicity, wealth, physical abilities, and social cohesion (Barbosa et al., 2007; Byrne, 2012; Comber et al., 2008; Taylor, Floyd, Whitt-Glover, & Brooks, 2007; Wolch et al., 2014).

The case of New York's High Line is more than only regenerative and economic beneficial effects. The High Line shows just as well the negative impacts of using the potential of green space as the counter side of public space in cities.

When the urban green space was opened in 2009 crowds lined up to experience the new perspective on the urban landscape of New York. Since the opening the High Line has become one of the most popular tourist attractions of the city with over six million visitors per year. "While it was once faster to walk the High Line than at street level, it has become a challenge navigate the masses of visitors, and almost impossible to grab one of the reclining seats" (Ascher & Uffer, 2015, p.226; Loughran, 2014). Although the park increased the value of the environment and created economic advantages for the city, not all local residents have benefited. The design and management of the park structure the leisure and consumption patterns of the new middle class, and continue the gentrification started of the surrounding urban communities (Loughran, 2014). As the previously calm neighbourhood changed towards a visitor's highlight, not everyone feels welcomed.

While not everyone is included, spatial privilege is experienced in public space as "the hegemonic ability to make claims on public space, based on high standing within socially constructed and intersecting hierarchies of gender, race, class, sexuality, and national origin" (Loughran, 2014, p. 61). Although the context is different and important, privileged public spaces permeate all sorts of urban parks and places (Loughran, 2014).

According to a study of Alessandro Rigolon and Travis Flohr (2014) on accessibility of parks for young people of different income and racial groups in Denver, USA, low-income neighbourhoods have the lowest park access, while the highest access to parks is experienced by high-income neighbourhoods in the city. A study in the American city Milwaukee finds a strong positive correlation between the amount of green space, especially residential canopy cover, and the median household income (Comber et al., 2008; Heynen, Perkins, & Roy, 2006). However, similar research in Sheffield, United Kingdom, reports the opposite result. As 64 percent of the households in Sheffield do not meet Natural England's 300 metres-recommendation, public green spaces are underprovided (Comber et al., 2008). Paradoxically, the greatest access to urban green space includes elderly and less affluent people, "those who might be considered in most need of publicly provided green space benefits" (Comber et al., 2008, p. 194).

Several other studies show that some ethnic groups have less access to green spaces and parks in comparison to other ethnic groups (Taylor et al., 2007). The green space experiences of ethnic groups differ between some groups, who have possible fear for dogs or racial attacks (Comber et al., 2008, p. 104). For example, black Americans have less park acres close by than white Americans, although the walking distance to a park was less for black people in general (Wolch et al., 2014). In Leicester, United Kingdom, ethnic groups of Indians, Hindu, and Sikhs have less access to enough recommended green spaces within two kilometres from home, while Asian and black communities are more restricted in the access to enough green space within five kilometres (Comber et al., 2008). Although uncertainty about the limited spatial associations with ethno-racial group or socio-economic status, a study in the British city of Bradford, using statistical and spatial analyses, recorded a uneven distribution of urban green infrastructure (Ferguson, Roberts, McEachan, & Dallimer, 2018). Neighbourhoods with more residents of Asian origins and with lower socio-economic status had more street tree density, but were disadvantaged in access to public green spaces as the better access to these areas was experienced by mostly high income or white households.

For over a long time ethno-racial exclusion from park spaces in the United States is present (Byrne, 2012). Until the 1960s the country had even separated park systems for white Americans and groups of other origin. In 1857 the development of Central Park in New York was the reason to destruct an Irish and African-American neighbourhood, Senecca Village, to open up space for the urban park (Byrne, 2012). More recently, studies result in the conclusion that still more affluent and white Americans than less affluent Latinos or African-American communities have access to urban green space (Johnson-Gaither, 2011; Landry & Chakraborty, 2009). In Hall County, Georgia only 11 percent of the African-Americans were in walking distance of a park in comparison to 55 percent of the white Americans, and less than a quarter of the children below eighteen years old or below the poverty threshold had access to a park within walking distance (Johnson-Gaither, 2011).

In the second biggest American city Los Angeles is the country's largest urban national park specifically developed to "bring the 'national park experience' to Los Angeles' impoverished and socially marginalized residents", but "culturally-determined patterns of use remain (Byrne, 2012, p. 3 & 12). Studies on the Santa Monica Mountains National Recreation Area report that people of low-income areas as well as of Latino, African-American or Asian-Pacific origin have lower levels of park access than whites, and that the park area is predominantly used by nearby living rich, white Americans in contrast to the ideology (Byrne, 2012; Byrne, Wolch, & Zhang, 2009; Wolch, Wilson, & Fehrenbach, 2002). Moreover, in the city other groups than white Americans experience more potential demand for the same park service, so called a "higher potential park congestion" (Sister, Wolch, & Wilson, 2009, p. 229).

To visit or not visit an urban green space, there are various personal, social or structural reasons in terms of time, travel distance or perceptions, but also constraints such as health, motivation or institutional factors either self-exclusional or constrained exclusive (Byrne, 2012). People tend to visit nearby and more accessible parks without physical entrance barriers, but sometimes potential visitors' perceptions that parks be unwelcoming or even unsafe can affect park

use. For example, incivilities, dog walking or soccer prohibitions may confine some users (Byrne, 2012). Latino-participants in Jason Byrne's research (2012) mentioned feelings of exclusion from the park. The (non)users noticed, for example, the dominant white visitors, the lack of Spanish-language information, and fears of experiences of discrimination. The perceptions of danger or belonging to a particular group can be exclusionary factors (Byrne, 2012; Wolch et al., 2014). Overall several studies have concluded "that people are less likely to visit parks if they are older, impoverished, busy, socially isolated, female, ethno-racially marginalized, are unaware of park facilities, perceive parks to be dangerous, or have grown up with limited access to nature" (Byrne, 2012, p. 6; Wolch et al., 2014). Therefore, green space is heterogeneous in appearance as well as in use.

When Richard Daley, the former mayor of Chicago, in 1997 announced to start the redevelopment of an derelict railroad corridor and parking garage next to the city centre, the idea was to make Chicago more environmentally friendly, but gained more benefits (Flanagan, 2008; Groos & Dages, 2008). After the abandoned rail operations the undeveloped space became one of the world's largest urban green space on a rooftop, Millennium Park. The in 2004 opened public park includes a garden, greenery, and public art. Millennium Park is designed and funded with public-private partnerships based on many community influence, and resulted in major economic, touristic, and environmental progress. Still critics mentioned the neglected needs of impoverished areas in Chicago (Groos & Dages, 2008). Although cost overruns and delays as well, the park is widely used and socially beneficial and considered a futuristic success by planners, scientists, and many other citizens: "a park that, by many accounts, people love" (Flanagan, 2008, p. 150; Groos & Dages, 2008).

The level of social cohesion, feelings of integration and inclusion, can be a factor that mitigates or negatively intensifies the effects of experiential barriers to access urban parks, as resulted from research in Glasgow, United Kingdom (Seaman et al., 2010). The presence of dominant or antisocial subgroups, such as adolescents, can be responded with ignorance or can finally lead to avoidance, self-removal, and exclusion. A study on determinants to use green space amongst parents with young children in England conducted interviews and focus groups discussions (Cronin-de-Chavez, Islam, & McEachan, 2019). According to this study barriers for using even high-quality green spaces include lack of knowledge, fear of antisocial behaviour, and harmful built environments, but also social and community influences can impact the use of parks. Moreover, external influences are lack of time, transport possibilities, and the weather conditions as well (Cronin-de-Chavez et al., 2019). According to Swiss research in Zurich on the potential of public green spaces to facilitate social interaction between Swiss and immigrant young people, patterns of socialising and making friends differ among others on age, gender, and level of education, but access to public urban green spaces is an important condition for social inclusion (Seeland et al., 2009). Therefore, being included or the process of including into society is important and inclusion is twofold. Both is inclusion a factor in the distribution of urban green spaces as well as a consequence of the access to green space.

Finally, spatial exclusion occurs whenever there are limitations to public accessible places. More often access to urban parks is divided by personal and group characteristics, both preferences and constraints. Factors that influence the use of urban green space include income, ethnicity, age, or social cohesion. To address social injustice in for example parks, inclusion is frequently aimed by governments.

#### 2.5 Governance and community participation: How to address green space injustice?

Adapting more green space in urban areas with park-poverty can improve residential health, foster attractiveness, and create desirable places to live, but strategies to redress the inequality of access to urban green space carry the paradoxical risk of exclusionary displacement rather than inclusiveness (Haase et al., 2017; Wolch et al., 2014). Green space can result in market-driven escalation of the housing prices, leaving the original residents worse off displaced and excluded from something that was intended to benefit (Haase et al., 2017; Wolch et al., 2014). "Projects that benefit one district may have negative impacts next door" (Haase et al., 2017, p. 42).

According to Scott Campbell (1996) city planners are active within the tensions of different objectives in economy, urban greening, and society. Although the environmental enthusiasm indicates the importance of the natural environment, the opposite to develop at the cost of nature is more historically substantiated, and therefore is a clear display of the areas of tensions in planning practices. The planner's triangle is a triangular model including the divergent priorities of planning (Campbell, 1996). Three conflicts between economic growth, environmental protection, and fairly distribution are guidance. Urban green spaces should be planned carefully in order to accomplish the needs and demands of the adjacent residents together (Bahrain Shuib, Hashim, & Nasir, 2015). Ideally planners "often see themselves as the defenders of the poor and of socio-economic equality" and strive for balance of the property conflict between economic development and equity, the resource conflict between economic utility and ecological utility, and the development tension between social equity and environmental preservation to attain long-term sustainability (Campbell, 1996).

To make urban social policy and public urban green space planning more sustainable, participation of every relevant group in the planning process is required, whereby the voice of a community can be an important key to a successful local park (Bahrain Shuib et al., 2015; Seeland et al., 2009). Approaches to involve local stakeholders in urban policy appear more frequent over the last decades (Jones, 2003). Governance is less focused on collective service provision and primarily more focused on business development. The welfare state is transformed towards an activating state with new forms of governance-beyond-the-state, as geographer Marit Rosol describes, and the increasing importance of non-state actors has led to civic engagement in urban governance (Rosol, 2010).

Strategies should be focused on the people around the (potential) urban green spaces, and social inclusion can be facilitated with individual and community opportunities, reciprocity, and participation (Byrne, 2012, p. 37; Peace, 2001, p. 33). Participatory projects can influence the park-poverty paradox with the empowerment of residents, efficiency, sustainability, and finally more social inclusion. In fact, participation can be organised in a way that involvement is a first step toward inclusion itself (Seeland et al., 2009). Nevertheless, participation itself is ambiguous as community involvement can improve equitable inclusion as well as produce inequalities within societal groups (Jones, 2003).

Community participation is the interaction between researchers, policymakers, professionals and participating communities in an active process whereby beneficiaries influence the decision making (Jones, 2003; Paul, 1987). A definition is debated depending on the active setting of the practisers and the amount of specific influence over the decisions. Is participation there when possibilities occur to influence or solely with significant decisive control, and can participation be considered as an instrument to achieve social inclusion or is participation a goal itself? Overall, in the process the excluded and those who exclude are brought together, as summarised by Peris Jones (2003, p. 586):

"Community participation reflects a politics of inclusion drawing communities into governance structures in order to contain them through consensual politics of partnership deliberation and compromise."

The nature of a project, development or possible decision will determine the intensity of community participation in the policy processes, the used instruments, and the phases of implementation. Citizen participation is a redistribution of power, and can vary between merely information sharing, consultation, a decision making role, and the proactive participation in terms of initiating action (Jones, 2003; Paul, 1987). Participation is a continuum, which can be divided in the following seven types of community involvement. Manipulative participation is "simple a pretence, with 'people's' representatives on official boards but having no power", and passive participation is only unilateral information sharing (Jones, 2003, p. 590). When people participate with feedback and advice this type is participation by consultation, while participation in return for incentives is called participation for material incentives. Both these participation approaches are still limited in terms of influential

character. Functional participation is a kind of shared decision-making as people are involved in groups to discuss pre-determined objectives. However, this participation takes often place after already executed major decisions. More control of decisions is present during interactive participation. People participate in joint projects with multiple perspectives to develop action plans and make decisions in dialogue with the local institutions. The highest level of intensity of participation is achieved with self-mobilisation. During this proactive type for example residents may take initiatives in actions of a project, develop contacts, and control resources within a governmental framework (Jones, 2003, p. 590; Paul, 1987).

There are multiple options to use in a community participation-project. In all different stages, such as reconnaissance, identification, preparation, or implementation, several instruments can be used to involve the community in urban governance. For example, one can apply governance fieldworkers to interact on grassroots level with communities, community workers as (selected) persons to mobilise the community and act as representatives, or apply user groups with participants to reveal needs and demands (Bahrain Shuib et al., 2015; Paul, 1987). Dialogues, meetings, workshops, focus groups, interviews, and surveys can add involvement to development projects as well. Another approach is the Q methodology. In this method community opinions, beliefs, attitudes, and perceptions are determined, and a collection of items to rank order composed (Bahrain Shuib et al., 2015). Those different tools are able to include public participation in several planning processes dependent of the relative phase. The degree of participation then depends on among others place attachment, frequently linked with length of residence (Manzo & Perkins, 2006). Intra-psychic phenomena, such as beliefs, feelings and thoughts about local community places, impact attitudes towards these places and therefore influence the willingness to participate. Research has shown that residents with less ties with the place and community, either physical or mentally, tend not to involve in neighbourhood improvements. The more bonds can help governments to challenge residents to protect, improve and participate in for example urban green space projects in their neighbourhood (Manzo & Perkins, 2006).

American researcher Campbell predicted in 1996 that "in the coming years planners face tough decisions about where they stand on protecting the green city, promoting the economically growing city, and advocating social justice" (Campbell, 1996). As increasingly more possibilities to realise green space are being utilised, for example adaptive reuse of infrastructure such as rail corridors and remediated brownfields, urban policymakers need to, together with participative strategies, focus on urban green space strategies that are 'just green enough'. Strategies that address the green space paradox, and yield sustainability in all manners (Wolch et al., 2014). The 'just green enough' strategy demands a careful balance as it involves cooperation with governments, individuals, and their willingness to shape projects according to the needs and demands of local communities (Wolch et al., 2014). Essential and challenging is the active and collaborative participation of all stakeholders to advance beneficial results.

#### 2.6 Governance and community participation: Can local involvement lead to societal support?

Urban projects are often characterised by the appearance of difficulties such as destruction of networks and adverse impacts on social environments. In order to create social sustainability, participation strategies can contribute to social equity and an improved quality of life of the citizens (Chan & Lee, 2008). Residents may feel that they are part of the community, while at the same time their desires and needs are more likely to be met, is the assumption (Chan & Lee, 2008; Jones, 2003). More argumented advantages are improvements in governance processes, more effective green space administration, and higher quality of urban green spaces. Several studies found that participation leads to more creative solutions in park planning and benefits in park management as well as participation processes created increased usage and satisfaction in regard to the urban green spaces (Fors, Molin, Murphy, & Konijnendijk van den Bosch, 2015). However, mostly there is limited evidence to link participatory processes with the quality of green space related to environmental and individual desires (Fors et al., 2015). Participation-based policy is also subject to criticism about the

doubted ability to deliver social inclusion. "Why do participants remain as 'peripheral insiders' in these participatory processes, "at the table but unable to influence central issues?"" (Jones, 2003, p. 582).

The manner of adapting participation in local governance influences the beneficial effects of civic involvement. Examples originate especially since the 1990s.

In the neighbourhood of Mimersgade in Copenhagen, Denmark, and the Milanese neighbourhood Molise-Calvairate different citizen participation projects were enabled to regenerate the areas (Savini, 2011). Outside the inner city of the Danish capital regeneration project Kvarterløft included three institutional bodies (Savini, 2011). First, the steering group is a selected board representing several local stakeholders, communities, and local collective organisations, which coordinates the implementation of policy in the neighbourhoods. This group enables residents to test and change the projected plans. Second, working groups are units in which specific local projects can be proposed by redefining individual demands into concrete proposals. As third institution is Local Kvarterløft Secretariat designated with the technical function as connection between the steering group and the city. Within the local secretariat the project leader is the hybrid position, appointed by the government, and of importance during the discussions between city level and local parties (Savini, 2011). A similar stratification is visible in Molise-Calvairate. First, the neighbourhood contract committee reviews the process in the neighbourhoods and they transmit plans of local level to the municipality project coordinator, the Periphery Department. Second, at local level the Neighbourhood Lab organises meetings and provides consultation and advice. Third and finally, working groups, where inhabitants are free to participate, discuss merely smaller issues on community level, such as security or common places (Savini, 2011). The working groups have the main ability to include residents in the process, but the absence of a community representative body and the lack of authority in the Neighbourhood Lab limit the influence in the decision-making in Milan. This limitations in the end results in mistrust. Whilst in Denmark the presence of a project leader with authority and a linking function appears to be finally effective in representing the community and structure the governmental processes on local level (Savini, 2011).

Around the city of Liverpool, United Kingdom, in the region Merseyside an economic regeneration and inclusion plan started in 1994 (Jones, 2003). In this project the role of residents was relatively important with a third of the total numbers in the partnership boards filled by local authorities. Nevertheless, in some areas mistrust of the governance discouraged the active participation during the process, like during the failed implementation of community participation in Paisley, Scotland (Collins, 1999; Jones, 2003). Some participants felt alienated by the language barrier of strictly formalised procedures, while others manipulated the process due to the economic requirement of involvement of local inhabitants. Moreover, participation was a minority activity in Merseyside. Most of the participants were unemployed or had enough time to be involved in the processes. Similar to the exclusion stratification primarily native men over the 35 years of age participated, while ethnic minorities, women, and youth were underrepresented and might feel undervalued in community meetings (Jones, 2003).

On the other hand, there are examples of successful civic participation. Local involvement can inspire people to develop entire projects and run their own green spaces. In Berlin civic participation worked out well as residents govern community gardens as public green spaces (Rosol, 2010). Far before the extensive sprout of participatory projects, protest initiatives of tenant Berliners in 1977 caused the establishment of an informal garden. A local committee, *Bürgerinitiative Lichtenrade Ost*, contested the further density of the neighbourhood and lobbied for a park instead. Consequently, a public park was opened in 1981. The social engagement prize winning park is public property, managed by local volunteers, and fully accessible to the public at all times (Rosol, 2010).

In Kreuzberg the aim of single mothers was to create a supervised green space for children in the inner city. During a period of twenty years several participants engaged in environmental and local politics, and resisted the negative attitude of urban planners and the municipality, which was biased by the earlier civic resistance against misguided policies in the past. Now the Kinderbauernhof is more than 25 years part of the integral part of the neighbourhood (Rosol, 2010). More recently an association of united parents associated a community garden for children in the borough Neukölln. Children should have the opportunity to meet with natural environment. After the implementation of the green space the garden is used by more than 300 children and their parents. Another example, the neighbourhood garden in Friedrichsain, has a different origin of participation. Although the space was initiated by urban planners and politicians, the local residents participate in the further projects. Neighbourhood inhabitants organise guided walks and plan workshops, while the municipality set up a group of neighbours to take the responsibility of the urban green space (Rosol, 2010). Therefore the involvement of local stakeholders differs, but in all cases in Berlin the participation was structured and successful.

Unfortunately, community participation doesn't lead naturally to successful developments. A call for more honesty and maturity concerning local involvement is already been made. One need to be aware of the limitations of participatory strategies, and explore the conditions in which communities can successfully and advantageously influence the decisions about their neighbourhoods and social networks, especially for home-base groups, such as children, elderly people, the unemployed and other vulnerable groups (Jones, 2003).

To sum, more urban green space is used by governments to redress the access inequality. Nevertheless, these strategies can be paradoxical as they amplify the exclusion due to possible escalation of the economic benefits. To obtain sustainable governance community participation, the interaction between communities and planners, is a recommended possibility. Local involvement can both, depending on the instruments used, result in resistance and distrust, or in societal support.

#### 2.7 Conceptual model: How do the actors relate to each other?

Public urban green space is part of the administrative tasks of the municipality as the space is part of the public domain of the city. However, the society, in terms of communities, can influence the governance of urban green spaces, or even initiate new projects. The accessibility of a park in turn can result in inclusion of people or exclude people through influencing factors, like personal or group elements. Through participation of residents in greening projects inclusion can be achieved in more favourable cases, though strategies with attempts to civic involvement as well may be lead to (more) exclusion in society of specific groups. The inclusion is a positive vicious circle, in which inclusion to public urban green space may led to inclusion in society, and that in turn results in more participation, as is visualised in figure 2.1.

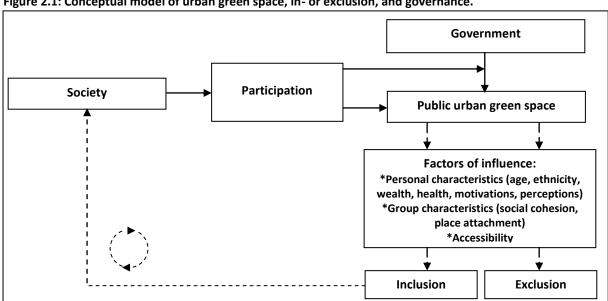


Figure 2.1: Conceptual model of urban green space, in- or exclusion, and governance.

#### 3. Methodology: The case of the Luchtpark Hofbogen examined

In this case study research on civic involvement in the development of the park and experiences of residents in regard to the Luchtpark Hofbogen in Rotterdam, a mixed methods research is conducted. In order to explore the study area qualitative interviews has been executed together with an online quantitative survey. These methods offered an opportunity to reach both stakeholders involved in development and many residents of the adjacent areas in the environment.

#### 3.1 Study setting: What is the research area?

Situated in province of South Holland, Rotterdam is the second-largest city in the Netherlands with an increasing population of 640,000 in the proper city. The urban area of municipality Rotterdam counts over one million inhabitants (AlleCijfers.nl, 2019; Centraal Bureau voor de Statistiek [CBS], 2019; World Population Review, 2019). During the Second World War Rotterdam's city centre was almost completely destroyed by German bombing. The redevelopment resulted in more industrial infrastructure and abundance of flat rooftops. Recently the potential of roofs gained attention and is being developed with promising ideas (Remmers, 2017).

The transformation in Rotterdam-Noord of an old elevated railway into a park is one of these promising ideas. The roof area of former Station Hofplein is since the first of June 2018 a green urban park, the Luchtpark Hofbogen. The 5,500 square metres of park is daily accessible between ten in the morning to sunset in the evening. In the park there are opportunities to lounge, walk or have a picnic in the garden and meadow (Goedhart, 2018; Mulder, 2018; RTV Rijnmond, 2018). The purpose is to develop towards a stage of dance, theatre, festivals, and a place to meet each other linking the city centre and the city's northern part (Projectbureau Hofbogen, 2013; Rotterdam Tourist Information, 2019; Van der Kleij et al., 2019).



Image 3.1: At the bottom on the left side is the urban green space Luchtpark Hofbogen. Source: Rutting, 2017.

The Luchtpark Hofbogen is located in the southern part of borough Noord and the research zone contains parts of the neighbourhoods in divisions Noord and Centrum: Agniesebuurt, Provenierswijk, Oude Noorden, C.S. Kwartier, and Stadsdriehoek. The typical late nineteenth century northern neighbourhoods Agniesebuurt (4175 inhabitants), Oude Noorden (17,115), and Provenierswijk (4605) were developed to ease the city centre's population pressure. In general, these neighbourhoods have a wide variety of residents (Gemeente Rotterdam, 2019a, 2019b, 2019c). Most of the residents are single person households within the age of 25 to 64. In contrast to Rotterdam's forty percent, more than fifty percent of the population in the neighbourhoods in Noord have a non-western background, mainly groups of Moroccan, Surinamese or Turkish origin (CBS, 2018).

The neighbourhoods C.S. Kwartier (975 inhabitants), and Stadsdriehoek (16,045) contain more the central business services such as the Rotterdam Central Station and the Beurstraverse, but include as well some residential towers. Most residents in these areas are within the range of 25 to 44 years old and live as single person household, similar to the northern parts. Moreover, the population consists of a large part of residents with an immigrant background. Especially, people with an origin in other non-western countries than the Antilles, Morocco, Suriname, or Turkey are represented (CBS, 2018; Gemeente Rotterdam, 2019d).

#### 3.2.1 Interview recruitment: Who was contacted for the interviews?

Through a previously conducted study and online (news) research into the development of the Luchtpark Hofbogen, especially on information meetings, a list potential stakeholders was drawn up. These potential stakeholders, who presumably were involved in the participatory process, have been repeatedly contacted by mail with information about the study and the invitation to participate in a interview. Moreover, the snowballing methodology is used, as participants suggested other potential participants and in turn these contacts suggested potential participants too, to come to saturation. After revision, some potential stakeholders were selected out, due to for example double functions or no involvement in the projects. To interview in person the participatory stakeholders a convenient date, time, and place was arranged, mainly in their direct area of the park. Due to practical constraints, one interview was conducted by phone.

#### 3.2.2 Interview participants: Who participated in the interviews?

All personal interviews were conducted in Dutch and lasted between 35 and 60 minutes. The telephone interview, which was more specifically oriented on usage, lasted about 15 minutes. For the study on the Luchtpark Hofbogen the following stakeholders were interviewed, following the developed semi-structured interview schedule using open-ended questions of appendix 7.1 and 7.2.

Firstly, participant A is architect and involved in a residential group at the adjacent neighbourhoods of the Hofbogen. Participant B is long-term resident and part of several governmental organisations in Rotterdam-Noord. Participant C is neighbourhood manager of Noord. Jointly interviewed participants D and E are working in the organisation and management of the Hofplein line. At last, participant F is urban anthropologist and rooftop-resident, and closely experienced and involved in the usage of the Luchtpark Hofbogen.

#### 3.2.3 Interview data collection and analysis: What information has been gathered and analysed?

The interviews with key actors were conducted in the months between April and June of 2019, and have created insights of the involvement of the development of the project Luchtpark Hofbogen. This part of the research has questioned how and why residents were involved during the different stages of the process. Moreover, the questions of what the goals are in terms of liveability, sustainability or accessibility and if these objectives are met so far has been implemented, resulting in a broad range of information.

The interviews were audio-recorded and transcribed in Dutch, and English summaries (see appendix 7.6) are provided. These transcripts are manually analysed in order to emerge understanding of community participation. A NVivo-structure styled topic list, elaborated in appendix 7.5, is used to filter information from the different interviews, for example about the involvement in the start-up trajectories, the plan development and execution phases (Baarda et al., 2013). Moreover, information has been abstracted in terms of particular involved groups and motivations why people are (not) involved.

#### 3.3.1 Survey recruitment: Who was invited for the survey?

The studied area is the immediate vicinity of the Luchtpark Hofbogen. A buffer zone of 300 metres has been set up around the park, because this distance is walking distance and mentioned as one key criterion of access to urban green space, as can be seen in figure 3.1 (Natural England, 2010). The

area is situated in the middle of a border area of different neighbourhoods, which are part of two of the fourteen urban subdivisions in Rotterdam.

The selection of the specific research area and survey addresses is done with computer program Geographical Information System (GIS), ArcMap 10.6. Three most recent open-source datasets provided by Esri Nederland, namely 'Luchtfoto (RD)' of 18<sup>th</sup> March 2019, 'BAG - Adres' of 16<sup>th</sup> August 2018, and 'BAG - Basisregistratie Adressen en Gebouwen' of 1<sup>st</sup> August 2018, are combined and executed in a buffer zone of 300 metres around the Luchtpark Hofbogen. All addresses in the buffer zone (more than 1800) are acquired and only the housing units are manually selected, incorrect addresses are excluded after the first observation. To enlarge the amount of responses a random single stage sample is twice conducted out of an alphabetical ordered list with rank numbers. The first survey period each third number started from 1 (1, 4, 7, ... 1576) is selected for the online questionnaire. 519 addresses were visited and received a survey invitation and reminder. In the second survey period, one month later, each third number started from 2 (2, 5, 8, ... 1577) is selected, then 335 addresses were visited and a survey invitation and reminder delivered.



Figure 3.1: Research area of 300 metres around the Luchtpark Hofbogen.

#### 3.3.2 Survey data collection: What information has been gathered?

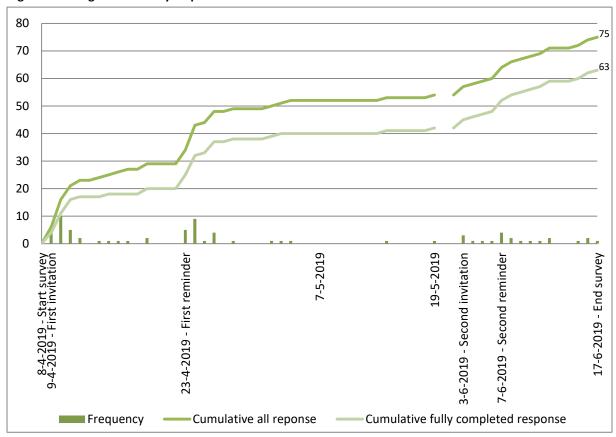
The survey is done online, executed with the survey website ThesisToolspro.com, which is announced by delivered invitations (see appendix 7.3) that invited people to complete the survey online in their own time. This methodology removes a bias in the data and the data remains systematic and equally distributed. Due to practical constraints in the Helipoort area, Gravin Adélastraat, Graaf Balderiklaan, and Stroveer, the selected addresses were not followed and therefore the invitations are delivered to each third post address accessible during the first survey period only to limit repeating the same addresses. Frequently summoning residents can cause saturation and thereby incorrect data. All survey data were collected during the months March, April, May, and June of 2019, as can be seen figure 3.2. The subject is not time and contextual dependent, therefore the first survey delivery, invitation and reminder, is done twice divided by two weeks within the collection period. The online survey was available for one month between 9<sup>th</sup> April and 7<sup>th</sup> May and an extension period, to offer more opportunities to complete the survey. In the second survey period the online questionnaire was available between 3<sup>th</sup> June, the second invitations delivery day, and 17<sup>th</sup> June, while the reminder was delivered by the end of the first week. The schedule of both interviews and the survey is shown in table 3.1.

Source: Esri Nederland, 2018.

Table 3.1: Schedules of interviews and survey data collection.

Date	Interview activity	Date	Survey activity
2 <sup>nd</sup> April 2019	Interview with participant A	9 <sup>th</sup> April 2019	Start survey - First invitation
3 <sup>rd</sup> April 2019	Interview with participant B	23 <sup>rd</sup> April 2019	First reminder
14 <sup>th</sup> April 2019	Interview with participant C	7 <sup>th</sup> May 2019	Official end 1 <sup>st</sup> survey period
15 <sup>th</sup> April 2019	Interview with participants D and E	19 <sup>th</sup> May 2019	End extension period
19 <sup>th</sup> June 2019	Interview with participant F	3 <sup>rd</sup> June 2019	Second invitation
		7 <sup>th</sup> June 2019	Second reminder
		17 <sup>th</sup> June 2019	Official end survey period

Figure 3.2: Progress of survey response.



#### 3.3.3 Survey variables: Which variables has been requested?

The survey research, attached in appendix 7.4, provides a general overview of the characteristics and perceptions of surrounded residents concerning the urban green space. People's characteristics in the survey are gender, age, health status, origin (with the options Dutch, Antillean, Moroccan, Surinamese, Turkish, or otherwise), household structure (single without child(ren), single with child(ren), (married) couple without child(ren), couple with child(ren), or other composition), income (€1500 or less, 1501 − 2000, 2001 − 2500, 2501 − 3000, 3001 − 3500, 3501 − 4000, 4001 or more, I don't want to say, or I don't know), education (no education to university education (WO), or something else), length of residence, and perceived time distance to the Luchtpark Hofbogen. Firstly, questions about the involvement during the development vary between if respondents had knowledge about opportunities for participation and, if respondents have been involved, to in which phases, and how they participated (information meetings, possibilities to give opinions, possibility to give suggestions, possibility to indicate preferences, cooperation/co-production, possibility to participate in decision-making, or maintenance). Moreover, the survey asked how respondents experienced the participation (options) on a scale from 1 (very negative) to 10 (very positive), what could be improved, and to what extent the park reflects the wants of the community. Focusing on

the comparison with the community participation, and secondly to focus on the use of the Luchtpark Hofbogen, and possible exclusion the questions about frequency, days, and times of visits have been set up. By the way of conducted activities (for example sitting, working, or visiting cultural events) and incentives (to rest, for the nature, or habit) in the park, the question has been asked what barriers users and non-users experience (for example I prefer to be in my own garden or on the balcony, it is too far away, too difficult to access, I don't feel welcome, or I don't feel safe here) to obtain information about possible exclusion or inclusion. In the latter part of the survey, before entering the personal characteristics, residents are finally asked if they are satisfied by the Luchtpark Hofbogen overall.

#### 3.3.4 Survey analysis: How is the data processed?

The survey is analysed with SPSS and the conducted types of analysis in SPSS are shown in table 3.2.

At first, all personal variables are descriptively analysed with frequencies and/or crosstabs to divide the answers between several variables. To answer the first subquestion about the involvement of residents survey questions 2 to 8 are examined in this way. Moreover, the analytical test Pearson Correlation is used by question 6 to examine the possible effect of the correspondence of the park and community wants on the experiences with the participation (options) during the development. The seventh open survey question is qualitatively coded to analyse and incorporate the comments of respondents concerning improvements of the participation process.

Secondly, to focus on the users and non-users of the second subquestion, three analytical tests (Pearson's Chi-Square, Fisher's Exact Test, and Logistic Regression) are conducted to compare the level of use as well as the frequency, days, and times of visits by the type of respondents. Before the tests some variables were (twice) recoded due to small numbers of responses in some categories. The variables with recoded categories can be seen in appendix 7.7. To answer how the park is used, question 13 about activities during park visits was analysed. While this question is a multiple choice question, whereby statistical tests were limited, the data is manually analysed and described to find some patterns.

Thirdly, to answer the subquestion related to accessibility and inclusion and exclusion from the use of the Luchtpark Hofbogen, the questions 14 to 16 are equally analysed as the thirtheenth question in the survey. These variables are manually analysed and described to obtain first insights about motivations and possible barriers of users and non-users. To find specific cases of inclusion and exclusion within surveyed residents, the respondents' perceived barriers are linked with the respondents' characteristics and are interpret. To what extent the satisfaction with the park differs between the respondents is analysed with the One-Way ANOVA test for categorical variables with more than three categories, and with Independent Samples T-test for categorical variables with two categories. In case of significant differences the effect size is calculated as well. Further respondential comments in the survey are used to enrich the story of the Luchtpark Hofbogen.

Table 3.2: Types of SPSS-analysis of survey data.

	Analysis
Q1 – Perceived distance	Crosstabs
Q2 – Knowledge of participation	Frequencies (minimum, maximum, mean); Crosstabs (Q19, Q20, Q23)
Q3 – Involvement	Frequencies (minimum, maximum, mean)
Q4 – Phases of involvement	-
Q5 – Types of involvement	Frequencies (minimum, maximum, mean)
Q6 – Experience of participation	Frequencies (minimum, maximum, mean); Mean tables (Q2, Q3); Mean tables (minimum, maximum; Q2, Q3 by Q19, Q20, Q21, Q22, Q23); Pearson Correlation (Q8)
Q7 – Improvement of participation	Qualitatively coded similar comments
Q8 – Reflecting community wants	Frequencies (minimum, maximum, mean); Crosstabs (Q2, Q3)
Q9 – Visit	Frequencies; Crosstabs (Q3, Q18, Q19, Q20, Q21, Q22, Q23; Recoded Q18, Q19, Q20, Q21, Q22); Pearson's Chi-Square (Q23; Recoded Q18 (I), Q19 (I), Q21 (I), Q22 (I)); Fisher's Exact Test (Q3, Q20); Logistic Regression (Q23, Q24, Recoded Q18 (I), Q19 (II), Q20 (I), Q21 (II), Q22 (I))
Q10 – Frequency of visits	Frequencies; Crosstabs (Q3, Q23, Recoded Q18 (I), Q19 (I), Q20 (I), Q21 (I), Q22 (I)); Pearson's Chi-Square (Recoded Q18 (I), Q19 (I), Q20 (I), Q21 (I), Q22 (I))
Q11 – Days of visits	Frequencies; Crosstabs (Q3, Q23, Recoded Q18 (I), Q19 (I), Q20 (I), Q21 (I), Q22 (I)); Pearson's Chi-Square (Recoded Q18 (I), Q19 (I), Q20 (I), Q21 (I), Q22 (I))
Q12 – Times of visits	Frequencies; Crosstabs (Q3, Q23, Recoded Q18 (I), Q19 (I), Q20 (I), Q21 (I), Q22 (I)); Pearson's Chi-Square (Recoded Q18 (I), Q19 (I), Q20 (I), Q21 (I), Q22 (I))
Q13 – Activities of visits	Frequencies
Q14 – Incentives of visits	Frequencies
Q15 – (Users) Barriers of visit	Frequencies
Q16 – (Non-users) Barriers of visit	Frequencies
Q17 – Park rating	One-Way ANOVA (Recoded Q19 (I), Q21 (I), Q22 (I)); Independent Samples T-test (Q9, Q23, Recoded Q18 (I), Q20 (I))
Q18 – Physical ability	Crosstabs
Q19 – Education	Frequencies (minimum, maximum, mean)
Q20 – Origin	Frequencies (minimum, maximum, mean)
Q21 – Household composition	Frequencies (minimum, maximum, mean)
Q22 – Income	Frequencies (minimum, maximum, mean)
Q23 – Gender	Frequencies (minimum, maximum, mean); Crosstabs (Q1, Q18, Q19, Q20, Q21, Q22, Q24, Q25); Mean tables (mean, range; Q24, Q25)
Q24 – Age	Frequencies (minimum, maximum, mean)
	•
Q25 – Length of residence	Crosstabs

#### 4. Results: Involvement and experiences in the Luchtpark Hofbogen

The results combine both qualitative and quantitative methods following the order of the research questions. The case study is described on the basis of interviews with six relevant stakeholders. A code tree was designed with the research questions in mind, in which three central themes, namely the process, the participation, and the future trajectory, split off in for example subthemes like development, types of involvement, limitations, and expectations. The full code tree can be seen in appendix 7.5. In addition, there were 75 respondents to the questionnaire corresponding with a response rate of 7,2 to 8,8 percent. The respondents are a mix of men and women, who are primarily Dutch and highly educated. Most of the respondents do not have children as single or couple, but vary in age between the youthful and respectable ages as well as the respondents' income varies widely. Some characteristics correspond with the general population in the neighbourhoods, but primarily the non-western origins are underrepresented to result in a representative sample.

#### 4.1 History of origin: How is the Luchtpark Hofbogen developed?

For over decades first wealthier ladies and gentlemen travelled between the city centre of Rotterdam and Scheveningen Beach in The Hague, after which also many ordinary inhabitants and market goods were daily transported by the South Holland Electric Railway Company (Hofbogen BV, 2019; Van der Kleij et al., 2019). In 1908 the Hofplein line was the first train network on electricity in the Netherlands and mostly high-class residents started their journey over the reinforced almost two kilometres long railway viaduct. In the first half of the twentieth century Station Hofplein became the terminus in Rotterdam and led to the blossoming into a public hub of activity (Van der Kleij et al., 2019). After the German bombing raid changed the momentum. Initially Station Hofplein is rebuilt, but the new station cannot integrate correctly in the conventional environment of the modern, postwar city centre. During the nineties the interests in the Hofplein area decreased, Station Hofplein and the Hofbogen suffered from undermanagement, desolation and decay (Hofbogen BV, 2019).



Image 4.1: The decay of Station Hofplein and the 2 kilometres of railway viaduct in Rotterdam set in since the station was abandoned and closed, resulting in vandalism. Nevertheless, the station and viaduct received a monumental status in 2002.

Source: Crimson Architectural Historians, 2008.

The area impoverished and the state of disrepair of the national monument was followed by a lot of social nuisance. This former icon became a disastrous first intro-duction to the northern part of Rotterdam. When it was officially announced in 2006 that the rail activity would be closed down, four housing corporations, incorporated as a limited company Hofbogen BV, bought the neglected viaduct as a joint venture.

"In 2006 the whole mess was sold to the corporations, because everyone had the idea that [housing] corporations have a lot of money. So let them just do these things in the area around it." (Participant B, Ed. Trans.)

"In 2006 is het hele zooitje verkocht aan de corporaties, omdat iedereen het idee had dat corporaties een heleboel geld hebben. Dus laten we die maar dit soort dingen doen in het gebied eromheen." Since 2010 the renovation of Station Hofplein commenced. The restoration of the bottom parts influenced the topside and vice versa, as the arches were made leak proof the rooftop was addressed simultaneously. Slowly the rails and fences were also removed, but the focus was to restore the former glory of the public hub. The general thought was established that the area would be a park as the vision of Hofbogen BV was formed and composed by Crimson Architectural Historians towards an urban green space after the example of New York's High Line, but the projects were delayed by among other the complex ownership structures.

Soon after purchasing the Hofbogen the economic crisis hindered the corporation plans, and on top of these circumstances a few years later housing corporations and managers were highly questioned about the private project developments. Former minister for Housing Stef Blok stated that housing corporations should focus on the main task of social housing. The strategy of the owner changed from development to exploitation and restoration, especially the ground floor, to sell the entire building afterwards. Intermediate the four corporations merged two by two in Vestia and Havensteder, and both acquired half the shares of the object in possession. Moreover, the municipality structure transformed over the years of this process. Despite the municipality was pleased by the initiatives of Hofbogen BV, the different parts of the city governance tried to obtain some influence. The municipality is organised in a vertical manner with at the top the city council and the executive board. Urban clusters, such as urban development and urban governance, organise city-broad projects. On the neighbourhood level former sub-municipalities were replaced by the area commission. The area commission of Rotterdam-Noord includes ten civil servants divided over six neighbourhoods, in which each region is led by a neighbourhood manager as linkage between the events and interests of the neighbourhood and the clusters, and an area networker on the streets with knowledge of the projects and the inhabitants on a detailed level. The residents are also represented in a neighbourhood council, chosen by the citizens themselves.

"The municipality is twofold. The municipality is one body, but a nine-headed dragon. Sometimes they speak the same language, sometimes they contradict each other, and sometimes they're ripping each other to pieces." (Participant B, Ed. Trans.)

"De gemeente is daar ook een beetje dubbel. De gemeente is wel één lichaam, maar een negenkoppige draak.

Soms spreken ze dezelfde taal, soms spreken ze mekaar tegen, soms bijten ze mekaars strot af."

It lasted until 2012 before the development really took place. At the same moment of the ideas of stakeholders and the restorations, architects of Zones Urbaines Sensibles submitted a project for the City Initiative, a competition for civic projects to improve the vividness of the city. This proved to be the breakthrough in the case of the Luchtpark Hofbogen.

Zones Urbaines Sensibles proposed the Luchtsingel as competitive project to win the budget of around four million euros. The Luchtsingel was primarly a bridge over the Schiekade and the connection to the roof of the Hofbogen. However, after winning the competition and receiving the budget the design was extended with development of the Schieblok and a garden on top. From the extensive budget arose the Luchtpark Hofbogen as well. Although the plans for a park at Station Hofplein were developed in an early stage by Zones Urbaines Sensibles in combination with the ambition of Hofbogen BV to return the area to the public, the practicality of the park was uncertain for a moment, due to the ownership complexity and practical constraints. Nonetheless, in the end the rooftop was operable, the Luchtpark Hofbogen was delivered, and there is prospect for more.



Image 4.2: The yellow Luchtsingel connects the city centre with the Luchtpark Hofbogen.

Source: Architectuur.org, n.d..

# Frame I: Red tape in Rotterdam

The financial crisis of 2007 was caused by a crisis in the American subprime mortgage market, but resulted in globally less financial resources with prolonged after effects, among others Dutch architects and project developers received fewer assignments (Rijksoverheid, 2019).

Just before this financial collapse Hofbogen BV had purchased the Hofbogen from the ProRail/NS. In this deal the formal ownership of the station roofs belonged to the Hofbogen BV, while the rest of the rooftop was still part of ProRail/NS' effectives, all of these areas on municipal lands. In the event of a sale in the future, both shareholders would collaborate in the sale process with only one new owner. Nevertheless, the rooftop of Station Hofplein and Station Bergweg are therefore used by the developers. After the decision of former minister Blok the playing field was reduced. Since the beginning of the 21st century several abuses with housing corporations were noticed by the central governance. In 2006 the manager of corporation PWS in Rotterdam was replaced for conflicts in interests due to the involvement in a broad case of financial fraud (Rengers, 2006). Moreover, the Vestia affair was news in 2012. Housing corporation Vestia was threatened to succumb to the liabilities of derivates' possessions. Multiple other Dutch corporations were attached to this system and were also consequently threatened to go bankrupt (König, 2018). Result of the scandals was a change in the housing law in the Netherlands, which since then prevents housing corporations to invest in commercial projects at the expense of the tenants (RTV Rijnmond, 2014). Due to these developments the government the Hofbogen did not receive any governmental money, and moreover the municipality of Rotterdam often tried to get rid of occupied real estate.

"Finally the municipality has left it to Hofbogen BV in her own wisdom, because they keep saying it is not ours, they have a lot of ideas and demands, but it is not ours." (Participant B, Ed. Trans.)

"Uiteindelijk heeft de gemeente in haar wijsheid, omdat ze steeds zeiden het is niet van ons, ze hebben wel allerlei ideeën en eisen, maar het is niet van ons, hebben ze het toch weer aan Hofbogen BV overgelaten."

# 4.1.1 Uncertainty: Is the park generally known to everyone?

Similarly to the complex ownership structures during the development of the Luchtpark Hofbogen, several other uncertainties have been experienced since the opening of the park. Over the past twenty years the plans have been changed several times, despite the general idea of a park. The development was steady in phases with first playground, then an event area, and finally a garden, but caused indistinctness concerning the opening. Over five times the park was opened and reopened, was the feeling of some residents, until the official opening in June 2018. Even today the accessibility of the park is sometimes unknown.

"People have been talking about it for years but I do not see progress. Very many vague plans." (Respondent 38, man, 62, Ed. Trans.)

"Men heeft het er al jaren over maar zie geen vooruitgang. Erg veel vage plannen."

"I did not know it was already open. How do you get there?" (Respondent 12, man, 37, Ed. Trans.)

Ik wist niet dat het al geopend was. Hoe kom je er dan?

"Now it is called the Luchtpark Hofbogen, but maybe next year it will be called something else." (Participant B, Ed. Trans.)

"Dus nu heet het Luchtpark Hofbogen, maar misschien heet het volgend jaar weer wat anders."

As among others participant B, who was part of several urban governmental organisations during the development, mentioned that the name's awareness is limited and stated: "It is probably formally decided once, but suddenly it is called Luchtpark Hofbogen. I think that if you are going to ask a resident: "Luchtpark Hofbogen, what is it?". Then nobody knows that, so the name is not yet well known. (...) But is is on the roof of Station Hofplein, that is the way it is known. Everyone knows the the roof of Station Hofplein." [Het zal best een keer formeel besloten zijn, maar ineeens heten het Luchtpark Hofbogen. Ik denk dat als je een bewoner hier gaat vragen: Luchtpark Hofbogen, wat is dat? Dan weet niemand dat, dus die naam is nog niet bekend. (...) Maar ze zitten op het dak van Station Hofplein, zo staat het bekend. Gewoon van dak van Station Hofplein, dat kent iedereen wel, Ed. Trans.]

In the household questionnaire, participants were asked if they were aware of the possibilities to participate in the development process of the Luchtpark Hofbogen. Less than half of respondents (45 %) confirmed they were aware.

# 4.2 Participation of residents: To what extent were the residents of the area around the Luchtpark Hofbogen in Rotterdam involved in the development of the public urban green space?

The knowledge about opportunities to participate in the process is required for actually participating in the development of the Luchtpark Hofbogen. According to the household survey, six respondents out of the 75 respondents participated during the development of the Luchtpark Hofbogen. As is shown in figure 4.1, these participating residents are characterised by a Dutch origin, on average an advanced educational level, and most have a higher income. Although the group is limited, these insights are possibly an indication of the general participant.

The six respondents notified the manner(s) of participation during the process as well, see figure 4.2. Five of the participants mentioned that they were involved in information meetings, and also five of them participated in possibilities to give opinions, in for example debates. Otherwise more initiative and decisive manners of involvement are less practiced. Only two residents have given any suggestions by using a residential panel or a focus group, while a single respondents used the possibility to indicate her of his preferences about the park. Only one resident is still active in the Luchtpark Hofbogen as he or she helps with the maintenance. None of the respondents were involved in any cooperation, co-designing or decision-making concerning the development.

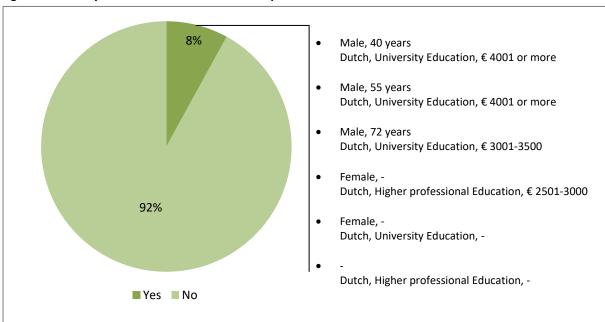
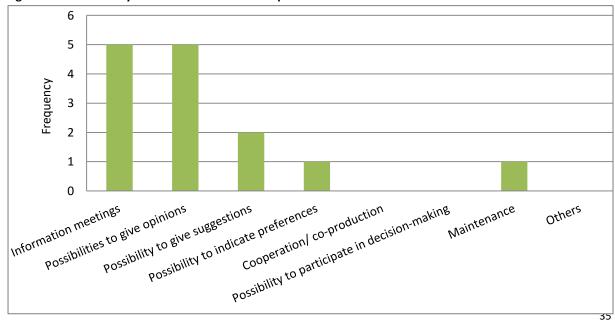


Figure 4.1: Have you been involved in the development?





A similar point of view is visible from the interviews with stakeholders during the development of the Luchtpark Hofbogen and the civic participation in this process. "Participation was not something of that time", said participant E referring to the period of development [maar participatie is van een andere tijd, Ed. Trans.]. At that time there were no residential project groups or civic movements, just as well as that a survey, to uncover the desires of local residents, has never been conducted. In an early stage the design was top-down developed by architects of Zones Urbaines Sensibles, and together with the financial possibilities of the City Initiative this led to limited participation of inhabitants in Rotterdam-Noord, according to various participants. Zones Urbaines Sensibles did not respond on a request to provide insights about the civic participation in the development of the Luchtpark Hofbogen.

Although the park was primarily a private project, a few residents had some ideas and plans about the design of the new space to be developed, after all the place was full of history and a national monument. Among others these thoughts have been indirectly discussed in the local council, area committee and within a residential working group, but did not often go further than solely informing what the project and implementation entailed. Most of the residents of the adjacent neighbourhoods, such as Agniesebuurt, Provenierswijk, or the Helipoort area, were barely involved in the starting stages of development, as the survey as well indicates. The Luchtpark Hofbogen was simply accepted as a fact.

Most of the local residents seems to have no interests in the area of Station Hofplein. Looking back, participant A indicated that probably the civic participation was insufficient. As organisation you have to take into account all different interests, but one cannot force participation. Residents have to be willing to involve themselves.

"However, you can also say that you should not involve residents everywhere. Only if there is a clearly formulated interest for residents. Residents have to want it, you can try to beat a dead horse, concerning partication, as people are hardly interested then you do not have to" (Participant A, Ed. Trans.)

"Maar je kunt ook zeggen dat je niet overal bewoners bij moet betrekken. Alleen als er een helder geformuleerd belang voor bewoners is. Bewoners moeten het ook willen, je kunt wel aan een dood paard proberen te trekken, wat participatie betreft, als mensen bijna niet geïnteresseerd zijn dan hoef je het niet te doen ook."

Within the governmental role of important linkage between the municipality and the residents of surrounding neighbourhoods, participant C recognised a distorted image of the participation. There is a lot of resistance, suspicion, and distrust in the local municipality or the government in general. Therefore people who support the plan are conspicuous by their absence and opponents are actively involved during the information meetings about the development of the Luchtpark Hofbogen. According to participant C, "Residents always have the idea, apart of this, is my experience, there is always a lot of distrust of the municipality, of the government in general. (...) you have to try to convince them that you really want them to get involved and you have to be able to make it happen" [Bewoners hebben altijd het idee, even los van dit, is mijn ervaring, is er altijd wel veel wantrouwen tegen de gemeente, tegen de overheid in het algemeen. (...) je moet ze proberen te overtuigen dat je ze echt mee wil nemen en je moet het ook waar kunnen maken, Ed. Trans.]. In the case of the rooftop of Station Hofplein the municipality could not make many promises about the desires of the neighbourhoods, especially due to the financial or spatial frameworks of the government. On the other hand, the municipality of Rotterdam was not obligated to offer possibilities to involve residents in this private development, but the civic input in the beginning was limited, indicated participant C.

A working group Hofbogen was started in 2010 by the former area committee and gathered together once every six weeks on average. This group was established to discuss the progress of the entire Hofbogen-building and to express ideas about the future. The fairly broad group attending on this public assemblages in Noord included Hofbogen BV, members of the former area committee and the

municipality departments, entrepreneurs, architects, planners, and some residents, which were primarily green oriented. According to participant A, "the average residents, so far, have hardly got involved with the entire viaduct, so far, and certainly not with the roof of the station" [En de gewone doorsnee bewoners, tot nu toe hoor, zijn nauwelijks betrokken geraakt bij de hele lijn niet en zeker niet bij het dak van het station, Ed. Trans.].

The formal organisation has been achieved without influential civic participation, but the arrival of an event site on the rooftop has been accompanied by resistance and therefore residential participation. Rooftop events could possibly result in inconvenience for the surrounding residents caused by noise, light, and litter afterwards in an area that has been quiet for years. The most immediate areas of Station Hofplein, such as the Helipoort area, were involved in the elaboration of a location profile concerning events, as the event site was part of the design of Zones Urbaines Sensibles, consisted two phases of participatory development. First of all, since 2012 the roof is used for events as part of place-making. Smaller music festivals and cultural events, like Motel Mozaïque had to test what was possible. Directly involved in the second phase since 2015 were participants D and E, as Hofbogen BV have compiled a representative group of residents, including "ten to fifteen participants of several complexes" [tussen de 10 en de 15. Vanuit meerdere complexen, Ed. Trans.], both rent and owner-occupied homes, as well as from the centre parts of Rotterdam, contacted through associations of owners and residents committees. "One can not ignore these people. They just hear and see it as well" [Je kan niet om de mensen heen. Die horen en zien het ook gewoon, Participant D, Ed. Trans.]. An external director led several meetings, in which all events over the past three years have been reviewed. Both pluses and minuses are mapped as well as the improvements and possibilities to ultimately compose an user agreement. The final location profile has been submitted to the municipality for notification only, due to the private nature of the park. However, both Hofbogen BV and the residents respect the agreement and therefore there is a directive that is applied when requests are made. Since the Luchtpark Hofbogen is naturally located in the middle of a residential area, event organisers are obligated to apply for a permission and to notify all residents about the coming activity. Moreover, residents can have directly contact by phone and "there is even Whatsapp" [er is zelfs een whatsapp, Participant E, Ed. Trans.] with Hofbogen BV if there are issues or uncertainties about the ongoing events at the roof of the Luchtpark Hofbogen.

Occasionally more and more events are successfully received. In the begin of 2019 festival 'Vuur en Vlam' was attended by many residents of the Hofplein area, but the required permission, regulation and protocols seem to limit the enthusiasm of organisation to facilitate events. "In the beginning is an entire protocol is arranged about what can happen, and when and who should be informed etcetera. And I think that this protocol also tempered the enthusiasm to organise nice parties over there. Thus now events that take place, are during daytime or with active participation of local residents" said participant A [In het begin is er een heel protocol afgesproken, wat er kan gebeuren en wanneer en wie ingelicht moet worden en blablabla. En ik denk dat dat ook het enthousiasme om er leuke feestjes op te gaan organiseren ook wel getemperd heeft. Dus wat nu georganiseerd wordt is overdag of heel erg met de bewoners, Ed. Trans.].

After the opening of the park the area committee suggested to involve residents in the maintenance of the private public accessible park. Back then something that was never been shown before. The residential and voluntary initiative to take care of the trees and crops in the garden led by green maintenance foundation GroenGoed, and the rooftop in general has resulted in a big group of various residents which cultivate the vegetable garden, clean up the roof, and by sunrise and sunset open up the park.





Image 4.3: Film festival Roffa Mon Amour at the Luchtpark. Source: Van Duivenbode, 2015.
Image 4.4: Maintenance of volunteers during the harvest in the Luchtpark Hofbogen. Source: Dakgaard, 2018.

# 4.2.1 Participation of residents: Why does participation not succeed in the Luchtpark, and does succeed in the extended trajectory?

The myth is that "people in Rotterdam always consent with something that will be newly built" [Rotterdammers vinden het altijd goed als er iets nieuws gebouwd wordt, participant A, Ed. Trans.] and applaud for new constructions, while in the Dutch capital "Amsterdam people automatically protest against new developments and change" [in Amsterdam automatisch protesteren tegen nieuwbouw, participant A, Ed. Trans.]. However, according to participant A "this stereotype" of 'to see is to believe" "is not something typical of the citizens of Rotterdam as there are plenty of places where residents have taken the initiative and were involved in public space and beyond" [Dat is het cliché. Er zijn hier in de stad genoeg plekken waar de bewoners heel veel met name ten aanzien van de publieke ruimte in handen genomen hebben, Ed. Trans.]. "The easiest way to have citizens involved, is to get them in protest. If there is a bad plan and everyone says this should not happen. That is the opposite, then there is a pretty okay plan of working together, and people are much harder to involve" appears from the words of participant A, initiator of a residential project group [De makkelijkste manier om mensen betrokken te krijgen, is om ze in een proteststand te krijgen. Als er een slecht plan is en iedereen zegt van dit mag niet gebeuren. Dat is het omgekeerde, dan is een best oké plan van zullen we het samen doen, dan zijn mensen veel moeilijker bij te halen, Ed. Trans.]. In the area of Station Hofplein the nearby residents were rarely in protest, never felt that their domains were threatened, and in the end there was only some controversy. The limited civic participation, to join but not to co-decide, was a mixture of circumstances and motives.

Together with the prolonged preamble, the top-down and privately developed park on the rooftop of Station Hofplein has affected the possible will of residents to participate in the development of the Luchtpark Hofbogen. "Apart from voting for the City Initiative" [afgezien van die ene stemming over het Stadsinitiatief, participant A, Ed. Trans.] inhabitants of adjacent areas of the park were not involved, and also the public body the municipality did not influences the decisions made and accomplishment done by arranging a participation trajectory, discussed participant A.

Moreover, the architect and initiator of a project group explained that the area has few residents itself, due to the isolated location in an area of development. In the past ten years many residents moved out, because the rails was constructed at first, and then slowly impoverished over the years. The distance from the park to most of the residential areas is perceived as too large.

Similarly, Station Hofplein is experienced as part of the city centre of Rotterdam. From a city perspective Station Hofplein is the opening to Rotterdam-Noord and a former place of bustle, while the entrepreneurs in the arches of the Hofbogen facilitate local residents and the Heer Bokelweg a physical barrier is towards the city centre. The new developments, such as the school Zadkine, in the Hofplein area have made the Station Hofplein into "an kind of enclave" [een soort eigen enclave, Ed. Trans.]. Possibly, the difference is that "for the people in the neighbourhoods along the Hofplein line the Hofbogen has much more important value" than the city-centred rooftop in the empty area of

Station Hofplein [voor de bewoners van de wijken, die er direct aanliggen, is die lijn veel belangrijker dan dat Station, participant A, Ed. Trans.].

On the other hand as participant A continued, the rest of the Hofbogen-trajectory does have the characteristics to facilitate and encourage bottom-up residential participation concerning the development of urban green space on the roof of the Hofbogen. All conversations with the various stakeholders show that the people's connection with the line is much stronger than with the park. The almost two kilometres of railway viaduct is more closely adjacent to the more dwellings of neighbourhood residents, and therefore the involvement is more direct. Firstly, due to the fact that "the rooftop is currently empty, people experience that something is about to happen" and deliberation could make sense [nu is het dak leeg, participant A, Ed. Trans.]. Secondly, "the residents are more actively involved" [er zijn ook veel directe betrokkenen, participant A, Ed. Trans.], because among others the municipality, with the final right of superficies, had asked the local citizens to participate in the development of the trajectory.

The larger interests in the rest of the trajectory result in more direct involvement and controversy. Some residents already fear the scenes of "the High Line with masses of tourists" [Highline-achtige toeristenattractie, participant A, Ed. Trans.] in the neighbourhoods. When an external document of inspiration for the entire Hofplein line was composed that was initiated by Hofbogen BV and the municipality, the community reacted with a collective letter to local council about their complains and ideas. Since that moment the project is down-sized and the residents are vigilant, made participant C clear. Evident from the words of participant C, a subsequent information meeting in November 2018 about the sale of the building was attended by more than 120 residents of the adjacent areas.

With the intervention of the municipality a bottom-up participation process is started by various involved parties. Residents were able to think along during information meetings about the history and different compositions, and will be possibly able to contribute by digital opinions polls in the future.

Since the conversations about sale had begun, the since 2010 active working group Hofbogen was expanded with varying from fifty to twenty-five core members of local residents, according involved participant C. They have attempted to answer questions, such as "what is happening with the current tenants" and who may be forced to leave, "and some residents were also worried that it would be all cafés or otherwise all of those shops whose have no value for the neighbourhood" [wat gebeurt er met de huidige huurders, en sommige bewoners waren ook bang dat het dan een grote, allemaal cafés gaan worden of juist allemaal van die winkels waar de wijk niet zo veel aan heeft, participant C, Ed. Trans.], and they have composed a plan about the future design of the roof. To what extent are events desirable, and when has the roof to be closed? This plan has been tested for support in the rest of the neighbourhoods. Recently the residential advice, resulted from the collaboration of the area committee and the adjacent residents, has sufficient support and is handed over to the deputy mayor of Rotterdam, Bert Wijbenga, to facilitate the future process of the green development of the Hofbogen. Councillor Wijbenga tweeted the following message:

"Residential advisory group from neighbourhoods surrounded Hofbogenpark gives me impressively detailed and inspiring advice. How is it possible with Dudok, the new owner, @Rotterdam municipality and residents to become "a green gem in the city". We will do that together!" (Twitter Bert Wijbenga, 28<sup>th</sup> June 2019, Ed. Trans.)

"Bewoners-adviesgroep uit wijken rond Hofbogenpark geeft mij indrukwekkend uitgewerkt en inspirerend advies. Hoe kan met Dukok, de nieuwe eigenaar, @rotterdam gemeente én de bewoners tot "een groene parel in de stad" gekomen worden. Dat gaan we samen doen!"

# **4.2.2** Participation of residents: To what extent are residents satisfied by the participation process?

Differences in participation between the case of the Luchtpark Hofbogen and the future trajectory probably influence the residential satisfaction about the participation (options) during the development of the park on top of Station Hofplein. However, according to participant A most of the residents experience the participation as abstract and long-term processes without any movement. They prefer a wait-and-see attitude, and seem to respect the decisions made. Both involved as resident and as stakeholder participant B calls for people to speak out in early phases and not to wait, with the precise words: "Just say that is the way we want it, so do not wait" [Zeg gewoon zo willen we het hebben, dus niet alleen maar afwachten, participant B, Ed. Trans.].

The survey reveals similar insights with the question 'How did you experience your participation (options) in the development of Luchtpark Hofbogen?'. The overall average of all respondents (n = 58) is 5,28 on a scale from 1 (very negative) till 10 (very postive). The answers 5, 6, and 7 were dominant (72,4%), but there was also a relatively large amount of 1's in the survey (12,1%). These low numbers were mostly selected by variously Dutch respondents, but this is also the surplus group. Women rate the participation (options) lower than men (4,90 (n = 21) against 5,48 (n = 31)), as well as Dutch respondents (n = 45) on average give the participation a lower mark (5,22) than non-Dutch respondents (5,67, n = 9). Moreover, households without children rate the participation during the development of the Luchtpark Hofbogen higher than other households, but these differences are relatively small.

The differences related to the possible involvement and knowledge about the possibilities for participation are more clear. The six respondents who were involved in several phases of participation marked the participation with an average of 6,00, while non-participants only had an average of 5,19 (n = 52). Knowledge about the opportunities influences the experience participation (options) even stronger: respondents with required participation knowledge (n = 30) rated the participation with an above average 5,77, but the respondents who had no idea of possibilities to participate in the development of the park gave the participation options a lower mark: 4,75 (n = 28). Moreover, a Pearson Correlation test results in a significant correlation between the experiences with the participation (options) and the extent of which the park reflects with the desires of the community with a 99 percent confidence. As is shown in table 4.1, this is a strong positive correlation, which means that respondents who experience a larger correspondence between the park and the wants of the community rated the participation during the development of the Luchtpark Hofbogen higher in general. The variance of the experiences with the participation (options) during the development of the park is explained for 32 percent by the extent of correspondence of the park with the desires of the community. r = +0.568,  $r^2 = 0.32$ , p < 0.001.

Table 4.1: A correlation between participation experiences and reflections of the wants of the community.

		To what extent do you think the park reflects the
		wants of the community?
How did you experience your	Pearson	,568
participation (options) in the	Correlation	
development of Luchtpark	Sig. (2-tailed)	,000,
Hofbogen?	N	56

In the household survey, respondents were asked: "What could possibly be improved in terms of residents' participation?". The top-down communication about the participation was mentioned most often. Varying from people who were unaware of the possibilities to suggestions for better communication and informing everyone in the neighbourhood, such as (personal) invitations by letter, mail, website, or social media. Futhermore, respondents suggested earlier announcements, premature schedules with information about the degree of involvement to structure the participation more clearly, and information about the progress during the developments. One

respondent suggested that a letter should encourage residents to participate instead of giving the feeling of inferiority.

"An invitation by letter, but formulated in such a way that you really get the idea of being heard and of importance. Personally, in both cases I do not have the idea that the municipality of Rotterdam would involve simple citizens, rather [they would involve] role models or more prosperous people." (Respondent 40, man, 35, Ed. Trans.)

"Per brief een uitnodiging, maar dan ook zodanig geformuleerd dat je echt het idee krijgt dat je dan gehoord wordt of iets van betekenis kan zijn. Persoonlijk heb ik beide gevallen niet echt het idee dat de gemeente Rotterdam simpele burgers zou betrekken, eerder rolmodellen of financieel welvarende mensen dat laten "doen"

A second main answer in this survey question was the credibility and need for better participation. One mentioned the limited influence of residents and they indicated that the participation during the development of the Luchtpark Hofbogen is more experienced as a for the government imposed obligation. Earlier, easier, and more regular possibilities to explain preferences and ideas could improve the participation, because when you can participate you are heard, one respondent summarised.

"Today's civil servants know the difference between hearing and listening too well. Replace them by civil servants who listen." (Respondent 57, woman, Ed. Trans.)

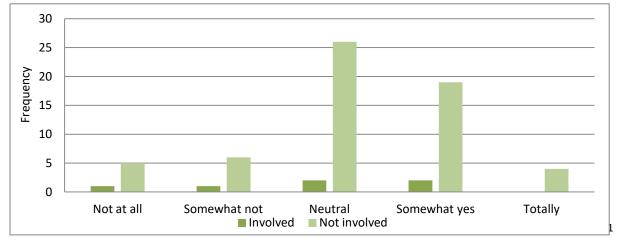
"Ambtenaren die er nu werken kennen het verschil te goed tussen horen en luisteren. Vervang ze door ambtenaren die luisteren"

20
15
0
Not at all Somewhat not Neutral Somewhat yes Totally

With knowledge Without knowledge

Figure 4.3: To what extent do you think that the park reflects the wants of the community, divided by respondents' knowledge of participation options?

Figure 4.4: To what extent do you think that the park reflects the wants of the community, divided by involvement during the participation?



The development of the Luchtpark Hofbogen seems to have not heavily affected the satisfaction to what extent the park reflects the desires of the community. The survey shows that 80,3 percent of the respondents (n = 66) thinks that the park reflects the wants of the community from 'neutral' to 'totally', while a smaller proportion of the respondents are negative about the parks as reflecting the societal desires, as can be seen in figures 4.3 and 4.4. Notable is the fact that none of participants in the development states 'totally'. A possible reason can be the unanswered wants of these particular residents concerning the development of the Luchtpark Hofbogen.

To summarise, according to the survey and interviews participation is limited, among others due to the long-term preamble. Eight percent of the respondents, primarily high educated Dutch, participated during the development of the Luchtpark Hofbogen. Most of the participants were only involved in information meetings and for example possibilities to give opinions. These participants were to a very limited extent involved in decisive stages. In later phases residents have increasingly been involved in a working group, composing a location profile, and in the maintenance. Satisfaction with the participation (options) and the correlative extent to which the park reflects with the desires of the community is slightly positive.

# 4.3 Usage of the park: How is the Luchtpark Hofbogen used by local residents, and what are the characteristics of the users and non-users?

The overview of all respondents' data, together with the perceived distance and physical abilities, are combined in and shown in table 4.2.

All residents for the survey lived within 300 direct metres from the Luchtpark Hofbogen. Therefore most of the responding residents (73,0 %) state that they perceive the distance to the park between 2 to 5 minutes, as five minutes walking is equated with 300 metres distance. Only two residents checked that they experience the walking distance over five minutes up to more than ten minutes.

All respondents together, both users and non-users of the Luchtpark Hofbogen, are a variously equal group of men (61,9 %) and women. Almost ninety percent of these residents have a Dutch background, but also one Antillean man, a Moroccan woman, and some other origins (11,3 %) are represented in this sample. However, primarily the non-western origins are underrepresented. There is an overrepresentation of higher education levels as well, 44 out of 62 respondents have a diploma of Higher professional Education or higher (70,9 %). Moreover, 13 percent of the residents have studied in the higher levels of preparatory education, senior general secondary education (HAVO) and pre-university education (VWO). Furthermore, most of the respondents are part of a household of single persons without child(ren) or a couple without child(ren) (82,6 %). Solely eighteen percent of the participated residents has children or is part of another household composition. Between these households the income of the respondents varies widely. Although not everyone will or can provide insights about their finance (27,9 %), all categories have representatives, especially 1500 or less (9; 14,8 %), 2501 - 3000 (8; 13,1 %), and 3001 - 3500 euros netto income per month (8; 13,1 %). Noteworthy is the fact that mainly men dominate the income groups above 3000 euros per month. The vast majority (79,4 %) can do their daily activities totally, such as climbing stairs, but some individuals pass through smaller to larger physical limitiations. Two of them stated to have no possibility to do their daily activities. The age of respondents is varying between 19 and 75 years old. The average age of all respondents is almost 47. This average is slightly lower than the maximum length of residence, as the range minimum is less than one year. The residents live in the area for about fourteen years on average (minimum: 0, maximum: 47).

Table 4.2: General characteristics of the respondents

	Male (n/%)	Female (n/%)	Total (n/%)
Perceived distance to park	39 (100,0)	24 (100,0)	63 (100,0)
Less than 1 minute	7 (17,9)	6 (25,0)	13 (20,6)
Between 2 and 5 minutes	30 (76,9)	16 (66,7)	46 (73,0)
Between 6 and 10 minutes	1 (2,6)	1 (4,2)	2 (3,2)
More than 10 minutes	1 (2,6)	1 (4,2)	2 (3,2)
Origin	39 (100,0)	23 (100,0)	62 (100,0)
Dutch	34 (87,2)	19 (82,6)	53 (85,5)
Antillean	1(2,6)	0 (0,0)	1 (1,6)
Moroccan	0 (0,0)	1 (4,3)	1 (1,6)
Surinamese	0 (0,0)	0 (0,0)	0 (0,0)
Turkish	0 (0,0)	0 (0,0)	0 (0,0)
Otherwise	4 (10,3)	3 (13,0)	7 (11,3)
Education	38 (100,0)	24 (100,0)	62 (100,0)
No education	0 (0,0)	0 (0,0)	0 (0,0)
Primary education	1 (2,6)	0 (0,0)	1 (1,6)
Primary education and pre-vocational secondary	3 (7,9)	1 (4,2)	4 (6,5)
education (MAVO / VMBO)	- ( )- /	( , ,	(-/-/
Senior general secondary education (HAVO)	0 (0,0)	2 (8,3)	2 (3,2)
Pre-university education (VWO)	4 (10,5)	2 (8,3)	6 (9,7)
Primary Vocational Education (LBO)	0 (0,0)	0 (0,0)	0 (0,0)
Secondary Vocational Education (MBO)	3 (7,9)	2 (8,3)	5 (8,1)
Higher professional Education (HBO)	9 (23,7)	9 (37,5)	18 (29,0)
University Education (WO)	18 (47,4)	8 (33,3)	26 (41,9)
Otherwise	0 (0,0)	0 (0,0)	0 (0,0)
Income	38 (100,0)	23 (100,0)	61 (100,0)
€ 1500 or less	5 (13,2)	4 (17,4)	9 (14,8)
€ 1501 - 2000	1 (2,6)	1 (4,3)	2 (3,3)
€ 2001 - 2500	4 (10,5)	3 (13,0)	7 (11,5)
€ 2501 - 3000	5 (13,2)	3 (13,0)	8 (13,1)
€ 3001 - 3500	6 (15,8)	2 (8,7)	8 (13,1)
€ 3501 - 4000	5 (13,2)	0 (0,0)	5 (8,2)
€ 4001 or more	3 (7,9)	2 (8,7)	5 (8,2)
I don't want to say	6 (15,8)	8 (34,8)	14 (23,0)
I don't know	3 (7,9)	0 (0,0)	3 (4,9)
Household composition	39 (100,0)	23 (100,0)	62 (100,0)
Single without child(ren)	20 (51,3)	13 (56,5)	33 (52,4)
Single with child(ren)	1 (2,6)	2 (8,7)	3 (4,8)
(Married) couple without child(ren)	13 (33,3)	5 (21,7)	18 (30,2)
Couple with child(ren)	5 (12,8)	1 (4,2)	6 (9,5)
Other composition	0 (0,0)	2 (8,7)	2 (3,2)
Physical ability	39 (100,0)	24 (100,0)	63 (100,0)
Not at all	2 (5,1)	0 (0,0)	2 (3,2)
Somewhat not	3 (7,7)	1 (4,2)	4 (6,3)
Neutral	2 (5,1)	3 (12,5)	5 (7,9)
Somewhat yes	2 (5,1)	0 (0,0)	2 (3,2)
Totally	30 (76,9)	20 (83,3)	50 (79,4)
	Range	Range	Mean
Age	19 – 75	19 – 72	46,92
Length of residence (in years)	1-37	0 – 47	13,48

# 4.3.1 Usage of the park: Who uses the Luchtpark Hofbogen?

The predetermined aims of the developers included an improved liveability of the neighbourhoods, among others by connecting the Hofplein area with the prosperous central district of Rotterdam, greening of the environment, and foremost to make the rooftop park publicly accessible. According to participants the latter goal have been achieved already one year after the official opening. All kinds of people appear to use the park: "many students of the Grafisch Lyceum, who in the afternoon eat their sandwiches, and there are tables of GroenGoed, where they enjoy their lunches (...) Recently there were two people at the end of the afternoon with a glass of wine at the picnic table" as well as families carrying a pram upstairs [veel studenten van het Grafisch Lyceum die daar in de middag een boterhammetje eten en er staan picknicktafels van GroenGoed waar zij hun lunch kunnen nuttigen. Laatst zaten er ook twee mensen aan het eind van de middag met een glaasje wijn aan de picknicktafel, participant D, Ed. Trans.]. Since the opening the park is considered to be attractive for more frequent and intensive use by all kinds of visitors.

Urban anthropologist and resident of the rooftop, participant F, has seen the general human patterns in park use: "Early in the morning I enjoyed opening the park earlier than it normally would be open, because people walked to the station early in the morning or came from the station. They also walk around in the park. And what else? Lots of visitors, people who visit the Luchtsingel" [In de ochtend vroeg vond ik het heel leuk het veel vroeger te openen dan het normaal geopend zou zijn, want de mensen liepen 's ochtends vroeg naar het station of die van het station komen. Die lopen ook een rondje daarlangs. En wat nog meer? Heel veel bezoekers, mensen die de Luchtsingel bezoeken, participant F, Ed. Trans.]. Moreover, during school breaks students stroll through the park, and gradually through the day there are families with children, athletes, and lovely couples. Last year interest was still limited, "because last year's summer the park was a lot less discovered than now, and now it is really busy on the sunny days" [want vorig jaar zomer was het een stuk minder ontdekt dan nu, en inmiddels zit het echt vol op mooie dagen, participant F, Ed. Trans.] and used by a various mix of young and elderly people from the adjacent neighbourhoods, even tourists and day trippers of Rotterdam.

36 of 67 survey respondents visited the Luchtpark Hofbogen since the opening in mid 2018 (see table 4.3). Still 31 adjacent residents in the survey have never visited the park direct next to their home. These data may indicate the possibility of increasing usage of residents, or is already a first confirmation of the use by mostly outsiders, which is sometimes mentioned by the stakeholders. Although the park usage is about fifty-fifty and some unconforming with the interview responses, the survey seems to recognise a variation in current users as well. There are no evident differences based on the respondents' physical abilities, educational levels, household compositions, age, or length of residence, as is shown in appendix 7.8. At the same time there seems to be a conceivable association, as can be seen in table 4.3, between residential involvement and use of the park. 5 of 6 residential participants visit the park and only about fifty percent of the non-participants visit the park, but a Fisher's Exact Test, as an alternative for the Pearson's Chi-Square test, shows no significant correlation within this survey with a 95 percent confidence (p = 0,205). Therefore meaning that within this research there is no evident difference between whether or not respondents were participating in the development of the Luchtpark Hofbogen and the use of the park.

Furthermore to be marked is the fact that the use of the park is positive among Dutch respondents (58,2 % visit the park), while more respondents with another origin do not visit the park than do visit the park (33,3 %): 3 visitors versus 6 non-users. Again a Fisher's Exact Test shows no significant correlation (p = 0.279) between the origin and park use with a 95 percent confidence as can be seen in table 4.3. A similar trend is visible among gender differences. Women more often do not use the park than that they visit the park (45,8 % to 54,2 %, see table 4.3), while out of 39 responding men almost sixty percent has ever visited the park. This difference is, among others due to the small amount of respondents, not significant as a Pearson's Chi-Square test shows ( $\chi^2(1) = 1.033$ ; p = 0.310). As is shown in table 4.3 and appendix 7.8, the respondents with a net monthly

income of 2501 to 3000 euros appear to the park, but a Pearsons' Chi-Square test with recoded values shows no significant difference between income and park use ( $\chi^2(3) = 3,262$ ; p = 0,353).

Table 4.3: Do you ever visit Luchtpark Hofbogen?

	Frequency	Percentage	Frequency	Percentage
	Yes		No	
Total	36	53,7	31	46,3
Participation				
Yes	5	83,3	1	16,7
No	31	50,8	30	49,2
				Exact Sig. (2-sided)
Fisher's Exact Test				,205
Origin				
Dutch	32	58,2	23	41,8
Non-Dutch	3	33,3	6	66,7
				Exact Sig. (2-sided)
Fisher's Exact Test				,279
Gender				
Male	23	59,0	16	41,0
Female	11	45,8	13	54,2
	Value	df	Asymptotic	Significance (2-sided)
Pearson's Chi-Square	1,033	1		,310
Income				
2500 or less	10	55,6	8	44,4
2501 - 3000	11	68,8	5	31,2
3501 or more	4	40,0	6	60,0
No insights	7	41,2	10	58,8
	Value	df	Asymptotic	Significance (2-sided)
Pearson's Chi-Square	3,262	3		,353

Likewise, a Logistic Regression on park use with personal characteristics age, gender, origin, income, education, and physical ability (n = 51) results neither in a single significant correlation, as can be seen in table 4.4 below and appendix 7.8. This means that there are no patterns visible and the chance of use of the Luchtpark Hofbogen are equal for all respondents (p > 0.05).

Table 4.4: A Logistic Regression of park usage by personal characteristics.

Step 1	-2	Log likelihood	Cox & Snell R Square		Nagelkerke R Square	
	67,204 <sup>a</sup> ,063		.063			
	В	S.E.	Wald	df	Sig.	Exp(B)
Age	-,013	,020	,434	1	,510	,987
Education	,335	,671	,249	1	,618	1,398
Origin	,571	,858	,442	1	,506	1,769
Physical ability	-1,017	1,299	,613,	1	,434	,362
Income	,462	,654	,499	1	,480	1,587
Gender	-,032	,653	,002	1	,961	,969
Constant	,160	1,134	,020	1	,888	1,174

# 4.3.2 Usage of the park: How do they use the Luchtpark Hofbogen?

Table 4.5 shows how and when participants use the park. More than seventy percent of the visitors in the survey only visit the park once a month to rarely, up to more than eighty percent merely once a week. Just a few residents visit the park more often, for example several times a week, or even daily. Pearson's Chi-Square tests were carried out to examine potential differences between these insights and personal characteristics, however none were significant, as can be seen in appendix 7.8. These visits are variously distributed between weekdays (19,4 %) and Friday, Saturday, and Sunday

(27,8 %). Primarily residents use the park both during the week and in the weekends (28,9 %), according to the survey. Because of the opening times of the park, from ten in the morning and sunset in the evening, most of the respondents visit the park in the afternoon (66,7 %). Only a few visitors can be found in the park during the hours before sunset.

Table 4.5: When and how do respondents use the park?

	Frequency	Percentage
Frequency of visits	36	100,0
Daily	2	5,6
Several times a week	2	5,6
Once a week	6	16,7
Once a month	15	41,7
Rarely	11	30,6
Days of visits	36	100,0
During the week	7	19,4
In the weekend	10	27,8
Both during the week and in the weekend	14	38,9
I don't know	5	13,9
Times of visits	36	100,0
In the morning	4	11,1
In the afternoon	24	66,7
In the evening	5	13,9
I don't know	3	8,3
Activities during visits	36	100,0
Sitting	6	8,0
Walking	18	50,0
Looking around in the garden	15	41,7
Have lunch/ to picnic	4	11,1
Working/ studying	1	2,8
To entertain (my) children	3	8,3
Visiting cultural events	15	41,7
Other	7	19,4
No particular reason	3	8,3

The small group of frequent users raises questions about the residential involvement in the park's use. Perceived issues concerning the park's accessibility could be the cause of the large group of non-users or rare residential visitors. Respondents complain about the openness of the park being too short and unclear ("Make it more accessible, as in longer and clearer opening times! It is really always closed" [Maak het toegankelijker, als in langere en duidelijkere openingstijden! Het is werkelijk altijd dicht, respondent 75, woman, 32, Ed. Trans.], "The Luchtpark is normally not accessible, only when there is an event" [Het Luchtpark is normal niet toegankelijk, alleen wanneer er een evenement is, respondents 28, man, 75, Ed. Trans.], "It is not super clear that it is open" [Het is niet super duidelijk dat het open is, respondent 70, man, 28, Ed. Trans.]), "I did not know it was accessible to the public, because it is sometimes closed with a gate" said respondent 27 (man, 38) [Ik wist niet dat het toegangelijk was voor publiek, omdat het soms afgesloten is met een hek?]. Respondent 8 (man, 73) expresses that the today's Luchtpark is "not a nice summer evening destination" due to the early closing times [geen zwoele zomeravondbestemming, Ed. Trans.].

According to participant F one of the major problems within urban public spaces is the contradictory free access of all people, and therefore the possibility of these people to cause nuisance for other people. "There are two doors, two openings. And I just opened and closed it, as simple as that. (...) the fact is that of course people get busy with these doors. That is the whole point of being a public place" [Er zijn twee deuren, twee openingen. En die deed ik gewoon open en dicht, zo simpel als dat. (...) het ding is dat er natuurlijk wel mensen met die deuren aan de gang gingen.

Dat is het hele punt van een openbare plek, dat je nooit helemaal in de gaten hebt wie wat doet, participant F, Ed. Trans. ], appears from the interview. Altogether, participants D and E reported that the park is in general "easily accessible by the Luchtsingel" [het is gewoon heel goed bereikbaar door de Luchtsingel, participant E, Ed. Trans.], which can even be climbed with a elevator and some effort.

"Furthermore it is far too empty, a bare plain, and a small garden. Take a look at the New York High Line, which is that beautiful and busy visited, for good reasons!" (Respondent 75, woman, 32, Ed. Trans.)

"Verder is het nog veel te leeg, een kale vlakte en een klein beetje moestuin.

Kijk eens naar de New York High Line, dat is zo mooi en druk bezocht,

om goede redenen!"

Furthermore, respondents call the park "currently it is too small to visit" [Momenteel is het nog te klein om te gaan bezoeken, respondent 35, man, Ed. Trans.], "boring" [Saaie bedoeling, respondent 33, woman, 38, Ed. Trans.], "a bit beggarly" ['t Is een beetje armoedig, respondent 32, man, 48, Ed. Trans], and not attractive without more seatings. Nowadays the Luchtpark Hofbogen is primarily a simple urban green space without the aimed hotspot allure.

As is seen in table 4.5, the limitations of the park return in the activities of respondents during the visits. However, not one Pearson's Chi-Square test reveals a significant correlation between general human characteristics (see appendix 7.8), many users (18) have a walk in the park, and take a look in the garden (15), but fewer respondents use the park for longer periods of time. Only one man (University Education) works or studies in the park, three people entertain children in the park, four people take the time to have lunch or picnic at one of the tables at the rooftop, and just six people really use the possible seats. The frequency of respondents visiting the park during cultural events is higher. More than forty percent of the surveyed residents come to cultural events in the park. This suggests that events in the Luchtpark Hofbogen have some form of residential support, and can among others explain the low frequency of visitors as minimal events are hosted by the park.

To brief, respondents of the survey were typically highly educated, Dutch residents and without any physical limitations. Interviews with stakeholders suggested that the park is increasingly wide used, however only half of the respondents has ever visited the park, including most of the participants during the development of the park. Moreover, Dutch respondents, men, and people with an income of 2501 to 3000 euros seem to have a better chance to visit the park. Nevertheless, no statistical test confirms these patterns. Further research shows that most of the visitors are in the park in the afternoon, during the week or in the weekend, and especially walk in the park or garden or attend a cultural event in the Luchtpark Hofbogen. Yet, the visits happen without high frequency.

# 4.4 Experiences and exclusion: How does accessibility differ between residents and who is included or excluded from use of the park? For what reasons do local residents use or not use the Luchtpark Hofbogen?

Figure 4.5 shows that residents visit the Luchtpark Hofbogen at most for three similar reasons: to rest (41,7 %), for the nature or green environment (52,8 %), and to be outside (44,4 %). Multiple times these three incentives are interconnected. The residents who checked the 'to rest'-answer consequently also checked the second motive and sometimes to be outside as well. There is no unambiguous group of respondents with leisure motives as they vary among others between 28 to 73 years of age. An effect of mentally resting and enjoying the green environment could be improving mental and physical health, but only two respondents visit the park for health reasons. One of these users experience some possibly related physical disabilities. Moreover, a small group of 6 of the 36 visitors use the park for the sociality. This reason may denote the limitations and the inactivity in the park earlier mentioned by the residents. Another explanation could be the lack of

need for sociality by users, corresponding with the incentives to have a moment for themselves. Finally, next to seventeen percent of unnamed other incentives, four mainly middle-age men usually go to the park as part of a habit. These few people with a habit correspond with the low frequency of users and amount of non-users of the Luchtpark Hofbogen.

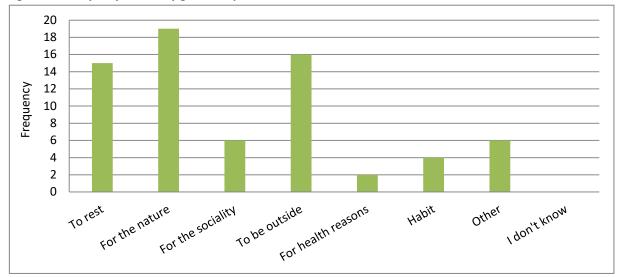


Figure 4.5: Why do you usually go to the park?

# 4.4.1 Experiences and exclusion: Who is included or excluded from use of the park?

Respondents were also asked, 'What barriers do you experience to go to the park?

Shown in table 4.6, next to primarily other experienced barriers, users have often personal preferences not to go more frequently to the Luchtpark Hofbogen. The answers 'it is not necessary for me' and 'I'd rather go to other parks' are mostly checked by visitors of the park. Some respondents mentioned as well the lack of time (8,3 %) to visit the park or they prefer to be in their own garden or on the balcony (5,6 %) as alternative to go to the park. Mainly non-users name the similar personal preferences to avoid the park, especially the lack of personal interest (36,7 %), which can be seen in table 4.7. Moreover, two non-users do not like parks in general as reason to not use the park on the roof of Station Hofplein.

Furthermore, the limitations of the Luchtpark Hofbogen take account in the perceived barriers of respondents concerning the park visits. Almost seventeen percent of the respondents that use the park and even more than twenty percent of the non-users indicate that the lack of possibilities and activity in the park are a main barrier to avoid visiting or decrease the use of the park. In contrast two users against zero non-users mentioned the park as too busy, possibly during events. Associated with the lack of possible experiences the barriers of missing toilets (16,7 %) and the prohibition of dogs (11,1 %) do not encourage or intensify a longer stay in the park, as indicated by users. For non-users the practical issues are of less importance in regard to the personal preferences. The perceived difficult accessibility of the park is a barrier for three respondents. The stairs to enter the park could constrain the actions of the residents. For two Dutch men the barrier is still of limited nuisance as they use the park currently once a week to rarely. Both are totally physical able to do their daily activities, but possibly getting along in years. A Dutch women never visit the park due to this access barrier. She has smaller to larger physical limitations that probably restrict her possibilities. Nevertheless the distance is of no account in the accessibility to the park, none of all respondents thought the park was too far away, as the maximum distance from the park to home was 300 metres.

In this research most of the barriers not to visit the park are personal characterised. The perceived barriers in this case are majorly self ground exclusion, the unstrained form of exclusion based on

preferences instead of environmental forces. At the same time a few respondents feel that they are being excluded from the Luchtpark Hofbogen. In theory minority groups rather experience exclusion due to unwelcoming or even unsafe urban green spaces, but one 43 years old, high-educated, Dutch man does not feel safe as well in the Luchtpark, and never visited the park within adjacent distance. The complete physical dependence of this respondent possibly intensifies the feeling of insecurity due to disturbing presence of other people, lack of social control or lighting.

Another respondent from an origin other than the Dutch is also being excluded. She experiences no feelings of being welcome in the park and does not feel safe in the park. However, this long-term resident of a neighbourhood around the park visits the park once a month. With regard to the limited participation in the survey and the involvement during the development, the currently rare cases of constrained access to the park suggest that possibly more residents not included in this survey are excluded from this urban green space in Rotterdam. Meanwhile relatively many respondents had still no ideas about barriers they experience to go to the recently opened park.

Table 4.6: What barriers do users experience to go to the park?

	Barriers for users	Frequency	Percentage
1	Otherwise	7	19,4
2	It is not necessary for me	6	16,7
2	I'd rather go to other parks	6	16,7
2	There is nothing to experience	6	16,7
2	There are no toilets	6	16,7
6	Dogs are not allowed	4	11,1
6	I don't know	4	11,1
8	I haven't time	3	8,3
9	Too difficult to access (e.g. physically)	2	5,6
9	It is too busy	2	5,6
9	I prefer to be in my own garden or on the balcony	2	5,6
12	I don't feel welcome	1	1,3
12	I don't feel safe there	1	1,3
14	I don't like parks	0	0,0
15	It is too far away	0	0,0

Table 4.7: What barriers do non-users experience to go to the park?

	Barriers for non-users	Frequency	Percentage
1	It is not necessary for me	11	36,7
2	There is nothing to experience	7	23,3
3	Otherwise	5	16,7
3	I don't know	5	16,7
5	I'd rather go to other parks	4	13,3
5	I prefer to be in my own garden or on the balcony	4	13,3
7	I haven't time	3	10,0
8	I don't like parks	2	6,7
8	There are no toilets	2	6,7
10	I don't feel welcome	1	3,3
10	Too difficult to access (e.g. physically)	1	3,3
12	It is too busy	0	0,0
12	I don't feel safe there	0	0,0
12	Dogs are not allowed	0	0,0
12	It is too far away	0	0,0

The explicit uncertainty of possible barriers, a low amount forced exclusion, and support for urban green space indicate a park that is welcomed by residents in general. Still there are several differences in the satisfaction concerning the park at Station Hofplein, see table 4.8.

The overall average of all respondents (n = 63) is 6,08 on a scale from 1 to 10 with a range of the maximum 9. However, the majority rate the park with fives (15,9%), sixes (19,0%), sevens (28,6%), and eights (15,9%) the average is degraded by a small amount of the lowest four marks (15,9%). At the same time one person rated the park with the maximum ten, which shows the variety of satisfaction. On average the adjacent responding residents are slightly satisfied about the Luchtpark Hofbogen, but between users and non-users there is a clear difference in satisfaction with the park.

Table 4.8: How do you rate Luchtpark Hofbogen?

	Frequency	Percentage
1	2	3,2
2	2	3,2
3	3	4,8
4	3	4,8
5	10	15,9
6	12	19,0
7	18	28,6
8	10	15,9
9	2	3,2
10	1	1,6
Total	63	100,0

Table 4.9: How do users and non-users rate the park?

	Mean	Range	2
Total	6,08	1 – 10	)
	Mean		Standard deviation
Users (n = 36)	6,75		1,402
Non-users (n = 27)	5,19	2,11	
	Sig. (2-tailed)	) 95 % Confidence Interval of the Difference	
		Lower	Upper
T-test	0,001	0,679	2,451

As shown in table 4.9, users rate the park with an average of 6,75 (n = 36), while non-users set a more than one point lower average mark of 5,19 (n = 27). Possibly a reason why non-users do not visit the park at all. An Independent Samples T-test shows that the average of satisfaction with the park from users (M = 6,75, SD = 1,402) and non-users (M = 5,19, SD = 2,113) differ significantly. The difference in park satisfaction differs with 95 percent confidence between 0,679 and 2,451 point on a scale of 1 to 10. t(61) = 3,531, p = 0,001,95 % CI [2,451; 0,679]. The effect is extremely small and declared less than one percent of the variance ( $r^2_{pb} = 0,00231$ ).

Between (recoded) categories of gender, origin, education levels, household composition, or income there are sometimes differences in satisfaction, but none of these are significantly different in One-Way ANOVA tests (see appendix 7.8). Although men (n = 38, M = 6,39, SD = 1,824) rated the park definitely higher than women (n = 23, M = 5,43, SD = 1,927) the difference between the averages is with 95 percent confidence not significant (p = 0,061). There is almost no difference between Dutch and non-Dutch respondents in satisfaction with the park (M = 6,09, SD = 1,842 against M = 6,11, SD = 2,369). The recoded values of highest achieved education and household composition also lead not to significant differences (F(2; 59) = 0,483, p = 0,620). However, the average of respondents with education others than Higher professional Education or higher (n = 19) is 5,74 and a standard deviation of 1,240 quite lower than respondents with Higher professional Education (n = 18, M =

6,28, SD = 2,321) and respondents who are educated on the university (n = 25, M = 6,24, SD = 2,026). Despite the non-significant difference is the satisfaction between people with children and respondents without children remarkable. Single persons without children rate the park with a 6,03 (n = 31, SD = 1,741) on average and couples without children even slightly higher (n = 19, M = 6,32, SD = 5,82), while other household composition, for example with children, are clearly less satisfied with the park. These residents rate the park variously with a 5,82 (n = 11, SD = 2,857), possibly due to the feelings of insecurity in the rooftop park or a lack of experiences for the children (F(2; 58) = 0,249, p = 0,780). The income groups are not homogeneously distributed and therefore there is no statistical test possible, but the lower incomes up to 3500 euros a month rate the park higher (2500 or less (n = 16): 6,13; 2501-3500 (n = 16): 6,75) than people with a higher income (n = 10; 5,90). Respondents who provided no insights rated the park even lower with 5,47 on average (n = 17).

Table 4.10: What is the effect of physical disabilities on rating the park?

	Mean	Range	)
Total	6,08	1 – 10	)
	Mean		Standard deviation
Smaller to larger physical limitations (n = 14)	4,93	2,36	
Totally (n = 49)	6,41	1,619	
	Sig. (2-tailed)	d) 95 % Confidence Interval of the Difference	
		Lower	Upper
T-test	0,043	-2,904	-0,055

If someone is able to do their daily activities, such as walking stairs or shopping, this influences the satisfaction with the Luchtpark Hofbogen. Looking at table 4.10, from an Independent Samples T-test appears that respondents with smaller to larger physical limitations (n=14) rated the park on average with less than a five: 4,93 (SD = 2,369), while the 49 totally able respondents rated the park with a 6,41 and with a smaller variation (SD = 1,619). A possible cause could be that the more difficult access to the park on a rooftop is obstructive for some residents in the adjacent neighbourhoods. The Independent Samples T-test shows that the average of physical limited residents in relation to all other residents differs significantly. The difference of the satisfaction of the park is between 0,055 and 2,904 point on a ten-point scale with 95 percent confidence. t(16,623) = -2,195, p = 0,043, 95 % CI [0,055 – 2,904]. The variance is declared by this variable with only 0,02 percent and therefore the effect is extremely small as well ( $r_{pb}^2 = 0,2247$ ).

In summary, respondents are on average slightly positive about the Luchtpark Hofbogen. Still the satisfaction varies between different respondents as for example men rate the park higher than women. However, only two variables have a minimal effect on the ratings of the park, namely the use of the park and the physical status of the residents. People with physical disabilities, and people who not use the park are significantly less satisfied by the park. People who use the park are mainly stimulated to visit the park for a personal moment of mental recharging in a green environment. This probably effects the barriers one experience not to visit the park. Primarily respondents avoid the park due to personal preferences, such a lack of desires. Moreover, the lack of possibilities in the park restraints many residents as well to visit the park more often. These barriers are mostly experience by non-users. On the other hand, exclusive barriers are rarely experienced. Just a few respondents do not feel safe in the Luchtpark and therefore avoid the park at the moment. Possibly these exclusive barriers will be experienced more often in the future.

On 19<sup>th</sup> of June 2019, the local newspaper De Havenloods headlined: "Hofbogen sold, now up to make plans for the design of the roof" [Hofbogen verkocht, nu nog plannen maken voor inrichting van het dak, Ed. Trans.] (De Havenloods, 2019). At first plans of redevelopment have led to the upgrading of the Station Hofplein and from now on prospective projects for the former railway are being established for an oasis in the city centre of Rotterdam. Real estate investor Dudok Groep is

the new owner of the entire viaduct Hofbogen and contemplate the Hofbogen as an attractive and various opportunity to raise a rooftop park with international allure. The plan is to develop the design of the urban green park with the city's municipality, and together with participation of residents, local entrepreneurs, volunteers, and other local initiatives.

According to stakeholders, these new developments have its own new dynamics. The increasing interest of several investors have arisen by a series of urban developments that will make the Hofbogen part of the urban core within ten years, according to participant A. The central district will be developed, after fifteen years of planning the development of adjacent area of Pompenburg will probably start, and the current Zomerhofkwartier is under construction, which all will influence the area of Hofbogen as well. Whether the commercial activities will take over and the park will develop into a hotspot in the next five years, or the green space will remain in its current status is uncertain.

"The next five years are much more exciting than the past five years. (...) To use a metaphor of the railways: once the train is moving, there is no way to stop it. While in the beginning, often everything is still possible." (Participant A, Ed. Trans.)

"De komende vijf jaar is veel spannender dan de afgelopen vijf jaar. (...)\_Als zo'n trein eenmaal, om maar even een metafoor uit de spoorwegen te halen, als een trein eenmaal in beweging is, krijg je hem nauwelijks nog gekeerd. Terwijl als je in het begin bij bent, dan is vaak alles nog mogelijk."

The stakeholders are clear: the new park develops towards a hotspot, and the planning will encourage more residential resistance and involvement. The one resident likes the current extra dimension in the neighbourhood with volunteers cultivate fruits and vegetables, while others thinks it is an unnecessary long-term waste of public money for something that solely create nuisance for the close residents. However, the fact that the green space will stay green experience support of adjacent residents in the neighbourhoods. It is to question how to explain the evolution and promote the developments, who is against a small place to eat lunch and have a coffee in the middle of a two-kilometres park. With embedding in the neighbourhoods and a process conducted together there is potency to further develop even within three years. The longer the park is open, the more it is found and evolve in a further successful diverse public urban green space.



Image 4.5: Interested residents of Rotterdam during a visit of the Hofbogen. Source: Hofbogen Coöperatie, 2017.

# 5. Discussion: A new example of urban green space in Rotterdam

Although Rotterdam followed the global trend of industrial redevelopment to an urban green space, the Luchtpark Hofbogen on top of the former railway has less in common with other cities than was expected. After a long-term and opaque development process the park was opened in 2018, the civic participation has been limited, and the park usage not yet maximal. Only a few residents participated in the antecedent development of the Luchtpark Hofbogen, while the park today is used by only half of the residents included in this research. However fortunately, current cases of exclusion are extremely scarce in this park, often personal preferences lead to the use or avoidance of the park in the centre of Rotterdam. Through interviews with stakeholders and a residential survey this research has aimed to examine the citizen's involvement during the development and the experiences of users and non-users of the public green space. Therefore the research question was:

To what extent were surrounding residents involved in the development of the Luchtpark Hofbogen, and how is the park now experienced by surrounding residents, related to issues of inclusion and exclusion?

Worldwide cities rapidly embrace the green benefits of parks, and increasingly turn to sustainable approaches to involve residents in these public urban green space planning (Jones, 2003). The local participation was not thriving in the case of the Luchtpark Hofbogen. For example, in contrast to the working groups of local projects in Copenhagen and Milan, working groups in Rotterdam were less attended (Savini, 2011). The involvement was dominated by few native residents, similar to previous research in Liverpool, but a linking function between municipality and residents as in Copenhagen was effective, seems to result effect in the near future of the Luchtpark Hofbogen (Jones, 2003; Savini, 2011). The community's voice was limited, among others due to the privately run top-down project and isolated location, but also because of the unexpected (rising) importance of the park as one of the key factor in the area. Especially in the near future, the new owner is making a project of expansion towards an international and iconic status in Rotterdam, since in the beginning the Luchtpark Hofbogen was only a secondary project next to the Luchtsingel. Furthermore, the provision of information and lack of knowledge about possibilities to participate affected the involvement as well, although adjacent residents can be blamed for taking little initiative themselves. As was earlier found in a research in the Milanese neighbourhood Molise-Calvairate distrust of the governance as effect of the limited influence in (promised) decision-making limits the participation, possibly the specific interest in the Station Hofplein was therefore missing, since participants were mainly involved in less decisive and more informative manners of participation (Savini, 2011).

The developments of a newly planned park at Hofbogen has generated and may even more generate a movement of active residents. The future trajectory shows more similarities with the cases of New York's High Line, Chicago, or Berlin. In these cases the process is more bottom-up with residential project groups and public-private convenants, in which the residents suggest plans and encourage the government to support these projects (Asher & Uffer, 2015; Groos & Dages, 2008; Rosol, 2010). Nevertheless, the objectives of the current Luchtpark Hofbogen already included Campbell's (1996) three conflicts of economic development, environmental greening, and public accessibility, and the future expansion will simply increase the possibilities for conflicts. Careful planning with support of residential participation is required to ensure the public character.

Perhaps the restricted and limited participation of the residents has its impact on the use of the park. In a various group with dominance of Dutch and high-educated residents, merely half uses the park sometimes, while a minor part uses the park only regularly. Consequently, the limited use of the park may be result in delimitations of the quality of human life, among others in extent social interaction, integration, and inclusion (Cetin, 2015; Comber et al., 2008; Fuller & Gaston, 2009; Gairola & Noresah, 2010; Hartig et al., 2014; Hashem, 2015; Kazmierczak & James, n.d.; Nieuwenhuijsen et al., 2017; Peschardt et al., 2012; Zhao et al., 2013). However, probably the use of the park is rich of other people than adjacent residents, or prior to the initial visitors' increase as the urban public space is

freshly green. Within the surveyed group of residents differences are minimal concerning users and non-users as there are none significant correlations, in general discordance with other researches concluding that the use is effected by personal characteristics, such as age, income, gender, and origin (Byrne, 2012; Wolch et al., 2014). Still, one can see possible patterns in the differences in use or not-use by Dutch residents and non-Dutch residents, men and women, and especially by residents who were involved in the development and residents who had not participated. Nevertheless, personal preferences often determine the usage of the park.

The use of the Luchtpark Hofbogen seems strongly related to incentives and activities, whereby the limitations and opportunities in a park are decisive. Respondents visit the park primarily to walk and to rest in a green environment. Whether there are possibilities to rest, or there is potential for more active use, a park on a rooftop has constraints since there is less accessibility, and no overview possible from street levels resulting in limited social control.

Notwithstanding the meaningful personal preferences that decide respondents' choices whether to visit a park, people's characteristics generally affect the use of parks as well. Forced exclusion is ubiquitous, often based on differences in age, ethnicity, or wealth, and effects in physical and mental problems, such as illness and de-integration (Barbosa et al., 2007; Byrne, 2012; Comber et al., 2008; Peace, 2001; Taylor et al., 2007; Wolch et al., 2014). Fortunately, nowadays exclusion is extremely scarce in Rotterdam. Still one person is excluded due to feelings of insecurity, while another respondent experiences feelings of insecurity and unwelcoming, however currently without exclusion as a result. These feelings of unwelcoming and unsafety have already been uncovered in other cases, where they resulted in exclusion (Byrne, 2012). Unequal access to (public) urban green space seems currently to be an anxiety of American and British cities, in which possible social segregation is of more influence to the processes.

In contrast to the general theories that among others females, ethnic minorities, or elderly grow up with less access to park spaces, this case study in Rotterdam results in no significant correlations between park use and age, gender, or any other personal or group characteristics (Barbosa et al., 2007; Byrne, 2012; Comber et al., 2008; Peace, 2001; Taylor et al., 2007; Wolch et al., 2014). How satisfied respondents were, led in turn to two minor significant differences between residents, which were slightly positive. Possibly the satisfaction is concerning the Luchtpark Hofbogen of major importance of the access and use of the park, or vice versa. Users of the park were significant more satisfied with the park than non-users, however due to the limited response in the survey the effect is very minimal (p = 0.001;  $r^2_{pb} = 0.00231$ ). The physical ability of respondents is slightly more decisive. Residents with all abilities rate the park significantly higher than residents with smaller to larger physical disabilities (p = 0.043;  $r^2_{pb} = 0.2247$ ). However, it have to be stated that, despite the insufficient data to draw tight conclusions, there seem to be particular groups with less access to the park, derived from all results.

With the future in mind, more and stratified usage with whatever reason of possibly specific groups may led to more feelings of belonging to other groups by potential visitors (Byrne, 2012; Wolch et al., 2014). One still have to aim inclusion to decrease potential risks of exclusive access resulting in negative physical and mental disorders.

More than one year after the official opening of the Luchtpark Hofbogen, the results of the household surveys and interview suggest exclusion is limited. Meanwhile, the park will change and pro-active management is recommended.

- Pro-active policy: The municipality has, together with residents, already started the
  development of an broadly supported advice for Dudok Groep. The stakeholders have to
  continue the pro-active management and tackle problems before they occur. In advance
  inform stakeholders and other people involved, discuss ideas, gain new preferences, and
  cooperate with all interested parties.
- Control: The limited nuisance today is no guarantee for tomorrow. The municipality, institutions, and the owner have to improve the (social) control in the Luchtpark and the future's park space, because surveillance can sustain an urban green environment of safety and comfort (Seaman et al., 2010; Seeland et al., 2009). For example, by patrol or direct interventions in case of reported nuisance. Nonetheless, cameras can create reverse feelings of insecurity, but civic control is advised. Possibly a residential management group can be established to maintain the park, to clean up waste, and to intervene in urgent needs. Sometimes conversations between troublemakers and respected, well-known residents effect more result.
- **Promote participation**: Civic involvement during projects can result in more inclusion of residents in society and in a public park (Seeland et al., 2009). By encouragement of more active participation with better information and invitations, participation can be organised to balance the goals and desires of the government, the stakeholders, and the residents in a sustainable way. A strategy of 'just green enough' can help to include all objectives of the society and governance (Wolch et al., 2014). Do consult with stakeholders and remain objective.

## 5.1 Strengths and limitations: Which further research is suggested?

Over the years exclusion has become a highly contested term. The non-participation in the normal activities of specific people in a society or within urban space is subject of several different processes and influences. This results in a multiple of types of exclusion, such as exclusion from urban green space. Moreover, the opposite inclusion can be both a stimulus to access public green space as a consequence of using the Luchtpark Hofbogen, while exclusion can be forced or voluntary. Whether or not someone is excluded is therefore difficult to determine. The framework of the researched term exclusion may need more research in the form of more extensive research to develop better understanding of exclusion and inclusion. For example, interviews with residents can possibly provide extra insights in motives of excluded or included persons in local public spaces and during the developments of these urban green areas. Although the multimethod research, designed to result in opinions of both local residents and stakeholders, was obtained to indicate differences in self-exclusive barriers and forced exclusion, this research was able to provide only a paled answer concerning the exclusion or inclusion of adjacent residents.

Part of this study restriction is the limited response during the survey periods. Possibly due to the language of the invitations, the names and titles of my supervisor and myself, or the logo of University Utrecht could have discouraged residents to participate, even despite the genuine message and a carefully selected invitation lay out. Illustrating is that one person called with the question whether this was a genuine research to protect the neighbours, and why it was conducted by someone of Utrecht and not by a student from Rotterdam. By doing among others two periods of invitations possible barriers, such as external events as the ramadan, have been countered. Nevertheless, the actual environment was difficult as well as the production of an address list, but were conducted properly and the results still limited. However, even with more possible reasons of the limited response, these all are not being testable. Even if so, there is no guarantee that more invitations could have led to more response. Moreover, this seems highly unlikely based on the current research, the used methodology with multiple periods and times of delivery, and online possibilities for participation.

In consequence, less response results in less data. Among others the limited size of the general characteristics in the end of the survey result in a not representative, sometimes dominated and stratified population with especially non-Dutch residents underpresented. Futhermore, the also paled response offered minimal analytic test opportunities. Most of the analysis was descriptive and for instance a Logistic Regression related to park use was restricited possible due to limited respondents to the level of use. Whenever more responses were collected, a Logistic Regression with more variables can primarily procure analysis of the chance of park use concerning all relevant personal and group characteristics. The question if the interviews and survey concerning the use of the park by the public or nearby residents are in contrast suggests a study in the rest of Rotterdam as well, and a extensive focus on location of respondents. Moreover, the descriptive analyses are in turn important as first insights and starting point for further research on urban green spaces in general.

Concluding, constraints were only restrictive, but not unsurmountable. The research group surrounding areas of the Luchtpark Hofbogen in Rotterdam had to be examined to understand the processes. Although the content about exclusion and inclusion is restricted, the study is a first well-substantiated trial for further specified research in this domain.

The one year evaluation of the Luchtpark Hofbogen in Rotterdam has shown the contrasts of an urban park. Where the involvement was limited, the use seems to increase inclusively, and the future is even brighter as long as public accessibility is being pursued. The Luchtpark Hofbogen can learn from other cities, as well as the park in Rotterdam can be a model for future decisions of similar projects elsewhere.

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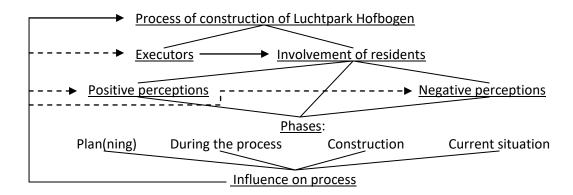
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# 7. Appendix

The appendix includes the next documents in order:

- 7.1 Interview topic list (in English)
- 7.2 Interview questions (both in English and Dutch)
- 7.3 Survey invitations and reminders (both in English and Dutch)
- 7.4 Survey (both in English and Dutch)
- 7.5 Code tree for interview analysis
- 7.6 Summaries of interviews (in English)
- 7.7 Descriptive survey response
- 7.8 Analysis syntaxes

# 7.1 Topics list



# 7.2 Interview questions

#### Introduction:

Thank you for participation in this interview, which can be anonymous published and will be recorded for strictly personal uses, if you do agree as well? To shortly introduce the topic of my research on Luchtpark Hofbogen: almost one year ago on top of the former Station Hofplein are trains and tracks replaced by an urban park. In order to find out how local residents are being involved in this development, among other research items, I will interview you and several other stakeholders of this process. I hope you can explain and I think you can provide crucial information about the process and residential involvement and influence in regard to Luchtpark Hofbogen. Do you have any questions beforehand?

#### **Process**

What is your specific part of the organisation/ in the project Luchtpark Hofbogen?
Can you describe the general process, from abandoned Station Hofplein to urban park Luchtpark Hofbogen?

How has the development of project Luchtpark Hofbogen evolved?

How is Luchtpark Hofbogen exactly developed?

What were and are the aims of Luchtpark Hofbogen?

# Involvement of residents

Are local residents involved during the process of project Luchtpark Hofbogen?

In which phases have residents participated? And which type of residents have actively participated? How are residents requested to participate? For example: information meetings, suggestions of planning, maintenance of the rooftop?

Can you tell some examples of residential participation?

What could have been improved during the participation processes?

## Perceptions of residents' involvement

What were your experiences working with residents? Are the residents feeling positive or negative about their involvement? Can you tell some examples of these perceptions?

# Influence

How were decisions made?

What is the influence of the involvement and participation of residents during the planning and construction to the final outcome of Luchtpark Hofbogen?

How is this influence experienced by stakeholders?

Is this influence proportional to the importance of the park on residents?

# End

Are the projected aims already met?

How do you think Luchtpark Hofbogen will evolve the coming years concerning local residential involvement and future plans?

In your opinion, which other stakeholders are or were of crucial importance during the project Luchtpark Hofbogen? How can I contact them?

# Closing:

Thank you again for participation, your side of the story and the given information during the interview. I think this will contribute to my research and provide a total overview of the process and current situation.

## Introductie:

Bedankt voor uw deelname aan dit interview, welke volledig anoniem kan worden uitgegeven en alleen voor persoonlijk gebruik zal worden opgenomen, uiteraard indien u hier geen bezwaar tegen heeft? Om het onderwerp van mijn onderzoek over Luchtpark Hofbogen even te introduceren: bijna een jaar geleden is het dak van verlaten station Hofplein veranderd van treinen en sporen naar een stadspark. Om onder andere uit te zoeken hoe de lokale bewoners betrokken zijn bij dit proces van ontwikkeling, interview ik verschillende belanghebbenden, waaronder u. In de hoop en met de gedachte dat u uitleg kan verschaffen en belangrijke informatie heeft over het project, de bewonersparticipatie en de invloed op Luchtpark Hofbogen. Heeft u hierover voorafgaand vragen?

# Proces

Wat is uw specifieke onderdeel in de organisatie/ in het project?
Kan u beschrijven hoe het algemene proces, van Station Hofplein tot stadspark is verlopen?
Hoe is het ontwikkelingsproces van Luchtpark Hofbogen verlopen?
Hoe is Luchtpark Hofbogen precies geëvolueerd van plan tot uiteindelijk project?
Wat waren en zijn de doelstellingen van Luchtpark Hofbogen?

# Betrokkenheid van bewoners

Hoe zijn de bewoners betrokken bij de plannen?

In welke fases zijn bewoners betrokken geweest? En welke bewoners hebben dan actief meegedaan? Hoe zijn bewoners gevraagd deel te nemen aan het proces? Bijvoorbeeld door informatieavonden, suggestiemogelijkheden, onderhoud van het Luchtpark?

Kun u voorbeelden noemen van deze betrokkenheid van bewoners?

Wat zou kunnen worden verbeterd qua bewoners' participatie?

# Ervaring van bewoners' betrokkenheid

Wat zijn uw ervaringen met de samenwerking met bewoners? Zijn de bewoners positief of negatief over de betrokkenheid? Kunt u voorbeelden noemen van deze ervaringen?

# Invloed

Hoe worden besluiten genomen?

Wat is de invloed van de betrokkenheid en participatie van bewoners tijdens de plannen en de constructie op de uiteindelijke uitvoering van Luchtpark Hofbogen? Hoe wordt deze invloed ervaren door belanghebbenden? Is de invloed in proportie tot het belang van het park op bewoners?

Slot

Zijn de bedachte doelstellingen al behaald?

Hoe denkt u dat Luchtpark Hofbogen de komende jaren zal doorontwikkelen, met betrekking tot burgerparticipatie en toekomstplannen?

Wie zijn er volgens u nog meer sterk betrokken (geweest) bij het proces van Luchtpark Hofbogen? Hoe kan ik met hen contact opnemen?

# Afsluiting:

Nogmaals bedankt voor uw deelname, uw kant van het verhaal en de gegeven informatie gedurende het interview. Ik denk dat het bijdraagt aan mijn onderzoek en om een totaalbeeld te vormen over het proces en de huidige situatie.

# 7.3 Survey invitations



Datum 9 april 2019 Contact
Onderwerp Onderzoek naar Luchtpark Hofbogen

Geachte bewoner,

Bijna één jaar geleden werd op 1 juni Luchtpark Hofbogen officieel geopend. Bovenop het voormalig Station Hofplein zijn treinen en rails vervangen door ruimte en groen – een stadspark. Om te weten te komen hoe lokale bewoners Luchtpark Hofbogen ervaren en betrokken zijn bij de ontwikkeling, voer ik in het kader van mijn afstudeeropdracht aan Universiteit Utrecht dit onderzoek uit. In dit onderzoek worden onder andere vragen gesteld over uw mogelijke betrokkenheid bij de plannen, uw ervaringen met het nieuwe stadspark en de ervaren toegankelijkheid van Luchtpark Hofbogen.

Vanuit een omgevingssteekproef bent u willekeurig geselecteerd om deel te nemen aan dit onderzoek. Ik zou het zeer op prijs stellen als u voor dit onderzoek de vragenlijst wilt invullen.

# Hoe kunt u meedoen?

Het invullen duurt ongeveer 5 minuten. De vragenlijst staat op het internet. Het adres van de website is:

Het is belangrijk dat u het internetadres in de adresbalk bovenaan uw scherm typt. Om uw gegevens te beschermen, zullen hierna alle antwoorden volledig anoniem worden verwerkt en geanalyseerd. Alle gegevens worden vertrouwelijk behandeld.

Dit is het eerste evaluatieonderzoek na de opening van de publieke ruimte op voormalig Station Hofplein. Met de mogelijke vervolgontwikkelingen rondom het gehele traject van de Hofbogen kunnen uw antwoorden van wetenschappelijk en maatschappelijk belang zijn en bijdragen aan een succesvolle ontwikkeling van groene omgevingen in Rotterdam in zijn algemeenheid.

## Heeft u vragen?

Mocht u vragen hebben naar aanleiding van dit bericht of over het onderzoek dan kunt u contact opnemen met mij of mijn begeleider via de onderstaande contactgegevens.

U doet mij en uzelf een groot plezier als u een van de komende dagen de vragenlijst invult.

Ik dank u alvast hartelijk voor uw tijd en medewerking.

Met vriendelijke groeten,

Uitvoerend onderzoeker en masterstudent Human Geography aan Universiteit Utrecht

Masterthesis begeleider aan Universiteit Utrecht



Date 9th April 2019 Contact
Subject Research on Luchtpark Hofbogen

Dear resident,

Almost one year ago on the first of June Luchtpark Hofbogen is officially opened. On top of the former Station Hofplein trains and tracks are removed and replaced by space and green – an urban park. In order to find out how local residents experience Luchtpark Hofbogen and are being involved in the development, I conduct this research within the context of my graduation project at Utrecht University. In this research, among others questions are asked about your potential involvement in the projects, your experiences with the new urban park and the experienced accessibility of Luchtpark Hofbogen.

Derived from a environmental sample you are randomly selected to participate in this research. I would very much appreciate if you will complete the survey of this research.

# How can I participate?

The survey will take around 5 minutes of your time. The survey is on the internet. The webadress is:

It is important that you type the internet adress in the adress bar at the top of your screen. To protect your data, all responses will be processed and analyzed anonymously.

All data is treated confidentially.

This is the first evalution study after the opening of the public space at the former Hofplein Station. With the possible sequel developments around the entire trajectory Hofbogen, your answers can be of scientific and societal importance and contribute to the successfull development of green spaces in Rotterdam in general.

# Questions?

If you have any questions regarding this message or about the research, you can contact me or my supervisor by the contact details below.

You will do me and yourself a favor if you complete the questionnaire in the following days.

Thank you for your time and cooperation.

Kind regards,

Executive researcher and Master student Human Geography at Utrecht University

Master thesis supervisor at Utrecht University



**Datum** 23 april 2019 **Contact** 

Onderwerp Herinnering voor onderzoek naar Luchtpark Hofbogen

Geachte bewoner,

Indien u al heeft deelgenomen aan het onderzoek "Onderzoek naar Luchtpark Hofbogen", mag u dit bericht negeren.

Mogelijk is de voorgaande brief verloren gegaan bij de post, halverwege een poging tot deelname of had u simpelweg even geen tijd. Maar u heeft nog een kans!

Twee weken geleden, 9 april jongsleden, heeft u waarschijnlijk een uitnodiging ontvangen voor dit onderzoek naar Luchtpark Hofbogen. Vanuit een omgevingssteekproef bent u willekeurig geselecteerd om deel te nemen aan dit onderzoek. Helaas heeft nog niet iedereen de vragenlijst ingevuld, en vandaar deze herinnering.

Bijna één jaar geleden werd op 1 juni Luchtpark Hofbogen officieel geopend. Om te weten te komen hoe lokale bewoners Luchtpark Hofbogen ervaren en betrokken zijn bij de ontwikkeling, voer ik in het kader van mijn afstudeeropdracht aan Universiteit Utrecht dit onderzoek uit. In dit onderzoek worden onder andere vragen gesteld over uw betrokkenheid bij de plannen, uw ervaringen met het nieuwe stadspark en de ervaren toegankelijkheid van Luchtpark Hofbogen.

Ik zou het zeer op prijs stellen als u voor dit onderzoek alsnog de vragenlijst wilt invullen.

### Hoe kan ik meedoen?

Het invullen duurt ongeveer 5 minuten. De vragenlijst staat op het internet. Het adres van de website is nog twee weken beschikbaar:

Het is belangrijk dat u het internetadres in de adresbalk bovenaan uw scherm typt. Om uw gegevens te beschermen, zullen hierna alle antwoorden volledig anoniem worden verwerkt en geanalyseerd. Alle gegevens worden vertrouwelijk behandeld.

Dit is het eerste evaluatieonderzoek na de opening van de publieke ruimte op voormalig Station Hofplein, waarbij uw kennis van cruciaal belang kan zijn voor het onderzoek. Uw antwoorden zijn mogelijk een bijdragen aan een succesvolle ontwikkeling van groene omgevingen in Rotterdam in zijn algemeenheid.

### Heeft u vragen?

Mocht u vragen hebben naar aanleiding van dit bericht of over het onderzoek dan kunt u contact opnemen met mij of mijn begeleider via de onderstaande contactgegevens.

U doet mij en uzelf een groot plezier als u zo snel mogelijk de vragenlijst invult.

Ik dank u alvast hartelijk voor uw tijd en medewerking.

Met vriendelijke groeten,

Uitvoerend onderzoeker en masterstudent Human Geography aan Universiteit Utrecht

Masterthesis begeleider aan Universiteit Utrecht



Date 23rd April 2019

Contact

Subject Rei

Reminder of research on Luchtpark Hofbogen

Dear resident,

If you already have participated in the research "Research on Luchtpark Hofbogen", you can ignore this letter.

Possibly the previous letter is lost at the post, during an attempt to participate or you simply haven't got enough time. However you still have another chance!

Two weeks ago, last 9th April, you probably received an invitation for this research on Luchtpark Hofbogen. Derived from a environmental sample you are randomly selected to participate in this research. Unfortunately not everyone has completed the questionnaire, and therefore this reminder.

Almost one year ago on the first of June Luchtpark Hofbogen is officially openened. In order to find out how local residents experience Luchtpark Hofbogen and are being involved in the development, I conduct this research within the context of my graduation project at Utrecht University. In this research, among others questions are asked about your involvement in the projects, your experiences with the new urban park and the experienced accessibility of Luchtpark Hofbogen.

I would very much appreciate if you will complete the survey of this research.

### How can I participate?

The survey will take around 5 minutes of your time. The survey is on the internet. The webadress is available for only two weeks more:

It is important that you type the internet adress in the adress bar at the top of your screen. To protect your data, all responses will be processed and analysed anonymously.

All data is treated confidentially.

This is the first evalution study after the opening of the public space at the former Hofplein Station. With the possible sequel developments around the entire trajectory Hofbogen, your answers are possible a contribution to the successfull development of green spaces in Rotterdam in general.

### **Questions?**

If you have any questions regarding this message or about the research, you can contact me or my supervisor by the contact details below.

You will do me and yourself a favor if you complete the questionnaire as soon as possible.

Thank you for your time and cooperation.

Kind regards,

Executive researcher and Master student Human Geography at Utrecht University

Master thesis supervisor at Utrecht University



Datum Juni 2019 Contact
Onderwerp Onderzoek naar Luchtpark Hofbogen

Geachte bewoner,

In verband met een uitbreiding van het onderzoek "Onderzoek naar Luchtpark Hofbogen" is nogmaals een uitnodiging verzonden. U kunt indien u al heeft deelgenomen aan het onderzoek dit bericht negeren.

Bijna één jaar geleden werd op 1 juni Luchtpark Hofbogen officieel geopend. Bovenop het voormalig Station Hofplein zijn treinen en rails vervangen door ruimte en groen – een stadspark. Om te weten te komen hoe lokale bewoners Luchtpark Hofbogen ervaren en betrokken zijn bij de ontwikkeling, voer ik in het kader van mijn afstudeeropdracht aan Universiteit Utrecht dit onderzoek uit. In dit onderzoek worden onder andere vragen gesteld over uw mogelijke betrokkenheid bij de plannen, uw ervaringen met het nieuwe stadspark en de ervaren toegankelijkheid van Luchtpark Hofbogen.

Vanuit een omgevingssteekproef bent u willekeurig geselecteerd om deel te nemen aan dit onderzoek. Ik zou het zeer op prijs stellen als u voor dit onderzoek de vragenlijst wilt invullen.

### Hoe kunt u meedoen?

Het invullen duurt ongeveer 5 minuten. De vragenlijst staat op het internet. Het adres van de website is:

Het is belangrijk dat u het internetadres in de adresbalk bovenaan uw scherm typt. Om uw gegevens te beschermen, zullen hierna alle antwoorden volledig anoniem worden verwerkt en geanalyseerd. Alle gegevens worden vertrouwelijk behandeld.

Dit is het eerste evaluatieonderzoek na de opening van de publieke ruimte op voormalig Station Hofplein. Met de mogelijke vervolgontwikkelingen rondom het gehele traject van de Hofbogen kunnen uw antwoorden van wetenschappelijk en maatschappelijk belang zijn en bijdrage aan een succesvolle ontwikkeling van groene omgevingen in Rotterdam in zijn algemeenheid.

### Heeft u vragen?

Mocht u vragen hebben naar aanleiding van dit bericht of over het onderzoek dan kunt u contact opnemen met mij of mijn begeleider via de onderstaande contactgegevens.

U doet mij en uzelf een groot plezier als u een van de komende dagen de vragenlijst invult.

Ik dank u alvast hartelijk voor uw tijd en medewerking.

Met vriendelijke groeten,

Uitvoerend onderzoeker en masterstudent Human Geography aan Universiteit Utrecht

Masterthesis begeleider aan Universiteit Utrecht



Date June 2019 Contact Subject Research on Luchtpark Hofbogen

Dear resident.

Due to an extension of the research "Research on Luchtpark Hofbogen" once more an invitation is sent. You can ignore this letter, if you already have participated in the research.

Almost one year ago on the first of June Luchtpark Hofbogen is officially openened. On top of the former Station Hofplien trains and tracks are removed and replaced by space and green – an urban park. In order to find out how local residents experience Luchtpark Hofbogen and are being involved in the development, I conduct this research within the context of my graduation project at Utrecht University. In this research, among others questions are asked about your potential involvement in the projects, your experiences with the new urban park and the experienced accessibility of Luchtpark Hofbogen.

Derived from a environmental sample you are randomly selected to participate in this research. I would very much appreciate if you will complete the survey of this research.

### How can I participate?

The survey will take around 5 minutes of your time. The survey is on the internet. The webadress is:

It is important that you type the internet adress in the adress bar at the top of your screen. To protect your data, all responses will be processed and analyzed anonymously.

All data is treated confidentially.

This is the first evalution study after the opening of the public space at the former Hofplein Station. With the possible sequel developments around the entire trajectory Hofbogen, your answers can be of scientific and societal importance and contribute to the successfull development of green spaces in Rotterdam in general.

### Questions?

If you have any questions regarding this message or about the research, you can contact me or my supervisor by the contact details below.

You will do me and yourself a favor if you complete the questionnaire in the following days.

Thank you for your time and cooperation.

Kind regards,

Executive researcher and Master student Human Geography at Utrecht University

Master thesis supervisor at Utrecht University



Datum Juni 2019 Contact

Onderwerp Herinnering voor onderzoek naar Luchtpark Hofbogen

Geachte bewoner,

Indien u al heeft deelgenomen aan het onderzoek "Onderzoek naar Luchtpark Hofbogen", mag u dit bericht negeren.

Mogelijk is de voorgaande brief verloren gegaan bij de post, halverwege een poging tot deelname of had u simpelweg even geen tijd. Maar u heeft nog een kans!

Kortgeleden heeft u waarschijnlijk een uitnodiging ontvangen voor dit onderzoek naar Luchtpark Hofbogen. Vanuit een omgevingssteekproef bent u willekeurig geselecteerd om deel te nemen aan dit onderzoek. Helaas heeft nog niet iedereen de vragenlijst ingevuld, en vandaar deze herinnering.

Bijna één jaar geleden werd op 1 juni Luchtpark Hofbogen officieel geopend. Om te weten te komen hoe lokale bewoners Luchtpark Hofbogen ervaren en betrokken zijn bij de ontwikkeling, voer ik in het kader van mijn afstudeeropdracht aan Universiteit Utrecht dit onderzoek uit. In dit onderzoek worden onder andere vragen gesteld over uw betrokkenheid bij de plannen, uw ervaringen met het nieuwe stadspark en de ervaren toegankelijkheid van Luchtpark Hofbogen.

Ik zou het zeer op prijs stellen als u voor dit onderzoek alsnog de vragenlijst wilt invullen.

### Hoe kan ik meedoen?

Het invullen duurt ongeveer 5 minuten. De vragenlijst staat op het internet. Het adres van de website is:

Het is belangrijk dat u het internetadres in de adresbalk bovenaan uw scherm typt. Om uw gegevens te beschermen, zullen hierna alle antwoorden volledig anoniem worden verwerkt en geanalyseerd. Alle gegevens worden vertrouwelijk behandeld.

Dit is het eerste evaluatieonderzoek na de opening van de publieke ruimte op voormalig Station Hofplein, waarbij uw kennis van cruciaal belang kan zijn voor het onderzoek. Uw antwoorden zijn mogelijk een bijdrage aan een succesvolle ontwikkeling van groene omgevingen in Rotterdam in zijn algemeenheid.

### Heeft u vragen?

Mocht u vragen hebben naar aanleiding van dit bericht of over het onderzoek dan kunt u contact opnemen met mij of mijn begeleider via de onderstaande contactgegevens.

U doet mij en uzelf een groot plezier als u zo snel mogelijk de vragenlijst invult.

Ik dank u alvast hartelijk voor uw tijd en medewerking.

Met vriendelijke groeten,

Uitvoerend onderzoeker en masterstudent Human Geography aan Universiteit Utrecht

Masterthesis begeleider aan Universiteit Utrecht



Date June 2019 Contact

**Subject** Reminder of research on Luchtpark Hofbogen

Dear resident,

If you already have participated in the research "Research on Luchtpark Hofbogen", you can ignore this letter.

Possibly the previous letter is lost at the post, during an attempt to participate or you simply haven't got enough time. However you still have another chance!

Recently you probably received an invitation for this research on Luchtpark Hofbogen. Derived from a environmental sample you are randomly selected to participate in this research. Unfortunately not everyone has completed the questionnaire, and therefore this reminder.

Almost one year ago on the first of June Luchtpark Hofbogen is officially opened. In order to find out how local residents experience Luchtpark Hofbogen and are being involved in the development, I conduct this research within the context of my graduation project at Utrecht University. In this research, among others questions are asked about your involvement in the projects, your experiences with the new urban park and the experienced accessibility of Luchtpark Hofbogen.

I would very much appreciate if you will complete the survey of this research.

### How can I participate?

The survey will take around 5 minutes of your time. The survey is on the internet. The webadress is:

It is important that you type the internet adress in the adress bar at the top of your screen. To protect your data, all responses will be processed and analyzed anonymously.

All data is treated confidentially.

This is the first evalution study after the opening of the public space at the former Hofplein Station. With the possible sequel developments around the entire trajectory Hofbogen, your answers are possible a contribution to the successfull development of green spaces in Rotterdam in general.

### Questions?

If you have any questions regarding this message or about the research, you can contact me or my supervisor by the contact details below.

You will do me and yourself a favor if you complete the questionnaire as soon as possible.

Thank you for your time and cooperation.

Kind regards,

Executive researcher and Master student Human Geography at Utrecht University

Master thesis supervisor at Utrecht University

### 7.4 Survey

### Survey 'Luchtpark Hofbogen and surrounding residents'

In the context of the research on Rotterdam's Luchtpark Hofbogen is the following questionnaire set up for the notified residents near the urban park. The next subjects will be part in the survey: your potential involvement during the planning- and development processes of Luchtpark Hofbogen, your use of the park, your experiences and some general characteristics. It will take approximately five minutes to complete the survey and the answers to the questions will be processed anonymously. Thanks for your participation!

To start:

Question 1 – How long do you think it takes on average walking to go from your dwelling to Luchtpark Hofbogen?

Less than 1 minute;

Between 2 and 5 minutes;

Between 6 and 10 minutes;

More than 10 minutes

#### Involvement

Question 2 – Do you know that there were opportunities for participation in the Luchtpark Hofbogen development process?

Yes;

No

Question 3 – Have you been involved in the development?

Yes;

No -> Skip questions 4 and 5

Question 4 – In which phases have you (been) involved? Multiple answers are correct.

Orientation phase;

Initiation phase;

Design/ planning phase;

Implementation/ construction phase;

Maintenance phase;

Other, namely...

Question 5 – How have you been involved in these phases? Multiple answers are correct.

Information meetings;

Possibilities to give opinions (e.g. survey, interview, debate);

Possibility to give suggestions (e.g. residential panel, focus group);

Possibility to indicate preferences (e.g. choice survey, choice referendum, residential jury);

Cooperation/co-production (e.g. co-designing);

Possibility to participate in decision-making (e.g. referendum);

Maintenance;

Other, namely...

1

Question 6 – How did you experience your participation (options) in the development of Luchtpark Hofbogen?

1 (very negative); 2; 3; 4; 5; 6; 7; 8; 9; 10 (very positive)

Question 7 – What could possibly be improved in terms of residents' participation?

Question 8 – To what extent do you think the park reflects the wants of the community? Not at all; Somewhat not; Neutral; Somewhat yes; Totally Accessibility Question 9 – Do you ever visit Luchtpark Hofbogen? Yes; -> Skip question 16 No -> Skip questions 10, 11, 12, 13, 14 and 15; Go to question 16 Question 10 – How often do you visit to the park? Daily; Several times a week; Once a week: Once a month; Rarely Question 11 – On which days do you usually visit the park? During the week; In the weekend; Both during the week and in the weekend; I don't know Question 12 – On which times of the day do you usually visit the park? Multiple answers are correct. In the morning; In the afternoon; In the evening; I don't know Question 13 – What do you usually do in the park? Multiple answers are correct. Sitting; Walking; Looking around in the garden; Have lunch/ to picnic; Working/ studying; To entertain (my) children; Visiting cultural events; Other, namely...; No particular reason **Experiences** Question 14 – Why do you usually go to the park? Multiple answers are correct. For the nature/ green environment; For the sociality; To be outside; For health reasons;

Habit;

Other, namely...; I don't know Question 15 – What barriers do you experience to go to the park? Multiple answers are correct. I prefer to be in my own garden or on the balcony; I haven't time; It is not necessary for me; I'd rather go to other parks; It is too far away; Too difficult to access (e.g. physically); It is too busy; I don't like parks; I don't feel welcome; I don't feel safe there; There is nothing to experience; There are no toilets; Dogs are not allowed; Otherwise, namely...; I don't know Question 16 – What barriers do you experience to go to the park? Multiple answers are correct. I prefer to be in my own garden or on the balcony; I haven't time; It is not necessary for me; I'd rather go to other parks; It is too far away; Too difficult to access (e.g. physically); It is too busy; I don't like parks; I don't feel welcome; I don't feel safe there; There is nothing to experience; There are no toilets; Dogs are not allowed; Otherwise, namely...; I don't know

Question 17 – How do you rate Luchtpark Hofbogen on a scale from 1(very bad) to 10 (very good)? 1; 2; 3; 4; 5; 6; 7; 8; 9; 10

### **General characteristics**

Question 18 – To what extent can you do your daily activities (such as going upstairs/ shopping)? Not at all; Somewhat not; Neutral; Somewhat yes; Totally

Question 19 - What is your highest completed education?

No education;

Primary education;

Primary education and pre-vocational secondary education (MAVO / VMBO);

Senior general secondary education (HAVO);

Pre-university education (VWO)

Primary Vocational Education (LBO);

Secondary Vocational Education (MBO);

```
Higher professional Education (HBO);
University Education (WO);
Otherwise, namely...
Question 20 - What is your origin?
Dutch;
Antillean;
Moroccan;
Surinamese;
Turkish;
Otherwise, namely...
Question 21 – How is your household composed?
Single without child(ren);
Single with child(ren);
(Married) couple without child(ren);
Couple with child(ren);
Other composition
Question 22 – What is your monthly netto income in euros?
1500 or less;
1501 - 2000;
2001 - 2500;
2501 - 3000;
3001 - 3500;
3501 - 4000;
4001 or more;
I don't want to say;
I don't know
Question 23 – What is your gender?
Male;
Female
Question 24 – What is your age?
Question 25 – How long have you been living in this neighbourhood (in years)?
[
       year]
Question 26 – Do you have any further comments in regard to Luchtpark Hofbogen?
       ]
Closing
Thank you for participating and completing this survey!
Your answers will be processed correctly in the investigation on Luchtpark Hofbogen and surrounding
residents. For any further questions and comments you can mail to
```

### Enquête 'Luchtpark Hofbogen en lokale bewoners'

In het kader van het onderzoek naar Rotterdams Luchtpark Hofbogen is de volgende vragenlijst opgesteld voor de aangeschreven bewoners rondom het stadspark. In het vervolg komen de volgende onderdelen aan bod: uw eventuele betrokkenheid bij het plannings- en ontwikkelingsproces van Luchtpark Hofbogen, uw gebruik van het park, uw ervaringen en enkele algemene kenmerken.

Voor het invullen van de enquête zal ongeveer 5 minuten nodig zijn en de antwoorden op de vragen worden volledig anoniem verwerkt. Alvast bedankt voor uw participatie!

Om te beginnen:

Vraag 1 – Hoe lang denkt u dat het gemiddeld lopend duurt om van uw woning naar Luchtpark Hofbogen te gaan?

Minder dan 1 minuut;

Tussen de 2 en 5 minuten;

Tussen de 6 en 10 minuten;

Meer dan 10 minuten

#### Betrokkenheid

Vraag 2 – Weet u dat er mogelijkheden waren tot participatie bij het ontwikkelingsproces van Luchtpark Hofbogen?

Ja;

Nee

Vraag 3 – Bent u betrokken geweest bij de ontwikkeling?

Ja:

Nee -> Overslaan vragen 4 en 5

Vraag 4 - In welke fasen bent u betrokken (geweest)? Meerdere antwoorden zijn mogelijk.

Oriëntatiefase;

Initiatiefase:

Ontwerp/planningsfase;

Uitvoerings/realisatiefase;

Onderhoudsfase:

Anders, namelijk...

Vraag 5 – Hoe bent u in deze fasen betrokken? Meerdere antwoorden zijn mogelijk.

Informatiebijeenkomsten;

Mogelijkheden tot geven van meningen (bijv. enquête, interview, debat);

Mogelijkheden tot geven suggesties (bijv. burgerpanel, focusgroep);

Mogelijkheden tot aangeven voorkeuren (bijv. keuze-enquête, keuzereferendum, burgerjury);

Samenwerking/coproductie (bijv. meeontwerpen);

Mogelijkheid tot meebeslissen (bijv. referendum);

Uitvoering onderhoud;

Anders, namelijk...

Vraag 6 – Hoe heeft u uw participatie(mogelijkheden) bij de ontwikkeling van Luchtpark Hofbogen ervaren?

1 (heel erg negatief); 2; 3; 4; 5; 6; 7; 8; 9; 10 (heel erg positief)

Vraag 7 – Wat zou eventueel kunnen worden verbeterd aan de bewoners' participatie?

Vraag 8 - In hoeverre denkt u dat het Luchtpark Hofbogen overeenkomt met de wensen van de gemeenschap? Helemaal niet; Enigszins niet; Neutraal; Enigszins wel; Helemaal wel Toegankelijkheid Vraag 9 – Komt u wel eens in het Luchtpark Hofbogen? Ja; -> Overslaan vraag 16 Nee -> Overslaan vragen 10, 11, 12, 13, 14 en 15; Gelijk door naar vraag 16 Vraag 10 – Hoe vaak bezoekt u in het park? Dagelijks; Enkele keren per week; Eén keer per week; Eén keer per maand; Zelden Vraag 11 – Op welke dagen bezoekt u het park meestal? Doordeweeks: In het weekend; Zowel doordeweeks als in het weekend; Weet ik niet Vraag 12 – Op welke dagdelen bezoekt u het park meestal? Meerdere antwoorden zijn mogelijk. 's Ochtends; 's Middags; 's Avonds; Weet ik niet Vraag 13 – Wat doet u meestal in het park? Meerdere antwoorden zijn mogelijk. Zitten; Wandelen; Rondkijken in de tuin; Lunchen/picknicken; Werken/studeren; Spelen met (mijn) kinderen; Culturele evenementen bezoeken; Anders, namelijk....; Geen specifieke reden Ervaringen Vraag 14 – Waarom gaat u meestal naar het park? Meerdere antwoorden zijn mogelijk. Rustige omgeving; Natuur/groene omgeving; Om de gezelligheid; Om buiten te zijn;

Om gezondheidsredenen;

Uit gewoonte; Anders, namelijk...;

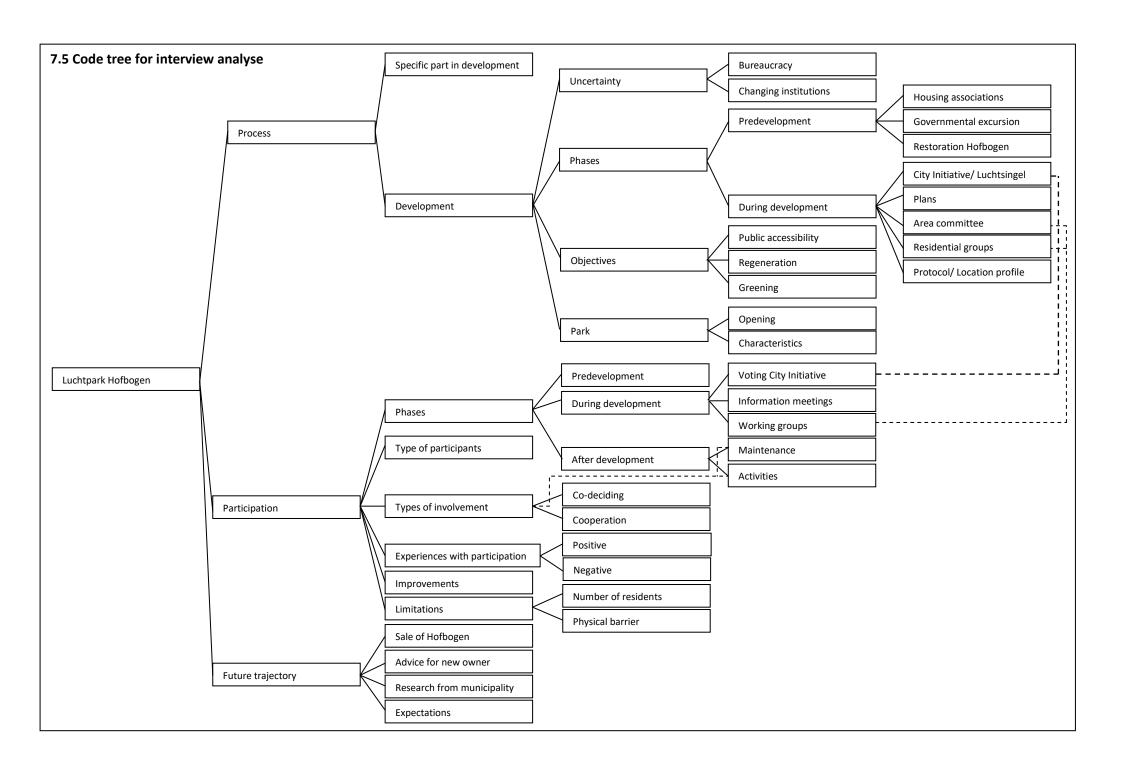
#### Weet ik niet

Lager onderwijs;

Vraag 15 – Welke barrières ervaart u om naar het park te gaan? Meerdere antwoorden zijn mogelijk. Ik ben liever in mijn eigen tuin of op het balkon; Ik heb geen tijd; Ik heb er niet zoveel behoefte aan; Ik ga liever naar andere parken; Het is te ver weg; Te moeilijk bereikbaar (bijv. lichamelijk); Het is te druk; Ik vind parken niet leuk; Ik voel mij niet welkom; Ik voel mij er niet veilig; Er valt niets te beleven; Er zijn geen toiletten; Honden zijn niet toegestaan; Anders, namelijk...; Weet ik niet Vraag 16 – Welke barrières ervaart u om naar het park te gaan? Meerdere antwoorden zijn mogelijk. Ik ben liever in mijn eigen tuin of op het balkon; Ik heb geen tijd; Ik heb er niet zoveel behoefte aan; Ik ga liever naar andere parken; Het is te ver weg; Te moeilijk bereikbaar (bijv. lichamelijk); Het is te druk; Ik vind parken niet leuk; Ik voel mij niet welkom; Ik voel mij er niet veilig; Er valt niets te beleven; Er zijn geen toiletten; Honden zijn niet toegestaan; Anders, namelijk...; Weet ik niet Vraag 17 – Welk cijfer geeft u Luchtpark Hofbogen op een schaal van 1 (heel erg slecht) tot 10 (heel erg goed)? 1; 2; 3; 4; 5; 6; 7; 8; 9; 10 Algemene kenmerken Vraag 18 – In welke mate kunt u uw dagelijkse bezigheden (bijv. traplopen/boodschappen doen) doen? Helemaal niet; Enigszins niet; Neutraal; Enigszins wel; Helemaal wel Vraag 19 – Wat is uw hoogst voltooide opleiding? Geen opleiding;

```
Middelbaar algemeen voorgezet onderwijs (MAVO/VMBO);
Hoger algemeen voorgezet onderwijs (HAVO);
Voorbereidend Wetenschappelijk Onderwijs (VWO);
Lager Beroepsonderwijs (LBO);
Middelbaar Beroepsonderwijs (MBO);
Hoger Beroepsonderwijs (HBO);
Wetenschappelijk Onderwijs (WO);
Anders, namelijk...
Vraag 20 – Wat is uw afkomst?
Nederlands;
Antilliaans;
Marokkaans;
Surinaams;
Turks;
Anders, namelijk...
Vraag 21 – Hoe is uw huishouden samengesteld?
Alleenstaand zonder kind(eren);
Alleenstaand met kind(eren);
(Echt)paar zonder kind(eren);
(Echt)paar met kind(eren);
Anders
Vraag 22 – Wat is uw netto inkomen per maand in euro's?
1500 of minder;
1501 - 2000;
2001 - 2500;
2501 - 3000;
3001 - 3500;
3501 - 4000;
4001 of meer;
Wil ik niet zeggen;
Weet ik niet
Vraag 23 - Wat is uw geslacht?
Man;
Vrouw
Vraag 24 – Wat is uw leeftijd?
       ]
Vraag 25 – Hoe lang woont u al in deze buurt (in jaren)?
       jaar]
Vraag 26 – Heeft u nog verdere opmerkingen met betrekking tot Luchtpark Hofbogen?
       1
[
Slot
Hartelijk bedankt voor uw deelname en afronding van deze enquête!
```

Uw antwoorden zullen op een juiste manier worden verwerkt in het onderzoek naar Luchtpark Hofbogen en lokale bewoners. Voor verder nog eventuele vragen en opmerkingen kun u mailen naar



### 7.6 Summaries of interviews

### Interview with participant A

Participant A is as

participating in the processes concerning the Hofpleinlijn and the Hofbogen. The process of the Hofbogen is complicated in an area with only a few close residents.

The plan for Luchtpark Hofbogen is top-down designed by Zones Urbaines Sensibles (ZUS) after winning the City Initiative and in this way implemented. There was very little residential involvement in this process. According to participant A, you can mention that residents have influenced the process by voting for the Luchtsingel, although it was minimal related to the Luchtpark. Residents especially did not want many events on the rooftop and they preferred greenery. Despite these opinions, residential involvement is focussed on participation in the garden instead of taking part in the decisions during the process. The frequently organised area committee working group was joined by only a few residents with 'green ideas', according to the participant. Probably Station Hofplein is not interesting enough for residents, because it's too far away with barriers such as the desolate closing and location in the city centre in the opinions of residents. Moreover, the possibly too abstract plans of Station Hofplein and Luchtpark Hofbogen are not the active domain of surrounding residents, which are strongly involved and participating in the events in the streets, for example the water resistance in Agniesebuurt. The bottom-up processes along the rest of the line create more local participation. After all, the coming five years seem to be more exciting than the past five years concerning residential involvement in the processes, because the coming local developments in the area will probably encourage more participation of residents.

### Interview with participant B

As resident for the past years, participant B is , and has been administratively involved in the processes of the development of Station Hofplein since. According to the participant the local municipality is talking about the rooftop of Station Hofplein for over 18 years now. Among others while the rails were still used, an excursion to Paris was made in 2001. The idea of a park on top of the rail tracks is almost commonly known, but how to construct the park is unknown for the last twenty years. According to participant B a distinction between Luchtpark

Hofbogen and the rest of the line is incorrect, but there is a significant difference in local involvement

within the processes of Luchtpark Hofbogen and the other parts of the Hofpleinlijn.

Winning the City Initiative and awarded budget was for ZUS the reason to construct the Luchtsingel and an additional park on the connected rooftop. During this top-down process there has been little public participation from residents, however on the neighbourhood level residents were involved with ideas, discussions and manifests against some of the ideas, like events. The formal construction was still managed by ZUS, also because the ownership structure hinders local involvement. Many of the residents seems to participate when there is something to happen instead of prior to. During the information evening about selling the Hofbogen more than 100 residents were present. Moreover, residents are more involved with the rest of the Hofpleinlijn than with Luchtpark Hofbogen, because this part is in general taken for granted.

### Interview with participant C

Since three years is participant C involved in the process of Luchtpark Hofbogen.

The is the link between municipality and residents. Therefore mentioned is a lot of participation during the maintenance of the park led by GroenGoed's Residents are also volunteering in events or during the collaboration with the organisations. These participating residents seem to be a reflection of the society with mostly non-Western residents.

In contrast to the participation after the opening of Luchtpark Hofbogen, the involvement in the development phase of the park is minimal and no reflection of the society. Native residents are mainly involved during the information meetings or collaboration groups. The general involvement and participation is in both phases characterized by fear and distrust towards the municipality and towards the disadvantages of a popular urban park in the future, according to participant C.

### Interview with participants D and E

Participants D and E are

Directly after the last former activity the development of an urban park and restoration is started according to the ideas of ZUS. The aims of the acquisition of the Hofbogen and the green space were to make it accessible for all public, next to the greening and general improvement of quality of life in the areas. During the phases of design, led by ZUS, there were no residents involved, because participation is something new, something of recent times.

After the planned sale of Hofbogen the ownership is changed. The current management will have no more control about the plans, which changes towards the new owner and the municipality. Although this prospect, participants D and E are well organised and they have made a location profile concerning events on the roof of Station Hofplein, as well as a possible vision document. In collaboration with the residents the location profile includes the do and don'ts of events and isapproved by residents. In this document requirements are documented to minimise the disadvantages for urban dwellers in the surrounding areas during rooftop activity.

### Interview with participant F

. After one year the owner could not

promise any future stay, awaiting the new plans. Participant F

From this position different user patterns were experienced. The different students flows are visible, as well as the people travelling towards or from the station in the early morning. Moreover, visitors of the Luchtsingel, athletes, families, and couples are represented in the park. Despite still some uncertainty more and more people visit the park, especially in advantageous weather. All together the visitors, both residents and tourists, form a broad mix of cultures, age, and activities. However, the sense of less present local residents is awakened. According to participant F the future park need more connectedness with the community. A management of the park could possible consist of residents or local entrepreneurs. The result may be a positive touristic attraction due to the potency of the inner-city location, according to participant F.

# 7.7 Descriptive survey response

FREQUENCIES VARIABLES=Q18 Q19\_1 Q19\_2 Q20\_1 Q20\_2 Q21 Q22 Q23 Q24 /STATISTICS=MINIMUM MAXIMUM MEAN /PIECHART PERCENT /ORDER=ANALYSIS.

# What is your gender?

	Frequency	Percentage
Male	39	61,9
Female	24	38,1
Total	63	100,0
Missing	12	
Total	75	

# What is your origin?

	Frequency	Percentage
Dutch	55	85,9
Antillean	1	1,6
Moroccan	1	1,6
Otherwise	7	10,9
Total	64	100,0
Missing	11	
Total	75	

# What is your highest completed education?

	Frequency	Percentage
Primary education	1	1,6
Primary education and pre-vocational secondary education (MAVO/VMBO)	4	6,3
Senior general secondary education (HAVO)	3	4,7
Pre-university education (VWO)	6	9,4
Secondary Vocational Education (MBO)	5	7,8
Higher professional Education (HBO)	19	29,7
University Education (WO)	26	40,6
Total	64	100,0
Missing	11	
Total	75	

# What is your age?

	Frequency	Percentage
19	3	5,7
23	1	1,9
28	3	5,7
30	1	1,9
31	1	1,9
32	2	3,8
35	3	5,7
36	1	1,9
37	1	1,9
38	3	5,7
39	1	1,9
40	2	3,8
43	2	3,8
44	2	3,8
45	1	1,9

46	1	1,9
48	2	3,8
50	2	3,8
51	1	1,9
53	1	1,9
55	2	3,8
56	1	1,9
57	1	1,9
59	1	1,9
60	1	1,9
62	3	5,7
63	1	1,9
65	1	1,9
66	1	1,9
69	2	3,8
70	1	1,9
72	2	3,8
73	1	1,9
75	1	1,9
Total	53	100,0
Missing	22	
Total	75	

# What is your monthly netto income in euros?

	Frequency	Percentage
1500 or less	9	14,8
1501 – 2000	2	3,3
2001 – 2500	7	11,5
2501 – 3000	8	13,1
3001 – 3500	8	13,1
3501 – 4000	5	8,2
4001 or more	5	8,2
I don't want to say	14	23,0
I don't know	3	4,9
Total	61	100,0
Missing	14	
Total	75	

### How is your household composed?

	Frequency	Percentage
Single without child(ren)	33	52,4
Single with child(ren)	3	4,8
(Married) couple without child(ren)	19	30,2
Couple with child(ren)	6	9,5
Other composition	2	3,2
Total	63	100,0
Missing	12	
Total	75	

### CROSSTABS

/TABLES=Q1 Q18 Q19\_1 Q20\_1 Q21 Q22 BY Q23 /FORMAT=AVALUE TABLES /CELLS=COUNT COLUMN /COUNT ROUND CELL. How long do you think it takes on average walking to go from your dwelling to Luchtpark Hofbogen?

	Male (n/%)	Female (n/%)	Total (n/%)
Less than 1 minute	7 (17,9)	6 (25,0)	13 (20,6)
Between 2 and 5 minutes	30 (76,9)	16 (66,7)	46 (73,0)
Between 6 and 10 minutes	1 (2,6)	1 (4,2)	2 (3,2)
More than 10 minutes	1 (2,6)	1 (4,2)	2 (3,2)
Total	39 (100,0)	24 (100,0)	63 (100,0)

To what extent can you do your daily activities (such as going upstairs/ shopping)?

	Male (n/%)	Female (n/%)	Total (n/%)
Not at all	2 (5,1)	0 (0,0)	2 (3,2)
Somewhat not	3 (7,7)	1 (4,2)	4 (6,3)
Neutral	2 (5,1)	3 (12,5)	5 (7,9)
Somewhat yes	2 (5,1)	0 (0,0)	2 (3,2)
Totally	30 (76,9)	20 (83,3)	50 (79,4)
Total	39 (100,0)	24 (100,0)	63 (100,0)

What is your highest completed education?

	Male (n/%)	Female (n/%)	Total (n/%)
No education	0 (0,0)	0 (0,0)	0 (0,0)
Primary education	1 (2,6)	0 (0,0)	1 (1,6)
Primary education and pre-vocational secondary education (MAVO/VMBO)	3 (7,9)	1 (4,2)	4 (6,5)
Senior general secondary education (HAVO)	0 (0,0)	2 (8,3)	2 (3,2)
Pre-university education (VWO)	4 (10,5)	2 (8,3)	6 (9,7)
Primary Vocational Education (LBO)	0 (0,0)	0 (0,0)	0 (0,0)
Secondary Vocational Education (MBO)	3 (7,9)	2 (8,3)	5 (8,1)
Higher professional Education (HBO)	9 (23,7)	9 (37,5)	18 (29,0)
University Education (WO)	18 (47,4)	8 (33,3)	26 (41,9)
Otherwise	0 (0,0)	0 (0,0)	0 (0,0)
Total	38 (100,0)	24 (100,0)	62 (100,0)

What is your origin?

	Male (n/%)	Female (n/%)	Total (n/%)
Dutch	34 (87,2)	19 (82,6)	53 (85,5)
Antillean	1(2,6)	0 (0,0)	1 (1,6)
Moroccan	0 (0,0)	1 (4,3)	1 (1,6)
Surinamese	0 (0,0)	0 (0,0)	0 (0,0)
Turkish	0 (0,0)	0 (0,0)	0 (0,0)
Otherwise	4 (10,3)	3 (13,0)	7 (11,3)
Total	39 (100,0)	23 (100,0)	62 (100,0)

How is your household composed?

	Male (n/%)	Female (n/%)	Total (n/%)
Single without child(ren)	20 (51,3)	13 (56,5)	33 (53,2)
Single with child(ren)	1 (2,6)	2 (8,7)	3 (4,8)
(Married) couple without child(ren)	13 (33,3)	5 (21,7)	18 (29,0)
Couple with child(ren)	5 (12,8)	1 (4,2)	6 (9,7)
Other composition	0 (0,0)	2 (8,7)	2 (3,2)
Total	39 (100, 0)	23 (100, 0)	62 (100, 0)

What is your monthly netto income in euros?

,	Male (n/%)	Female (n/%)	Total (n/%)
€ 1500 or less	5 (13,2)	4 (17,4)	9 (14,8)
€ 1501 - 2000	1 (2.6)	1 (4.3)	2 (3.3)

€ 2001 - 2500	4 (10,5)	3 (13,0)	7 (11,5)
€ 2501 - 3000	5 (13,2)	3 (13,0)	8 (13,1)
€ 3001 - 3500	6 (15,8)	2 (8,7)	8 (13,1)
€ 3501 - 4000	5 (13,2)	0 (0,0)	5 (8,2)
€ 4001 or more	3 (7,9)	2 (8,7)	5 (8,2)
I don't want to say	6 (15,8)	8 (34,8)	14 (23,0)
I don't know	3 (7,9)	0 (0,0)	3 (4,9)
Total	38 (100, 0)	23 (100, 0)	61 (100, 0)

MEANS TABLES=Q24 Q25 BY Q23 /CELLS=MEAN COUNT MIN MAX RANGE.

# What is your age?

	Minimum	Maximum	Mean
Male	19	75	49,54 years
Female	19	72	41,83 years
Total	19	75	46,92 years

How long have you been living in this neighbourhood (in years)?

	Minimum	Maximum	Mean
Male (n = 34)	1	37	12,26 years
Female (n = 20)	0	47	15,55 years
Total (n = 54)	0	47	13,48 years

First recoding of some general characteristics

	Old values —	→ New values	
Q18 – Physical ability	Not at all		
	Somewhat not	Smaller to larger limitations	
	Neutral		
	Somewhat yes		
	Totally	Totally	
Q19 – Education	No education		
	Primary education		
	Primary education and pre-		
	vocational secondary education		
	(MAVO / VMBO)		
	Senior general secondary education	Other education (up to Secondary	
	(HAVO)	Vocational Education (MBO))	
	Pre-university education (VWO)	]	
	Primary Vocational Education (LBO)		
	Secondary Vocational Education		
	(MBO)		
	Otherwise		
	Higher professional Education (HBO)	Higher professional Education (HBO)	
	University Education (WO)	University Education (WO)	
Q20 – Origin	Dutch	Dutch	
	Antillean		
	Moroccan		
	Surinames	Non-Dutch	
	Turkish		
	Otherwise		
Q21 – Household composition	Single without child(ren)	Single without child(ren)	
	(Married) couple without child(ren)	(Married) couple without child(ren)	
	Single with child(ren)		
	Couple with child(ren)	Other	

	Other composition	
Q22 – Income	€ 1500 or less	€ 2500 or less
	€ 1501 - 2000	
	€ 2001 - 2500	
	€ 2501-3000	€ 2501-3500
	€ 3001 - 3500	
	€ 3501 - 4000	€ 3501 or more
	€ 4001 or more	
	I don't want to say	No insights
	I don't know	

Second recoding of some general characteristics

	Old values —	→	New values
Q19 – Education	No education		
	Primary education		
	Primary education and pre-		
	vocational secondary education		
	(MAVO / VMBO)		
	Senior general secondary education	Lower educatoin	
	(HAVO)		
	Pre-university education (VWO)		
	Primary Vocational Education (LBO)		
	Secondary Vocational Education		
	(MBO)		
	Otherwise		
	Higher professional Education (HBO)	Upper education	
	University Education (WO)		
Q22 – Income	€ 1500 or less		
	€ 1501 - 2000	Lower income	
	€ 2001 - 2500		
	€ 2501-3000	Upper income	
	€ 3001 - 3500		
	€ 3501 - 4000		
	€ 4001 or more		
	I don't want to say	Lower income	
	I don't know		

### 7.8 Analysis syntaxes

FREQUENCIES VARIABLES=Q2
/STATISTICS=MINIMUM MAXIMUM MEAN
/PIECHART PERCENT
/ORDER=ANALYSIS.

# Do you know that there were opportunities for participation in the Luchtpark Hofbogen development process?

	Frequency	Percentage
Yes	34	45,3
No	41	54,7
Total	75	100,0

**CROSSTABS** 

/TABLES=Q2 BY Q20\_1 Q23 Q19\_1 /FORMAT=AVALUE TABLES /CELLS=COUNT /COUNT ROUND CELL.

# Do you know that there were opportunities for participation in the Luchtpark Hofbogen development process?

	Dutch	Antillean	Moroccan	Otherwise	Total
Yes	27	0	0	3	30
No	28	1	1	4	34
Total	55	1	1	7	64

	Male	Female	Total
Yes	19	9	28
No	20	15	35
Total	39	24	63

	Primary education	Primary education and pre-vocational secondary education (MAVO / VMBO)
Yes	0	2
No	1	2
Total	1	4

	Senior general secondary education (HAVO)	Pre-university education (VWO)	Secondary Vocational Education (MBO)
Yes	1	3	2
No	2	3	3
Total	3	6	5

	Higher professional Education (HBO)	University Education (WO)	Total
Yes	9	13	30
No	10	13	34
Total	19	26	64

FREQUENCIES VARIABLES=Q3
/STATISTICS=MINIMUM MAXIMUM MEAN
/PIECHART PERCENT
/ORDER=ANALYSIS.

Have you been involved in the development?

	Frequency	Percentage
Yes	6	8,0
No	69	92,0
Total	75	100,0

FREQUENCIES VARIABLES=Q5\_1 Q5\_2 Q5\_3 Q5\_4 Q5\_5 Q5\_6 Q5\_7 Q5\_8 Q5\_9 /STATISTICS=MINIMUM MAXIMUM MEAN /PIECHART PERCENT /ORDER=ANALYSIS.

How have you been involved in these phases?

	On	Off
Information meetings	5	1
Possibilities to give opinions (e.g. survey, interview, debate)	5	1
Possibility to give suggestions (e.g. residential panel, focus group)	2	4
Possibility to indicate preferences (e.g. choice survey, choice referendum, residential jury)	1	5
Cooperation/ co-production (e.g. co-designing)	0	6
Possibility to participate in decision-making (e.g. referendum)	0	6
Maintenance	1	5
Other	0	6

FREQUENCIES VARIABLES=Q6
/STATISTICS=MINIMUM MAXIMUM MEAN
/ORDER=ANALYSIS.

How did you experience your participation (options) in the development of Luchtpark Hofbogen?

	Frequency	Percentage	Mean
1 (very negative)	7	12,1	
2	1	1,7	
3	2	3,4	
4	1	1,7	
5	17	29,3	
6	15	25,9	
7	10	17,2	
8	4	6,9	
9	-	0,0	
10 (very positive)	1	1,7	
Total	58	100,0	5,28
Missing	17		
Total	75		

MEANS TABLES=Q6 BY Q3 Q2 /CELLS=MEAN COUNT STDDEV.

Do you know that there were opportunities for participation in the Luchtpark Hofbogen development process? by How did you experience your participation (options) in the development of Luchtpark Hofbogen?

	Mean	N		
Yes	5,77	30		
No	4,75	28		
Total	5,28	58		

# Have you been involved in the development? by How did you experience your participation (options) in the development of Luchtpark Hofbogen?

	Mean	N
Yes	6,00	6
No	5,19	52
Total	5,28	58

MEANS TABLES=Q6 BY Q2 Q3 BY Q19\_1 Q20\_1 Q21 Q22 Q23 /CELLS=MEAN COUNT STDDEV MIN MAX /STATISTICS ANOVA LINEARITY.

# How did you experience your participation (options) in the development of Luchtpark Hofbogen?

	, , , , , , , , , , , , , , , , , , , ,		<u>,                                     </u>	
	Mean	N	Range	
Primary education	1,00	1	1 – 1	
Primary education and pre-vocational secondary	6,00	4	5 – 7	
education (MAVO/VMBO)				
Senior general secondary education (HAVO)	4,00	3	2 – 5	
Pre-university education (VWO)	6,00	6	5 – 7	
Secondary Vocational Education (MBO)	4,25	4	1-6	
Higher professional Education (HBO)	6,00	15	1-8	
University Education (WO)	5,25	20	1 – 10	
Total	5,38	53	1 – 10	

	Mean	N	Range
Dutch	5,22	45	1-8
Antillean	7,00	1	7 – 7
Moroccan	5,00	1	5 – 5
Otherwise	5,57	7	1 – 10
Total	5,30	54	1-10

	Mean	N	Range
Single without child(ren)	5,30	27	1-10
Single with child(ren)	4,67	3	1-7
(Married) couple without child(ren)	5,80	15	1-8
Couple with child(ren)	5,17	6	1-8
Other composition	3,00	2	1-5
Total	5,30	53	1-10

	Mean	N	Range
1500 or less	5,25	8	1-7
1501 – 2000	5,50	2	5 – 6
2001 – 2500	4,83	6	1-7
2501 – 3000	6,17	6	5-7
3001 – 3500	6,29	7	5-8
3501 – 4000	5,67	3	1 – 10
4001 or more	6,60	5	5 – 8
I don't want to say	4,42	12	1-8
I don't know	3,00	2	1–5
Total	5,33	51	1 – 10

	Mean	N	Range
Male	5,48	31	1 – 10
Female	4,90	21	1-7

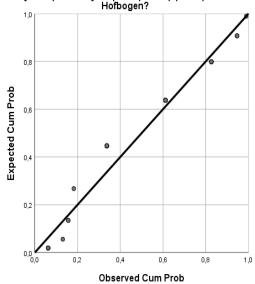
Total	5.25	52	1–10

CORRELATIONS
/VARIABLES=Q6 Q8
/PRINT=TWOTAIL NOSIG
/MISSING=PAIRWISE.

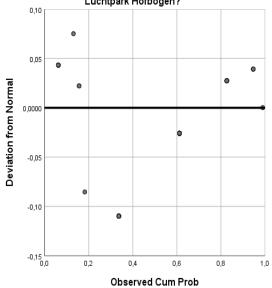
		How did you experience your participation (options) in the development of Luchtpark Hofbogen?	To what extent do you think the park reflects the wants of the community?
How did you experience	Pearson	1	,568
your participation	Correlation		
(options) in the	Sig. (2-tailed)		,000
development of	N	58	56
Luchtpark Hofbogen?			
To what extent do you	Pearson	,568	1
think the park reflects the	Correlation		
wants of the community?	Sig. (2-tailed)	,000	
	N	56	66

PPLOT
/VARIABLES=Q6 Q8
/NOLOG
/NOSTANDARDIZE
/TYPE=P-P
/FRACTION=BLOM
/TIES=MEAN
/DIST=NORMAL.

Normal P-P Plot of How did you experience your participation (options) in the development of Luchtpark
Hofbogen?



Detrended Normal P-P Plot of How did you experience your participation (options) in the development of Luchtpark Hofbogen?



MEANS TABLES=Q8 BY Q6 /CELLS=MEAN COUNT STDDEV /STATISTICS LINEARITY.

			Sum of	df	Mean	F	Sig.
			Squares		Square		
To what	Between	(Combined)	25,458	8	3,182	4,519	,000
extent do you	Groups	Linearity	18,912	1	18,912	26,858	,000
think the park		Deviation	6,546	7	,935	1,328	,258
reflects the		from					
wants of the		Linearity					
community? *	Within Grou	ıps	33,095	47	,704		
How did you	Total		58,554	55			
experience							
your							
participation							
(options) in							
the							
development							
of Luchtpark							
Hofbogen?							

FREQUENCIES VARIABLES=Q8
/STATISTICS=MINIMUM MAXIMUM MEAN
/PIECHART PERCENT
/ORDER=ANALYSIS.

To what extent do you think the park reflects the wants of the community?

To what extent do you think the park renects the wants of the community:			
	Frequency		Percentage
Not at all		6	9,1
Somewhat not		7	10,6
Neutral		28	42,4
Somewhat yes		21	31,8
Totally		4	6,1
Total		66	100,0
Missing		9	

Total	75
-------	----

CROSSTABS
/TABLES=Q8 BY Q2 Q3
/FORMAT=AVALUE TABLES
/CELLS=COUNT
/COUNT ROUND CELL
/BARCHART.

Do you know that there were opportunities for participation in the Luchtpark Hofbogen development process? by To what extent do you think the park reflects the wants of the community?

	Frequency		
	Yes		No
Not at all		3	3
Somewhat not		5	2
Neutral		12	16
Somewhat yes		9	12
Totally		1	3
Total		30	36

# Have you been involved in the development? by To what extent do you think the park reflects the wants of the community?

	Frequency		
	Yes		No
Not at all		1	5
Somewhat not		1	6
Neutral		2	26
Somewhat yes		2	19
Totally		0	4
Total		6	60

FREQUENCIES VARIABLES=Q9 /ORDER=ANALYSIS.

### Do you ever visit Luchtpark Hofbogen?

	•	
	Frequency	Percentage
Yes	36	53,7
No	31	46,3
Total	67	100,0
Missing	8	
Total	75	

# CROSSTABS

/TABLES=Q9 BY Q18 Q19\_1 Q20\_1 Q21 Q22 Q23 /FORMAT=AVALUE TABLES /CELLS=COUNT COLUMN /COUNT ROUND CELL.

### CROSSTABS

/TABLES=Q9 Q10 Q11 Q12 BY Q3 Q23 Recoded\_Q18\_Physical\_ability Recoded\_Q19\_Education Recoded\_Q20\_Origin Recoded\_Q21\_Household\_composition Recoded\_Q22\_Income /FORMAT=AVALUE TABLES /STATISTICS=CHISQ PHI /CELLS=COUNT /COUNT ROUND CELL.

# Do you ever visit Luchtpark Hofbogen? by To what extent can you do your daily activities (such as going upstairs/ shopping)?

	Frequency		
	Yes	No	
Smaller to larger physical abilities	8	6	
Totally	28	23	
Total	36	29	

	Value	df	Asymptotic Significance (2-sided)
Pearson's Chi-Square	,022	1	,881

a. 0 cells (0,0%) have expected count less than 5. The minimum expected count is 6,25.

### Do you ever visit Luchtpark Hofbogen? by What is your highest completed education?

	Frequency	
	Yes	No
Other education (up to Secondary	9	10
Vocational Education (MBO))		
Higher professional Education	12	7
(HBO)		
University Education (WO)	14	12
Total	35	29

	Value	df	Asymptotic Significance (2-sided)
Pearson's Chi-Square	,968	2	,616

a. 0 cells (0,0%) have expected count less than 5. The minimum expected count is 8,61.

#### Do you ever visit Luchtpark Hofbogen? by What is your origin?

	Frequency	
	Yes	No
Dutch	32	23
Non-Dutch	3	6
Total	35	29

	Value	df	Asymptotic Significance (2-sided)
Pearson's Chi-Square	1,927	1	,165

a. 2 cells (50,0%) have expected count less than 5. The minimum expected count is 4,08.

b. Computed only for a 2x2 table

	Exact Sig. (2-sided)
Fisther's Exact Test	,279

a. 2 cells (50,0%) have expected count less than 5. The minimum expected count is 4,08.

- b. Computed only for a 2x2 table
- c. The standardized statistic is 1,377.

### Do you ever visit Luchtpark Hofbogen? by How is your household composed?

	<u> </u>		•	
	Eroguo	ncv.		
	riequei	IICY		
		•		

b. Computed only for a 2x2 table

	Yes	No
Single without child(ren)	18	15
(Married) couple without child(ren)	10	9
Other	6	5
Total	34	29

	Value	df	Asymptotic Significance (2-sided)
Pearson's Chi-Square	,020	2	,990

a. 0 cells (0,0%) have expected count less than 5. The minimum expected count is 5,06.

### Do you ever visit Luchtpark Hofbogen? by What is your monthly netto income in euros?

	Frequency		
	Yes		No
2500 or less		10	8
2501 – 3500		11	5
3501 or more		4	6
No insights		7	10
Total		31	29

	Value	df	Asymptotic Significance (2-sided)
Pearson's Chi-Square	3,262	3	,353

a. 1 cells (12,5%) have expected count less than 5. The minimum expected count is 4,75.

# Do you ever visit Luchtpark Hofbogen? by What is your gender?

	Frequency	
	Yes	No
Male	23	16
Female	11	13
Total	39	29

	Value	df	Asymptotic Significance (2-sided)
Pearson's Chi-Square	1,033	1	,310

a. 0 cells (0,0%) have expected count less than 5. The minimum expected count is 11,05.

## Do you ever visit Luchtpark Hofbogen? by Have you been involved in the development?

	Frequency	
	Yes	No
Yes	5	31
No	1	30
Total	6	61

	Value	df	Asymptotic Significance (2-sided)
Pearson's Chi-Square	2,323	1	,127

a. 2 cells (50,0%) have expected count less than 5. The minimum expected count is 2,78.

b. Computed only for a 2x2 table

b. Computed only for a 2x2 table

	Exact Sig. (2-sided)
Fisher's Exact Test	,205

- a. 2 cells (50,0%) have expected count less than 5. The minimum expected count is 2,78.
- b. Computed only for a 2x2 table
- c. The standardized statistic is 1,513.

### LOGISTIC REGRESSION VARIABLES Q9

/METHOD=ENTER Q24 education recode origin recode physical recode income recode Q23

/CONTRAST (education recode)=Indicator

/CONTRAST (origin\_recode)=Indicator

/CONTRAST (physical\_recode)=Indicator

/CONTRAST (income\_recode)=Indicator

/CONTRAST (Q23)=Indicator

/CRITERIA=PIN(.05) POUT(.10) ITERATE(20) CUT(.5).

Unweighted Cases <sup>a</sup>		N	Percent
Selected Cases	Included in Analysis	51	68,0
	Missing Cases	24	32,0
	Total	75	100,0
Unselected Cases		0	,0
Total		75	100,0

a. If weight is in effect, see classification table for the total number of cases.

-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
67,204 <sup>a</sup>	,063	,084

Step 1			Predicted			
			Do you ever visit	Luchtpark Hofbogen?		
	Observed		Yes	No	Percentage	
					Correct	
	Do you ever visit	Yes	17	10	63,0	
	Luchtpark	No	10	14	58,3	
	Hofbogen?					
		Overal			60,8	
		Percentage				

Step 1	В	S.E.	Wald	df	Sig.	Exp(B)
Age	-,013	,020	,434	1	,510	,987
Education	,335	,671	,249	1	,618	1,398
Origin	,571	,858	,442	1	,506	1,769
Physical ability	-1,017	1,299	,613,	1	,434	,362
Income	,462	,654	,499	1	,480	1,587
Gender	-,032	,653	,002	1	,961	,969
Constant	,160	1,134	,020	1	,888	1,174

FREQUENCIES VARIABLES=Q10 /ORDER=ANALYSIS.

# CROSSTABS

/TABLES=Q10 BY Q18 Q19\_1 Q20\_1 Q21 Q22 Q23 /FORMAT=AVALUE TABLES /CELLS=COUNT COLUMN /COUNT ROUND CELL. How often do you visit to the park? by To what extent can you do your daily activities (such as going upstairs/ shopping)?; What is your highest completed education?; What is your origin?; How is your household composed?; What is your monthly netto income in euros?; What is your gender?

nousenoia composeu:,	willat is you	monthly netto	HOHH	iii caros:, wiiaci			
	Daily	Several times a	week	Once a week	(	Once a month	Rarely
Total	2 (5,6 %)	2 (	5,6 %)	6 (16,7 %)		15 (41,7 %)	11 (30,6 %)
Physical ability	2 (5,6 %)	2 (	5,6 %)	6 (16,7 %)		15 (41,7 %)	11 (30,6 %)
Smaller to larger	0 (0,0 %)	2 (2	5,0 %)	0 (0,0 %)		4 (50,0 %)	2 (25,0 %)
physical limitations							
Totally	2 (7,1 %)	0 (	0,0 %)	6 (21,4 %)		11 (39,3 %)	9 (32,1 %)
		Value			df	Asymptotic	Significance
							(2-sided)
Pearson's Chi-Square		9,561			4		,049
i	a. 8 cells (80,	0%) have expecte	ed coun	t less than 5. The	mini	mum expected	count is ,44.
Education	2 (5,7 %)	2 (	5,7 %)	6 (17,1 %)		14 (40,0 %)	11 (31,4 %)
Other education (up to	1 (11,1 %)	0 (0	0,0 %)	2 (22,2 %)		3 (33,3 %)	3 (33,3 %)
Secondary Vocational							
Education (MBO))							
Higher professional	1 (8,3 %)	0 (	0,0 %)	2 (16,7 %)		5 (41,7 %)	4 (33,3 %)
Education (HBO)							
University Education	0 (0,0 %)	2 (1	4,3 %)	2 (14,3 %)		6 (42,9 %)	4 (28,6 %)
(WO)						T	
		Value			df	Asymptotic	Significance
							(2-sided)
Pearson's Chi-Square		4,804			8		,778
				t less than 5. The	mini	•	
Origin	2 (5,7 %)		5,7 %)	6 (17,1 %)		15 (42,9 %)	10 (28,6 %)
Dutch	2 (6,3 %)		6,3 %)	6 (18,8 %)		12 (37,5 %)	10 (31,3 %)
Non-Dutch	0 (0,0 %)		0,0 %)	0 (0,0 %)		3 (100,0 %)	0 (0,0 %)
		Value			df	Asymptotic	Significance
							(2-sided)
Pearson's Chi-Square	L	4,375			4		,358
				t less than 5. The	mini		
Household	2 (5,9 %)	2 (5	5, 9 %)	6 (17,6 %)		14 (41,2 %)	10 (29,4 %)
compostion	4 /5 6 0/)	0.7	0.00()	4 (22 2 0/)		6 (22 2 %)	7 (20 0 0/)
Single without	1 (5,6 %)	0 (	0,0 %)	4 (22,2 %)		6 (33,3 %)	7 (38,9 %)
child(ren)	0 (0 0 0()	2 /2	0.0.0()	2 (20 0 0/)		4 (40 0 0/)	2 (20 0 %)
(Married) couple without child(ren)	0 (0,0 %)	2 (2	0,0 %)	2 (20,0 %)		4 (40,0 %)	2 (20,0 %)
Other	1 (16,7	0./	0,0 %)	0 (0,0 %)		4 (66,6 %)	1 (16,7 %)
Other	" (10,7 %)	0 (	0,0 /0)	0 (0,0 %)		4 (00,0 %)	1 (10,7 %)
	701	Value			df	Asymptotic	Significance
		Value			uı	Asymptotic	(2-sided)
Pearson's Chi-Square		10,283			8		,246
•	. 13 cells (86.		-d coun	t less than 5. The		imum expected	
Income	2 (6,3 %)		6,3 %)	6 (18,8 %)	l	13 (40,6 %)	9 (28,1 %)
2500 or less	0 (0,0 %)		0,0 %)	2 (20,0 %)		4 (40,0 %)	4 (40,0 %)
2501 – 3500	1 (9,1 %)		0,0 %)	3 (27,3 %)		4 (36,3 %)	3 (27,3 %)
3501 or more	0 (0,0 %)		5,0 %)	0 (0,0 %)		3 (75,0 %)	0 (50,0 %)
No insights	1 (14,3		4,3 %)	1 (14,3 %)		2 (28,6 %)	2 (28,6 %)
No magnes	%)	- (-	7,3 70)	1 (14,5 70)		2 (20,0 70)	2 (20,0 70)
	,0)	Value			df	Asymptotic	Significance
						,	(2-sided)
Pearson's Chi-Square		10,379			12		,583
•	20 cells (100		ed coun	t less than 5. The		mum expected	
Gender	2 (5,9 %)		5,9 %)	6 (17,6 %)		14 (41,2 %)	10 (29,4 %)
-3	- (3,3 /0)	۷ ـ ـ ـ ـ ـ ـ ـ ـ ـ ـ ـ ـ ـ ـ ـ ـ ـ ـ ـ	J,J /UJ	3 (±7,0 /0)	l	± · (¬±,∠ /∪)	±0 (20,7 /0)

Male	2 (8,7 %)	1 (	4,3 %)	4 (17,4 %)		11 (47,8 %)	5 (21,7 %)
Female	0 (0,0 %)	1 (	9,1 %)	2 (18,2 %)		3 (27,3 %)	5 (45,5 %)
		Value			df	Asymptotic	Significance
							(2-sided)
Pearson's Chi-Square		3,430			4		,489
a. 8 cells (80,0%) have expected count less than 5. The minimum expected count is ,65.							

FREQUENCIES VARIABLES=Q11 /ORDER=ANALYSIS.

CROSSTABS
/TABLES=Q11 BY Q18 Q19\_1 Q20\_1 Q21 Q22 Q23 Q24 Q25
/FORMAT=AVALUE TABLES
/CELLS=COUNT
/COUNT ROUND CELL.

On which days do you usually visit the park? by To what extent can you do your daily activities (such as going upstairs/ shopping)?; What is your highest completed education?; What is your origin?; How is your household composed?; What is your monthly netto income in euros?; What is your gender?

nouscinoia composeat,	During the week		he weekend	Both during week and in weel	g the n the	I don't know
Total	7 (19,4 %)		10 (27,8 %)	14 (38,9 %)		5 (13,9 %)
Physical ability	7 (19,4 %)		10 (27,8 %)	14 (38	,9 %)	5 (13,9 %)
Smaller to larger physical limitations	2 (25,0 %)		0 (0,0 %)	4 (50)	,0 %)	2 (25,0 %)
Totally	5 (17,9 %)		10 (35,7 %)	10 (35	,7 %)	3 (10,7 %)
		Value		df	Asy	mptotic Significance
						(2-sided)
Pearson's Chi-Square		4,261		3		,235
a. 5 ce	ells (62,5%) have ex	pected c	ount less than	5. The minim	um ex	pected count is 1,11.
Education	7 (20,0 %)		10 (28,6 %)	14 (40	,0 %)	4 (11,4 %)
Other education (up to Secondary Vocational Education (MBO))	2 (22,2 %)		0 (0,0 %)	4 (44	,4 %)	3 (33,3 %)
Higher professional Education (HBO)	1 (8,3 %)		4 (33,3 %)	7 (58	•	0 (0,0 %)
University Education (WO)	4 (28,6 %)		6 (42,9 %)	3 (21		1 (7,1 %)
		Value		df	Asy	mptotic Significance
						(2-sided)
Pearson's Chi-Square		12,655		6		,049
		pected c				pected count is 1,03.
Origin	7 (20,0 %)		9 (25,7 %)	14 (40		5 (14,3 %)
Dutch	7 (21,9 %)		7 (21,9 %)	13 (40		5 (15,6 %)
Non-Dutch	0 (0,0 %)		2 (66,7 %)	1 (33)		0 (0,0 %)
		Value		df	Asy	mptotic Significance (2-sided)
Pearson's Chi-Square		3,302		3		,347
a. 5 c	cells (62,5%) have e	xpected	count less tha	n 5. The minin	num e	xpected count is ,43.
Household compostion	7 (20,6 %)		9 (26,5 %)	13 (38		5 (14,7 %)
Single without child(ren)	4 (22,2 %)	4 (22,2 %		7 (38,9 %)		3 (16,7 %)
(Married) couple without child(ren)	3 (30,0 %)		4 (40,0 %)	2 (20	,0 %)	1 (10,0 %)
Other	0 (0,0 %)		1 (16,7 %)	4 (66		1 (16,7 %)
		Value		df	Asy	mptotic Significance

						(2-sided)
Pearson's Chi-Square		5,074		6		,534
a. 11	cells (91,7%) have e	xpected	count less tha	n 5. The minim	num e	xpected count is ,88.
Income	7 (21,9 %)		8 (25,0 %)	13 (40,	6 %)	4 (12,5 %)
2500 or less	2 (20,0 %)		1 (10,0 %)	5 (50,	0 %)	2 (20,0 %)
2501 – 3500	2 (18,2 %)		5 (45,4 %)	3 (27,	3 %)	1 (9,1 %)
3501 or more	0 (0,0 %)		1 (25,0 %)	3 (75,	0 %)	0 (0,0 %)
No insights	3 (42,9 %)		1 (14,3 %)	2 (28,	5 %)	1 (14,3 %)
		Value		df	Asy	mptotic Significance
						(2-sided)
Pearson's Chi-Square		8,614		9		,474
a. 11	cells (91,7%) have e	xpected	count less tha	n 5. The minim	num e	xpected count is ,88.
Gender	7 (20,6 %)		9 (26,5 %)	13 (38,	2 %)	5 (14,7 %)
Male	5 (21,7 %)		6 (26,1 %)	9 (39,	1 %)	3 (13,0 %)
Female	2 (18,2 %)		3 (27,3 %)	4 (36,	4 %)	2 (18,2 %)
		Value		df	Asy	mptotic Significance
						(2-sided)
Pearson's Chi-Square		,198		3		,978
a. 6 cells (75,0%) have expected count less than 5. The minimum expected count is 1,62.						

FREQUENCIES VARIABLES=Q12 /ORDER=ANALYSIS.

### CROSSTABS

/TABLES=Q12 BY Q18 Q19\_1 Q20\_1 Q21 Q22 Q23 Q24 Q25 /FORMAT=AVALUE TABLES /CELLS=COUNT /COUNT ROUND CELL.

On which times of the day do you usually visit the park? by To what extent can you do your daily activities (such as going upstairs/ shopping)?; What is your highest completed education?; What is your origin?; How is your household composed?; What is your monthly netto income in euros?; What is your gender?

	In the morning	In th	ne afternoon	In the eve	ening	I don't know
Total	4 (11,1 %)		24 (66,7 %)	5 (13	,9 %)	3 (8,3 %)
Physical ability	4 (11,1 %)		24 (66,7 %)	5 (13	,9 %)	3 (8,3 %)
Smaller to larger physical	0 (0,0 %)		3 (37,5 %)	3 (37)	,5 %)	2 (25,0 %)
limitations						
Totally	4 (14,3 %)		21 (75,0 %)	2 (7	,1 %)	1 (3,6 %)
		Value		df	Asy	mptotic Significance
						(2-sided)
Pearson's Chi-Square		10,013		3		0,18
a. 6	cells (75,0%) have e	xpected	count less tha	n 5. The minin	num e	xpected count is ,67.
Education	4 (11,4 %)		24 (68,6 %)	5 (14	,3 %)	2 (5,7 %)
Other education (up to	0 (0,0 %)		4 (44,4 %)	4 (44	,4 %)	1 (11,1 %)
Secondary Vocational						
Education (MBO))						
Higher professional	2 (16,7 %)		10 (83,3 %)	0 (0	,0 %)	0 (0,0 %)
Education (HBO)						
University Education (WO)	2 (14,3 %)		10 (71,4 %)	1 (7	,1 %)	1 (7,1 %)
		Value		df	Asy	mptotic Significance
						(2-sided)
Pearson's Chi-Square		11,718		6		,069
	cells (75,0%) have e	xpected				xpected count is ,51.
Origin	4 (11,4 %)		23 (65,7 %)	-	,3 %)	3 (8,6 %)
Dutch	4 (12,5 %)		20 (62,5 %)	5 (15	,6 %)	3 (9,4 %)

Non-Dutch	0 (0,0 %)		3 (100,0 %)	0 (0,	,0 %)	0 (0,0 %)
		Value		df	Asy	mptotic Significance
						(2-sided)
Pearson's Chi-Square		1,712		3		,634
a. 7 (	cells (87,5%) have e	xpected	count less tha			xpected count is ,26.
Household compostion	4 (11,8 %)		23 (67,6 %)	4 (11,	,8 %)	3 (8,8 %)
Single without child(ren)	2 (11,1 %)		12 (66,7 %)	3 (16)	,7 %)	1 (5,6 %)
(Married) couple without child(ren)	1 (10,0 %)		7 (70,0 %)	1 (10)	,0 %)	1 (10,0 %)
Other	1 (16,7 %)		4 (66,6 %)	0 (0,	,0 %)	1 (16,7 %)
		Value		df	Asy	mptotic Significance
						(2-sided)
Pearson's Chi-Square		1,919		6		,927
a. 10 d	cells (83,3%) have e	xpected	count less tha	n 5. The minin	num e	xpected count is ,53.
Income	4 (12,5 %)		22 (68,8 %)	4 (12,	,5 %)	2 (6,3 %)
2500 or less	0 (0,0 %)		7 (70,0 %)	2 (20,	,0 %)	1 (10,0 %)
2501 – 3500	3 (28,3 %)		8 (72,7 %)	0 (0,	,0 %)	0 (0,0 %)
3501 or more	0 (0,0 %)		4 (100,0 %)	0 (0,	,0 %)	0 (0,0 %)
No insights	1 (14,3 %)		3 (42,8 %)	2 (28,	,6 %)	1 (14,3 %)
		Value		df	Asy	mptotic Significance
						(2-sided)
Pearson's Chi-Square		10,624		9		,302
		xpected				25. xpected count is
Gender	4 (11,8 %)		23 (67,6 %)	4 (11,		3 (8,8 %)
Male	4 (17,4 %)		14 (60,9 %)	3 (13)	,0 %)	2 (8,7 %)
Female	0 (0,0 %)		9 (81,8 %)	1 (9	,1 %)	1 (9,1 %)
		Value		df	Asy	mptotic Significance
						(2-sided)
Pearson's Chi-Square		2,496		3		,476
a. 6 cells (75,0%) have expected count less than 5. The minimum expected count is ,97.						

FREQUENCIES VARIABLES=Q13\_1 Q13\_2 Q13\_3 Q13\_4 Q13\_5 Q13\_6 Q13\_7 Q13\_8 Q13\_9 Q13\_10 /ORDER=ANALYSIS.

### What do you usually do in the park?

	On	Off
Sitting	6	30
Walking	18	18
Looking around in the garden	15	21
Have lunch/ to picnic	4	32
Working/ studying	1	35
To entertain (my) children	3	33
Visiting cultural events	15	21
Other	7	29
No particular reason	3	33

FREQUENCIES VARIABLES=Q14\_1 Q14\_2 Q14\_3 Q14\_4 Q14\_5 Q14\_6 Q14\_7 Q14\_8 Q14\_9 /ORDER=ANALYSIS.

### Why do you usually go to the park?

in y are you are assumely go to the partition		
	Frequency	Percentage
To rest	15	41,7
For the nature/ green environment	19	52,8
For the sociality	6	16,7

To be outside	16	44,4
For health reasons	2	5,6
Habit	4	11,1
Other	6	16,7
I don't know	0	0,0
Total	68	100,0

FREQUENCIES VARIABLES=Q15\_1 Q15\_2 Q15\_3 Q15\_4 Q15\_5 Q15\_6 Q15\_7 Q15\_8 Q15\_9 Q15\_10 Q15\_11 Q15\_12

Q15\_13 Q15\_14 Q15\_15 /ORDER=ANALYSIS.

### What barriers do you (users) experience to go to the park?

	Frequency	Percentage
I prefer to be in my own garden or on the balcony	2	5,6
I haven't time	3	8,3
It is not necessary for me	6	16,7
I'd rather go to other parks	6	16,7
It is too far away	0	0,0
Too difficult to access (e.g. physically)	2	5,6
It is too busy	2	5,6
I don't like parks	0	0,0
I don't feel welcome	1	1,3
I don't feel safe there	1	1,3
There is nothing to experience	6	16,7
There are no toilets	6	16,7
Dogs are not allowed	4	11,1
Otherwise	7	19,4
I don't know	4	11,1
Total	50	100,0

FREQUENCIES VARIABLES=Q16\_1 Q16\_2 Q16\_3 Q16\_4 Q16\_5 Q16\_6 Q16\_7 Q16\_8 Q16\_9 Q16\_10 Q16\_11 Q16\_12

Q16\_13 Q16\_14 Q16\_15 /ORDER=ANALYSIS.

### What barriers do you (non-users) experience to go to the park?

	Frequency	Percentage
I prefer to be in my own garden or on the balcony	4	13,3
I haven't time	3	10,0
It is not necessary for me	11	36,7
I'd rather go to other parks	4	13,3
It is too far away	0	0,0
Too difficult to access (e.g. physically)	1	33
It is too busy	0	0,0
I don't like parks	2	6,7
I don't feel welcome	1	3,3
I don't feel safe there	0	0,0
There is nothing to experience	7	23,3
There are no toilets	2	6,7
Dogs are not allowed	0	0,0
Otherwise	5	16,7
I don't know	5	16,7
Total	45	100,0

# FREQUENCIES VARIABLES=Q17 /STATISTICS=STDDEV RANGE MINIMUM MAXIMUM MEAN /ORDER=ANALYSIS.

How do you rate Luchtpark Hofbogen on a scale from 1(very bad) to 10 (very good)?

	Frequency	Percentage
1	2	3,2
2	2	3,2
3	3	4,8
4	3	4,8
5	10	15,9
6	12	19,0
7	18	28,6
8	10	15,9
9	2	3,2
10	1	1,6
Total	63	100,0
Mean	6,08	
Missing	12	
Total	75	

ONEWAY Q17 BY Recoded\_Q19\_Education /STATISTICS DESCRIPTIVES HOMOGENEITY /MISSING ANALYSIS /POSTHOC=BONFERRONI ALPHA(0.05).

How do you rate Luchtpark Hofbogen on a scale from 1(very bad) to 10 (very good)?

					95% Confid	ence		
					Interval for	Mean		
	Ν	Mean	Std.	Std. Error	Lower	Upper	Minimum	Maximum
			Deviation		bound	bound		
Other education (up to	19	5,74	1,240	,285	5,14	6,33	3	7
Secondary Vocational								
Education(MBO))								
Higher professional	18	6,28	2,321	,547	5,12	7,43	1	10
Education (HBO)								
University Education	25	6,24	2,026	,405	5,40	7,08	1	9
(WO)								
Total	62	6,10	1,905	,242	5,61	6,58	1	10

	Levene Statistic	df 1	df 2	Sig.
Based on Mean	2,347	2	59	,105

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	3,564	2	1,782	,483	,620
Within Groups	217,855	59	3,692		
Total	221,419	61			

ONEWAY Q17 BY Recoded\_Q21\_Household\_composition /STATISTICS DESCRIPTIVES HOMOGENEITY /MISSING ANALYSIS /POSTHOC=BONFERRONI ALPHA(0.05).

# How do you rate Luchtpark Hofbogen on a scale from 1(very bad) to 10 (very good)?

					95% Confid Interval fo			
	N	Mean	Std. Deviation	Std. Error	Lower bound	Upper bound	Minimum	Maximum
Single without child(ren)	31	6,03	1,741	,313	5,39	6,67	2	9
(Married) Couple without child(ren)	19	6,32	1,600	,367	5,54	7,09	3	9
Other	11	5,82	2,857	,861	3,90	7,74	1	10
Total	61	6,08	1,917	,246	5,59	6,57	1	10

	Levene Statistic	df 1	df 2	Sig.
Based on Mean	2,640	2	58	,080,

	Sum of Squares	df	Mean Square	F	Sig.
Between	1,881	2	,940	,249	,780
Groups					
Within Groups	281,709	58	3,771		
Total	220,590	60			

ONEWAY Q17 BY Recoded\_Q22\_Income /STATISTICS DESCRIPTIVES HOMOGENEITY /MISSING ANALYSIS

/POSTHOC=BONFERRONI ALPHA(0.05).

## How do you rate Luchtpark Hofbogen on a scale from 1(very bad) to 10 (very good)?

					95% Confidence Interval for Mean			
	N	Maan	Std.	Std.			Minimum	Maximum
	IN	Mean	Deviation	Error	Lower bound	Upper bound	wiiiiinum	iviaximum
2500 or less	16	6,13	1,628	,407	5,26	6,99	3	8
2501-3500	16	6,75	1,065	,266	6,18	7,32	5	9
3501 or more	10	5,90	2,601	,823	4,04	7,76	1	9
No insights	17	5,47	2,294	,556	4,29	6,65	1	10
Total	59	6,07	1,929	,251	5,57	6,57	1	10

	Levene Statistic	df 1	df 2	Sig.
Based on Mean	2,831	3	55	,047

	Sum of	df	Mean Square	F	Sig.
	Squares				
Between	13,844	3	4,615	1,257	,298
Groups					
Within Groups	201,885	55	3,671		
Total	215,729	58			

T-TEST GROUPS=Q9(1 2) /MISSING=ANALYSIS /VARIABLES=Q17 /CRITERIA=CI(.95).

# How do you rate Luchtpark Hofbogen on a scale from 1(very bad) to 10 (very good)? by Do you ever visit Luchtpark Hofbogen?

N Mean Std. Deviat
--------------------

Yes	36	6,75	1,402	,234
No	27	5,19	2,113	,407

	Levene for Equ Varianc	ality of			t-test for Equali	95% Confidence Interval of the Differences			
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Equal variances assumed	5,930	,018	3,531	61	,001	1,565	,443	,679	2,451
Equal variances not assumed			3,337	42,549	,002	1,565	,469	,619	2,511

# **Effect size**

 $r_{pb}^2 = 0,00231$ 

T-TEST GROUPS=Q23(1 2)
/MISSING=ANALYSIS
/VARIABLES=Q17
/CRITERIA=CI(.95).

# How do you rate Luchtpark Hofbogen on a scale from 1(very bad) to 10 (very good)? by What is your gender?

	N	Mean	Std. Deviation	Std. Error Mean
Male	38	6,39	1,824	,296
Female	23	5,43	1,927	,402

	Levene's Test for Equality of Variances				t-test for Equality of	f Means		95% Con	fidence
								Interval of Difference	
	F	Sig.	t	df	Sig. (2-tailed)	Mean	Std. Error	Lower	Upper
						Difference	Difference		
Equal variances assumed	,268	,607	1,951	59	,056	0,960	,492	-,025	1,945
Equal variances not assumed			1,924	44, 548	,061	0,960	,499	-,045	1,965

T-TEST GROUPS=Recoded\_Q20\_Origin(1 2)
/MISSING=ANALYSIS
/VARIABLES=Q17
/CRITERIA=CI(.95).

# How do you rate Luchtpark Hofbogen on a scale from 1(very bad) to 10 (very good)? by What is your origin?

	N	Mean	Std. Deviation	Std. Error Mean
Dutch	53	6,09	1,842	,253
Non-Dutch	9	6,11	2,369	,790

	Levene's Test for Equality of Variances				t-test for Equality	of Means		95% Con	
								Interval	
						ı		Difference	ces
	F	Sig.	t	df	Sig. (2-tailed)	Mean	Std. Error	Lower	Upper
						Difference	Difference		
Equal variances assumed	,361	,550	-,024	60	,981	-,017	,693	-1,402	1,369
Equal variances not assumed			-,020	9,712	,984	-,017	,829	-1,872	1,838

T-TEST GROUPS=Recoded\_Q18\_Physical\_ability(1 2) /MISSING=ANALYSIS /VARIABLES=Q17 /CRITERIA=CI(.95).

How do you rate Luchtpark Hofbogen on a scale from 1(very bad) to 10 (very good)? by To what extent can you do your daily activities (such as going upstairs/ shopping)?

	N	Mean	Std. Deviation	Std. Error Mean
Smaller to larger	14	4,93	2,369	,633
physical limitations				
Totally	49	6,41	1,619	,231

	Levene's Test for Equality of Variances				t-test for Equality	of Means			
								95% Con Interval o	
								Difference	
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Equal variances assumed	2,725	,104	-2,705	61	,009	-1,480	,547	-2,573	-,386
Equal variances not assumed					,043	-1,480	,674	-2,904	-,055

Effect size  $r_{pb}^2 = 0,2247$ 

