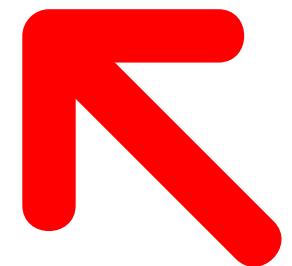


# VICTOR NJO

**FINAL THESIS**

**ROTTERDAM - DELFT, APRIL 2002**

**CENTRAL ROTTERDAM**





# PREFACE

## THE CITY OF ROTTERDAM

The earliest memory of Rotterdam I can recollect is that of the time my parents took me to the top of the Euromast when I was about eight years old. The view of the city at that time to me was immense and incomprehensible. The next visits to this city started in my first year of university. Those visits – being both for education as well as leisure – gave me an overall picture of how this city works and lives. This picture became clearer when I moved in the city to start working at several architectural offices in the city and at a certain moment in time there was even a very strong indication of having to settle in Rotterdam.

Having experienced almost all moments of life in this one city and having accumulated a lot of – in many cases empirical – knowledge about this city, eventually led me to the decision to choose a high profile Rotterdam location for my final thesis in Urbanism and Architecture at the Faculty of Architecture of the Delft University of Technology in the Netherlands.

At that same time the municipality of Rotterdam announced the redevelopment of its central station area. As a member of 'Group 7: Integral Plan' for the first phase of the development of the 'Masterplan Rotterdam Centraal' I had an opportunity to experience how other people think about the potential and ambience of the location itself.

A very peculiar awareness came over me after my visit to New York City last summer. Rotterdam City has many resembling elements as the Big Apple, only they are more modest – the Tiny Apple. When you think of it some striking similarities occur like the Brooklyn Bridge & the Erasmusbrug; Roosevelt Island & Noordereiland; St. Patrick's Cathedral & St. Laurenskerk and Downtown 'After 9/11' & 'After WW II'. These parallels are not merely visual, but sometimes functional, spatial and some even social. More reason to make a detailed inventory of these similarities between these two dynamic cities in order to learn from the mistakes and to benefit from the positive developments of one another. I agree with Léon Krier's point of view, that – I quote – 'Planners – and more importantly, citizens in general, including those elected representatives in a position to make decisions – don't realize that the solutions you propose apply to *all* cities, irrespective of style.' To respond accordingly, Rotterdam therefore has an obligation to transfer its downtown railway infrastructure underground and implement a Central Park where it is most wanted: in the heart of the city.

Victor Njo  
Rotterdam, April 2002



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# 1 INTRODUCTION

## Rotterdam central station area

Rotterdam – the second largest city in the Netherlands after the capital Amsterdam and proud owner of the world's largest port is facing a challenge to renew its central station area. In the year 2001 the government awarded the status of 'New Key Project' to six major inner city redevelopment operations. The central station area of Rotterdam has next to Amsterdam Zuidas, Den Haag, Utrecht, Arnhem and Breda the potential to be the top of the bill in urban prestige (Fig. 1.1).

The Government formulated three objectives for these projects:

- To achieve integral development of the areas around the railway stations into multimodal public transport junctions and prime locations for living, working and amenities.
- To achieve maximum spin-off from the investments in high-speed railway infrastructure, for urban development and intensive use of space.
- To achieve maximum spin-off from the investments in commercial property, for urban development and enhancement of the physical environment.

The central station, which delivered an efficient answer to the public transport demand in the 1950s is too small and functions inadequately. With the introduction of the HST system<sup>1</sup> in Rotterdam the pressure on the urban space of the city extends beyond its limits. 'As a geographical entity, a railway station has two basic, though partly contradictory, identities. It is a *node*: a point of access to trains and, increasingly, to other transportation networks. At the same time, it is a *place*: a specific section of the city with a concentration of infrastructure but also with a diversified collection of buildings and open spaces.'<sup>2</sup> This identity of the railway station is often

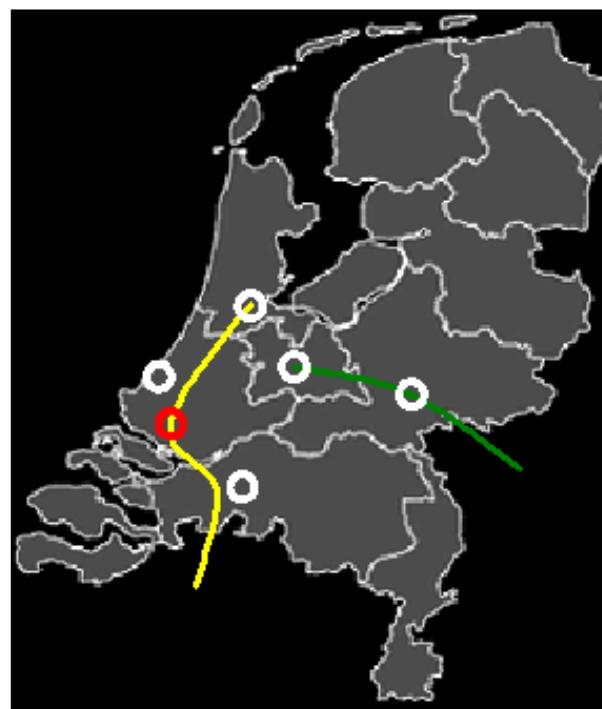


Figure 1.1

New Key Projects in the Netherlands. The red circle is Rotterdam. The yellow line represents the 'HSL-Zuid' en the green is is the 'HSL-Oost'.

automatically equated with nodes of socio-economics activities. This happened with the Euralille venture and Rotterdam tends to make the same 'mistake'.

'In reviewing studies of the station area development effects of high-speed rail in Japan and France, Sands (1993) summarizes their most important conclusions. In Japan, at the regional level, the introduction of the Shinkansen high-speed rail line appears to have redistributed, rather than generated, growth towards stations. At the station level, major differences emerged. Three new peripheral stations opened with the introduction of the Shinkansen line in 1964. There were no significant development impacts when high-speed trains stopped in existing intercity rail stations. The marginal increase in passengers attributable to the high-speed line was an important explanation. Instead, where a new station was built near the existing city centre, and was provided with a good link to the

<sup>1</sup> High Speed Train railway network across Europe.

<sup>2</sup> From: 'Cities on Rails', p. 9 – Luca Bertolini and Tejo Spit.

<sup>3</sup>  
From: 'Cities on Rails', p. 40-41  
– Luca Bertolini and Tejo Spit.

<sup>4</sup>  
Current proposal from the  
municipality of Rotterdam and Alsop  
Architects (London).

<sup>5</sup>  
A recapitulation of the thesis  
'Trainport Rotterdam', june 1999  
– Eugène Sauren.

<sup>6</sup>  
The rim-shaped agglomeration  
of cities in the western part of the  
Netherlands.

existing station, development within the city shifted towards the new station. The frequency and level of train services, the quality of connections with the existing planning practices have been the crucial discriminants between successful and less successful examples.

Also, in France, the studies Reviewed by Sands (1993) suggest a shifting of spatial focus rather than autonomous economic growth at the regional level. On the TGV South-East line (opened in 1981-1983), significant station area development was observed only at Lyon Part Dieu. The area, a doubling of the spatially constrained traditional CBD of Lyon, was already under development at the time of the opening of the TGV station. However, the TGV had apparently reinforced the dynamics of what has become the city's most sought-after office location. On the TGV Atlantic line (opened in 1989) there were signs that development initiatives had been successful in Le Mans and Nantes. Next to the TGV, other important explanatory factors were the quality of other transport connections, the proximity of the existing city centre, proactive public-private development partnerships, and the state of the local economy. The failure to attract development at TGV stations such as Le Creusot, Vendôme or Macon showed, on the contrary, how the TGV alone is not enough.

These and similar points are restated in other literature reviews (e.g. Trion, 1995). The TGV, just like the Shinkansen, appears to be essentially a *catalyst* of development when other conditions are in place. Those conditions include lively local economics and property markets, availability of land or buildings, excellent connection to local and regional transport networks, and strong public investment and leadership. The important conclusion is that a combination of factors should be taken into account when discussing case studies.<sup>3</sup>

Two types of proposals exist for the Rotterdam central station area. The first one is a redevelopment of the

area with the station on its current location.<sup>4</sup> However, considering the ambition of the municipality of Rotterdam to present the central station area as a hub for international firms operating on the European market, the high pressure on the quantity of space and preliminary research about the HST, the only correct type of solution for Rotterdam will be a development with a *relocation* of the central station. Both types of proposals have been researched to a great extend, so to add another project to this list of designs is the same as trying to re-invent the wheel and convince the world it should be square instead of round. To generate more insights on the subject of the redevelopment of the central station area of Rotterdam, is to focus on the *exposure* of the potential and capacity, what a certain *relocation* of the central station can catalyze in the urban fabric.

#### A new HST railway station for Rotterdam<sup>5</sup>

The final thesis 'Trainport Rotterdam' from Eugène Sauren anticipates on two tendencies that are partly vision and partly reality. Firstly, the spatial and functional structure of Rotterdam will be linked to the other cities in the Randstad<sup>6</sup> because of the rise of the metropolis in the Netherlands. The cities of the Randstad form the 'Deltametropolis', an entity in size comparable to Paris or London. This merge on economic level and public transport provide the centres to profit from each other advantages. Secondly, the public transport will (have to) change in a drastic manner to preserve the 'mobility' of the society. The railway traffic will eventually be characterized by small fast vehicles, which run through the metropolis with a high frequency, so that long waiting times are history. To suffice to the demands these tendencies create for the city, Rotterdam has to invest in the connection between its own urban context and the 'Deltametropolis', the Netherlands and Europe: Rotterdam central station area.

With an integrated design process a proposal is conducted where the public transport network, the central station and the city is optimized. Analysis of a number of models for the Rotterdam railway infrastructure, train and metro, points out, that a cross-shaped with the central station as its centre is the solution with the most benefits. The main theme of this model is that the HST has a fast and linear route from Brussels to Schiphol Airport. The handled model produces a time benefit of more than 1.5 minutes. This benefit seems minimal, but when a decision from the government is made to built a tunnel under the 'Groene hart' with a financial load of approximately 410 million EUR and a time benefit of merely 3 minutes, it is nothing less than useful to also implement the shortest route where the HST enters the Netherlands: Rotterdam. The combination with the East-West trace under the river the 'Rotte' produces an *underground* crossing of the railway tracks round about the 'Hofplein'. Interestingly enough, 'Hofplein' is the location of the original trainstation.

The existing metro system is expanded with the 'Benelux-line' and the 'Randstadrail' and can, with a few additions, result in an infrastructure where four substations – Lombardijen, Alexander, Zestienhoven Airport and Schiedam Centrum – are connected with a circular network.

This new structure of the station, the underground placement of the tracks and the changes in the logistic system produces a vast territory, which can be used for redevelopment en new functions. The changes to the railway-yard of approximately 15 ha<sup>7</sup> can have benefits for an area five times bigger than itself. The total area fit for restructuring is more than 75 ha of territory.



Figure 1.2

The current railway track infrastructure.



Figure 1.3

Proposed railway track infrastructure by Sauren. The tracks in downtown Rotterdam are below ground level.

Figure 1.4

*The new combination of railway and subway infrastructure.*



## 2 THESIS

### Redevelopment of the railway yard

The railway-yard becomes obsolete after implementation of 'Trainport Rotterdam' and forms the subject of this thesis. The total territory waiting to be redeveloped after realisation of the central station exists of several areas. These major parts are the obsolete railway-yard itself and its surroundings, the next one is the 'Blijdorp' area up till 'Kleinpolderplein' and the last part is the 'Noorderbocht' area up till the 'Ceintuurbaan'. The subject of this thesis will be the Re-Urb<sup>8</sup> of the railway-yard.



Figure 2.1

Areas fit for redevelopment.

### Context of the site

With the Trainport system it will take only 15 minutes to get to downtown Rotterdam from Schiphol Airport. That is the same time it takes to reach downtown Amsterdam by public transport. The airport Zestienhoven has a direct metro connection with the central station. The railway-yard itself is a slope with a height ranging from 2.0m to approximately 3.5m above ground level in downtown Rotterdam. The new underground railway infrastructure below the slope has 4 lanes for the trains on the north side and 2 lanes for the metro on the south side. The depth of these tunnels ranges from -21.0m below ground level at the central station to ground level when the lines underpass the river the 'Schie'.



Figure 2.2

With the Trainport proposal it will be possible to reach downtown Rotterdam in 15 minutes from Schiphol Airport.

Figure 2.3

Rotterdam and its (new) trainstations. In the middle is the slope.

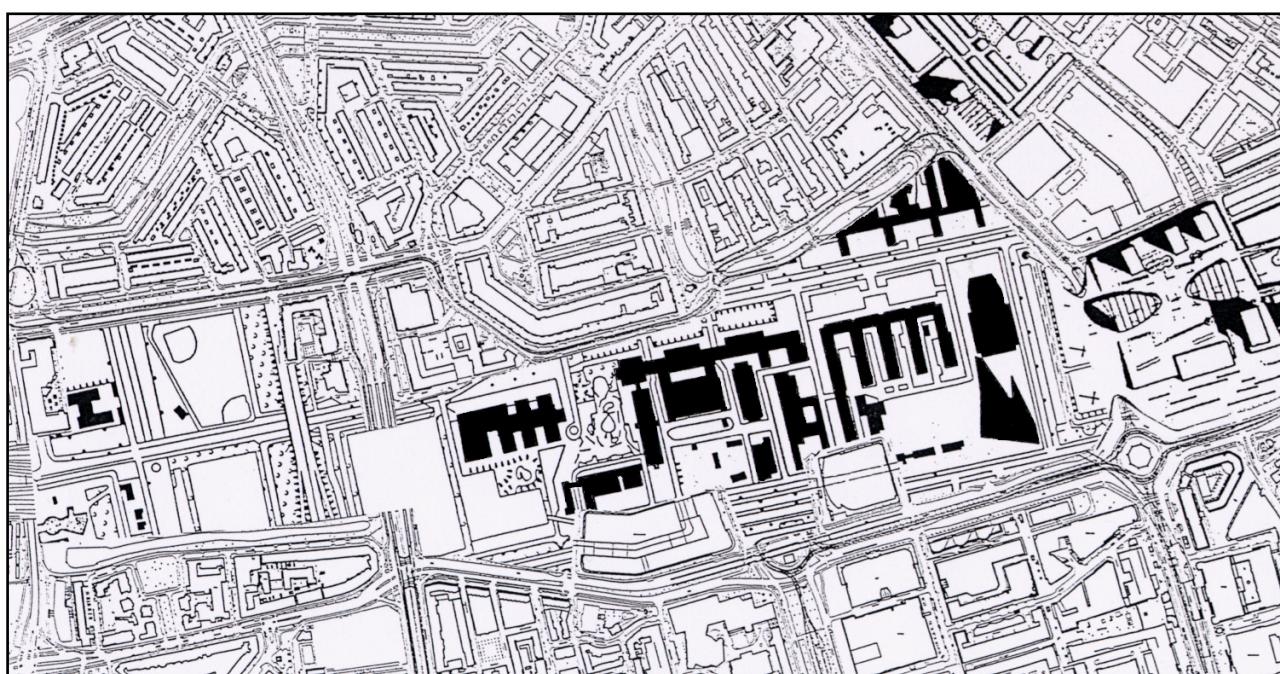


<sup>9</sup>  
Source: EMR.

The project profile is as follows<sup>9</sup>:

LANDSCAPE	urban landscape
SCALE	revitalising area
POSITION	above ground level
TYPOLOGY	residence
PROGRAM	multifunctional
AREA	urban centre, mix-use of commercial, cultural and residential programs
MULTIPLICITY	650 000m <sup>2</sup> study area, 250 000 m <sup>2</sup> site intensification 3D and 4D, multifunctional

In order to grasp the size of the area a few other projects are projected on the site (Fig. 2.4 & 2.5).



**Figure 2.4**

*Implementation of the campus of the Delft University of Technology, Delft.*



**Figure 2.5**

*Implementation of the Vondelpark, Amsterdam.*



**Figure 2.6**

Satellite photo of the site with implementation of the Trainport proposal.

## 3 CONCEPT

Central Park Rotterdam



Figure 3.1

Central Park, New York.

Figure 3.2

Parks of Rotterdam.

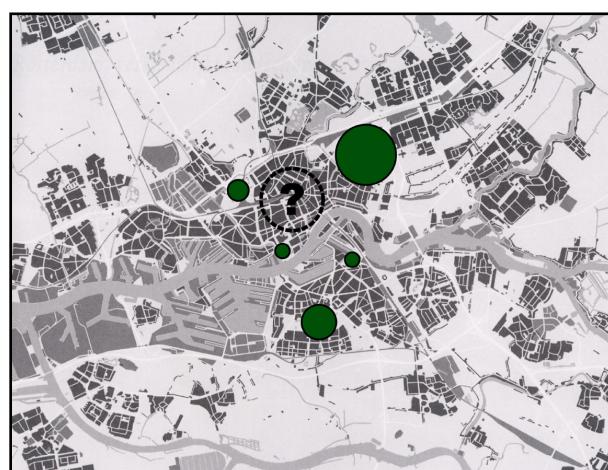


Figure 3.3

Concept of redevelopment.



<sup>10</sup>

A more detailed description of Rotterdam is present in the publications of Meyer and Palmboom.

<sup>11</sup>

Gemeente Rotterdam - Ruimtelijk Plan Rotterdam 2010, p. 26-27.

The spatial frame in which the Re-Urb of the railway-yard will have to take place, derives from the spatial structure of the city. Rotterdam has a mainly orthogonal grid construction of long lines, which are the cornerstones of the structure and ambiance of the city. Typical to the Rotterdam network, is the green character of the lanes from north to south. The east-west lines whereas are more urban with exception of the river the 'Maas'.

The transformation of the emplacement can lead to a correction in the breach of the network and heal the undesirable physical and spatial scar between the north and south side of the slope. Next to the 'Maas' there will be a second green, recreational east-west lane, connecting the rivers the 'Schie' and the 'Rolle', which corresponds to the scale of the spatial structure.<sup>10</sup> This new development also reacts to the city's lack of *quality* (Fig. 3.2) of (recreational) green.<sup>11</sup> The strategy of the Re-Urb of the railway-yard is the transformation to a new downtown central park, in order to sustain and fortify the green and recreational allure of the lane (Fig. 3.3).

An injection of such a public entity on a location where economic pressure is relatively high is somewhat contradictory and thus implies a certain strategy, where the *feasibility and sustainability* of the structure will be guaranteed in the most optimal way.

## 4 STRATEGY

### MEDIAPoRT, MEDIAParK, MEDIAPlaza

The most important aspects of a development strategy are<sup>12</sup>:

- Level of ambition
- Organisation
- Communication
- Stages of the development process; phasing
- Investment and finance
- Decision making
- Juridical relationships

The above enumeration demands a great deal of knowledge from fields of expertise other than Urbanism and Architecture, especially Real Estate and Project Management, (Dutch) Law, local and even national politics. However, in order to sustain the clarity of this thesis, all further research and findings remain within the context of Urbanism and Architecture.

The municipality of Rotterdam formulated three ambitions for its central station area<sup>13</sup>:

- A venerable mobility hub. A stop of the HST desires an excellent mobility hub, which functions on all scale levels: Europe, the Netherlands, the Randstad, the Zuidvleugel (South Wing), the region, the city and downtown Rotterdam.
- A new, integral part of the city from what the whole city and the region can profit. The site has to be developed in a spatial and functional manner as an integral part of the city. In that way a maximum spin-off can be created, that benefits the adjacent city parts.
- A powerful urban program with allure on (inter)national level. The renewal of the central station to a mobility hub and the interweaving with the city makes it possible to develop the whole site with an impressive urban program.

In combination with the development of 'Trainport Rotterdam', these ambitions still apply for the Re-Urb of the railway-yard. Key phrase to these ambitions is 'location synergy'. Location synergy comes into existence when a (transformation) project is considered as 'one of a kind', when it creates scarcity, compared to other, existing or planned locations in the city. It does not occur when different locations compete with each other.<sup>14</sup> This immediately implies, that a certain programmatic content has to be handled for the strategy of the masterplan, that is different than the urban program used for – on the scale of the city – the 'Kop van Zuid' and – on the scale of the 'Deltametropolis' – the Amsterdam Zuidas, in order to strengthen the guarantee of the feasibility of the whole. The urban program fit for the redevelopment of the railway-yard in Rotterdam will be handled later on in this thesis.

Parallel to the development strategy of the Amsterdam Zuidas<sup>15</sup> however, at the core of the development strategy for the Masterplan Central Rotterdam (MCR)<sup>16</sup> is the decision not to draw up a final state, but rather to work by means of process planning. This important decision is grounded on the belief that a blueprint approach in the MCR is neither possible, nor desirable, nor necessary. Decision-making should concern only what cannot be decided later, so that key choices are made at the most appropriate time, and real problems are dealt with as they rise. Furthermore, future social, financial or other changes may be better accounted for, as each step can be fine tuned along the way.<sup>17</sup> We can also learn from the process of the 'Kop van Zuid', where the urban designer is not the creator of the final state, the blueprint approach, but the director of the process planning.<sup>18</sup> The emphasis in this project lies in the realisation of a good and venerable infrastructure. The 'Erasmusbridge' from Ben van Berkel is the figurehead in the strategy, in which the government appears as an investor and where the infrastructure acts as booster for future development

<sup>12</sup>  
Source: Urhahn & Bobić – *Strategie voor stedelijkheid*.

<sup>13</sup>  
See the reports of the municipality (Gemeente Rotterdam) and VHP for detailed descriptions.

<sup>14</sup>  
Faculty of Architecture, Drewe, P. (1998) in 'Stedelijke Transformaties'.

<sup>15</sup>  
Gemeente Amsterdam (1998) – *Masterplan Amsterdam Zuidas*.

<sup>16</sup>  
The version of the municipality = *Masterplan Rotterdam Central (MRC)*, handled later in the thesis.

<sup>17</sup>  
Bertolini & Spit – *Cities on Rails*, p. 123.

<sup>18</sup>  
Described by Crimson (1997) in 'Re-Urb'.

<sup>19</sup>  
Recapitulation of 'De facilitaire stad', p. 192, Wigmans, G. (1998).

<sup>20</sup>  
See 'Cities on Rails', p. 124-125.

of the site. That is the main reason, why the municipality chose Ben van Berkel's version of the bridge out of a number of functionally equal proposals, despite the 30 million EUR higher costs compared to the proposal from the municipality's department for public projects. It proved that this choice was a correct decision, as this project truly presents an image building function and points out (to the other actors in the venture), that the municipality sustains the desirable high level of ambition.<sup>19</sup>

In conclusion, the implementation of a park in the heart of Rotterdam requires the same approach used for the prior described projects, because of the level of ambition, the project's scale and dimensions, the integral development and the urban context of the MCR. The park will act as the booster for the realisation of the MCR and thus requires an investment in the public projects from the government and the municipality. Financial cutbacks on such a major investment should be prevented at any time, as with the changes and insecurities the public space has proved to be the most constant factor in time. The essence of the (economic) *feasibility and sustainability* of the park, indissoluble resides in the rims of this major downtown public realm: the urban program and its phasing – the stages of development. In order to prevent the loss of sustainability and maintenance of the park and to preserve the quality of the public spaces throughout the very long development period, two extra instruments can be used to finance them: a 'quality' and a 'green' fund, fed by special development fees.<sup>19</sup> Tactics used for the 'Vondelpark' (Amsterdam) and Central Park (New York) are subject to the MCR. Like in Central Park, the functions and sites, which directly profit from the quality of this public entity – the rims – are (financially) responsible for the sustainability and maintenance of the park itself. Synchronization of the development of the park and the phasing of the urban program is the next step, when similar tactics are going to be used from the initial phase.

The strategy for redevelopment of the downtown railway yard of Rotterdam consists of four elements, which are intertwined with each other:

- I      Program**
- II     Park**
- III    Phasing**
- IV    Launching Customer**

#### **I Program**

If there is a single common denominator that characterized Dutch port cities in a spatial sense, it was the direct combination of port infrastructure and urban public space. The most important harbour quays were also a city's most important public areas, which accommodated a concentration of vital urban functions and the homes of prominent merchant families. This combination of functional and representative qualities was found in many port cities, but nowhere it was developed more extensively and consistently than in Dutch seaports, where Rotterdam was perhaps the most extreme example of this tradition.

A fervent belief in progress and, consequently, an excessively single minded focus on the growth of the port crushed to centre of Rotterdam. The construction of a railway through its heart and the rigid preoccupation with the further extension of the port transformed the image of the city into that of an ugly city where everything was at the disposal of docks and gross register tons and where appearance was no longer relevant. In the course of the nineteenth and twentieth centuries, the physical relationship between city and port has been confronted with an ongoing process of alienation and an enormous increase in scale.

The German bombs in the beginning of World War II erased this history and allowed the city to start with a 'tabula rasa'. However, the reconstruction, again, took more or less the direction of incorporating the port into the design of the city.

Only in times of economic adversity did Rotterdam suddenly realize that there might be something else besides the enervating but one-track dynamism of its port. Now, with another large-scale urban renewal in the heart of the city, Rotterdam cannot longer hide behind the epithet 'the largest port in the world'. An implementation of merely more office space in the city is useless, because it cannot compete with the appeal of Amsterdam. However, Rotterdam can anticipate on the shortcomings of the Dutch capital. The physical cityscape of downtown Amsterdam is fully protected – by now more or less an outdoor museum – and therefore cannot absorb future major (international) urban programs; Companies are forced to settle in suburban locations; The costs of office space in Amsterdam are the highest in the country; From a global perspective Amsterdam is the main entrance to the Netherlands, but from an European perspective Rotterdam takes over this role, because of the use of the HST network.

The next paragraphs show, that the most logical point of contact for further progress of downtown Rotterdam can be found in the direction of media.

### Media in Europe

In 1989 the European television satellite Olympus is launched with an Ariane rocket. This event caused a transition in the audiovisual sector from a situation where every reception of television broadcasts is controlled from the land, to a situation where reception of broadcasts is possible, live from out of space. The competition between different audiovisual media becomes more violent. The technological developments also caused an increasing globalization of financing, of production and of the public. The fact, that more and more Europeans are able to receive broadcasts from other countries without any obstructions, live or

recorded, drastically changes the rules for the professional production and broadcast sector, just as for the advertisement sector. We don't work to cover a national public of 50 million people, but we work to cover 100, 200, or 300 million potential viewers, who live in different countries and speak different languages. Satellites for live broadcasting create a huge European market for television. It is estimated that at the end of the nineties, as a result of the increasing number of the available channels (satellites and cable networks), the total European demand of programs will be around 125 000 hours a year. Opposite to this demand, the European production capacity, television and cinema together, are less than 20 000 hours a year. The United States possesses between 13% and 30% broadcasting time of the European market, with 40% coverage in the cinema department. This is due to the favourable price/quality ratio: 1 hour of broadcasting time from the United States costs EUR 40 000; production of a similar broadcast in Europe adds up to EUR 400 000 – ten times more. Productions costs of American programs are in general already financed before they are offered on the world market, because the home front possesses a potential market of more than 200 million viewers. The growing influence of American co-financers of movies sets a new trend in Europe to produce English-language movies.

On a cultural level the European countries can be proud on their movie industry. The economic part is less appealing: 80% of the movies produced in Europe are not even broadcasted outside the country of origin. It is obvious that the movie industry in the countries of the European Union (EU) suffer from major financing problems. This industry turns its head to grants and government funding in order to survive. The audiovisual sector tends to be more an European case, but it cannot, from itself, face the upcoming challenges spontaneously and on a desired moment in a satisfactory way.<sup>21</sup> To achieve this international

<sup>21</sup>  
*A recapitulation of 'The audio-visual media in the single European market'* (1988).

assignment, large-scale impulses are needed.

Up till today surprisingly few countries have anticipated on these major developments. The recent developments in this area can only be found in Germany and (in a still uncertain stage) in the United Kingdom. The new media park<sup>22</sup> in Cologne covers about 20 ha of ground area.

Figure 4.1 (left)

MediaPark Cologne

Figure 4.2 (right)

MediaCityPort Hamburg



The Canadian architect Eberhard Zeidler developed the masterplan situated on an old marshalling yard on the edge of the city core. More than 140 companies with approximately 3 000 employees from the media, culture and communication branch have settled in a green and watery décor. A multiplex cinema with 14 halls, a business hotel, catering industry and 250 dwellings form the total program of 460 000 square meters gross floor area. Already 60% of media is concentrated in the Nordrhein-Westfalen region (Cologne being a part of it), whereas in the heart of the city, one of Germany's largest media corporations, the Westdeutschen Rundfunk (WDR), has its main office. At the end of 2001 Hamburg<sup>23</sup> also presented one of its 8 maritime redevelopment areas, covering in total a ground area of 155 ha, as MediaCityPort with a

<sup>22</sup>  
Also in 'A Pattern Image' - Urhahn, G.B. & Bobić, M.

<sup>23</sup>  
Opposite to Cologne, Hamburg has more press related media in the region (Der Spiegel, Die Zeit).

<sup>24</sup>  
<http://www.bbc.co.uk/info/news/news361.htm>

media based urban program of 55 000 square meters gross floor area, acting as the 'Launching Customer' designed by the Dutch Benthem & Crouwel.



Parallel to the last German media injection, the British Broadcasting Corporation (BBC) announced a plan to redevelop the BBC Broadcasting House in London as the world's largest live broadcast centre<sup>24</sup> providing facilities for approximately 5 000 staff. Completion in 2007 should be feasible despite the lack of funding of the project at this moment. Other EU countries should be well aware of the fact that a quick response to the demand of media is necessary in order to benefit from it, because within the EU there is only room for a few leading authorities.

The position of Rotterdam in the European context as a new mediaport is quite favourable, as the city already has close connections with Cologne, which is Rotterdam's partner-city, because of shipping activities. Research of the possibility of connecting Rotterdam to the international ICT network with sea cables has recently commenced. With the great demand of connectivity of the media industry such a development can be executed (Fig. 4.3), putting Rotterdam in the heart of the new West European Media network.

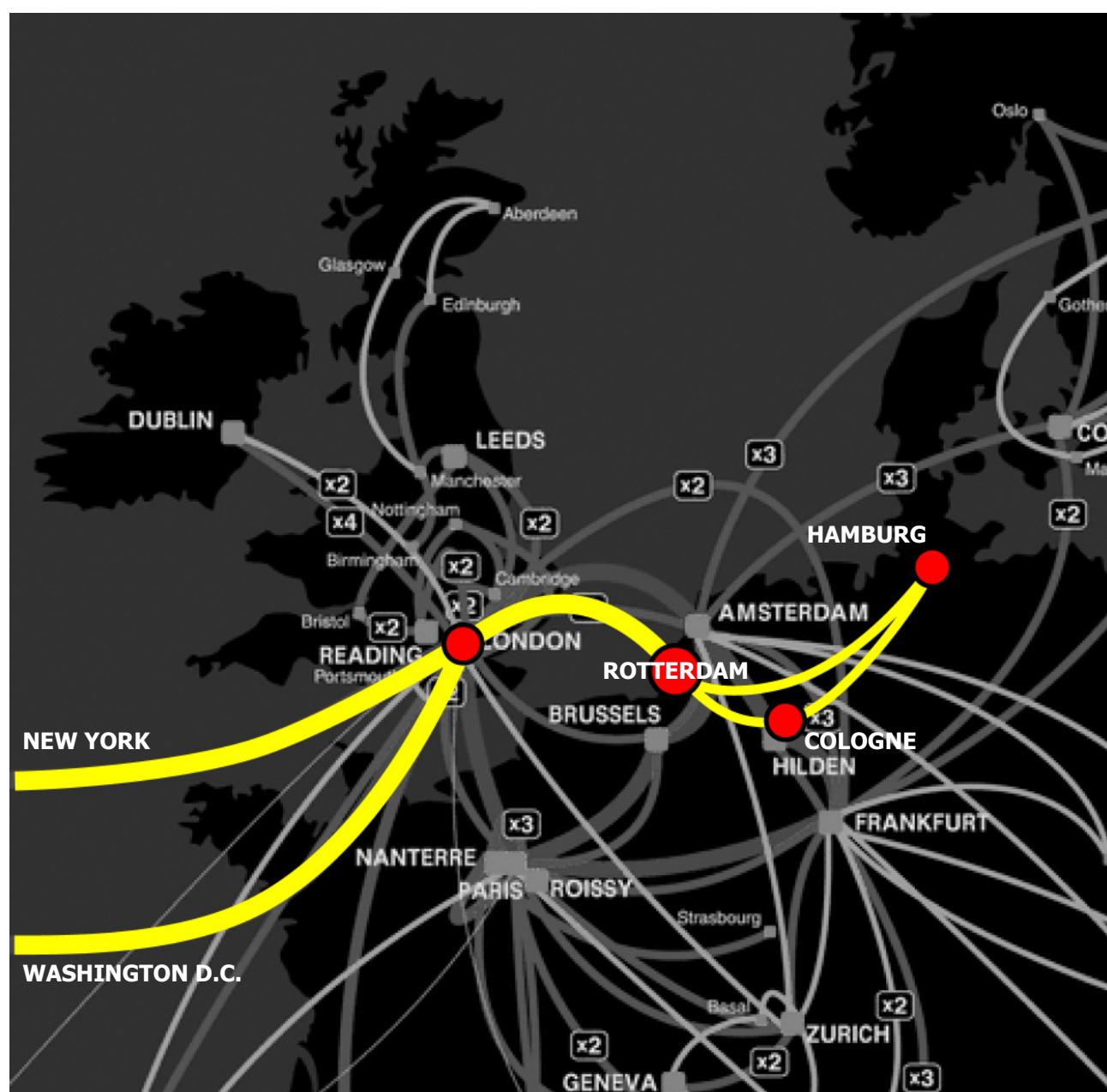


Figure 4.3

New developments since the launch of the European television satellite Olympus in 1989:

BBC House London, MediaPort Rotterdam, MediaPark Cologne and MediaCityPort Hamburg and their new ICT connections.

<sup>25</sup>

*The book 'Mediamarkt in Nederland & Vlaanderen' – edition 2001, devides the term media into books, newspapers and magazines, film and video, libraries, electronic media, soundcarriers and finally advertising. Due to the functional weight of the audio-visual aspect of media within the borders of this thesis, the other segments are not handled.*

<sup>26</sup>

*According to 'Statistics Netherlands' (CBS).*

<sup>27</sup>

*Source: 'Mediamarkt in Nederland & Vlaanderen' – edition 2001.*

<sup>28</sup>

*example: atomfilms.shockwave.com/af/home/*

<sup>29</sup>

*See Multinodal Urban Structures, p. 200, Chapter 9: Conclusions, – Jacobs, M. (2000).*

## Dutch Media<sup>25</sup>

The last few years 98% of the Dutch population owns a television. The personal computer appears and from 1995 on the number of households with a PC increases with 4% each year and in the year 1998 more than 55% of the households are equipped with this multimedia device. The ownership of a game console stays at an average of 13%. Possession of a stereo is around 85%. The property of video recorders and camcorders increases from 1995 with 2% a year.<sup>26</sup> The (r)evolution of the fast development of the DVD-video and its introduction in 1999 on the European market abruptly caused a stagnation, according to experts. They state that cinema lovers will choose the DVD. In the Netherlands however, it is also plausible that this stagnation is the result of the minimal building activity in this sector; new multiplex cinemas prove to be essential for attracting new audience. The audience demand comfort, diversity in combination with a perfect performance, where the entertainment value is an important factor. Constant upgrading of a site and the use of the newest equipment leads to a constant stream of visitors. The Dutch cinema sector has a lot on the agenda these last years, but for the time being, only two multiplex cinemas in the Amsterdam region are in order.

The number of companies for distribution of (video)films as well as the showing of movies remain at a constant level. The daily leisure time spend by Dutch people on television, radio, compact discs, cassettes and the like, is approximately 2 hours and is unlikely to change. Although this is an omen for a saturated market, nothing is less true. Since 1997 there is a visible trend showing a yearly increase of 10% of jobs of employees in the media sector. This increase is most likely caused by the enormous growth of advertising expenditure trough audio-visual media. This trend, which will not likely stagnate the coming

years, means that in 2002, in the Netherlands alone, more than 1 500 extra media related jobs have to be accommodated.<sup>27</sup>

Since 2000 half of the Dutch population has internet access and the prediction is that in the year 2003 more than 70% will be online. Internet eventually will be as normal as television and telephone. The internet hype is passé. Nevertheless, the progressions in the area of ICT and internet will have more influence on the audio-visual industry. It is strongly possible that the short movie, disappeared from the cinema and never a favourite of television, can have a resurrection through the internet.<sup>28</sup> Short movies are especially good practice terrain for upcoming filmmakers and they are at the same time their visiting card. At present, there are strong indications, that besides physical accessibility, the regional network for information technology could also play an important role in location decisions for enterprises.<sup>29</sup> In the South Wing of the Randstad, KPN has its major interconnectivity points in The Hague as well in Rotterdam. It is safe to state, that (domestic) companies and organisations with affiliation of the IT-sector and the media sector will have their (re)accommodation in these cities and not, as most people would think, in Amsterdam, despite its strong position in the international ICT-network. The fact is that Amsterdam is still remaining in a less favourable position compared to Rotterdam concerning the *domestic* Dutch ICT-network.



### MediaPorT Rotterdam

The linkage between cinema and the city with the world's biggest port is, fortunately enough, not new. Rotterdam is the host of the yearly International Film Festival Rotterdam (IFFR). After 30 years, this event has grown into the world's second largest event of its kind. This international renowned event tracks more and more attention from the media, like other big events, such as, the Rotterdam marathon, FFWD Danceparade, the Solero Zomercarnaval and many more. The city itself continues to be a regularly used décor for commercials, television programs and movies. The 1997 MTV Europe Music Awards were held, not in Amsterdam, but in Rotterdam at 'Ahoy', which is also the place of the TMF Music Awards. The main scenery of Jackie Chan's movie 'Who am I', was again Rotterdam. Numerous international productions were completed and many new ones arrived in this filmic city.

The massive journey of filmmakers to this Dutch city at the Maas didn't arise spontaneously. As though Rotterdam also noticed the potential of the launch of the Olympus satellite, the city set up the Rotterdam Film Fund (RFF) in 1995. This Fund invests about EUR 1.8 million in filmmakers, with the obligation that they spend the money in Rotterdam. This EUR 1.8 million funding is yearly raised in phases up till about EUR 3.6 million a year. The RFF helps filmmakers from financing (interest-free loans) to post-production and assists free of charge with locations, facilities, local crew and permits.<sup>30</sup> Almost every Dutch film being produced right now, has shoots or even whole productions planned in Rotterdam and its region. More and more audio-visual oriented companies are moving and have already moved to the city at the Maas. Since 1996 the film and audio-visual sector has been one of the spearheads of the socio-economic policy of the municipality of Rotterdam. Anyone wishing to film something here, be it a feature film, a commercial, or a documentary, can count on openhearted cooperation in his search for locations and space and his requests for permits and financing. The Lloydkwartier<sup>31</sup> is the municipality's first input for a new ICT and AV centre. The biggest all-Dutch television production company Blue Horse Games & Formats already settled in that area with its studios. Only, when taking in account the importance it can have on the European scale, this small-scale injection is still not sufficient. Therefore new ways should be found to maintain and strengthen Rotterdam's position in this sector.

Before Y2K plans started to create an international centre for Imageculture and Mediatechnology in the Las Palmas building at the Kop van Zuid with financial support of the Dutch Government. A fusion of the Netherlands Photo Institute (NFI), the Netherlands Photo restauration Atelier (NFrA), the Netherlands Photo Archive (NFA), the centre for new media V2 and the Amsterdam based Filmmuseum would form the Visual Images Institute of about EUR 36 million. At the

**Figure 4.4**

*Recognition is always a key element, hence the abstraction of the MTV logo.*

<sup>30</sup>  
See: [www.rff.rotterdam.nl/](http://www.rff.rotterdam.nl/)

<sup>31</sup>  
See: [www.lloydkwartier.nl/](http://www.lloydkwartier.nl/)

<sup>32</sup>  
Volkskrant, Sep 17<sup>th</sup> 2001/V3.

<sup>33</sup>  
Rotterdamse Courant, Jun 29<sup>th</sup> 2000.

<sup>34</sup>  
Gemeente Rotterdam - Ruimtelijk Plan Rotterdam 2010.

<sup>35</sup>  
Reserved for the cancelled Visual Image Institute.

<sup>36</sup>  
See: [www.mojo.nl](http://www.mojo.nl)

<sup>37</sup>  
The new graphic-media cluster of Rotterdam, see: [www.ontwerpfabriek.nl](http://www.ontwerpfabriek.nl)

<sup>38</sup>  
Quote of an employee of Endemol Entertainment Holding NV.

end of 2001 the project was cancelled due to struggles within the Board of Directors.<sup>32</sup>

Rotterdam also waits for a moment to swallow up the only post-academic film education in the Netherlands.<sup>33</sup> The in 1995 founded Maurits Binger Institute is an academy for everyone in the film business. Camera people and scriptwriters as well as producers can sharpen their skills. Renowned national and international movienames like Ken Loach, Rutger Hauer, George Sluizer and Jeroen Krabbé have been tutors at the institute. Financial difficulties are eminent for this institute as the rent in their downtown Amsterdam office will be doubled by the owner. Furthermore the institute has to cope with lack of space in its current settlement. A golden opportunity for Rotterdam, except for the fact that the municipality want to house the Binger Institute at the Las Palmas building and that it is functionally linked to the Filmmuseum in Amsterdam. Despite its great location and ambiance, it is not a sufficient location to house such a high-profile media institute. Representation is a major factor for the success of establishments of this sort. When we really learn from, Cologne, Hamburg and London, the ideal setting for the Rotterdam urban program will be the central station area. The new downtown park of Rotterdam can be the latest representative MediaPark of Europe. Of course, this thematic urban program of media, should be combined with the high demand of downtown living accommodations<sup>34</sup> and functions of local demand: a mixed-use urban program. The quantitative and qualitative program of the MCR is comparable to the program used for the mediapark in Cologne.

#### *Review of starting points for media in Rotterdam*

- International Film Festival Rotterdam (IFFR)
- Rotterdam Film Fund (RFF)
- Extended cooperation TV West and TV Rijnmond

- Blue Horse Games & Formats
- Possible relocation of Maurits Binger Film Institute
- Netherlands Photo Institute (NFI)
- Netherlands Photo Archive (NFA)
- Netherlands Photo restauration Atelier (NFrA)
- V2, centre for new media
- Digital collection and databases of the Filmmuseum<sup>35</sup>
- Possible revival of the Visual Image Institute

Naturally there are more starting points present, but the above ones prove to be the most recent and most important. The latest development in this area is that of a new type of festival ground for the company Mojo<sup>36</sup>. This company is currently searching – together with the Government – for a suitable location in the Netherlands. This is a great opportunity for Rotterdam to incorporate this media development with the new MediaPark.

Together with Ahoy, the Feyenoord stadium, the new Luxor theatre, the Lloydkwartier, the 'Van Nelle Fabriek'<sup>37</sup> and the polder of Zestienhoven acting as a reserve for extra national recording capacity and space for distribution satellite dishes, the MCR can *upgrade* Rotterdam to a true *MediaPort of Europe* (See Fig. 4.5, page 24).

Prior to Rotterdam's lust for absorbing media related establishments, the major media centre is just outside the small city Hilversum. This main media clusters suffers from lack of recording capacity and companies are forced to seek housing else were. The only reason that the media core of today in the Netherlands originated in Hilversum is, that it is the first place from the coast that would still be dry when the country would be flooded by the sea. The only argument for companies in the media business to settle or stay in that region is '...because everybody sits there'.<sup>38</sup> It is clear that this is not a fact anymore.

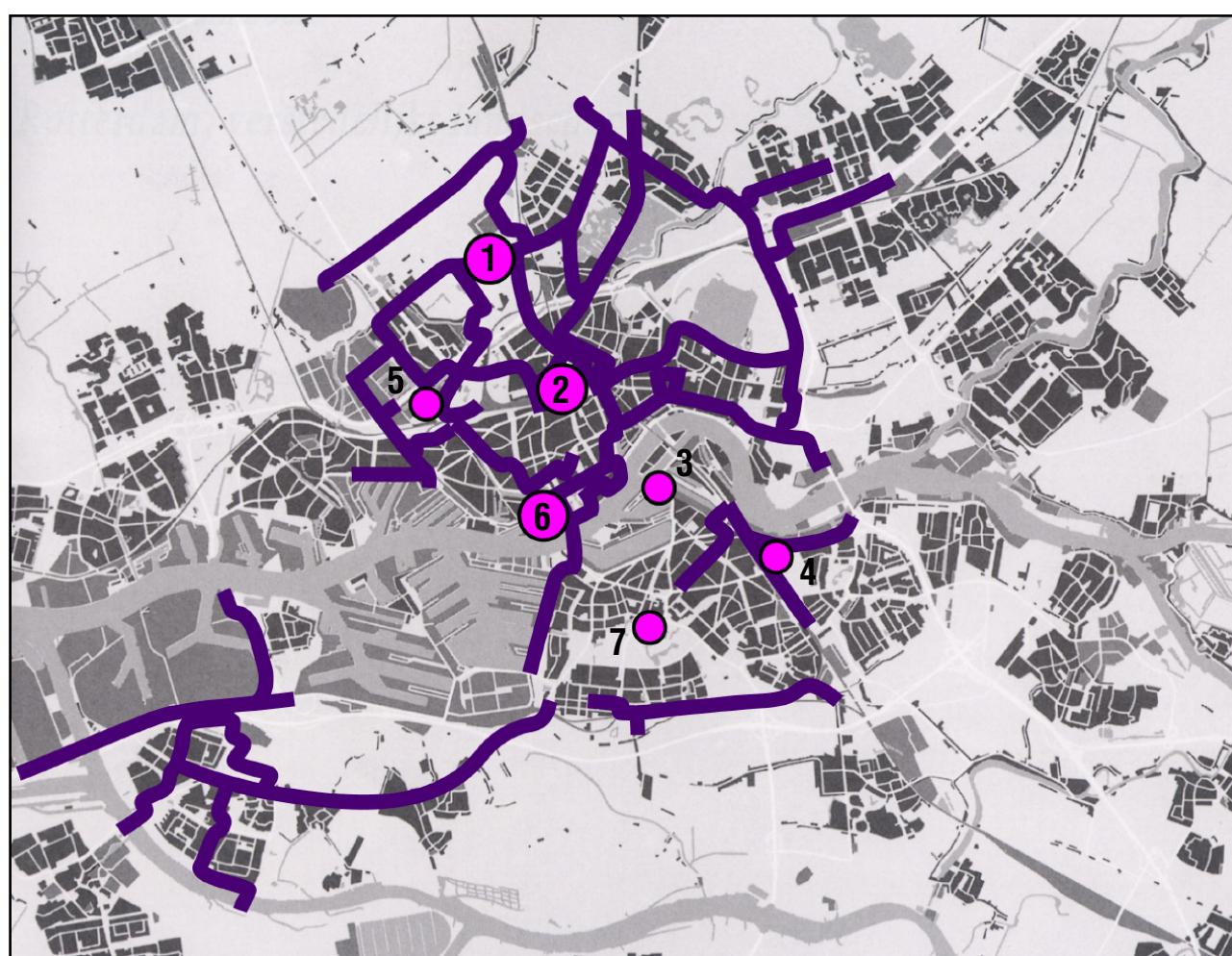


Figure 4.5

MediaPorT Rotterdam with its major points of activity;

- 1 - Polder Zestienhoven
- 2 - MediaParK Rotterdam
- 3 - Luxor Theatre
- 4 - Feyenoord Stadium (De Kuip)
- 5 - Van Nelle Fabriek
- 6 - Lloydkwartier
- 7 - Ahoy

**Figure 4.6**

The MediaPark version of the MTV logo.

*Review of other major audio-visual media (still) outside Rotterdam*

- Maurits Binger Film Institute	Amsterdam
- Netherlands Filmmuseum	Amsterdam
- Large recording studios	Hilversum
- Networks	Hilversum
- Netherlands Audio-visual Archive (NAA)	Hilversum
- Endemol and other television producers	Hilversum
- Large recording studios	Aalsmeer
- Showbizz City	Aalsmeer

However, it is not at all necessary to absorb all present media activity in order to be successful. After all, together the cities still form the Deltametropolis. Rotterdam has merely the most optimal setting for housing future media activity. Eventual expansion or relocation of media 'heavyweights' like Endemol Entertainment Holding<sup>39</sup>, the RTL Group<sup>40</sup> or IMG<sup>41</sup> in the Netherlands can be at its best in Rotterdam: anticipating on future developments in the media sector during the realisation of the masterplan for the MediaPark, will be the most important task for Rotterdam.

<sup>39</sup>  
[www.endemol.nl/](http://www.endemol.nl/)

<sup>40</sup>  
[www.rtlgroup.com/](http://www.rtlgroup.com/)

<sup>41</sup>  
[www.imgworld.com/](http://www.imgworld.com/)



### **II Park**

The interconnectivity between the development of the park and the phasing of the urban program from the initial phase, results in the obsolescence and nonsense to design a detailed park in this particular phase.

'At this stage it would be nonsense to design a detailed park. We have read the program as a suggestion, a provisional enumeration of desirable ingredients. It is not definitive: it is safe to predict that during the life of the park, the program will undergo constant change and adjustment. The more the park works, the more it will be in a perpetual state of revision. Its "design" should therefore be the proposal of a method that combines architectural specificity with programmatic indeterminacy.

In other words, we see this scheme not simply as a design but mostly as a tactical proposal to derive maximum benefit from the implementation on the site

of a number of activities – the use of nature among them – in the most efficient and explosive manner, while at the same time offering a (relatively) stable aesthetic experience.

The underlying principle of programmatic indeterminacy as a basis of the formal concept allows any shift, modification, replacement, or substitution to occur without damaging the initial hypothesis.<sup>42</sup>

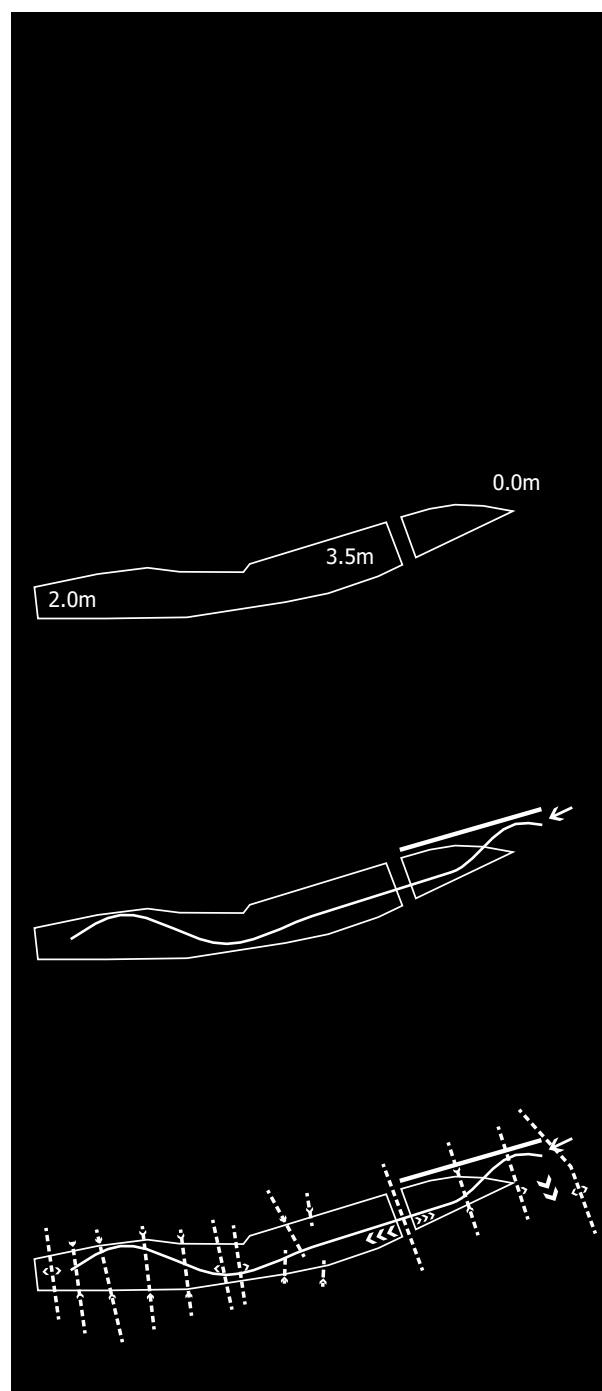
The essence of this downtown park for Rotterdam therefore becomes – just like Koolhaas' proposal for the Parc de la Villette – 'how to orchestrate on a metropolitan field the most dynamic coexistence of activities x, y and z and to generate through their mutual interference a chain reaction of new, unprecedented events; or, how to design a social condenser, based on horizontal congestion, the size of a park.'<sup>43</sup> To do this the following projections are proposed that, superimposed on the railway-yard, constitute the park:

### 1. Residue

The public transportation infrastructure lies beneath ground level. As stated earlier, the slope is no longer necessary for the use of trains. This residue forms the cornerstone of the park; the elevated park. The overall height of the slope is about 3.5 meters and at the west end the height is about 2.0 meters (Fig. 4.7).

### 2. Boulevard

This long line connects the Trainport and the new Blijdorp Square. The dimensions and materialisation of the whole boulevard have to provide the possibility for several events to parade through the park. From the main entrance of the park a smaller alternative route is provided to walk to the 'Culture-axis': the most important north-south route through the park. This aorta of the park gives access to the elements in and around the park (Fig. 4.8).



<sup>42</sup>  
Koolhaas, R. (1995), competition proposal for Parc de la Villette in 'S, M, L, XL'.

<sup>43</sup>  
Idem note 42.

Figure 4.7  
Residue

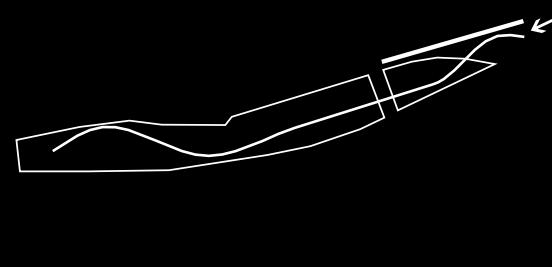


Figure 4.8  
Boulevard

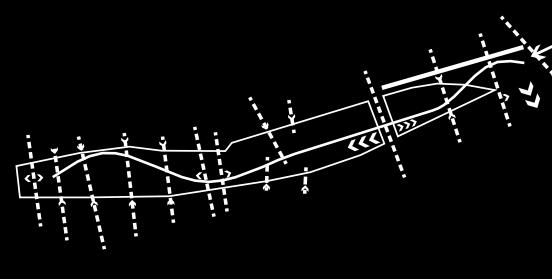


Figure 4.9  
Acces, circulation and elevation points

Figure 4.10

Points

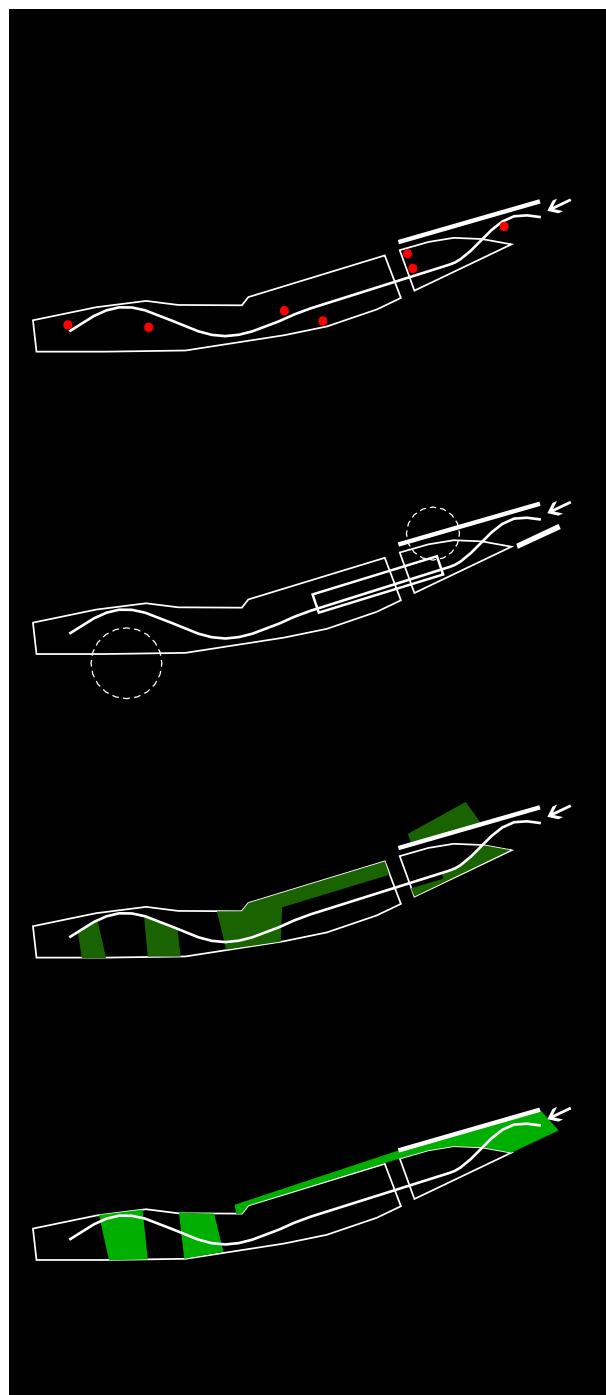


Figure 4.11

Major elements

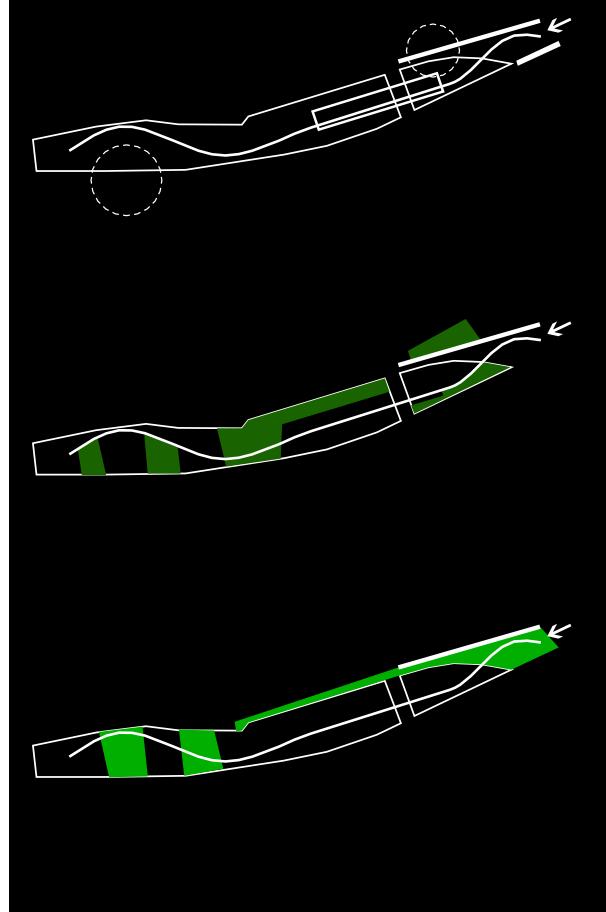


Figure 4.12

Closed space

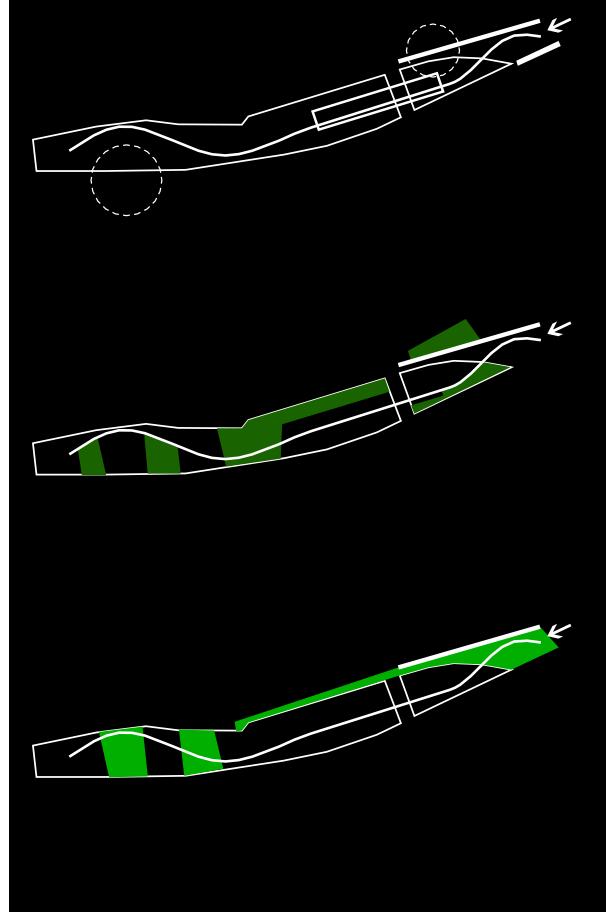


Figure 4.13

Open space

### 3. Access, circulation and elevation points

Together with the boulevard and the promenade the elevation points form the circulation of the park. Each elevation point – giving access to the elevated park – has to be designed with the architectonic content that copes with the difference in height between the slope and the ground level (Fig. 4.9).

### 4. Dots

The distribution of different dots across the park area derives from the interconnections different lines make in the city fabric. These small scale elements mainly exist of pavilions, buildings for park maintenance, metrostations, cafés or restaurants (or a combination). On the scale of the park, these dots function as orientation point and meeting points (Fig. 4.10).

### 5. Major elements

This layer is a composition of residual and added elements, which reside outside the scale of all the other elements of the park. According to the spatial-functional zoning of functions the park also is divided in a recreational, a cultural and a centre zone. The functions of these major elements are related to the spatial-functional zoning of the areas (4.11).

### 6. Closed space

The dimensions of the closed space is derived from the combination of the spatial structure of the city, the circulation system of the park and the positions of the major elements. These blocks or screens of trees give an illusion of difference in landscape and difference in depth without deciding the eventual detailed typological content (Fig. 4.12).

### 7. Open space

As a reaction to the closed space and for the prevention of 'clogging' of the slope open areas are introduced for leisure, like sports, sunbathing, picnicks or barbeques; activities which require open space (Fig. 4.13).

## 8. Completion and maintenance

By the time the park is completed, its 'mass' is already integrated with the city. Due to the fact, that the functions on the rim are financially responsible for the maintenance of the neighbouring park space, they also can alter the typological content of these spaces to their own taste (*Addendum 1*).

This scheme cannot be seen simply as a design, but a tactical approach in order to maximize the potential this area has to offer, indifferent to the changes, adjustments, replacement or shifting of desirable structures in the process.

This overall strategy can in general, with a few situational adjustments, be implemented in every city fabric. The Rotterdam situation, however, has to be linked with a certain urban program, which is the main factor for realisation of the masterplan. The content of the functional program, together with the capacity of gross floor area in the lots surrounding the park, are to be studies in order to decide the outlook of the 'Launching Customer'.

## III Phasing

Phasing is an essential condition for realisation of the total project. The execution of the masterplan will use a time span of at least 20 years. This factor exposes an important time-related aspect of architecture. In the Netherlands, about every 5 years the ruling architectural environment or the 'architecture fashion' changes completely.<sup>44</sup> Projecting this on the development of the masterplan can turn out to be spatial disaster for the adjacent urban fabric, because the phasing is then, not yet related to the north-south connections of the area – which is essential for a good integration of the area into the city. The combination of these factors results in *sectional phasing*. In this case, it is a phasing perpendicular to the direction of the slope in order to resolve the functional and spatial scar it made over the years (Fig. 4.14). The architectural coherence in the north-south direction gets a more desirable effect. Another advantage of this *sectional phasing* is that sections of the park can be attached economically – in an orderly fashion – to the adjacent areas to fund maintenance after completion.

<sup>44</sup>

According to Donald Lambert,  
Kraaijvanger Urbis - Rotterdam.

### Phase 1: spin-off

New building activities with long time-spans in the heart of the city always encounter opposition, especially in Rotterdam, because of the annoyance they produce. To soothe the general public, the first phase of development therefore must contain the first 3 projections that constitute the park, prior described in 'Il Park'.

The most optimal manner to interweave the use of the park with the city fabric is to profit from the functions that make use of this city fabric on a regular basis. Typical to Rotterdam is the great amount of local, regional, national and even international events and

<sup>45</sup>  
Final thesis of Farley Virginia.

<sup>46</sup>  
This is an indication, derived from an analysis of the Zuidas masterplan.

<sup>47</sup>  
Described in Re-Urb, p. 209. - Crimson.

festivals occurring each year (*Addendum 2*). Almost every month Rotterdam has a major event in the city. Unlike Amsterdam, Rotterdam still cannot provide and produce an adequate main location for 'Koninginnedag' and the 5<sup>th</sup> of May celebration.

Again, this park can provide the space for these important Dutch events. By applying several of these events to the park from the start of the development, the general public will be physically introduced to the potential of the park in a very early stage, which can lead to a faster appreciation and acceptance of the long development period.

The lots at the end of the slope, at the Blijdorp Square, mark the end of the MediaParK and are a spin-off for the long-term development in the west direction<sup>45</sup> of the city. The other end of the MediaParK is next to the Trainport, where the lots are automatically developed right after or at the same time as the Trainport. The spin-off begins with the old location of the central station, acting as the 'Launching Customer' of the MediaParK Rotterdam.

Most of the northern lots and some southern lots are existing buildings, however also a part of the masterplan, because of their new context. During all the phases these existing lots can be restored or renovated, where needed and desired. It will also be possible to demolish in order to redevelop them, when funding is at hand. The lot itself and not its (functional) content, is essential. By applying this method, each step of development can be fine-tuned to the very uncertain economic process of the city.

#### *Next phases: Phasing model*

The next phases of development (Fig. 4.14) – all divided in perpendicular sections – are to be developed in the same manner as the primary phase. Like in urban

plans of similar size, directives with regard to the content of the lots should only be a mixed-use program with 10-25% *non-office* functions.

The Dutch situation implies a yearly production of 30 000 square meters<sup>46</sup> of (office)space for Rotterdam. However, due to the fact that Rotterdam will anticipate on an extra demand of (office)space from the (European) media sector, it should be possible to increase that reserve.

All the lots are subject to a scenario that makes a number of varieties possible. At the start of each phase the specific directives of each lot are laid down, which are in general, imageless. The architectonic outcome is of no essence anymore, unlike in most urban designs. These designs face the uncertain future with plans, perspectives and other drafted documents, in a very subjective and suggestive way. Applying this imageless urbanism<sup>47</sup> to each lot, makes the Masterplan Central Rotterdam objective and thus, more resistant to the uncertainties each urban design encounters.

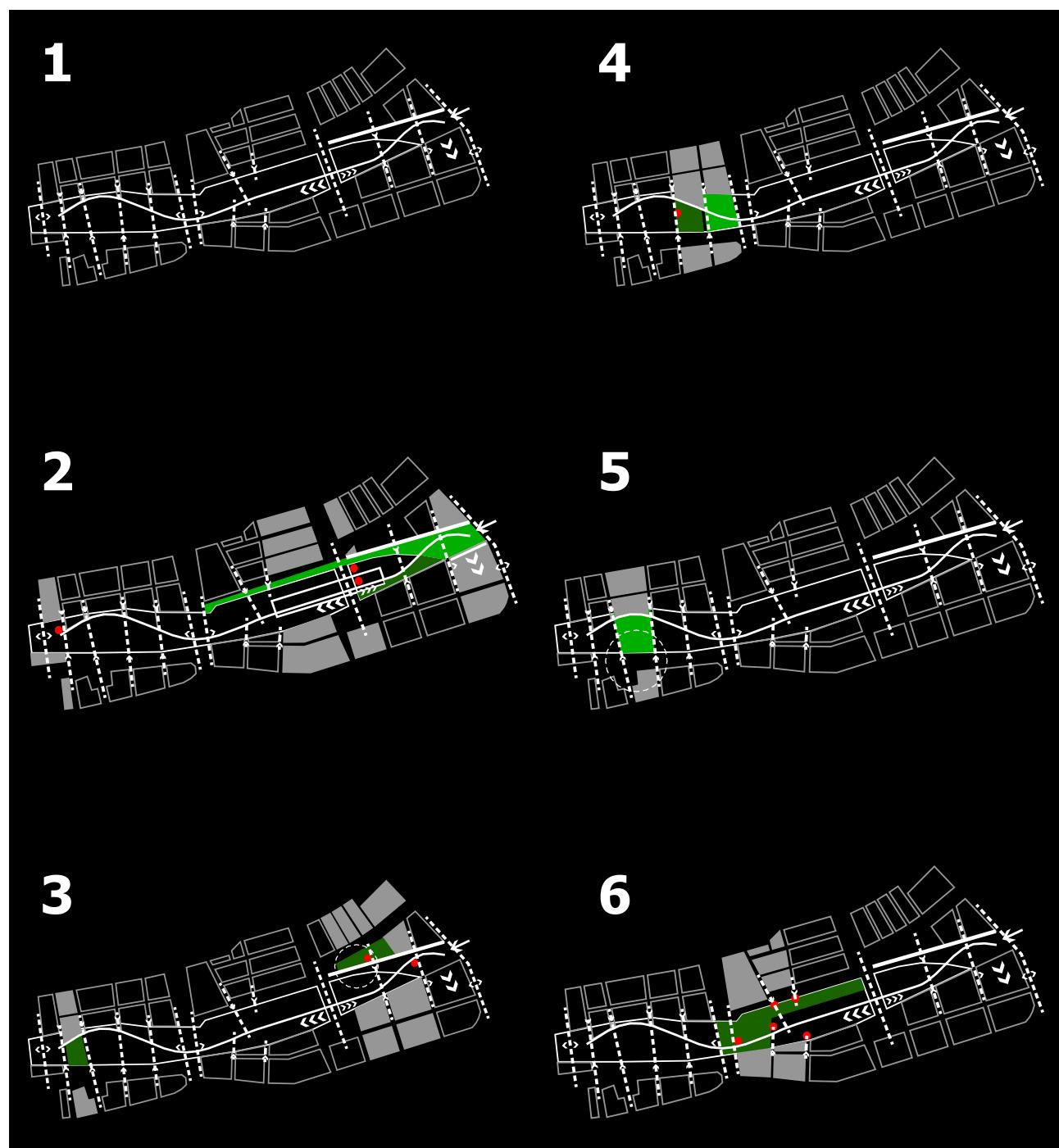


Figure 4.14

Phasing model: an overall time-span of 20+ years.

1  
Start: Main structure of the park; an investment of the municipality.

2  
Initial Phase: Launching Customer  
min. 224 600 m<sup>2</sup> GFA  
approx. 6 years.

3  
min. 275 050 m<sup>2</sup> GFA  
approx. 8 years.

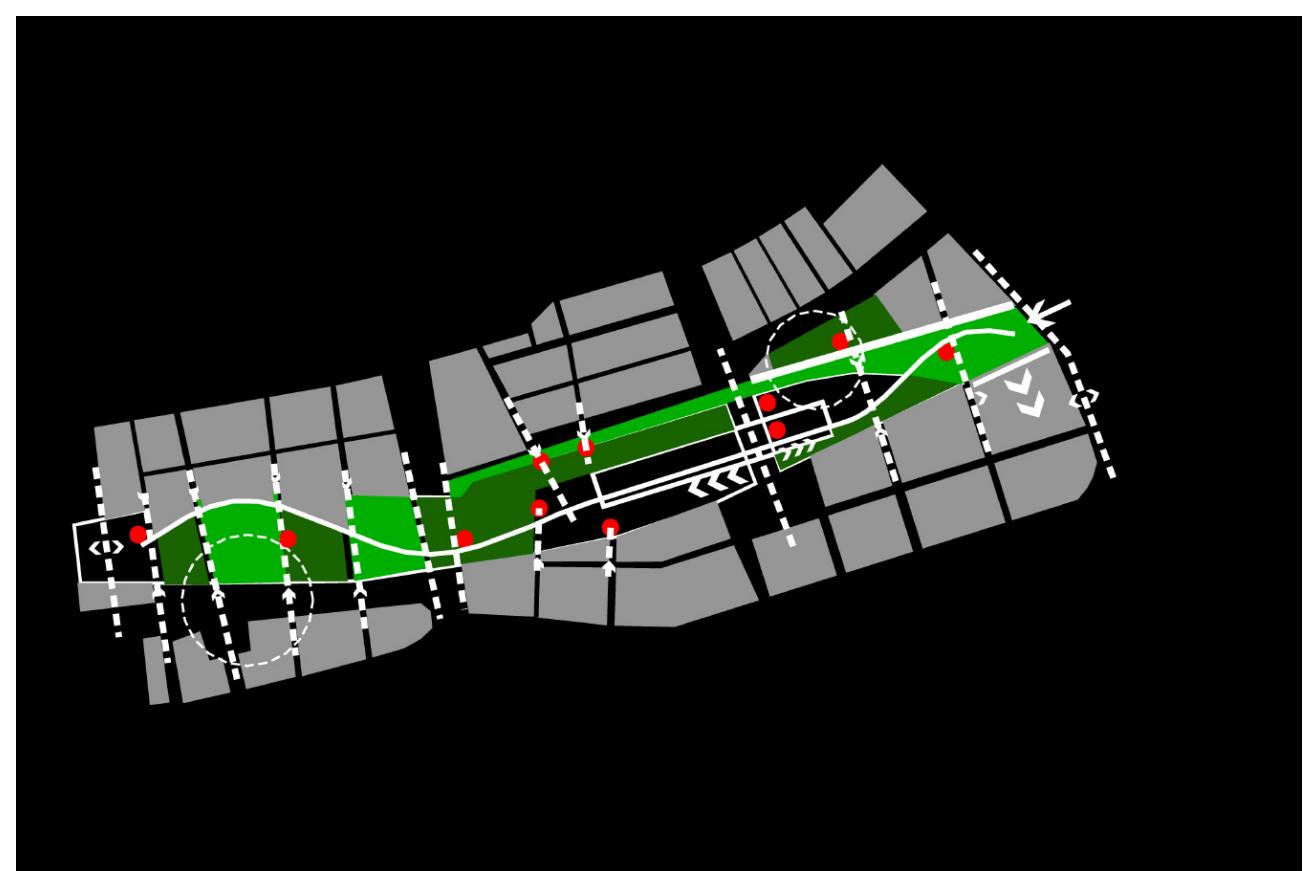
4  
min. 98 200 m<sup>2</sup> GFA  
approx. 3 years.

5  
min. 82 250 m<sup>2</sup> GFA  
approx. 3 years.

6  
min. 91 000 m<sup>2</sup> GFA  
approx. 4 years.  
Depending on the economic developments of the city, the lots in each phase can be either renovated or redeveloped.

Figure 4.15

Phasing model: Program and Park combined.





DELFTSELAAN WEST	83 000
DELFTSELAAN OOST	292 000
TERMINAL	35 000
HOFPLEINKWARTIER	231 000
 TOTAL	641 000 m <sup>2</sup> GFA



DELFTSELAAN WEST	91 000
DELFTSELAAN OOST	447 400
HOFPLEINKWARTIER	266 000
including TERMINAL	
BLIJDORP	201 050
MEDIAPARK	164 700
 TOTAL	1170 150 m <sup>2</sup> GFA

Figure 4.16 (left)

Masterplan Rotterdam Central (MRC)  
Alsop Architects

Figure 4.17 (right)

Masterplan Central Rotterdam (MCR)  
Victor Njo

#### Masterplan Rotterdam Central (MRC) vs. Masterplan Central Rotterdam (MCR)

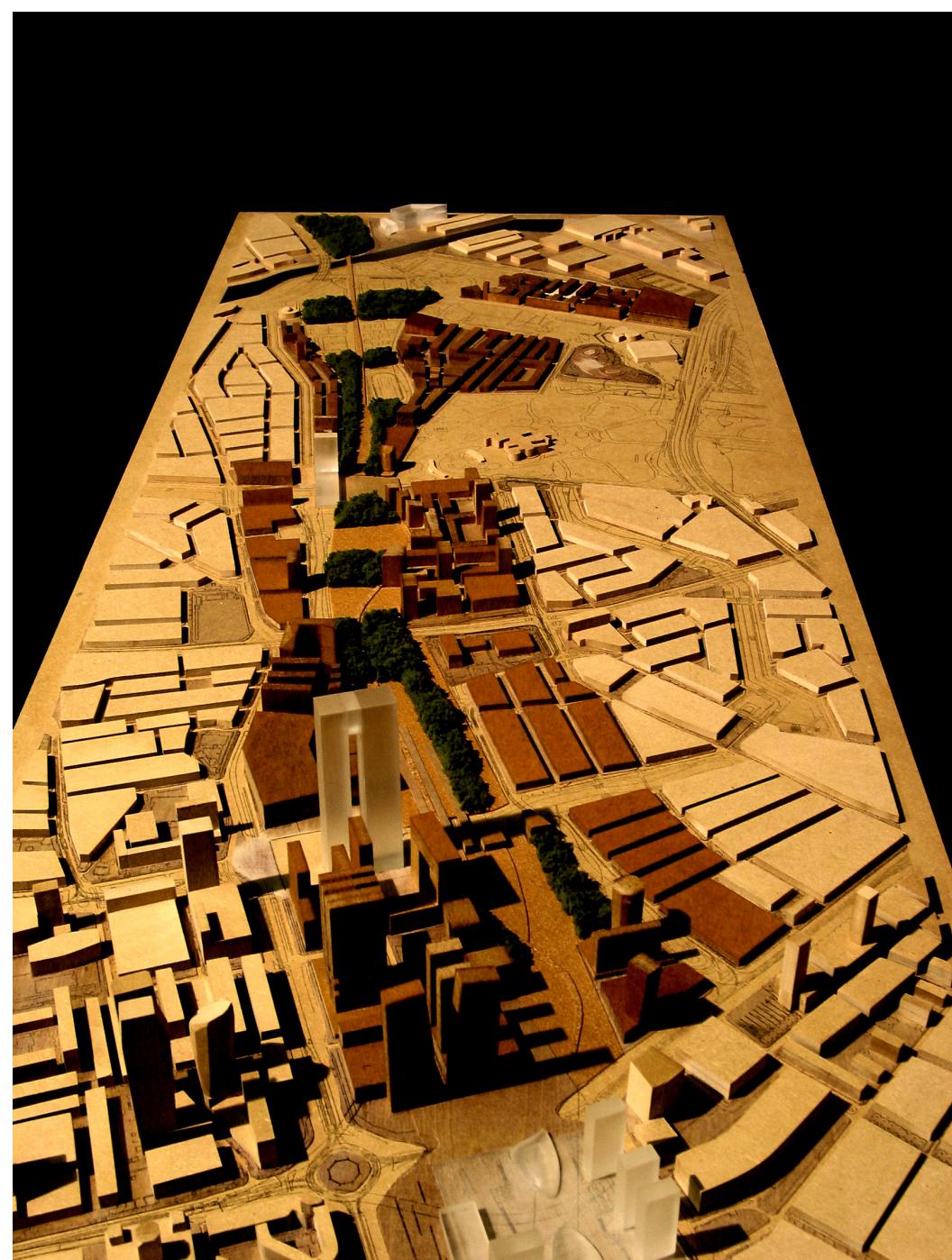
The Dutch decision making of the realisation of an urban project can be described in one sentence: 'Show me the money'. Due to this typical Dutch factor, which is a very unequal balance between economics and urban quality, many – qualitative better – plans are cancelled and the more economic ones are chosen. Merely because of the fact, that they yield more on a short-term basis. What long-term investments can generate is rarely taken into account.

Therefore, a *quantitative* comparison between the municipality's proposal (MRC, Fig. 4.16) and the MediaParK proposal (MCR, Fig. 4.17) exposes the total potential, advantages and disadvantages of this project. The real estate program of the MRC is used for this numeric analysis. Prior to the comparison, the

programmatic projections are to be levelled, because of the different locations of the central station in the proposals.

After synchronization of the numeric data, the programmatic capacity of the lots of the MCR should at least add up to the total real estate program of the MRC. Taking in account each existing neighbouring lot, the vicinity of public transport and the structure of the city centre, matching gross Floor Space Indexes (FSI)<sup>48</sup> are applied, which result in an optimal capacity of gross floor area (GFA). The end result shows, that besides a *qualitative* advantage, a *quantitative* advantage of the MediaParK is apparent. Where the MRC shows its maximum capacity, the MCR shows its *minimal* capacity making it a proposal with far more potential. Making the spin-off for the MediaParK more tangible will start with elaborating on the *Launching Customer*.

<sup>48</sup>  
The indications used are derived from 'Verdichtingspotenties stationsgebieden Ringlijn Amsterdam', p.8-23 – Westrik, J.



**Figure 4.18**

*Bird's eye view, masterplan variation.*



#### IV Launching Customer

The movement of media to Rotterdam is not highly remarkable, however the concentration of Dutch *international oriented* media is. International means representative and a representative centre for media has to be able to house the newest developments in that particular area. The programmatic content of the Launching Customer should then be in the same line as prior described. Kolpron Consultants conducted research in the area of media for the central station area of Rotterdam. The conclusions of the urban strategy, the demand from the municipality and some of the results of their research are used to formulate the program of the project.<sup>49</sup>

*Datahotel* – The DotCom invasion in the filmsector is a fact. Internet corporations who offer global information, sales, production of websites for movieproducers, sales agents or distributors overwhelm the market. Although the significance of their services for the

movie industry is not yet accepted by most producers and moviebrokers, eventually it will have a major share in the market. Digital storage of information is a must for these companies. Among other things this takes place in datahotels: the treasures of our generation.

*Discovery Channel Store* – A store based on a museumlike presentation of good. This concept makes use of shopertainment: a bit amusement park, a bit museum, but above all shop.

*Food Court* – The concept of a Food Court exists of a concentration of different restaurants and fastfood chains around a common terrace. For different visitors with different tastes it will be possible to consume different foods in the same area. This concept is largely used in other countries. The Netherlands however, are not yet broadly familiar with this type of establishment.

*Heliport* – The roof of the building can be reserved for a heliport, on the one side for the pleasure flights over the city and on the other side for the corporate transport from and to the airport.

*Hollywood Factory* – The boundaries between retail, entertainment and the catering industry are blurring. The Hollywood Factory is a new formula in the area of rental and sales of video's, DVD's, CD's and games. The overall character of the store is that of a museum or a amusement park. The formula of this store is a part of the Video Vision chain.

*Office space* – Corporations with primarily a media function can be housed here. Like the regional networks or offices of larger corporations described and studies in *Urban Program*.

*Mediatheque* – The concept mediatheque – developed by Arato IZOSAKI – is suited for the cultural image of the building. A detailed programmatic content of a mediatheque is never determined: In 1999 the Tokyo Design Centre held a symposium with the title: 'Objectives of the Mediatheque', for which media experts were invited to discuss the functions of a mediatheque.

Figure 4.19

MediaPlaza version of the MTV logo

<sup>49</sup>

See: 'Samenvattingen marktwerkingen Rotterdam Centraal' (2000)

<sup>50</sup>  
See: [www.thescreeningroom.com/](http://www.thescreeningroom.com/)

<sup>51</sup>  
Gemeente Rotterdam (2000)

<sup>52</sup>  
According to the data of 'Centrum voor Onderzoek en Statistiek' (COS).

*Media Space & Forum* – A permanent exhibition about (new) technique, a scientific lab for experiments, an experience room where the visitor can experience the development and the future of media-technology as an interactive entity. Multifunctional areas for small expositions, activities, small scale art experiments and meetings are available. A new and more complete form of the cancelled Visual Image Institute can find its revival in here.

*Recording studios* – Large recording studios are already stationed in the Llyodkwartier and elsewhere in the Deltametropolis. A possible extension of this reserve can, as stated before, take place in the Polder Zestienhoven. New are the downtown studios of Rotterdam, which will have the same ambiance of the studios on Times Square in New York. The provide easy access for the public and are a part of the nightlife.

*Observatory* – The most beautiful view of the city is provided by the observatory. This adds an extra event to the location.

*The Screening Room*<sup>50</sup> – A combination of (lounge)bar, restaurant and cinema. Besides a leisure spot it is especially a meeting point for people in the business. The similar establishment in New York counts about 130 seats.

*Dwellings* – The position of Rotterdam considering residence is not strong. The reserve exists of much the same, with a surplus of cheap houses, rentals and housing for multiple families. The offer of residence at the top of the market segment is scarce.<sup>51</sup> According to the theoretical demand there can be an offset of 425-650 dwellings a year of luxury apartments (> EUR 140 000 & > 110 m<sup>2</sup>). Prognoses show that the demand of quality and living in the city centre will only rise.<sup>52</sup> The dwelling developed can also be used for corporate rental.

All data, developments, prognoses and conclusions regarding media and other developments in Rotterdam results in a first draft of the program of the Launching Customer:

Function	m2
Datahotel	30 000
Discovery Channel Store	2 000
Food Court	2 000
Heliport	2 000
Hollywood Factory	2 000
Media Space & Forum	15 000
Office Space	30 000
Mediatheque	10 000
Recording studios	10 000
Observatory	2 000
The Screening Room	5 000
Dwellings	5 000
 Mechanical	 pm
Parking	pm
	+
Total	>115 000 m2

An architectural proposal for the MediaPlaza and further analysis of the site will be given in the last chapter of this thesis.

# 5 CONCLUSIONS URBAN DESIGN

## CONCLUSIONS AND RECOMMENDATIONS OF THE THESIS

This thesis produced a number of conclusions on different scale levels. Ranging from the scale of Europe, the Deltametropolis to local urbanism. Several of the enumerated conclusions contain parts of the research and design process of the whole thesis.

- Rotterdam has a great potential to become one of the few important media centres of Europe, both in a functional as well as spatial manner, hence the programmatic content of the Launching Customer.
- The Trainport proposal provides in some cases more favourable settlement conditions for corporations. Rotterdam is not competing with Amsterdam in any way, the city merely anticipates on the lack of capacity and other shortcomings of the Dutch capital.
- In order to achieve certain goals cities in the Deltametropolis have to function on a team effort basis. At the moment too many self concerning interests on a political and administrative level obstruct positive developments on national scale, hence the cancellation of the International Visual Image Institute.
- Implementation of the *Trainport* proposal already proved to be favourable in this stage. To expose its full potential, the other areas are to be studied for their capacity. The Blijdorp Masterplan (by Farley Virginia) adds another favourable development of Rotterdam: The Trainport, the MediaPlazA, the Sportpalace and the re-styled Van Nelle Fabriek form important city buildings in junctions along the intensified green belt bursting through the city. They fortify the regional spatial structure of Rotterdam (See last chapter).
- This masterplan is constructed in such a way that the urban program itself can be altered or changed without slicing the overall concept.

The urban program of media was chosen because of its topical content in Rotterdam (since 1995 up till now).

- The proposed railway infrastructure of the Trainport has a disadvantageous position on a local scale: the economic pressure on the south side of the masterplan – the *Weena* – is relatively high, compared to the north side – the *Provenierswijk*. Building above tunnels is technically more complicated and therefore more expensive. A re-location of the railway tunnel more to the north, with consideration of the phasing of the masterplan, offers a better solution.

### Recommendations

- As stated in the conclusions, a study of the other locations, the *Blijdorp* area (final thesis of Farley Virginia) and the *Noorderbocht* area contribute to the total oversight.
- The comparison between the MRC and the MCR implied a certain quantity of programmatic content at the Hofplein location (Trainport). This content should be studied or revised, to complete the numeric analysis, as the Trainport proposal did not have a specific *quantity* of the program.
- A more detailed study of the Real Estate and Project Management part of Masterplan Central Rotterdam (MCR) can result in a more realistic socio-economic feasibility and sustainability, as only the functional and spatial feasibility and sustainability are proven.

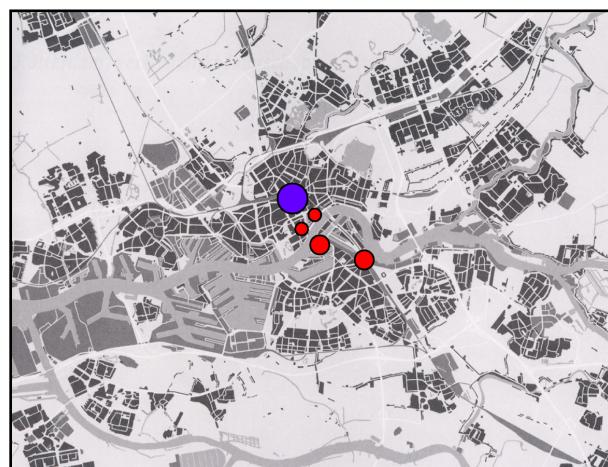
# 6 DESIGN LAUNCHING CUSTOMER\*

## HIGHRISE IN ROTTERDAM

Figure 6.1

Highrise zones constituted by the Municipality of Rotterdam

Purple : no height limit  
Red : <150 meters



\*  
This chapter is only intended to show a recapitulation of the most important stipulations for the creation of the Launching Customer, as it is almost impossible to put all design decisions in writing.

The conclusions of the urban design and its preliminary research combined with the data in this chapter shaped the image of the building.

<sup>53</sup>  
Gemeenteraad Rotterdam

<sup>54</sup>  
Cancelled in 1982, when a new order was implied in New York. More about incentive zoning can be found in 'Wat wolkenkrabbers aan de stad teruggeven' – Tracy Metz

The large amount of gross floor area on the location of the old central station implies that the Launching Customer should consist of a high-rise building. This directly corresponds to the context of the location.

### Context

Rotterdam's identity is mainly dictated by high-rise. The downtown central station area is tagged with the high-rise label from the High-Rise Policy 2000-2010.<sup>53</sup> This High-Rise zone is the only zone in the city, which has no limitations in building heights. The zone itself does not stand for high-rise locations *par se*, but it gives a frame in which locations can be searched for. The policy formulated specific items for high-rise buildings above 150 meters. The criteria for positioning of *super high-rise* are:

- Connection to a public transport node (regional and local)
- An obvious landmark-function of the region
- Taking into account the size of the location, as well as the influence of the building on its direct environment

- The demand of high-rise should be based on a extra demand from the market, in order to prevent undesirable consequences for the local Rotterdam market sector
- Development cannot cause undesirable consequences for existing functions
- Sufficient space during construction in order to reduce annoyance
- The capacity to upgrade the appeal of the setting

A lively attraction can only be generated when also after working hours, the site is still used by the public. The instrument of *incentive zoning*<sup>54</sup> can provide the necessary leverage. The principal is simple: developers can build higher, only when they create public space on the ground floor.

As such, in total, the location of the old central station does meet the criteria in this new context. Above all, it also takes a special position as it is the *Launching Customer* of the total MediaPark masterplan: a representative centre for media of Rotterdam, the Netherlands and eventually of Europe.

A major part of the attraction of the skyscraper lies in the unbelievable Middle Age cathedrals bring with them. God himself had to assist with the construction, otherwise the great portals and the heavenly domes would never have been created or would have collapsed already. Such a presumption of metaphysical aid is also hidden in the skyscraper. Besides the conscience that nothing can erect the technique, Europeans are especially apt to point out a mythological power to the skyscraper. It is that force from which this typology ascends above the style criteria, both literally and figurative. Because of the impressive figure of stone, steel and glass the terms beautiful or ugly get another meaning, or sometimes no meaning at all. Like one tends to whisper in a cathedral, the serenity of the skyscraper spreads silence around it. This silence is

so captivating, because behind the façade, activities remain invisible en people can only guess.<sup>55</sup> Rotterdam will be witness of the birth of a media cathedral in the new MediaPark: *MediaPlazA*.

<sup>55</sup>  
A recapitulation from 'Wonen in de wolken' (1998).

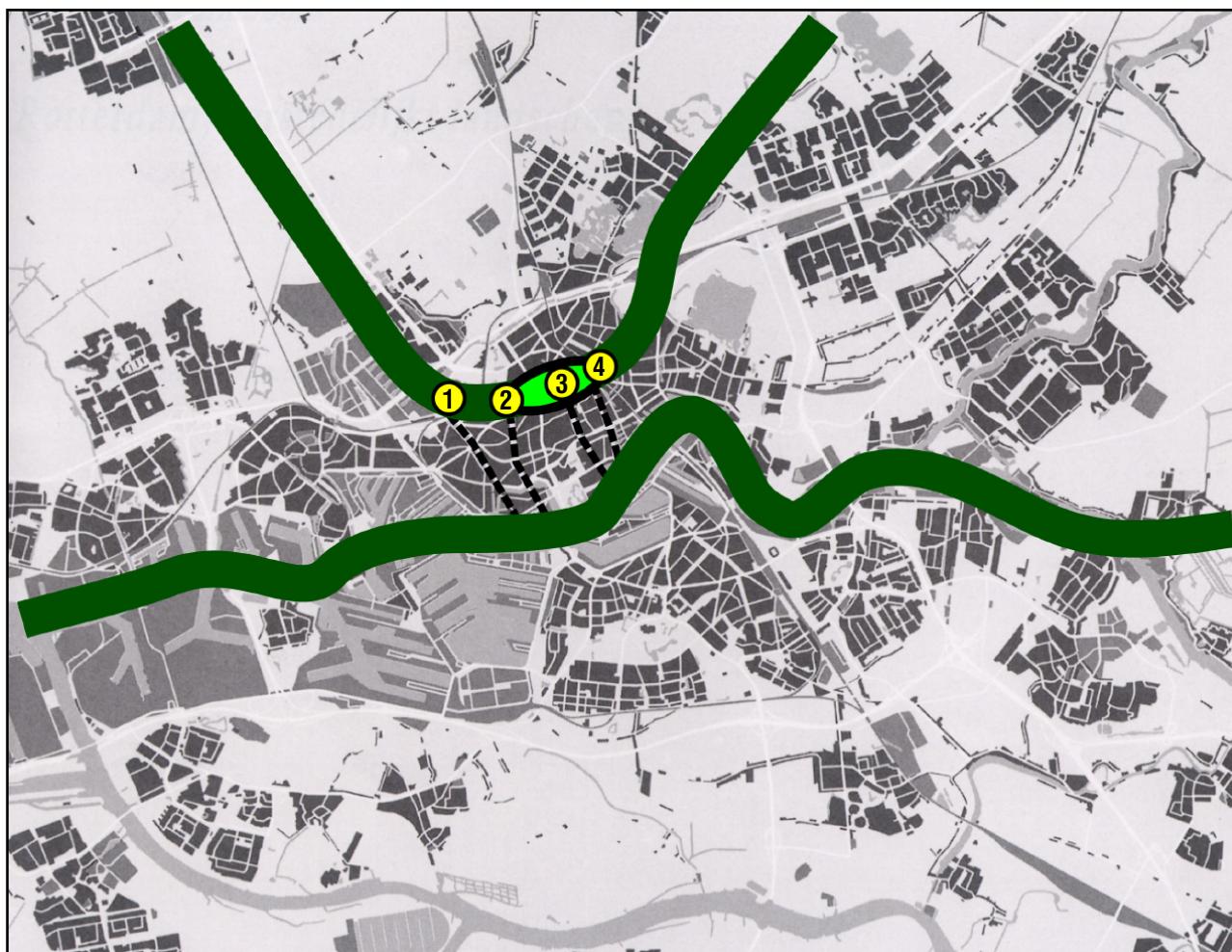


Figure 6.2

Keybuildings downtown Rotterdam:

- 1 - Van Nelle Fabriek
- 2 - Flex (Virginia)
- 3 - MediaPlaza A (Njo)
- 4 - Trainport (Sauren)

<sup>56</sup>  
Source: Benchmark Gemeentelijk ondernemersklimaat (1999); grade by car 7.0 against 6.1 in other major cities.

<sup>57</sup>  
According to Prof. Dipl.-Ing. J.N.J.A. Vambersky.

This new impuls of employment, dwellings and other functions in downtown Rotterdam also generates more traffic. The *connectivity* of the location can undergo a drastic alteration. The Public transport receives a better railway infrastructure because of the proposal Trainport Rotterdam, which generates faster travelling times outside as well as inside the city. Even the airport Zestienhoven is attached to this network and transport to downtown Rotterdam is reduced to 10 minutes. The time of travelling a person is prepared to take every day for a regular activity is culturally linked to a maximum. In the Netherlands this maximum is 45 minutes. The location of the MediaPlazA can be reached in 35 minutes from Amsterdam central station; that includes the transfer from train to metro. This is an improvement of more than 20 minutes of travelling time and for the first time the distance between Amsterdam and Rotterdam falls below the 45-minute maximum. The quality of public transport is decisive for the modal-split in the city. The new metro connection to Cappelle a/d IJssel resulted in a 50% increased use of public transport and a 10% decreased car-use in that particular corridor. Therefore a similar situation can be predicted at the site of the MediaPlazA. When also taking in account, that downtown Rotterdam has the best connectivity according to proprietors<sup>56</sup>, the city will not have major congestion problems due to the implementation of the new urban program.

A very peculiar scale-jump arises from Urbanism to Building Technology when super High-Rise is involved. *The outside of the façade determines the inner of the public space*. A study of what kind of type of ambiance a façade can offer, should be taken into account, parallel to other factors essential for high-rise building<sup>57</sup>:

- 01 Horizontal stiffness and dynamic behaviour of the building as a whole
- 02 Wind load
- 03 Vertical transport
- 04 Building time and the linked loss of rent
- 05 Execution
- 06 Fire
- 07 Maintenance of the façade
- 08 Net/Gross ratio
- 09 Market
- 10 Deformation of the ground
- 11 Wind hinder
- 12 Chimney-effect
- 13 Unequal deformations of vertical construction elements
- 14 Temperature influences

Due to the frame of this thesis – Urbanism and Architectural Design – some of the factors, which are too specific related to other fields of expertise are only taken in account on a secondary note (*Addendum 3*).

01 – The width/height ratio has a maximum of 1:7. A building width of about 40 m, gives a maximum

Figure 6.3

Concept of the façade - MEDIAfaçade: projects of Toyo Ito and Rem Koolhaas.



MEDIAPORT ROTTERDAM

height of 280 m. The most optimal materialisation of the main structure is a mix of steel and high strength concrete (B 100). The combination of diagonal frames assist in the overall stiffness of the construction. Most important will be the remittance of forces through the main columns to the ground.

02 – Although wind research is always essential for highrise, for this project, prior knowledge of experts is used for the results. A large gap in the construction, like for example the Kingdom Centre or the Shanghai World Financial Centre, works to the advantage of the dynamic wind load. The dimensions of the construction are determined by estimates.<sup>58</sup>

03 – The vertical transport takes the largest amount of space of the floor area. Building height of 200 meters and higher are largely equipped with the sky lobby system. Due to the public character of the base of the building a mezzanine lobby will be added. The amount of elevators needed is determined by computer programs.<sup>59</sup>

04 – The completion of building time of steel structures can be accelerated when more cranes are used.

05 – Logistics of vertical transport of people, materials and equipment need to be optimized. The fastest way to assemble the façade is to move large amounts of elements by crane, then assemble them from one floor above destination.

06 – Height dictates other concepts to fire precautions. For a first draft of the design of the building primary rules from the fire departments are applied.

07 – The outside of the façade determines the inner of the public space. The MediaPlazA should present itself as such and therefore the façade itself would have to act as a medium: an architectural television screen,

which can be constructed using SGG Priva-Lite<sup>60</sup> glass. To minimize the maintenance of the façade, the outside layer is constructed with a self-cleaning type of glass: Pilkington Activ.<sup>61</sup>

The size of the constructed panels is determined by the maximum size of the glass, its transport and its assemblage.

08 – The area efficiency is unfavourable due to the necessary vertical transport. A building height between 240 m and 280 m will have to take several ratios or dimensions in account, which are gathered in a number of case studies<sup>62</sup>:

Number of levels	58-70
Number of floors	50-60
Percentage of 'Service Area'	10-14%
Percentage of 'HVAC Area'	2-4%
Usable area	72-80%
Usable height	67-72%
Usable volume	50-55%
Ratio elevator/floor	1/2.2

09 – High-Rise generates a large amount of square meter area, because of the difficult phasing. By the time of completion the complete amount will be available at once. This is accounted for by the specific media program, which is an extra demand besides the 'usual' demand.

10 – A big height results in a large vertical load on a relative small area. Such loads can cause subsiding of the ground. To prevent this below the basis of the building is large (parking)basement is constructed.

11 – The height of the building creates a lot of wind. Several spots around the building can give wind annoyance. A detailed research can give more insight. Special measures for minimizing the wind at ground level are not yet designed on purpose, as the proposal

<sup>58</sup>  
According to Prof. ir. J. Berenbak.

<sup>59</sup>  
In this case a calculation program from the Schindler company is used – J. Nahon, nov. 1988.

<sup>60</sup>  
See: [www.sggprivalite.com/](http://www.sggprivalite.com/)

<sup>61</sup>  
See: [www.pilkington.com/](http://www.pilkington.com/)

<sup>62</sup>  
Source: Berenbak, J. - High-Rise Buildings syllabus.

is still in a conceptual phase.

12 – Special attention is needed by the possibility of the chimney-effect in shafts, staircases and atriums.

13 – Unequal load of vertical elements like columns, walls or cores, can cause deformations, because of the behaviour of the used materials. These deformations can result in damage. This is however, a very specific and detailed technical item.

14 – The same attention should be spent on the constructions, which are exposed to the fluctuating outside temperature. The façade itself will be applied over the main construction, assuming that this problematic nature does not occur.

The overall image concept of the building is linked to these factors (also Addendum 3), resulting in the final result: the provisional design of the MediaPlaza.

#### *Additional materialisation*

With the combination of the prior described materials the whole building has a *bluescreen* like glass colour, making it possible to alter its appearance (Fig. 6.4). This typical materialisation of the building creates countless possibilities for the virtual movie and television world.

Figure 6.4

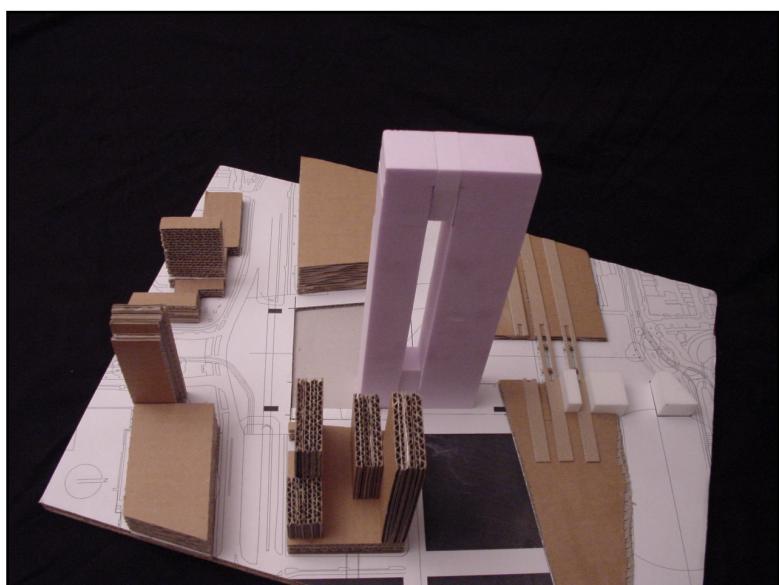
*Fashion wintercollection 2002-2003 of Viktor & Rolf, showing the possibilities of the changeable virtual appearance of the MediaPlaza building.*





**Figure 6.5**

Masterplan Central Rotterdam.



**Figure 6.6**

Model studies

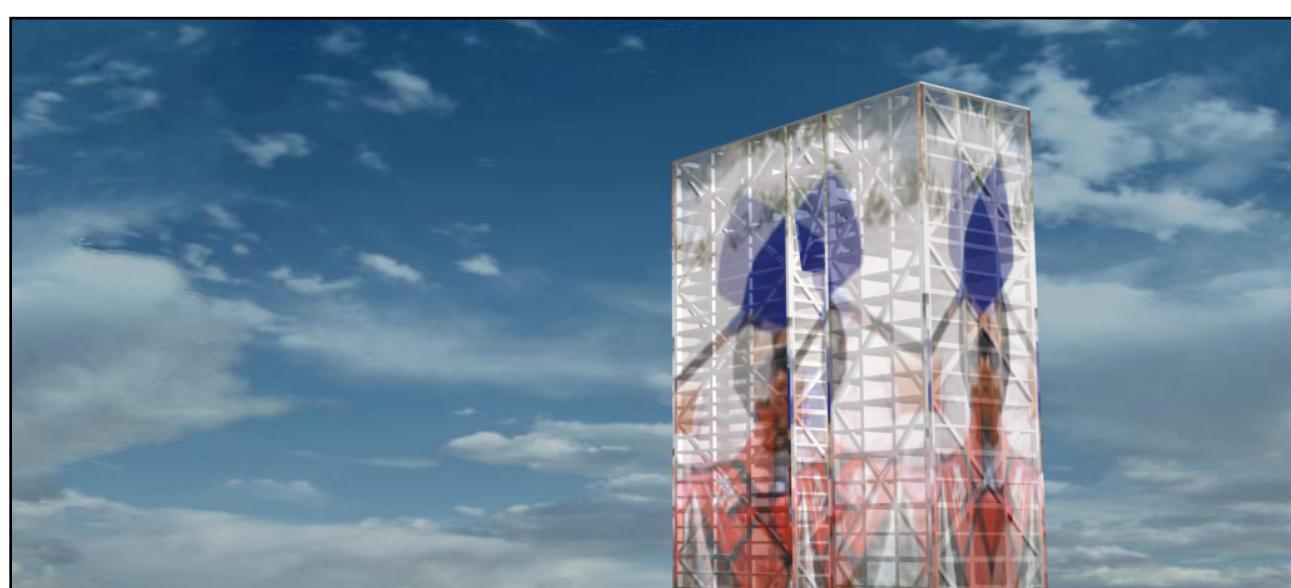
**Figure 6.7**

*Example 1: Possible appearance of the MediaPlazA façade.*



**Figure 6.8**

*Example 2: Possible appearance of the MediaPlazA façade.*



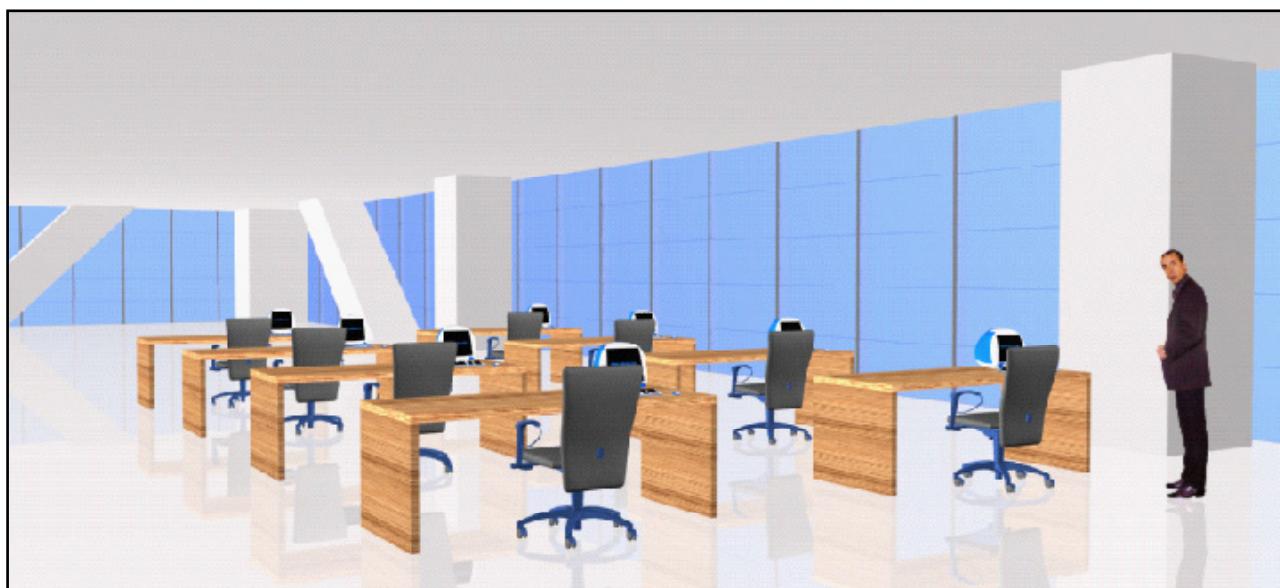


Figure 6.9

MediaPlazA - Interior office



Figure 6.10

MediaPlazA - Interior loft

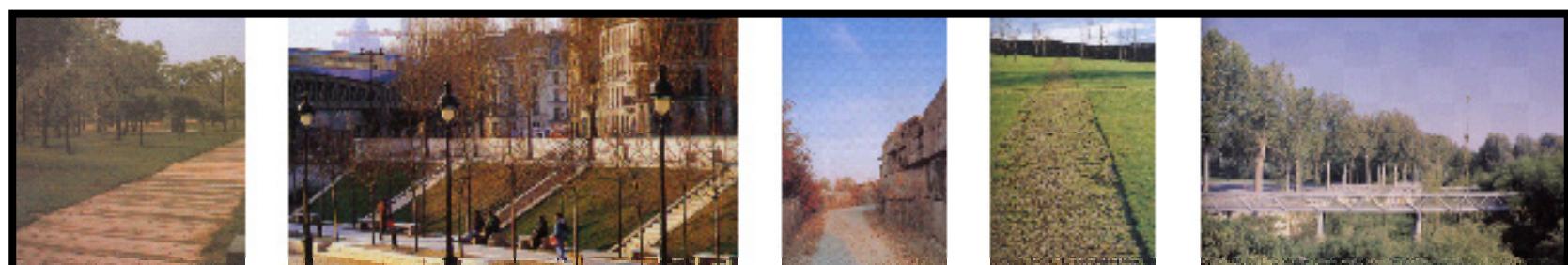
## 7 ADDENDUMS

ADDITIONAL DATA

## ADDENDUM 1: REFERENCES AND AMBIANCE PARK



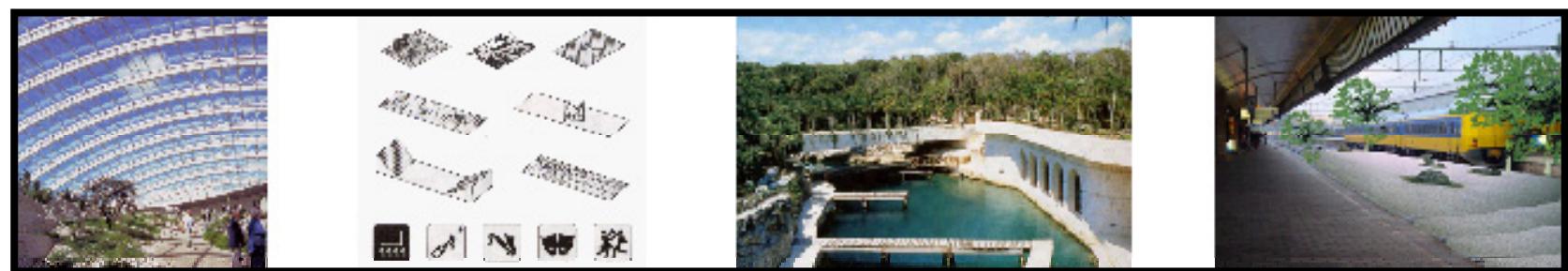
BOULEVARD



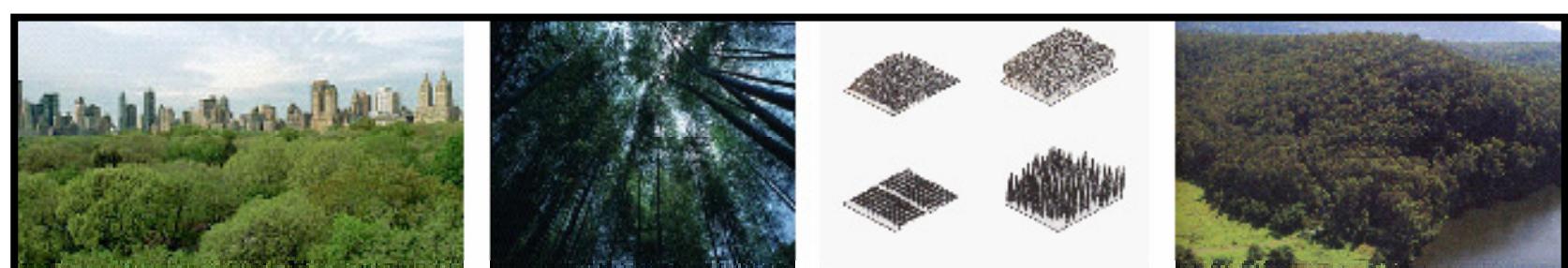
ACCESS, CIRCULATION AND ELEVATION POINTS



DOTS



MAJOR ELEMENTS



CLOSED SPACE



OPEN SPACE

## ADDENDUM 2: EVENTS IN ROTTERDAM

		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Okt	Nov	Dec	Route
1	Dag van de Architectuur													
2	CHIO Rotterdam (concours hippique)													
3	FWDD Dance Parade													grey
4	Dunya Festival													
5	Femina													
6	Internationaal Film Festival Rotterdam (IFFR)													
7	Bikemessenger.nl													
8	Marathon Rotterdam													grey
9	Metropolis													
10	Openluchtbioscoop Rotterdam Museumpark													
11	De Parade													
12	Poetry International													
13	Dag van de Romantische Muziek													
14	Rotterdams Zomercarnaval													grey
15	Rotterdam Straatfestival													
16	Waterstad Maritiem Festival													
17	Wereldhavenfestival													
18	Wednesday Night Skate													grey
19	Foto Biënnale													
20	Architectuur Biënnale													
21	Heineken Nightlive													
22	(Robijn/Camel) Fashion Award													
23	Ratrace													grey
24	Geen daden maar woorden'													
25	Worldwide Music Expo (WOMEX)													
26	Dutch Electronic Arts Festival (DEAF)													
27	Architectuur Filmfestival Rotterdam (AFR)													
28	Koninginnedag													
29	5 mei													
30	New Year's Eve													

red : yearly  
 green : once a month  
 blue : annual  
 grey : events with changeable routes through the city

This is not a compleat scheme and there are many more yearly events in Rotterdam. This scheme merely shows the synergy, that can be generated between urban activities and urban design.

### ADDENDUM 3: HIGHRISE TEST SCHEME

This scheme shows the extent of conditions Highrise buildings require. Every architectonic decision is verified to this scheme in order to form the most optimal solution for each field of expertise.

The 'X' marked cells are too specific and detailed for the frame of this thesis and thus not handled. The darker cells are extensive used for the verifications.

Each cell contains a recapitulation of one conclusion/decision that shows the method of decision making during the whole design process of the building.

		Spatial Planning	Urbanism	Architecture	Building Technology	Real Estate & Project Management
1	Horizontal stiffness and dynamic behaviour of the building as a whole			Esthetic looks of the main construction	The dimensions of the whole construction	
2	Wind load				The gap in the building has a positive influence on the dynamic wind load	
3	Vertical transport			Placement of the program	'Schindler' elevator calculation software	
4	Building time and the linked loss of rent				The most optimal way of construction for this concept is applied	X
5	Execution		Logistics of transportation		Dimensions of applied façade modules	X
6	Fire			Emergency exits where needed	Reservations for fire prevention zoning law	
7	Maintenance of the façade			SGG Priva-Lite; dimensions of the modules	Façade modules applied with Pilkington Activ	X
8	Net/Gross ratio			Case studies		X
9	Market	Additional demand from the media industry	Urban conditions from the municipality			X
10	Deformation of the ground				Comparable with the foundation of the Nationale Nederlanden building: -27m below ground level	
11	Wind hinder		Pedestrain routes	Conceptual solution	Location test and expert consultation	
12	Chimney-effect				X	
13	Unequal deformations of vertical construction elements				X	
14	Temperature influences				X	

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# A WORD OF GRATITUDE

## BACKGROUND SUPPORT OF THE PROJECT

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### Sponsors

Brigitte Crop **MT&V Werving en Selectie**  
[www.mtenv.nl](http://www.mtenv.nl)

Joris van Hoytema **BBVH Architects**  
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Eveline Schaffers	Endemol Entertainment Holding NV
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Jacques Berenbak	Technical University of Delft
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