

‘Facility management’: The influence of facility design on urban quality of life from the perspective of students research

Ir. J. (Hans) Netten

The Hague University of Applied Sciences, The Hague, the Netherlands

School of Facility Management

J. Netten@hhs.nl

+31 (0) 704458123

R. (Rachel) Kuijlenburg MA

The Hague University of Applied Sciences, The Hague, the Netherlands

Research Group, Spatial Environment and user, the Netherlands

R.Kuijlenburg@hhs.nl

+31 (0) 657870895

Drs. C. (Cateleine) de Jong

The Hague University of Applied Sciences, The Hague, the Netherlands

Research Group, Inclusive Education, the Netherlands

C. deJong@hhs.nl

+31 (0) 657870888

ABSTRACT

Purpose – This paper aims to explain the influence of facility design on urban quality of life from the perspective of students’ research. The outcome of this paper is to determine the influence of facility management (FM) on the quality of life of citizens in the city of The Hague by actively using facility design to positively influence the liveability.

Methodology – This current explorative study has been qualitative in nature, including desk research, literature study in relation to urban environment, walk through, observations and interviews with local residents and officials from the local government. This paper indicates how urban FM is defined based on the student perspective.

Findings - More than 2000 FM students of The Hague University of Applied Sciences have been conducting research on urban facility management over the last 15 years. This educational module has provided data on changes at neighbourhood level resulting in numerous small-scale improvements initiated by the department of Urban Development, Housing, Sustainability and Culture of The Hague.

Intended impact –A better understanding of urban facility management and integration of people, places and processes within the urban environment, improving liveability in neighbourhoods and an entrance into global citizenship for young professionals. This study will support The Hague University of Applied Sciences in the evolving field of urban FM. It provides the school of Facility Management with the opportunity to perform additional research in order to deliver evidence to society on the influence and impact of urban FM.

Paper type: Research paper

Keywords: Urban Management, Facility Management, City management, World citizenship

1 INTRODUCTION

According to the United Nations (2018) 68% of the world's population will be living in urban areas by 2050. Urbanization is an irreversible global trend involving a multitude of social, economic, environmental and spatial aspects (Langeweg, Hilderink & Maas, 2000). Whilst urbanization is widely accepted as an indicator of economic development, its pace and impact on social and spatial conditions pose unprecedented challenges. It requires highly structured systems of human organization for large-scale communities where the spatial environment should furnish housing, education, healthcare, employment, a safe environment and an identity for its members. It is not only that our daily life takes place in a certain physical environment as a sort of necessary décor: *'People try to create an environment in so far as it is within their abilities whereby the physical environment is converted into a so called 'man-made environment'*. According to Wilterdink & Van Heerikhuizen (2012) man-made environment is the result of continuous, social and conflict-like processes.

The starting point for allocation of space is mostly the desire for a certain form of exclusivity of the available space. People pursue privacy and have a need to identify themselves with the environment. They strive to shape the environment into a manifestation of lifestyle and self-expression, which can lead to collective dilemmas. In particular, increasing urbanization leads to sharing less space in the urban environment. This results in urban crowding, congestion, reduced liveability and an unsteady resilience of the city, particularly if the process is not well governed (McGranahan & Satterthwaite, 2014).

In addition to urban governance, there is a need for urban management. The aim is to organize and realize a sustainable allocation of resources and overseeing the day-to-day operation of the urban space. Urban management is a broad concept with complex economic, social and psychological ramifications. That is why urban environment is a shared responsibility, also in terms of facility management, which is an enabler of integrating people, places and processes within the urban environment. Its purpose is to improve quality of life, to increase productivity of the core businesses, to enhance sustainability and reduce negative impact for the living environment (ISO, 2018). After all, as stated by many scientists, urban prosperity is provided by good governance and a flourishing community. Hence, a prosperous society needs urban facility management.

In our view, urban facility management starts with the premises of 'global citizenship'. This reflects the principle of awareness and understanding of the wider world. Global citizens actively participate in their community, and work with others to make the planet equal, fair and sustainable. The Hague University of Applied Sciences (THUAS) strongly believes that students must have tools to become involved, aware, critical and inquisitive human beings. THUAS equips students for future challenges and works towards the development of curiosity, problem-solving skills, and the ability to make sound and well-informed choices (The Hague University of Applied Sciences, 2018).

Based on this vision the school of Facility Management (FM) from THUAS developed an education module in order to incorporate the principles of global citizenship within the FM-context. Composed as the module 'Facitlyly' management, it is commissioned by the department of Urban Development, Housing, Sustainability and Culture of The Hague city with the aim to investigate the benefits of FM in city districts and neighbourhoods of The Hague.

2 APPROACH TO THE MODULE ‘FACILITYLY MANAGEMENT’

Around 2003 a number of papers were published about ‘neighbourhood management’ (Power, 2004) and new urban alignments (Roberts, 2004), which were a guideline for the EUROFM community and triggered the debate whether Facility Management should play a role. This discourse led to the publication of Keith Alexander in 2006 regarding the concept of ‘community-based facilities management’ (CbFM). Alexander (2006) concluded that facility management, in addition to acting on behalf of its client and focusing on its own operations (Ure & Hampton, 2004; Nicholson & Hampton, 2005) also has a shared responsibility for the social and community context. This resulted into the following definition whereby CbFM is described as ‘[...] *the processes by which all the stakeholders in a community work together, deliver and maintain an enabling environment, where the local economy can prosper, quality services can be delivered and natural resources protected, in order that citizens can enjoy a quality of life*’ (Alexander, 2006, p.264).

In contribution to this discussion, the school of Facility Management of The Hague University of Applied Sciences (THUAS) developed an independent module for community-based facility management in 2004. The overarching goal is to grow awareness among the FM students about global citizenship and liveability in the multi-cultural city of The Hague. Moreover, the school of Facility Management of THUAS has set itself the task to investigate if facility management could contribute to improve liveability and sustainable urban development.

For all these reasons, more than 2000 bachelor FM students over the past 15 years have been dispatched into the city to conduct explorative and qualitative studies based on desk research, literature study, demographic surveys, and observational research by means of photography, film and interviews with both local residents and council representatives. The students then have to analyse the gathered empirical data and present this within the theoretical framework of their literature study and desk research. Finally yet importantly, students are obliged to make a *vlog* (video blog). The results are presented during the final film festival in front of not only lecturers and fellow students but also representatives of the city council and a social housing corporation. Overall, students are taught to conduct validatable and verifiable research where they devote special attention on the presentation. The visualisation contributes to a better understanding of the influence of facility design on urban quality of life.

3 THEORETICAL PERSPECTIVE FROM STUDENTS’ VIEW

More than any other animal species man has been able to change his environment and is capable of turning nomadic existence into a sedentary way of living. The history of humanity is framed by archaeological traces of human habitation from prehistoric settlements to modern cities. The genesis of the city helps to understand the ever-changing nature of growth and spatial friction. Particularly, the cutting-edge research in 1950 of Gordon Childe set out in *the Urban revolution* gave insight and knowledge on the role of revolutionary technological and economic developments in human society concerning societal development. In short, Childe stated that from ancient times up to the present day cities are ‘just the resultant and symbol of a *revolution* that initiated a new economic stage in the evolution of society’.

The emergence of cities is connected with economic growth. From ancient times, the production of agricultural surplus was one of the reasons for full-time specialization and advanced division of labour as a continuation of the nomadic and autarkic existence. History has shown that this surplus established a public body bound. It evolved to taxation that allowed public assets and facilitated long-distance trade. It entailed also an exchange of revolutionary ideas between indigenous people. This exchange of inter alia exact and predictive science and

art led to innovations and developments across continents (Childe, 1950; Frankopan, 2015) which resulted into urban development over the centuries.

Based on long-term archaeological research Childe (1950) made a set of 10 criteria. This so-called ‘urban revolution’ distinguishes the city from the village. Childe did not limit himself to the development of cities. Cities were just one component of the overall process by which complex, state-level societies came into being. This was the beginning of an extensive discussion about the characteristics of the city. As a whole, however, Childe’s criteria still give a good idea of the most important distinctive aspects of the city.

Figure 13 the Urban Revolution (Gordon Childe)

10-point model for the changes that characterized the Urban Revolution	
1.	In point of size the first cities must have been more extensive and more densely populated than any previous settlements.’ (p. 9)
2.	‘In composition and function the urban population already differed from that of any village ... full-time specialist craftsmen, transport workers, merchants, officials and priests.’ (p. 11)
3.	‘Each primary producer paid over the tiny surplus he could wring from the soil with his still very limited technical equipment as tithe or tax to an imaginary deity or a divine king who thus concentrated the surplus.’ (p. 11)
4.	‘Truly monumental public buildings not only distinguish each known city from any village but also symbolise the concentration of the social surplus.’ (p. 12)
5.	‘But naturally priests, civil and military leaders and officials absorbed a major share of the concentrated surplus and thus formed a “ruling class”.’ (pp. 12–13)
6.	‘Writing.’ (p. 14)
7.	‘The elaboration of exact and predictive sciences – arithmetic, geometry and astronomy.’ (p. 14)
8.	‘Conceptualised and sophisticated styles [of art].’ (p. 15)
9.	Regular “foreign” trade over quite long distances.’ (p. 15)
10.	‘A State organisation based now on residence rather than kinship.’ (p. 16)

It is an interesting point that archaeologists not only investigate the rise but also the decay of cities. Based on archaeological research it appears that apart from natural disasters, archaeological research has shown that cities do not disappear suddenly.

Often a combination of population and economic growth in relation to more intensive use of resources leads to demise (Childe, 1950). The realm of the Mayan civilisation is a striking beacon. Although no conclusive answer has yet been found, the widely supported theory of their decline is the exhaustion of natural resources, which were needed for construction of rapidly expanding cities and the daily life needs for a growing population. The Mayan had insufficient insight into the effects of intensive use in relation to the effects on liveability. There are scientific indications that economic growth of the Mayan resulted in exhaustion of natural resources and led to severe droughts causing water shortages. It resulted gradually into a disruption of social cohesion. This downward spiral led to the disappearance of the Mayan civilization over a period of 100 years whereby the inhabitants gradually left in search of better places with a greater chance of survival (Mann, 2005). Archaeological excavations show that not only the Mayans but also ancient civilizations on other continents were able to build large cities with complex economic orders and spatial infrastructures, which have collapsed.

In short, not only in antiquity but also nowadays the city is considered crucial for prosperity. Cities contribute to the progress of humanity whereby the size of a city, in particular, is regarded as an important driver of economic development (Rosenthal & Strange, 2004; Melo et al. 2009). However, the ecosystem of the city is vulnerable to exhaustion of the living environment. As declared by the United Nations in 2014 growing cities and economic success

are under greater scrutiny because the relationship between spatial friction and aggregate economic growth requires a spatial theory of cities. The widely accepted assumption about the relationship between the size of the city and a country's economic growth does not hold true. The economics literature (Camagni et al. 2013; Glaeser 2014; Castells-Quintana 2017), refers to other factors, such as urban infrastructure, governance, and industrial composition which play a non-negligible role in the economic fortune of cities, but has – with few exceptions – rarely been tested empirically to date (Frick & Rodríguez-Pose, 2017). Moreover, as seen by the decline of ancient vanished cities, it becomes evident that the benefits of increasing city size are not without limits. Scale often seems to play a role, both positive and negative.

Frick and Rodríguez-Pose (2017) developed an econometric model to investigate the link between city size and economic growth that has led to the conclusion that there is a non-linear relationship between these two entities. It is a nuance to the scarce empirical literature that links city size to aggregate economic performance, which tends to emphasise the benefits of increased city size (Brülhart & Sbergami, 2009; Rosenthal & Strange, 2004). It endorses the importance to use detailed indicators for urban growth in relation to country size because bold assumptions on the presumed correlation between urban and economic growth lead to simplified and non-adequate recommendations on city planning and spatial conditions.

It remains a given that the exponential increase in urbanization across the planet brings new challenges. Technological progress has led to cities becoming bigger, denser and more populous which puts the liveability under tension. According to Zef Hemel (2019), professor urban and regional planning at the University of Amsterdam, urban planning should focus on its core: economy, ecology, democracy, art and imagination. With the result that a new kind of open planning is developed – a planning that can easily adjust to permanently changing circumstances and benefits from unexpected opportunities.

The pressing question is how to find this balance? Mega cities or large-scale regions like Detroit and the Ruhr in Germany whose economic foundation collapsed, do have difficulties to manage equilibrium. Another example are complete city districts as in the former GDR, which are being demolished and / or have to be demolished. Striking is the recent example of imbalance in New Orleans. Almost half the population left within a year due to a large-scale ecological disaster. Even in the economic district La Defense in Paris, once built from a solid ideology where art and architectonic innovation was an important starting point, serious signs of decay are visible. In all these cases, no satisfactory recovery has taken place to date. The urban equilibrium goes a long way. The increase in scale and size offers great opportunities but creates proportionately large risks. New potential disaster areas are located where recent urban and industrial upscaling has taken place. What if a financial crisis strikes Dubai? Or Chinese ghost towns, built for millions of inhabitants, but already largely empty. Finally yet importantly how likely is the chance that the London market for (commercial) real estate collapses due to Brexit? About a hundred office towers and residential towers with over 20 floors have recently been built (in the past five years) or are still under construction in London. Another 50 of these towers are planned. The tantalizing question is if they are actually needed. Moreover, are megalomaniacal structures to some extent missing the mark of actual market demand and balance in human scale? How are we going to manage these urban areas?

Mario Polèse (2013), professor at the Centre Urbanisation Culture Société at Montreal's Institut National de la Recherche Scientifique, set up a draft of urban economics principles that affect city's outcomes positively. Size and location play a major role, outside events drive change, well-connected cities grow faster, because they can move goods more efficiently and human capital to where it has needed most and a diverse set of industries is crucial. According Polèse (2000; 2006) good governance and management do make the difference of a thriving city.

The fact remains that much research into urban development is done at the macro level. However, seeming urban trivia on a micro-level provides interesting information and makes patterns visible. The British sociologist Ruth Glass (1965) noted small patterns in research into the relationship between housing and class struggle in English cities. She introduced 'gentrification' of cities. The process of renovating deteriorated urban neighbourhoods were established by means of the influx of more affluent residents. Gentrification also leads to population migration and displacement with the result of social change and economic shifts somewhere else (Morisson & Bevilacqua, 2018). To be able to observe the small changes, it is not only a matter of investigating the census indicators and big data, but also the apparently minor changes of inter alia maintenance and vacancy rates as indicators for urban change. For this reason, observation research is a very suitable research method for observing the changes at the micro level and an adequate technique to implement in the education curriculum of a university.

4 RESULTS

The overarching question is what has 15 years of research with bachelor FM students yielded? For a more accurate understanding of the city of The Hague, we first explore the genetics of the city. Over half a million inhabitants live in The Hague, as part of an extensive urban area that runs from Rotterdam to Amsterdam, called the 'Randstad' with 7 million inhabitants (Randstad Monitor 2017). Moreover, The Hague is the most densely populated city of the Netherlands with $\pm 6,500$ inhabitants per square kilometre (City of The Hague, 2018). It is also the administrative capital where many ministries and extraterritorial institutions are housed like embassies, the International Court of Justice, Europol, OPCW, Eurojust etcetera. Approximately 270.000 people find employment in The Hague of which a part commutes from neighbouring areas (DSO, 2018).

About the population structure more than half (54%) of the inhabitants of The Hague are of non-Dutch origin³: 18% of the inhabitants do have another Western (non-Dutch) origin and 36% a non-Western background. Compared to the rest of the Netherlands these rates are twice as high as the average rates in the Netherlands. (CBS, 2018; DSO, 2018). The Hague is thus one of the most ethnically diverse cities in the Netherlands where approximately 120 different nationalities live spread throughout the city. It should be noted that less than 10% of the research FM students are originally born, raised or are living in The Hague. Most FM students at THUAS are originally from neighbouring suburbs. This makes it an even more interesting exercise to get these students acquainted with urban issues where preconceptions must be ignored.

The Hague is divided into eight districts, consisting of 44 neighbourhoods split into 121 blocks. As far as the housing stock is concerned, the city is characterized by a dichotomy. Besides attractive 19th-century neighbourhoods with mostly expensive housing options and new housing development neighbourhoods at the edge of The Hague, large parts of the city were historically working-class neighbourhoods. In the last 25 years, large-scale urban renewal has taken place in these poorer neighbourhoods resulting in a sustainable housing stock.

At the same time, these neighbourhoods are vulnerable. The Hague is a colourful metropolis but the impact of the denseness puts a strain on social systems and creates imbalances for social cohesion in the various neighbourhoods in terms of simmering tension amongst local residents regarding acceptable conduct (Broekhuizen, van Wonderen, & Marrissing, 2013). These

³ Persons with a migrant background are persons who live in the Netherlands and of whom at least one parent was born abroad (CBS, 2018).

tensions are visible in the public and semi-public domain as manifested by noise nuisance, remaining waste, pollution, traffic violating and past-due building maintenance which can lead to urban blight (Morenoff, Sampson, & Raudenbush, 2001).

The student research and the corresponding rapports resulted in all kinds of findings concerning polluted streets, broken street furniture and deferred maintenance with clear differences between the various neighbourhoods. Students also captured on footage neighbourhoods changes due to urban developments on property and infrastructure, but that does not alter the fact that certain districts are visibly impoverished. This is partly caused by higher rents due to real estate and infrastructural and sustainable adjustments, but income pattern for minority groups did not change (CBS, 2019). These findings make students realize that the difference between rich and poor is bigger than expected. In addition, the level of facilities per neighbourhood is different. The era in which the neighbourhood is built partly determines the provisioning level. City parks, playgrounds, parking facilities and electric charging stations for cars, bicycles facilities and dog exhausts are different per neighbourhood. It marks the difference between the healthy and troublesome neighbourhood.

An interesting but worrying development is the vacancy of retail space in less-favoured neighbourhoods (Van Ham, 2012). Undoubtedly, e-commerce results in changing shopping behaviour of local residents and increased vacancy rates, but students also note the difference between the shopping streets of affluent and poorer neighbourhoods. Where shopping streets in better neighbourhoods are resilient and filled with an extensive range of small retailers, the provision of shops in poorer neighbourhoods is more uniform. Additionally, there is a rapid circulation of retail spaces, with more than average bankruptcies. These findings are confirmed by student desk research whereby retail and small business are more often set up in priority neighbourhoods but with a more likely chance of failure (PBL, 2010; EIM, 2008). However, neighbourhoods are important breeding grounds for entrepreneurial activity and of great importance to sustainable economic growth and creating jobs. Poor quality of liveability in a district opposes economic activities and increases the chance of a decrease in liveability.

Another interesting question is how to keep young people in the city? A large number of THUAS students live in the suburbs and have no ambition to settle in The Hague after graduation. To the question why students do not want to live in The Hague, they reply that besides the scarcity of affordable housing the density, the lack of social cohesion and the anonymity of existence chases them out of the city. The shortage of appropriate facilities but above all the unstable social cohesion in those neighbourhoods with affordable housing stock makes youngsters rather stay in their hometown with all that that entails for a thriving place.

This brings us back to the initial question of how the facility manager can facilitate the city. After all, the facility manager is not responsible for economic activities in a neighbourhood and issues on housing, but in our perspective on good urban management whereby social cohesion is facilitated, the urban facility manager can play an important role. Connecting people by managing place and process in an urban context can improve liveability and sustainable urban developments. With the pressing question from which capacity or organization the urban facility manager operates.

5 CONCLUSION

More than 2000 FM students have been conducting research on urban management over the last 15 years with the result that they realize the great variety in habitats with a large diversity of inhabitants. Moreover, they have learned that neighbourhoods where social problems arise often have the least capacity for self-organization. The absence of self-organization of

neighbourhood residents can lead to tensions between groups, but also between citizens and government or citizens and other institutions. A lack of mutual or collective sharing of space leads to deterioration of the physical environment. Therefore, global citizenship calls for an active role from people, thus also students, in their community, and the cooperation with others to make our planet more equal, fair and sustainable. Recent research (2018) among FM alumni has shown that this educational module contributed to their awareness of social issues at neighbourhood level from both a theoretical and empirical point of view.

In addition, the module has provided data on changes at neighbourhood level resulting in numerous small-scale improvements initiated by the department of Urban Development, Housing, Sustainability and Culture of The Hague. And last but not least, it yielded a network and projects for the minor real estate of THUAS. Empty churches, languishing office buildings and shopping centres were investigated with the help of students to find new destinations.

This all contributed to a better understanding of urban management and endorsed the definition of Keith Alexander (2006) that facility management, as well as performing on behalf of its client and focusing on its own operations, also has a shared responsibility for the social and community context.

6 LIMITATION AND SOCIAL DEBATE

This paper gave the school for Facility Management at THUAS pause for thought. It made us realize that we have been doing meaningful research over the last 15 years. For years, student reports with data and photo essays were submitted, checked and assessed. They have been of value to our commissioners. The lesson-learned is that we have failed to collect and analyse the multi-year data, which could have helped us into a better foundation of the term urban facility management.

In addition, we have been debating the past years how FM should be made explicit in the neighbourhood. In particular, the role of the urban FM manager is an issue. What is the benefit and on behalf of whom does it function? We do not have an answer to this question and hope that a European debate can facilitate a better understanding and an opus operandi for higher education of applied sciences. Last but not least, which responsibilities do universities of applied sciences have in the 'bildung' of students? Moreover, how should education programs be organized to make a successful contribution to global citizenship? This also requires a debate for a better world for all of us.

REFERENCES

- Alexander, K. (2006). Community-based Facilities Management. *Facilities*, 250 - 268.
- Broekhuizen, J., van Wonderen, R., & Marrissing, E. (2013, Februari). *Boom Bestuurskunde tijdschriften*. Opgeroepen op 01 29, 2019, van Spanning tussen bevolkingsgroepen in de wijk: https://tijdschriften.boombestuurskunde.nl/tijdschrift/bs0/2013/02/BELEIDSONDER_ZOEK-D-12-00020
- Brühlhart, M., & Sbergami, F. (2009). Agglomeration and growth: Cross-country evidence. *Journal of Urban Economics*, 48-63.
- Camagni, R., Capello, R., & Caragliu, A. (2013). One or infinite optimal city sizes? In search of an equilibrium size for cities. *Annals of Regional Science* 51, 309-341.
- Castells-Quintana, D. (2017). Malthus living in a slum: Urban concentration, infrastructure and economic growth. *Journal of Urban Economics*, 98: 158-173.
- CBS. (2018, 10 30). *Statline; bevolkingcijfers*. Opgeroepen op 02 19, 2019, van Centraal Bureau voor de Statistiek: <https://opendata.cbs.nl/statline/#/CBS/nl/dataset/37296ned/table?dl=107C4>
- Childe, V. G. (1950). The Urban Revolution. *The Town Planning Review*(21), 3 - 17.
- City of The Hague. (2018). *CBS Urban Data Center Den Haag*. Opgeroepen op 01 30, 2019, van Den Haag.nl: <https://www.denhaag.nl/nl/bestuur-en-organisatie/feiten-en-cijfers.htm>
- Dienst Stedelijke Ontwikkeling. (2018). *Bevolkingsprognose*. Den Haag: Gemeente Den Haag
- DSO. (2018, 01). *Werkgelegenheidsmonitor 2017*. Opgeroepen op 02 19, 2019, van Gemeente Den Haag, Dienst Stedelijke ontwikkeling: https://denhaag.raadsinformatie.nl/document/6120399/1/RIS289928_Bijlage_Werkgelegenheid_2017
- EIM. (2008). *Global Entrepreneurship Monitor The Netherlands*. Zoetermeer: EIM.
- Ever, D., Tennekes, J., & Dongen, F. (2016). *Gemeente Den Haag*. Opgeroepen op 03 02, 2019, van PBL: http://www.pbl.nl/sites/default/files/cms/publicaties/PBL_2015_De%20veerkrachtige%20binn
- Frankopan, P. (2015). *The Silk Routes*. Camden/London: Bloomsbury.
- Frick, S., & Rodríguez-Pose, A. (2017, October 20). *Big or small cities: On city size and economic growth*. Opgeroepen op February 2019, van VOX: <https://voxeu.org/article/city-size-and-economic-growth>
- Geddes, P. (1915). *Cities in Evolution*. London: Ernest Benn Ltd, London.
- Glaeser, E. (2011). Cities, productivity, and Quality of Life. *Science* 333 (6042)(333), 592 - 594.
- Glaeser, E. L. (2011). *Triumph of the city: how our greatest invention makes us richer, smarter, greener, healthier, and happier*. London: Macmillan.

- Glaeser, E. L. (2014). World of cities: The causes and consequences of urbanization in poorer countries. *Journal of the European Economic Association* , 12: 1154-1199.
- Glass, R. L. (1965). *London's housing needs: statement of evidence to the Committee on Housing in Greater London*. London: Centre for Urban Studies, University College.
- Hemel, Z. (2019). *Open Planning for a Liveable Amsterdam 2004-2011*. Opgeroepen op 02 11, 2019, van Zef Hemel: <http://zefhemel.nl/artikelenpapers/>
- ISO. (2018). *ISO 41011:2017(en)*. Opgeroepen op 02 12, 2019, van ISO: <https://www.iso.org/obp/ui/#iso:std:iso:41011:ed-1:v1:en>
- Kasim, R., Razak Ahmad, A., & Eni, S. (2014). *The Neighbourhood Facilities and the sustainable communities agenda: an overview*. Malaysia: Department of Construction and Real Estate Management, Faculty of Technology Management, University Tun Hussein Malaysia .
- Keizer, K., Lindenberg, S., & Steg, L. (2008). The spreading of disorder. *Science*, 322, 1681-1685. .
- Kleinhans, R., Veldboer, L., & Duyvendak, J. W. (2000). *Integratie door differentiatie? Een onderzoek naar de sociale effecten van gemengd bouwen*. Den Haag: Ministene van Volkshuisvesting, Ruimtelijke Ordening en JVilieu-beheer .
- Mann, C. C. (2005). *1491: New Revelations of the Americas Before Columbus*. New York: Knopf Doubleday Publishing Group.
- Morenoff, J. D., Sampson, R. J., & Raudenbush, S. W. (2001). Neighborhood inequality, collective efficacy, and the spatial dynamics of homicide. *Criminology*(39 (3)), 517-560.
- Morisson, A., & Bevilacqua, C. (2018). Balancing gentrification in the knowledge economy: the case of Chattanooga's innovation district. *Urban Research & Practice*, DOI:10.1080/1753069.2018.1472799.
- McGranahan , G., & Satterthwaite, D. (2014). Urbanisation concepts and trends. 18-19.
- Nicholson , A., & Leiper, Q. (2005, July). *The future is green*. Opgehaald van I-fm Feature: www.i-fm.net
- Nicholson, A., & Leiper, Q. (2005). The future is green. *I-fm Feature*.
- Overzicht van de gemeente Den Haag*. (2019). Opgeroepen op januari 29, 2019, van <https://allecijfers.nl/gemeente/den-haag/>
- Parkes, A., & Kearns, A. (2003). Living in poor and leaving poor neighbourhood conditions in England. *Housing Studies*, vol. 18 827-851.
- PBL. (2010). *Bedrijvigheid en leefbaarheid in stedelijke woonwijken*. Planbureau voor de Leefomgeving. Den Haag/ Bilthoven: PBL.
- Pelzeter, A. (2016). *Lebenszyklus-Management von Immobilien; Ressourcen- und Umweltschonung in Gebäudekonzeption und -betrieb* . Berlin: Beuth Verlag GmbH.
- Polese, M. (2000). *The Social Sustainability of Cities; diversity and the management of change*. Toronto: University of Toronto Press.
- Polese, M. (2013, winter). *Five Principles of Urban Economics*. Opgehaald van City-journal: <https://www.city-journal.org/html/five-principles-urban-economics-13531.html>

- Polese, M. (2016). *targeted-urban-economic-growth-will-improve-economy*. Opgehaald van Meeting of the minds: <https://meetingoftheminds.org/targeted-urban-economic-growth-will-improve-economy-25261>
- Power, A. (2004). *Neighbourhood Management and the future of Urban Areas*. London: Centre for Analysis of Social Exclusion, London School of Economics.
- Power, A. (2004). *Neighbourhood Management and the future of Urban Areas*. London: London school of Economics.
- Randstad Monitor 2017*. (2017). Opgeroepen op 02 19, 2019, van Randstad Region EU: <https://www.nl-prov.eu/wp-content/uploads/2017/11/regio-randstad-monitor-2017.pdf>
- Roberts, P. (2004). FM; new urban and community alignments. *Facilities*, 349-352.
- Rosenthal, S., & Strange, W. (2004). Chapter 49: Evidence on the nature and sources of agglomeration economies. In J. V. Henderson, & J. F. Thisse, *Handbook of Regional and Urban Economics* (pp. 2119 - 2171). Burlington: Elsevier.
- Smith, M. E. (2009). Gordon Childe and the Urban Revolution: a historical perspective on a revolution in urban studies. *Town planning research*(80), 3 - 29.
- United Nations. (2014). *World*. Opgeroepen op 02 28, 2019, van United Nations: <https://esa.un.org/unpd/wup/publications/files/wup2014-highlights.pdf>
- United Nations. (2018, 05 18). *United Nations*. Opgeroepen op 01 28, 2019, van United Nations Department of economic and social affairs: <https://www.un.org/development/desa/en/news/population/2018-revision-of-world-urbanization-prospects.html>
- Ure, J., & Hampton, D. (2004). Sustainability in FM. *Facilities Management*.
- Ure, J., & Hampton, D. (2004). Sustainability in FM. *Facilities Manager*.
- Van Ham, M. (2012). *De buurt. Best belangrijk*. Delft: TU Delft.
- Wilson, J. Q., & Kelling, G. (1982). Broken windows: The police and neighborhood safety. *Atlantic Monthly*, 29-38.
- Wilterdink, N., & Van Heerikhuizen, B. (2012). *Samenlevingen*. Amsterdam: Noordhof Uitgevers.