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Concluding paper, presented at the symposium Biotope Mapping in the Urban Environment

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Several dilemmas and paradoxes are encountered in the present way of managing the urban green in Rotterdam. There is quite a discrepancy between the extensive political attention given to green areas outside the city's limits and the rather limited attention to the urban green itself. Although the quantity of urban green is quite large when expressed in square metres, its quality is rather poor. The way it is used can also be improved. The management of the urban green poses another dilemma. 'Naturally' maintained green areas have a higher ecological value, but they have a lower potential for use and often look untidy in the eyes of the citizens. Choices have to be made, and here a distinction into 'layers' can be used in order to formulate the ambitions. These 'layers' are (1) the compact urban area, (2) the post-war extension areas, (3) the network of parks and woods, (4) the port, the river, and the dunes, and (5) the agricultural landscape. Especially the parks and forests, the agricultural areas, and the water 'network' are the nucleus of the municipal Nature Policy. Much knowledge is, however, lacking. This is partly caused by the spread of knowledge over a great many persons and institutions (societies). Rotterdam, therefore, looks with envy at cities like Berlin and Leipzig, where such knowledge is concentrated. In Rotterdam too, biotope mapping is to be started. It is then a question how the results of the mapping can be used as an instrument in the dynamic practice of urban planning. Preferably the mapping provides results and information that can be implemented in the urban planning process.

Slotlezing, gehouden tijdens het symposium over biotoopkartering in het stedelijk gebied - In dit artikel wordt een aantal dilemma's en paradoxen uit het huidige groenmanagement in Rotterdam gepresenteerd. Er is een discrepantie tussen de ruime aandacht voor groen in de buitengebieden en de groene wiggen, en de beperkte aandacht voor het groen in de stad zelf. Hoewel Rotterdam een groot aantal vierkante meters groengebied bezit, is de kwaliteit ervan matig. Ook het gebruik laat te wensen over. Het management van de groengebieden vormt een ander dilemma. 'Natuurlijk' onderhouden groen heeft een grotere ecologische waarde, maar is dikwijls minder bruikbaar en ziet er in de ogen van de burgers rommelig uit. Er moeten hier keuzen worden gemaakt, waarbij aan de hand van een indeling in 'lagen' kan worden aangegeven wat de ambities zijn. Deze lagen zijn (1) de compacte stad, (2) de na-oorlogse uitbreidingswijken, (3) het netwerk van parken en bossen, (4) de rivier, het havengebied en de duinen en (5) de agrarische buitengebieden. Vooral de parken, de buitengebieden en het natte netwerk vormen de kern van het gemeentelijke Natuurplan. Er ontbreekt echter nog veel kennis. Voor een deel komt dat omdat deze kennis verspreid is over een groot aantal personen en organisaties. Rotterdam kijkt daarom met enige jaloezie naar (b.v.) Berlijn en Leipzig, waar deze kennis centraal is gebundeld. Ook in Rotterdam wordt nu gestart met biotoopkartering. De vraag daarbij is hoe de kartering kan worden benut als een instrument voor de dynamische praktijk van de ruimtelijke ordening. Bij voorkeur levert de kartering informatie die bij de ruimtelijke planning kan worden ingezet.

INTRODUCTION

A few years ago, there was a discussion about whether to appoint a municipal ecologist or not. The conclusion reached at the time was that each of the departments responsible possessed enough knowledge to formulate nature policy. As a result, the municipal departments of Public Works and Town Planning and Housing drew up the 'Rotterdam Nature Plan, Investigations', which was published in 1994. Recently, an initial memorandum was issued, to give some more substance to this Nature Plan in the form of a Nature Policy Plan. In addition, the Rotterdam Institute for Urban Nature (bureau Stadsnatuur Rotterdam, hereafter bSR) was created not too long ago. The main purpose of this institute is to serve as a centre of knowledge and as an intermediary between the municipal authorities, the Rotterdam Museum of Natural History and private naturalists organisations. Another reason for taking a closer look at Rotterdam's greenery and its natural value and for placing it more into the spotlight, is the number of observations made in the context of the investigations conducted for the new structural plan, the Spatial Plan Rotterdam (RPR 2010).

One of the observations relates to the abundance of developments in the periphery. A striking aspect is the huge amount of work and study going into projects concerning greenery and recreation in the Rotterdam region, and on the city's edges. The Regional Plan for the Green Structure, made by the Greater Rotterdam Region (Stadsregio Rotterdam), dating from 1995, forms the framework for this. This is based primarily on the 'wedge' ('wig' in Dutch) approach, in which the relationship between the city and the surrounding area is expressed. Funding is covered in the VINEX-agreement (covering ± 250 ha), part of the so-called Brouwer agreement that also covers a further 750 ha for the 2nd Maasvlakte, in the context of ROM-Rijnmond (the Spatial Planning and Environment Project for the harbour region). The most important ongoing 'wig' projects are: the Midden-Delflandwig (including Wiltonpark, Beatrixpark, Poldervaart, and the DOP-NOAP waste disposal area), the Rottewig (Eendragts Polder, Hoekse Park, expansion of the Zevenhuizer Plas), and the Deltawig (Valckesteinse Bos, Strevelshoek, Koedoodzone). The number of inner-city projects almost vanishes in comparison. There are hardly any major urban projects being planned, perhaps with the exception of a number of canals that are to be tackled in the context of the Urban Renewal programme. In addition to this, recent investments in Rotterdam have been made largely in the 'hard' outdoor areas, the city squares. The city has acquired a number of 'jewels' in the process, such as the Schouwburgplein, the Binnenrotte, the Wilhelminapier, the Entrepot area and the Beursplein, but the greenery, the 'soft' public areas, have come off pretty badly in investment terms.

Rotterdam does not lack greenery: the city has more square metres of public parks and gardens than, for example, Utrecht or The Hague - not even counting the port. Rotterdam also has a relatively large amount of open water, due particularly to the River Maas that is serving more and more as a trademark for the city. But Rotterdam is not well-known as an attractive green city. Outsiders tend to associate it more with port and industrial activities and with high-rise architecture. It is also true that one of the most important reasons people give for leaving the city is the poor quality of the outdoor environment. This indicates a problem of quality. With the exception of the densely-populated pre-World War II neighbourhoods (Delfshaven, Oud Zuid and the Oude Noorden in particular), the greenery issue is not one of quantity, but quality. The problem is that much of the greenery lacks character: it is less attractive than it could be (poor design and maintenance), is often badly accessible (unclear, unsafe entry points and routes, poor access by public transport), does not lend itself to being used

(one-sided allocation, not very public) and the ecological quality could be better. The few really good areas of greenery that Rotterdam possesses (Kralingse Bos, Bergse Plassen) are insufficiently used by the city as a whole. It is therefore the aim of the municipal authorities to give the structure of urban greenery a forceful quality impulse in the coming years.

MANAGEMENT

The ecological quality of the outdoor environment is largely determined by how it is managed. How intensive is the management, what is taken into account in the management? During the large municipal economy drives in the eighties, the so-called ecological management of urban greenery was viewed mainly as an attractive option for saving administrative funds. More recently, however, it has become clear that meticulous ecological management saves no, or very little, money in comparison with the 'normal' forms of management. Proper ecological management means more than offering additional opportunities for increasing the wealth of species - biodiversity - and the number of individuals. After all, many people consider ecologically managed greenery as untidy. And a naturally managed meadow is not always ideal as a playing field for ball games. This dilemma deserves plenty of attention in a built-up and densely populated urban area like Rotterdam. It is in keeping with what is indicated by the term 'the paradox of the compact city'. The endeavour behind the policy of the 'compact city' by both the central and local authorities entails new residential and working areas being located in, and adjacent to, existing cities wherever possible, in order to spare the nature and recreation areas around the cities. This means increasing pressure on the open spaces within existing cities. In a city that is becoming more condensed - in both the spatial and functional sense - the importance of a good outdoor environment only increases, however. And in a dynamic urban system, it is also important to provide space for 'peaceful' areas where new greenery in particular is given time to develop. The canal banks could play a significant role here.

Unconventional measures are needed in order to combine the endeavour towards a compact city with that towards a livable one, for both man and animals. Multiple use of space - for example roofing over a busy urban road and building a city park on the space thus created - seems inevitable. But seeking possibilities for the multiple use of greenery also forms part of this: the various functions of greenery, related to its value in terms of use, image and nature, must be combined as much as possible. There is an important task here - both in terms of management and design.

ECOLOGICAL KNOWLEDGE

Knowledge is needed in order to fulfil this task. After all, which natural values does, for instance, 'neatly' maintained greenery possess in relation to ecologically managed greenery? It can be said - at the city level - that there is an agreement on what constitutes sensible ecological ambitions. In the Nature Plan, an indication is given of which areas belong to what kind of environment. This is done on the basis of five so-called 'layers'. The five layers are: (1) the compact city, (2) the post-war neighbourhoods, (3) the network of parks and woods, (4) the river, the port area and the dunes, and (5) the agricultural landscapes. Per layer, an indication is given of reasonable ambitions with respect to nature and the species that are associated with this. It goes without saying that there are large differences between the potential of, for instance, the compact city centre and the network of parks and woods. The large parks and landscapes plus the (regional) water network enjoy a central position in the Nature Plan. Particular value is placed in the Nature Plan on the wet ecological connections between the large parks and the larger nature reserves (outside the city of Rotterdam). Ambitions regarding the compactly built-up

area (centre and old neighbourhoods) are of a very different order: they involve urban nature with a local character. But here too, we can certainly find unusual species of plants and animals, as a result of the typical city climate, for example on the quay walls.

Where the ambitions are reasonably clear, little knowledge is available, however, regarding the actual ecological quality of the urban greenery in the current situation. That is to say: there is basically a lot of knowledge available, but this knowledge is scattered over many organisations (Public Works, Town Planning and Housing, Natural History Museum, various private societies and organisations, etcetera) and is linked, to a great extent, to individuals. Neither is this knowledge systematic: there is a lot of 'hobbyism', 'amateurism' in the good sense of the word. The knowledge is sometimes linked to certain themes (e.g., wet nature), sometimes to species (e.g., bats or birds) and sometimes to sub-areas of the city (e.g., the Noordrand area). We in Rotterdam therefore look with appropriate envy at Berlin and Leipzig, where a very comprehensive, systematic and thorough inventory has been made of the ecological values. The establishment of a data bank, in the sense of biotope mapping as a source of information - as in Leipzig or Berlin - could also be very useful for Rotterdam. The initiative taken by Public Works, to found the Rotterdam Institute for Urban Nature (bSR) in cooperation with the Natural History Museum, and to allocate one and a half jobs for this purpose, is therefore highly laudable.

RESULTS AND APPLICATION

But where could the biotope mapping instrument be applied? What are we actually talking about and what do we want to use this knowledge for? Biotope mapping is not an aim in itself, it can be used as an instrument to make the city richer and more attractive in the ecological sense, for both man and plants and animals. But what is the next step when you know what you have (from the inventory)? How do you deal with the tension between 'management' and 'development'? How do you deal with it in your spatial planning policy? An inventory is unable, in itself, to provide the basis of a spatial policy.

According to estimates, it could easily take some 10 to 15 years for bSR to survey the whole city in the way this was done in Berlin or Leipzig. Considering the enormity of the task of acquiring a clear picture of the natural values in the whole of Rotterdam, and the fact that this is only really worthwhile if things are repeated on a regular basis - in order to chart any decline or progress (processes) - it would seem sensible to start with a selected area of the city. Before Rotterdam embarks on biotope mapping, that is to say charting the ecologically valuable areas in the city, there is more to be considered than just the scale of the whole exercise and its phasing. The relationship with spatial planning is another matter for consideration. After all, it is certain that the success of biotope mapping depends on the degree to which it can be applied in spatial planning practice. Otherwise, it will mainly mean a lot of work, producing plenty of new knowledge but no new insights. How can biotope mapping be used as an instrument in the dynamic practice of spatial planning? Is it mainly a framework for testing proposals for spatial developments? Or does it constitute actual input for the spatial policy? In my opinion, preference should certainly be given to the latter, but how did they give substance to this in Berlin and Leipzig, for example? And how can this be done in Rotterdam?

As I see things at the moment, it seems important to make use of the knowledge acquired in two ways. First of all, the knowledge should be implemented in the management. A lot can be achieved with careful management. Here, it is vitally important to properly inform the users (the city's inhabitants) on the 'why's and how's'; nature

management and nature education must go hand in hand. In addition, there will have to be more and, most importantly, well-founded input in various spatial planning projects. It is conceivable that in the initial phase there will only be time for surveying the urban green areas for which layout plans are in preparation (such as the Zuiderpark and Noordrand). But, eventually, ecological knowledge must be used not in retrospect, as a type of ecological monitoring, but as an integral part, and right from the start.

FINALLY

On behalf of Mrs. Els Kuijper, the alderman responsible for parks and gardens in Rotterdam, it gives me great pleasure on this occasion to be able to promise the resources - from the department of Town Planning and Housing, and in addition to the financial effort offered by Public Works - needed to launch a trial project. This will be done in conjunction with bSR and a number of nature organisations. This offer is on the condition that such a trial project produces material (maps) that can be used in the dynamic practice of spatial planning. This means that it must become an inventory that is not only focused on existing natural values but, most importantly, towards potential. Only then can the material constitute a means of making Rotterdam, step by step, more attractive as a complete city.

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