The Legacy of the Modern Movement; Appreciation of Office Locations in the Context of the Contemporary City
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Office buildings and their locations have emerged and developed in the urban setting during the last century. Urban plans and architecture were developed according to the ideological principles of that time, based on ideas of health and social security and promising sufficient space, sun and air for the cities' key functions: housing, work and recreation.

The architecture and urban design of our buildings and cities are still based on the principles of this unique period of history. However, these principles no longer apply to our use of the city or to the way organisations and their employees (wish to) work, and so office buildings and locations that are developed according to these principles will deteriorate and become obsolete in an ever increasing pace.

In this paper, we will discuss organisations' changing ideas of the city and working locations within that city, using empirical material from a study on the Amsterdam office market. We performed a Delphi survey using a panel of experts on office users' spatial preferences in order to reveal several aspects that are important to the office organisations when searching for new office space. The aspects revealed in this survey were used to carry out a study of the Amsterdam office market, scanning 250 office buildings in order to verify the results of the Delphi-survey.

1.1 The industrial revolution and the emergence of offices

The office building type as we know it today has gone through quite some development from the first office building recognised as such by architecture historians; the Uffizi in Florence from 1650. Though buildings like this, accommodating offices for governments, banks and stock exchanges, existed already in medieval times, the Uffizi represents a building type that would be in use until the beginning of the 20th century.

However, the office building as we know it today appeared parallel to the industrial revolution, and was developed to accommodate the administrative services related to industrial production. The first modern office buildings were developed in England and the United States, though the most eminent development of office buildings during the next century would concentrate in the United States (1976). In the Netherlands, two of the monuments of this time are the White House in Rotterdam (1897) and the office building of the Dutch Trading Company in Amsterdam (1920), De Bazel.

During the industrial revolution, office buildings were situated near the industrial locations, or they were, like the earlier banks, governmental offices and stock-exchanges, situated in the inner cities, mixed with retail, culture and housing (Bluestone, 1991). The size of the office buildings though was considerable, and buildings such as the office building of the Dutch Trading Company were way out of scale when compared to its urban context. During the twenties and thirties, office buildings were also developed near or in combination with infrastructural works.

1.2 Functionalism and zoning

The international modern movement in their ideas for urban planning were addressing several problems and challenges of their time. The health of citizens was threatened by the fast industrial developments taking place inside the nineteenth century cities. As a solution, industry, offices and housing for the workers were neatly divided and connected by infrastructure and green zones, at the same time letting more light, space and air into the urban fabric. The same ideals were visualised in the architecture of the time: by being spacious and letting in sunlight and air the buildings would also contribute to the health of its inhabitants. The architects at that time were very fascinated by machines and so houses were built as
“living-machines”, the exterior expressing the explicit function of the interior. The ideas of the modern movement were presented in the “Chart of Athens”, a report on the 1933 ciam (Congrès Internationaux d’Architecture Moderne) meeting in Athens, though not published until 1943 (Frampton, 1992). Their ideas were radical and foresaw the complete demolition of historic cities. Comprehensive redevelopment was seen as the one possible solution for dealing with obsolete historic legacy, like in Le Corbusier’s Plan Voisin for Paris (Le Corbusier, 1986).

In Europe, including the Netherlands, the ideas of the modern movement, though developed in the 1930’s, were not introduced in the urban development until after the Second World War, when large scale reconstructions of blitzed areas were initialised and large scale extensions of the existing urban fabric was needed after years with little construction activities. The modernist’s ideas of large scale, single function areas, consisting of industrial mass-produced buildings fit very well with the ideas of politicians, engineers and developers at that time, interested in an effective reconstruction of the damaged areas. In most Dutch cities that had not been bombed during the war, the post-war developments were extensions to the existing cities, also comprising the first office areas, and were developed near the urban centres, while in Rotterdam, that was being reconstructed after the Second World War bombings, the modern zoning scheme was used to plan the reconstruction of the central urban areas.

In the nineteen fifties onwards the initiative of the service economy started influencing the construction of office buildings, though until the sixties, office buildings were mostly contracted and owned by the user of the building. In the sixties, the growth of the service economy exploded and the office market emerged as a new phenomenon. From then on, office buildings were developed for tenancy (Kohnstamm and Regterschot, 1994) in a growing market, leading up to the current situation with 64 % of the square metres of office space in the Netherlands being rental offices (Bak, 2005). The functionalist scheme was applied to the urban design, development and architecture up till now. The effects this has had on cities can be experienced everywhere in the Netherlands. In housing areas, during day time the streets and parking lots are vacant, while in the office areas or office parks, all employees leave their work at five in the afternoon by car and leave a ghost-town behind. The city centres are crowded on weekends and almost vacated in day-time on week-days. This functional division of the urban areas leads to traffic congestion as everyone is commuting.

The reason for the modernist ideas of strict functional divisions and zoning plans were the polluting industrial areas and the unhygienic housing situations of the nineteenth century, but the modern factories have long ago been moved out of the cities because of economical reasons, and the need for functional zoning does not seem evident any more. However, large-scale urban areas are still developed following the modernists urban ideas, albeit according to Harvey the blame should not be laid at the modern movement’s door without regarding the political and economical climate of the post-war urbanisation (Harvey, 1989).

1.3 The city and the creative class

One of the arguments of the modern movement was functional segregation to provide for the health and security of the working class. The functional zoning would not only literally provide distance between the factory smoke and the workers’ homes, but also figuratively in the sense of separating work from free-time and recreation, something that was welcome to the working class who had until then had few rights and for whom recreation was something new. Already in the sixties though, Jacobs and others warned against the comprehensive redevelopment so offensive to the same working class, and so disruptive to small firms and organisations, not economically viable though socially desirable and adding up to the liveability of urban areas (Jacobs, 1961). Jacobs’ critic also comprised the continuous employment of rigid zoning plans. The industrial city was dominated and developed by the industrial sector and the administration of it, but the post-industrial city is a centre providing services for itself and for industry that moved to other areas or to other regions or countries, and in the post-industrial city the functional zoning is not any more functional; the idea itself has become outdated (Tiesdell et al., 1996). According to Florida (2004), the new large working class is the creative class. While the offices of the post-war years were classified as white collar factories, the office workers of the 21st century are highly skilled and working more or less independently. Florida further describes the creative class as consisting of knowledge workers and employees or independents working in the traditional creative industries such as architecture, (graphical) design, arts and crafts, but also comprising university personnel and employees at software or internet development companies. The creative class employees mostly have flexible working hours, and are often able to perform their work from home, just as well as from behind their desk at
the company they work for. These employees don’t work 8 hours a day and have no need for a separation between their working environment and the place where they live.

1.4 The Dutch office market

The Dutch office market has, since its origin in the nineteen fifties, been characterised by growth, superimposed by cyclic movements. The office market growth is flattening out though; although the construction of new office buildings is still going on, the gfa of office space in use is more or less constant. The employer needs to attract employees not only with a good salary, but also with good secondary working conditions.

After the dramatic rise in office space vacancy from 2001 to 2005, the amount of office space in use has stabilised. Since new office space is still being added and existing office space is not taken off the market, there’s a surplus of office space on the market. At the same time, organisations and work processes are becoming more dynamic, rental agreements become shorter and since the price difference between renting new buildings and existing buildings is also small, organisations move to new buildings. In the past decade, a replacement market has developed (Soeter and Koppels, 2006, Remøy, 2007). The amount of office space in use is relatively constant; there is no quantitative demand for additions and new buildings to take the place of older buildings. Office users move to qualitative better office buildings and locations with competing rent levels.

Existing buildings and locations are ageing. An increasing part of the supply is obsolete and will be difficult to rent out, even in the case of an economical upswing. According to dtz Zadelhoff, one of the main actors in the market, in The Netherlands 1 million m$^2$ of office space is prospectless. Dynamis considers 500 000 m$^2$ as prospectless, and adds 1.5 million m$^2$ as deteriorated (dtz, 2006, Dynamis, 2006). The buildings are outdated and are located on decaying, monofunctional locations. The vacancy problem is mainly considered a location problem. Among the problematic locations are the office- and industrial parks from the 1980’s, next to highways or ring roads and badly accessible by public transport. The development of these locations is explainable in the perspective of the eighties. Accessibility by car was the most important location characteristic, as shown in surveys of the Amsterdam office market by Korteweg in 1988 and 1991 (Korteweg, 2002). The market showed an economic upswing, there was political support for urban extensions and the city centres were blocked for commercial developments. Mono-functional office parks were developed which 25 years later are functionally and economically obsolete.

1.5 User preferences

When discussing the office market or office user preferences, it is not viable to speak of one national office market; we need to discuss the specific local markets and market segments. In our study, we focused on the Amsterdam office market, comprising a supply of 6 million square metres, more than double of the second largest Dutch market, Rotterdam. Studies by Atelier V (Atelier V and Motivaction, 2005) define seven groups of office users. There are differences within the groups, but the surroundings and the character of the location; places to go for coffee, possibilities for lunch-time shopping, meeting other people or simply escape the office for a while tend to be important factors for several groups. Soft factors such as appearance, ambience and status of the building or the location are found just as important as the hard factors accessibility or working environment. According to previous studies (Baum, 1993, Korteweg, 2002), buildings with a bad spatial-visual quality, building decay and shabbiness or evidence of vandalism are unpopular. A poor condition or bad technical quality of (parts of) the building or out-of-date or malfunctioning of its installations has been mentioned in several studies as a reason for organisations to leave a building, not so much as a reason for not moving to a building (Baum, 1993). We wanted to test the preferences of the office users searching for new accommodation. In a replacement market, where tenants relocate to better suited buildings, the office buildings preferred by office space users will be rented out, while the office buildings less preferred will be left vacant (Remøy et al., 2007). Which are the buildings preferred by office space users? Do these buildings have specific location- and building-characteristics?

1.6 Delphi survey on user preferences

Based on literature (Korteweg, 2002, Louw, 1996, Rodenburg, 2005), 21 concepts of building and location characteristics were defined that might be of influence on which buildings are preferred by office users searching for office space (Table 1). The literature review considered building quality assessment tools and office user preferences studies.
The Delphi research-method was developed to predict long-range trends in science and technology, but was later extended to applications in policy formations and decision making and has become a widely used tool for validating and aiding forecasting and decision making in a variety of disciplines. The Delphi method has been used with a variety of methodological interpretations and “modifications” (Powell, 2003) and because of this “flexibility” it was criticised for lacking methodological rigour. Consequently research guidelines were developed and extended by various authors (Schmidt, 1997, Hasson et al., 2000, Okoli and Pawlowski, 2004) to increase the methods credibility. The Delphi method is considered a useful technique for tapping and combining individual judgements in order to address a lack of agreement or an incomplete state of knowledge. In this study the Delphi ranking approach was applied, an approach also used in the management field to form group consensus about the relative importance of issues (Delbecq et al., 1975). The Delphi approach consists of two to four rounds of questioning the individual panel members in interviews, the amount of rounds depending of its place in a research. In this case, literature already gave insight in the factors that are important to the office user, and after two rounds the results were satisfactory; that is the predefined required degree of consensus was reached or the results were not improving. The expert panel consulted consisted of 18 experts with significant knowledge of office users’ preferences and from different disciplines. The panellists were asked to rank the characteristics of office buildings and locations according to the office users’ preferences. Two different office user profiles, defined by Atelier V (Atelier V and Motivaction, 2005) and seen as two important groups in the Amsterdam office market were used; these were defined as Urban Specialists and Status Sensitive Professionals.

After the second round, the panel had reached a strong agreement on the ranking of the building characteristics (Table 2). The top three characteristics did not change from the first round to the second round, and also these characteristics were the same for both user profiles as well as for a third verification profile, the general office user profile. The three most important characteristics were car parking, exterior appearance and user recognisability. Of the location characteristics, accessibility by car and status were found to be the two most important (Table 3). The panels’ agreement on the location characteristics was less strong than for the building characteristics, but also did not change very much from the first to the second round, which means that further polling is futile. The agreement of the panel is measured by the Kendall W coefficient, measuring the panel’s concordance of ranking.
The final ranking results for both the building and the location characteristics were to a great extent in accordance with previous research. On the other hand, when looking more closely to the location characteristics, the diverging opinions on the importance of the characteristics tells us that changes in the users preferences are possibly going on. In the first round of the Delphi interviews, the experts were also asked to comment and argue their own ranking. In this round, it was stated that even though accessibility by car is still considered the most important location characteristic, the importance of the status of the location and the amount of facilities in the area is growing. However, the divergence on the importance of facilities in the area was high. Interestingly, when asked which location characteristics, if any, may be related to structural vacancy of office buildings, low status and low amount of facilities in the area were mentioned, and not accessibility by car.

1.7 The office scan

Former studies defined several building and location characteristics important to the office users’ preference. Most studies regard office users’ stated preferences as in the studies by nvb (2006). In the Delphi survey, we asked a panel of experts on office users’ preferences to rank the characteristics used in these studies in the order of importance to the office user. The characteristics ranked in the Delphi study are again applied in the office scan; studying the revealed preferences of office users in the Amsterdam market. The characteristics that were studied in the Delphi survey comprise several aspects that are measured separately in the office scan before they are combined again into one characteristic. For instance, layout flexibility comprises the square metres of a standard floor, the possibility for subdividing the floor into separate units, the distance between columns, the adaptability of the interior walls, the free floor height and the type of ICT infrastructure.

250 office buildings in Amsterdam were studied, of which 100 have a structural vacancy rate of about 50%. The buildings were selected from several sources, i.e. the transaction- and supply-databases of dtz and the member-list of the roz/ipd index.
Structural vacancy is seen as the strongest indicator of office space not preferred by the office users. The conditions for incorporating specific buildings in the study were clear; the user preferences should be measurable, so the buildings selected for the study have a structural vacancy rate of at least 50%, or at least one transaction has taken place in the building during the last six years.

According to former research, we have some expectations to the outcome of the research. For instance, we would aspect the most preferred office buildings to have sufficient parking places, have a good exterior appearance and to allow for the recognisability of its users. Also, the location of the building should have a high status and should be well accessible by car. However, studies by DiPasquale (1996) and Dunse (2001) warn us about the existence of submarkets within office markets, and in his thesis, de Man (2008) reveals the existence of submarkets within the Amsterdam market, defined geographically and by rent-level. The existence of submarkets within the Amsterdam office market suggests a hierarchy of the influence of the location and building characteristics, according to which the influence of the location characteristics are subordinate to the market, and the influence of building characteristics are again subordinate to the location, a mechanism that is also argued for by the expert panel in the Delphi survey (Remøy et al., 2007). In his thesis, de Man analysed the accessibility of the different Amsterdam submarkets, and found that the accessibility of all submarkets is sufficient and without big differences between the submarkets. According to this, we can also explain why, in the Delphi-survey, accessibility is recognised as important to the user preference, but is not used to explain vacancy.

The results of the Delphi survey and the first examination of the office scan data show convergence between the two studies on the location characteristics studied. The status of the location is characterised by the location type, the quality of the public space and the vacancy in the area. The two office locations experiencing the most vacancy problems, Telepoort and Amstel III, are to be characterised as office areas with some industry where the quality of the public space is low.

Both areas are also mono-functional areas; within both locations there is a train station surrounded by different facilities, but in both cases, these facilities are located at the rim of the location and do not seem to influence the users experience of the location itself.

1.8 Locations with high structural vacancy

The structural vacancy within Telepoort and Amstel III is probably location related. The structural vacancy of buildings within other locations in Amsterdam is less easily explained by the office location itself, and the analysis of the building characteristics will probably be able to tell us more.

Both the Telepoort and the Amstel III are examples of urban areas developed according to the functionalist ideals of urban planning, office locations divided from other urban areas by roads or railway. In the case of Telepoort, much has been done to redevelop the area and renovate the office buildings, but the functional zoning of the area has not been altered. Renovations of this kind seem to have influence only immediately after the renovation, making a first five years lease possible. In Amstel III, the northern part of the area, around the Amsterdam arena and the Bijlmeer train station has been redeveloped, but this had no influence on the southern part of the area. On the contrary, the relatively new developments near to the Arena are now also experiencing vacancy after the first lease-periods ended.

The ideas of the malfunctioning single-use office locations were confirmed in interviews that we held with office market experts in 2006 (Remøy, 2007), and by Rodenburgs study of the Amsterdam Zuid-As (2005). The reason for malfunctioning was sought not so much in the organisations’ appreciation, but in the employment market and the employees’ appreciation. Well-educated employees are scarce, and a good salary is not enough to convince employees to take on a job, hence secondary benefits are important. One of the secondary benefits that are important to young, highly educated employees is a safe working environment, accessible by public transport and with urban facilities such as cafés, shops and restaurants within walking distance.

So far, we just had a look at the data gathered from the office scan, and we’re running the first analyses on the location characteristics. In the next phase of this research we hope to be able to find characteristics of office buildings and locations that will significantly explain the difference in performance between different office buildings.
Sources