THE RANDSTAD : FACE AND FORM

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ABSTRACT:
The Dutch poly-nuclear metropolis the product of urban design and policies of spatial planning over many years. The underlying landscape and the history of urban planning are the base of its current form and face. Now the different urban areas get absorbed in the new unity the Randstad. Like before a masterplan should be made at the higher scale, and on local scale guidelines and flexible realization plans. A plan which respects the existing cities and landscape, combined with an authority and a policy to realize it. The Netherlands have to continue its valuable tradition in urbanization.

KEYWORDS: Randstad, a poly-nuclear structure by landscape and history, differentiation, policy of concentration, at the urban scale and the regional scale

1 INTRODUCTION

The Netherlands are currently in the process of forming a metropolis. Nowadays about six million inhabitants are living in the relatively small area Holland (the western part of the Netherlands). [1] The urban area is made up of a number of ‘big’ cities, middle large towns and the open or partly urbanized landscape in between. This poly-nuclear constellation differs from that of Paris and Beijing, examples of cities, which mono-centrally spread themselves out over a whole region. This urban network is there for considered by Dutch planners as a metropolis, although quantatively it falls short of the real large cities of the world. It is tentatively called Randstad, meaning Border City, as it lies in a circle around the Green Heart and along the North Sea coast.

One should see the concept of the urban network as an attempt to describe the spatial complexity, while at the same time offering guidelines for further growth and transformation. However in my opinion the Dutch metropolis is more than that. It is not an arbitrary conurbation: cities like Amsterdam and The Hague contribute a lot of qualities one can not ignore. Historical inner cities are playing an important role, as do the parks and waterways, as well as the neighbourhoods built in the 19th century. In other words: I would like to put the emphasis more on the specific face and form of the Randstad. That appearance and shape can -apart from its function, economic and cultural- be derived from a specific or generic detail, an urban pattern and the regional structure.
The Dutch metropolis is the product of urban design and policies of spatial planning over many years, in which the new is based on the existing environment. Initiatives for building and spatial arrangement came from bottom up and top down (the local scale and the national policy). The urban forms are arranged – for better and for worse- following the underlying landscape. Qualities of historically valuable parts of towns along with less significant ones are incorporated in the permanent process of adaptation and modernization. Mistakes have been made but we always tried to learn from these. This is the process that produced the Randstad in its actual state.

First I want to show you something of this historical growth because I am proud of our metropolis as a Dutch urbanist and as a citizen. The specific character (and the history) of the Randstad should not disappear or be forgotten, because of its image in the world, but also because of its own changing spatial reality. In regard to the latter I will also show you something about the actual situations and challenges. Perhaps others could learn from the Dutch experiences. (Famous foreigners used to adapt Dutch examples before: 1. Tsar Peter the Great was inspired by the canals of Amsterdam and the wooden houses of Zaandam, (an industrious small town near Amsterdam) when he built Saint Petersburg in Russia. 2. The French term ‘boulevard’ from the urbanistic works of Haussmann in Paris is derived from the Dutch word ‘bolwerk’ – which means the old town ring).

Anyway, this exposé is not meant to offer a ready-made recepy -please not!-, but more a method of planning and design. Each culture must follow its own way in city development. So not all cities in the world should tend to look like one another. [2]

2 POLICY OF CONCENTRATION

In a prosperous country like the Netherlands after World War II, the use of space by each person increases. Larger dwellings decrease in the average house occupation, more car ownership, leisure activities and gardening, all these developments lead to the growth of the urban surface. Therefore there is a tendency to sprawl, because individual people can fulfil all their material wishes. Moreover, the cities in the sixties were in decay. If possible the inhabitants (especially the rich ones) left the central urban areas to live outside in (the) villages and the countryside. Even the canal zone in Amsterdam was not such a good place to live in that time; an apartment or flat in a suburban district had a higher standard. The aim of (the) spatial planning was to canalize this exodus: by producing new towns, following the Garden City Model, in order to live outside the city, yet in a concentrated way. By policy a series of new towns were pinpointed. Certain villages were given the task to grow for example from 3.000 to up to 100.000 inhabitants.

Since the middle of the seventies the largest cities themselves became objects of planning and renewal, starting with the cheaper housing reserves. The urban fabric was deteriorated so badly that a total program (like the national Delta plan for the dikes) was conceived to improve the state of (the) dwellings with national support. Also local authorities were forced to build more houses (in spite of higher costs and other resistance factors). The policy during those years was: build in the city, at the border of the city or at a distance from the city. At the same time regional plans were made, which limited the growth of the villages. Only 1,5 % a year was the maximum rise allowed, sufficient to harbour the increase of their own population.

With these instruments the national planning authority ordered concentration. Why this concentration? It generates high density in buildings and thus a contrast between countryside and city with a double result:

On the one hand enough green land remains open. Citizens can profit from that. The countryside provides green, recreation, agricultural products and nature. It forms the breathing cells of the city. In the long run, when the city extends even more, coherent and interconnected parks and landscapes can form a permanent reversed matrix (contramal) of greens and water.

On the other hand city life will improve. Cities need a certain amount of inhabitants and money to
support their social facilities, cultural institutions and restaurants for instance. This is a condition for its economic attractiveness and creates interest on the part of investors.

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<th>Typology</th>
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<th>Spawl</th>
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**Figure 1**  National urbanization policy between concentration and sprawl [3]

The policy opposed autonomous developments. It should have been a lot easier to spread out more widely over the region. The building ground was cheaper further out and people were willing to overcome the distances between home and work. Nevertheless the policy of 1950 to 2000 cultivated some values. The spatial structure in the future was seen as more important then the short term costs or occasional temporary housing preferences. In a densely populated country like the Western Netherlands (with 1700 inhabitants per square kilometre) spatial planning is a must.

‘Demand creates supply’ was turned into ‘supply creates demand’. You could call this a modelled society. This concept is related to a strong public authority. Today this issue is widely under discussion: do we want to be modelled; don’t individuals act in the way they want to anyhow?

Therefore nowadays this policy of concentration is relinquished. The concept of spatial plans for the borders between land and city is no longer carried out. Open countryside, which was conserved for a long time, has suddenly been given away for building, with a lot of very visible results.

The conclusion is that you can plan spatial development, or at least you can influence that development by making plans and policy. Only the political desire and power thereto should strongly exist as a pre-requisite.
3 FORM AND FUNCTION OF THE CITIES

The four large cities of the Randstad: Amsterdam, Rotterdam, The Hague and Utrecht have all their own spatial history and appearance. They are accidentally arranged around a low open landscape that once was labelled ‘the green heart of Holland’ as it was seen from an airplane by Plesman in 1927. The distance between those big cities is between 25 to 60 kilometres. In their vicinity some other old cities are located: university cities like Leiden and Delft, plus old towns like Gouda, Haarlem, Dordrecht, Zaanstad and new ones: Zoetermeer, Hoofddorp, Almere en Alphen.

The typical structure of these cities emanates from the landscape: amidst the rivers, de dikes, the row of dunes along the coast, the lowlands and the lakes. The spatial growth and modernization of city structures have always been conducted at the hand of plans by expert urbanists (our great architects) such as Berlage, Dudok and Van Eesteren, and since the 50ties by the Planning Departments of the State, County or Municipality.

In Amsterdam the curved shape of the canals continues in a radial structure, which in the 50ties is developed further as a hand-shaped city with five lobular fingers. The last ‘lobe’ is being built now, by gaining land from the large water surface of the ’IJ’ lake in front of Amsterdam, for the completely new community of IJburg. Between the lobes park zones were developed from natural origins like the one along the river Amstel. The Hague was built on rows of dunes behind the sea and has a lot of parks in the city, (by) left over from former forests and estate gardens. One third of the urban surface of The Hague is green (land). The layered structure of Rotterdam is determined by the meandering river banks and dikes, while Utrecht as an example of a city built on higher sand grounds is basically made up by nuclear settlements. On the lower side this form is combined with more linear shapes. [4]

Figure 2 The structure of the cities in the Randstad
Even though Amsterdam is called the capital of The Netherlands, not everything of importance is concentrated there. Rotterdam has the most important trade offices and harbor (it was for a long time world port number 1, which position is now occupied by Shanghai). Amsterdam has the main airport, the banks and law courts. In The Hague the government and the queen reside and now this city wants to profile itself as the international city for peace and justice. And Utrecht hosts, as the central city of the country, the main railway junction, plus the headquarters for church and army. So every city has its specialty to offer; therefore the cities of the Randstad complement and need each other. So functionally they form an entity.

The growth of the cities after 1975 took place based on goals set for them (for example: they had to grow by 65,000 dwellings in ten years). These homes should be built somewhere inside the urban district according to the urbanization rules (in the city, at the edge or in a new town). The city district has a radius of about 15 kilometers from the center, which was based on the average acceptable travel time of 45 minutes. The later, so-called Vinex locations are established near the city border if possible, on locations following the structural lines of the city they belong to. They are connected to the city by public transport but merely separated from it by the freeways surrounding them.

The urban districts began to overlap as villages in between became attractive settlements for living and working. Also the growth of the smaller towns plays a role in this process. On several spots green zones were appointed as buffers, in order to avoid that the urban extensions would intertwine. The contrast between city and landscape was herewith arranged. The countryside became landscaped like a huge park: trees are planted, lakes are laid out, complete with beaches and bicycle roads. Certain city borders were given a permanent design: thereby the front of the city can be seen as a panorama from the countryside and vice versa. Of course there are also still lots of unfinished city borders without a clear structure. The physical overlapping of the separate urban districts is the second reason to consider the Randstad as a unity.

Table 1 Approximate dimensions and inhabitants of the four largest cities and the Randstad as a whole.

<table>
<thead>
<tr>
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<th>Amsterdam excl. port area</th>
<th>Rotterdam excl. port area</th>
<th>The Hague</th>
<th>Utrecht</th>
<th>total Randstad</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban area</td>
<td>15 x 12 km</td>
<td>18 x 14 km</td>
<td>7 x 8 km</td>
<td>4 x 6 km</td>
<td></td>
</tr>
<tr>
<td>Inhabitants city</td>
<td>700,000</td>
<td>600,000</td>
<td>500,000</td>
<td>300,000</td>
<td>6,600,000</td>
</tr>
<tr>
<td>City district</td>
<td>1,500,000</td>
<td>1,200,000</td>
<td>1,000,000</td>
<td>600,000</td>
<td></td>
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</tbody>
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4 QUALITIES AND TRANSFORMATION OF THE EXISTING CITIES

The urban area is highly differentiated; different periods of growth are reflected in the urban pattern. [5] In the center is the historical inner-city. Although just a little part of the total urban body today its value is more and more appreciated. In the sixties it wasn’t. Apart from the famous canal town of Amsterdam and Delft, Leiden and Dordrecht a lot of other beautiful small historical towns can be found within the urban field: Delfshaven en Schiedam (Rotterdam), Voorburg en Rijswijk (Den Haag) etcetera. Most of the centers are still preserved. An exception is Rotterdam, where the center is bombed away in the Second World War and rebuild in modern style. Now tourists come to visit the inner-city as heritage of the Dutch Golden Century; by that they represent an economical value. The inner-city functions as the city center as well: shops and restaurants are established there, the central station is nearby. At the same
moment this is a problem, because the growth of the central institutions and the accessibility of the center can not be combined with the small scale character. In the past successful and less successful adaptations of the urban fabric are realized. Some of them are considered to be such degradation that in the meantime they are restored to its original condition (filled-in canals and too ugly buildings). Also housing in the center has increased; it is considered as a top location today.

**Figure 3** Amsterdam: the distinction of building periods

Attention is given to the improvement of not commercial public space: parks, squares and river banks. In Amsterdam and Rotterdam the river banks are transforming into more public and urban space. Paris and Barcelona were the models of this approach of public space. In these days more attention is given to new themes like the use, in the evening (model: Lyon) and bad weather (Model: Copenhagen). Disappearing industries and port activities are delivering good free locations for new building, so that extra housing, large office buildings and cultural institutions could settle nearby the inner-city. These new additions influence the image of the city – by high building a new skyline is created- but the valuable features of the city are preserved. Plans are made in order to take the existing values into account.

Around the inner city we find dense urban districts developed during the industrialization period 1880 – 1920. The urban structure was defined by long narrow streets with more family blocks in four or five floors (for example no bath-rooms, badly ventilated and day lighted blocks). In the sixties these urban areas were in such a bad state that great urban renewal plans were made to replace them by modern high rise building.

Thanks to the resistance by inhabitants and a lot of studies for better plans the urban renewal program took place in a more precise way with the slogan ‘building for the neighbourhood people’. However the inhabitants still have left the city in great numbers and predominantly immigrants came in the renovated neighborhoods.

The latest approach contains a mix of renovation, restoration, demolishing and new building, environment adaptation, and creating space for parks and parking; this after a good analysis.

Consequently the urban area has become attractive to all income and education groups. Maintained neighbourhoods like the Pijp and the Jordaan are very popular now. In the old street structure a lot of
street life is around shops and restaurants, which you do not see in the newer urban environments. A high price is paid for old houses, more than in the strongly transformed neighbourhoods. These districts are 100 years old now. This seems to be a crucial age: younger you may be demolished; if not you will survive fortunately.

During this same period luxurious living areas have been build with villas and mansions in a romantic urban pattern. These luxurious neighbourhoods are still much appreciated places to reside within the urban fabric.

These mentioned areas from 1880-1920 are surrounded by the extensions of the 1920-‘40. During those days the architect and urbanist Berlage dominated the urban design in the shape of Amsterdam South and West: urban streets and squares in a monumental symmetrical pattern and in the brick architectural style of the Amsterdam School. In Amsterdam almost everything of this period is restored now. Houses and environments of the ’30 are esteemed highly today. In the other cities like Den Haag, Rotterdam and Utrecht you can find vast districts with a lot of portico dwellings and low detached houses of different quality. Some of them are redeveloped by demolition and new building. But for example Spangen was totally given up as a normal living area, but now there is a renewed interest for the old houses of basically starters because of the low prices and willingness to do the renovation their selves.

A lot of small scale garden villages were build nearby the cities in 20-40, which find themselves now within the urban area. Also these neighbourhoods are appreciated nowadays and –in spite of their very little houses- most of them are totally restored.

Because of this regained attractiveness of the city the urban fabric might become more condensed without giving away qualities like green and history. Therefore the unused industry grounds, port terrains, river banks, old train tracks and unplanned barrier zones suddenly are interesting spaces to develop.

The post war districts build according to the CIAM standards of air and light by open building blocks with high-rise, middle high (serials of porch- and gallery dwellings) and low rise are now under reconstruction. Problem is the endless mass, buildings footloose from roads and former landscape. These green districts are now 50 years old; their financial value in the books is zero.

Initially demolition was considered to be the only option. Also because this period represents a mistake in urbanistic thinking. But again, inhabitants often did not agree.

The total housing stock of that period, that culminated in the large high rise block districts like the Bijlmermeer is about 250.000 dwellings, one third of the total Dutch housing stock. It is not a proved truth that new building will give a better result on balance. Conclusion is a specific plan with alternatives and flexible partition. Again the mix of demolition, rebuilding by low rise and reconstruction is the better way-out.

From 1975 onwards most new extensions were made by low rise attached housing per period in a different lay out.

The high rise is merely an exception in Dutch living culture; although it is increasing because the preference of older people to an apartment increases.

In the periphery of the city also new concentration points are developed, mostly near the highway triangles in combination with a train station. There the large services and offices can find the space, which cannot be found elsewhere within the city fabric.

4 DESIGN FOR THE RANDSTAD

All the urban areas get absorbed in the new unity the Randstad. As described the Randstad consists a palet of urban environments and park landscapes. It can be considered as a kind of masterpiece of different urban parts, connected by a ring of highways, public traffic high scale and local scale and roads, around a green and water full center area. Nowadays this Green Heart is very dynamic. In former times the area stayed open thanks to agricultural activities and to the presence of the airport, which was supposed to keep the area open. At the moment the Green Heart is discovered as an attractive settlement:
short distances to all the parts of the Randstad, a lot of roads arranged during the past because of the airport. It is considered a good location for all kinds of enterprises. So the economic functions came first and policy could not resist the subsequent need for housing.

The well planned growth of the Randstad is an essential condition for the development of the Randstad as a metropolis. The economy is important, but also the sustainability and attractiveness as living area of the urban concentration. If the metropolis would get into one densely built urban jungle the population will avoid the urban areas again. Then the city is only meant for people, who have no choice, who in a way are condemned to live there.

Moreover the need for more water surface in the low lands of the Delta will increase. Also the quality of the air and the mobility are important issues to solve. This all needs physical planning.

It would be a waist when the important central part (Green Heart), this high-potential spatial reserve, would been given away without any spatial planning.

There are a lot of inspiring starting points: The peripheries of the cities, which thus far were considered as the back side, are basically the front side of the Randstad. Also this deserves a form and a face. From the highway and speed train you should experience the contrast between city and green. Here the design of panoramas with the specific skyline of the city on distance is a possibility. The new concentrations of services and institutions could sparkle on that inner ring being the new entries of the existing cities as well.

Like before a good plan should be made with a master plan at the higher scale, and on local scale guidelines and flexible realization plans. The green structure should be plotted out, just as we did with Midden Delfland and other park zones. In the landscape large water systems should been incorporated. The further urbanization can take place along this landscape structure. [6]

To me this appears to be the necessary next step in the development of the Randstad as the Dutch metropolis: a plan which respects the existing cities and landscape, combined with an authority and a policy to realize it. The Netherlands have to continue its valuable tradition in urbanization.

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REFERENCES