

# COHESION AND FLEXIBILITY IN URBAN DESIGN PROCESS IN AMSTERDAM – ANALYSIS BY THE FRAME OF TIME AND SCALE

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**ABSTRACT:** This study proposes a frame to analyse whether urban design process has both cohesion and flexibility and what kind of features are required to make this combination possible. By the frame of time and scale, the author investigated physical proposals on a district scale, so-called *SPvE* in the Netherlands, and the decision-making procedure *Plaberum*, an internal rule of the city of Amsterdam. A case study on *Borneo en Sporenburg* of Eastern Docklands is conducted to examine the functionality and implications of the frame. In conclusion, the significant finding to maintain cohesion and flexibility is multiple scales of urban design documents *SPvE* under the condition of step-wise decisions by phases from an abstract to a concrete scale defined by *Plaberum*. Furthermore, supplemental studies and detailed references to an architecture scale at an early stage suggest possibilities of elaborating on a new role of urban design to link individual building activities to framework on a higher scale.

**KEYWORDS:** frame, urban design process, cohesion, flexibility, multiple scales and Amsterdam

## 1 INTRODUCTION

Over the decades, there has been a significant shift in planning processes in the field of urban planning. It was a common practice to have a pre-determined plan with a larger scale that served as the basis for granting permissions for subsequent proposals and actions. However, because of a rapid change of economy and society, the decrease of governmental power and financial resources and the attention to the quality of life, it has been extremely important to adapt urban planning system to market and social dynamism. Consequently, the demand to speed up approval and permission processes has emerged (Friedman 1997). In this context, the planning process has shifted from permission planning according to pre-determined plans to planning with collaboration and creativity (Dammers et al. 2004; Healey 2006).

In this shift to collaboration planning with diversified stakeholders, the roles of the private sector and of the citizens have become more important. Demands from and opinions of economical and social communities are quite varied and it is difficult to predict trends which are developed as the sum of individual wishes. A widespread consensus has therefore emerged that planning processes have to become more flexible to reflect the opinions and actions of a wider range of stakeholders. At the same time, these opinions and actions tend to be fragmented, and require producing some degree of coherence. (Healey et al. 1997, p.15)

That is why, the coexistence of both cohesion and flexibility is crucial in collaboration. On the one hand, cohesion -- which means the idea to have a logical relationship between physical proposals and different scales, such as policies, plans and realisation -- is important to make each element function properly and to avoid problems with conflicted fragments. This is not only for avoiding negative effects, but also for creating positive influence by creating entity and identity of places. For diversity, on the other hand, the concept of flexibility is important to create room for a discussion including diverse opinions. In urban developments, for example, flexibility can be maintained by the fact that public policies do not define function and housing types in too strict and detailed ways; then, this leaves possibilities for discussion and choices in the process among architects, developers and future users. By contrast, the relationship between cohesion and flexibility is contradictory. To make things coherent, it tends to control many aspects strictly; on the contrary, too many restrictions might hamper flexibility. Likewise, for flexibility, a simple way is to make everything free from restrictions, which in turn makes it difficult to sustain cohesion.

Therefore, the shift from the conventional system, which meant keeping cohesion by a top-down system,

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is necessary. In this system, the framework, for example spatial structure plans and masterplans, is to approve or permit the implementation of private architectural projects or urban developments. Recently, because of the above-mentioned trend, the connection between reference frameworks and individual activities has been weakened and, furthermore, individual activities have even changed the framework in practice (Hoetjes et al. 2006). That is why, the way to keep both cohesion and flexibility or, even more, the way to generate a framework for cohesion from diversified individual activities for flexibility should be sought in collaboration.

In this discussion, urban design plays an important role in the consideration of cohesion and flexibility in the collaboration planning. In fact, because of the involvement of market parties, urban design has received more attention since the 1990s, for example in England and Canada (Friedman 1997, Carmona 2003, Madanipour 2006). “Urban design” in this paper means a plan for a group of buildings, involving public spaces on a district scale. By this definition, the planning scale of urban design can be placed between urban planning and architecture. Generally speaking, the urban planning policies are implemented physically as an accumulation of individual physical projects, particularly architecture and public spaces. So, it is possible to say that the urban design assists to translate urban planning policies into individual projects. In the development process of physical proposals, the question how to keep both cohesion and flexibility should be raised, when transformed from abstract into concrete images.

However, urban design can be a *black box* in the process (Albrecht 2006, Tiesdell 2007), where logical consequence is difficult to understand. Therefore, it is vulnerable to maintain cohesion and flexibility in collaboration. One of the reasons is a difference in nature between policy and architecture as specialisations. While urban planning policies are generally expressed as texts accompanied by abstract drawings, architectural design is basically proposed by drawings with rather accurate form. Thus, urban design is crucial to consider cohesion and flexibility and this study focuses on the evaluation of this urban design.

Accordingly, the unknown here is how ‘cohesion and flexibility’ in urban design process could be analysed. This paper suggests the frame to analyse whether the discussion process of urban design maintains coherence and flexibility. If so, a further question is: what are the features to make this combination possible? The conclusion could reveal conditions of urban design to bridge the gap between the reference framework in urban planning and individual architectural activities and, furthermore, it could suggest the first step to consider a new system to gather individual activities into the framework on a higher scale.

As a case study, the author chose an actual project in Amsterdam to analyse what could the answer be in the city with a strong tradition of urban design. The Netherlands has a long tradition to ensure the connection between the spatial frameworks and individual activities (Healey et al. 1997; Hoetjes et al. 2006). In addition, urban design has performed the role to connect them. Thanks to the municipal ownership of land, the city of Amsterdam has kept strong power on city transform and, at the same time, as in the case of other capitals, the competition between cities forced the city service to change its planning tradition to work together with market parties. As a case study, *Borneo en Sporenburg* of Eastern Docklands project is taken because it was executed as one of the first collaboration projects between the market and the local government and new organisational collaboration was tested. This project was discussed in decision-making procedures, phased by *Plaberum*, which is an internal rule for urban design process of the city of Amsterdam.

## 2 METHODS

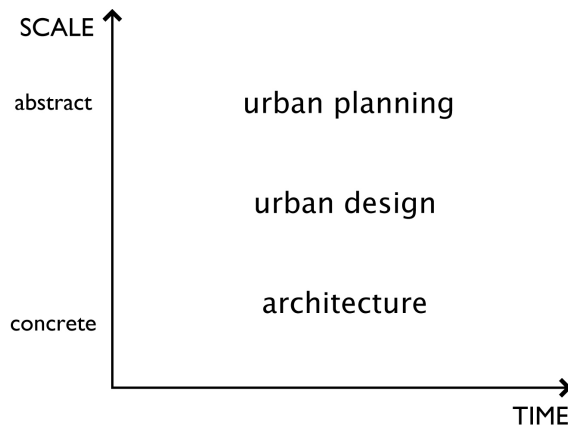
Some important studies about the difference between abstract plans and concrete plans in physical planning have been done in the Netherlands. Among others, Faludi and Valk (1994) described the difference between *strategic plans* and *project plans* by stating clearly that *strategic plans* are frames of references and that they are decision-orientated, while *project plans* are determined and material-orientated. Roo and Hoogd (2004) showed these two types of plans in an important schema. They applied the frame with time and scale to express the difference between *strategic plans* as plans with long-term and high-abstractness, and *operational plans* (meaning almost the same as the *project plans* by Faludi and Valk) in the other way around, thus short-term and high-concreteness. Further, they mentioned about *tactics plan* to bridge between them and this idea to point out the existence of in-between plans is crucial discussion for this study.

According to the study by Roo and Hoogd (2004), the frame of time and scale is applied in this paper to analyse a process in urban developments because it is suitable to examine the development of a physical proposal. The horizontal axis represents time for progress in decision-making, while the vertical one a physical proposal on a scale from concrete to abstract. The frame can be expressed as shown in Fig. 1. This frame is

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often used to demonstrate the feature of a process for urban planning, especially for process management (Ruyven 2006).

Time and scale are taken into consideration because of the following reasons. Time is one of major factors in a process. Generally speaking, series of decisions for complicated matters are made step by step in the progress of time. In addition, physical proposals can be described on varied scales from abstract to detail. Although the terminologies strongly depend on the system of each country, the scales of physical drawings are generally divided into the following: urban planning, urban design and architecture from abstract to detail (Fig.1). By using this frame, the proposals in urban design process are analysed.



**Figure 1** The Frame of Analysis

As materials, the Dutch urban design system and a concrete project are studied because the Netherlands has experienced the transition from pre-determined planning to collaboration planning since the 1980s and has tried to create a new approach and strategy for urban developments (Louw 2003; Hoetjes et al. 2006). The objects of research are set as both urban design documents called 'SPvE' and the decision-making system of process for urban developments, so-called 'Plaberum' from the city of Amsterdam<sup>1</sup>. This is because the enquiry into Dutch most populated cities shows that both are representative for the collaboration between different stakeholders. SPvE is an acronym for the Dutch 'Stedenbouwkundig programma van Eisen (urban design programme of requirements)', while Plaberum for the Dutch 'Plan- en besluitvormingsproces voor ruimtelijke maatregelen (spatial measures for plan and policy making process)'. As a case study, the author choose *Borneo en Sporenburg*, one of sub-districts of the Eastern Docklands in Amsterdam because their development process applied both SPvE and Plaberum and this project is an innovative example of collaborative planning, due to the transformation of the city policy for a private and public cooperation.

To examine SPvE and Plaberum, besides the above-mentioned frame, an enquiry, literature and documents studies as well as interviews were carried out. The enquiry was conducted in order to explore representative style of urban design documents and process for development in the Netherlands. Among the most populated 50 cities, 25 cities<sup>2</sup> answered the enquiry. In addition, for the understating of the relationship between urban design documents and process, literature studies and interviews have been conducted to discover the details, especially in Amsterdam. Lastly, the documents for the case study were closely analysed to learn what kinds of decisions were made in the process. These documents were limited in physical proposals. To confirm the findings from the document studies, some interviews were carried out for professionals who had been involved in the case study. The contents of proposals were studied by means of the frame of time and scale.

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<sup>1</sup> In this paper, *Plaberum* of version 2003 is used because the case study was discussed in the 1990s. Since 2006, a new system has been implemented in the City of Amsterdam, and it has fewer phases than the one of 2003. This change has been executed a part of "*de Grote Vereenvoudiging* (the Great Simplification)".

<sup>2</sup> In the order of population: Amsterdam, Rotterdam, 's-Gravenhage, Tilburg, Almere, Breda, Nijmegen, Haarlem, Amersfoort, Maastricht, Leiden, Zwolle, Ede, Sittard-Geleen, Westland, Alkmaar, Leeuwarden, Deventer, Helmond, Amstelveen, Roosendaal, Oss, Purmerend, Schiedam and Almelo

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### 3 DEFINITION OF URBAN DESIGN DOCUMENTS AND PROCESS

#### 3.1 SPvE; Urban Design Programme of Requirements

The enquiry among 25 cities showed that all the cities used *SPvE* or documents with similar contents. Not only Amsterdam but also more than half other cities answered that they use the acronym *SPvE*; so, from now onwards, the acronym *SPvE* will be used as representative.

The method of the enquiry was multiple-choice and it was prepared from the pilot research, and the author provided the possibility of answering differently from the prepared choices (the numbers given below in round brackets refer to the number of the cities which chose a particular answer). The results of the enquiry show three general features of *SPvE*. The first feature is that *SPvE* is a tool to express physical design at district level. About two thirds of municipalities choose “a concrete proposal at district level (15)” and “a design study or feasibility study for new projects at district level (16)”. These are the answers to the question of ‘Why do you make *SPvE*?’ The most frequent answer to the question of ‘What is a role of this document?’ is as follows: “proposal of spatial image to define quality of space (22)”. As the second character, more than half of the cities consider *SPvE* as a tool of communication. The chosen answers to the role of *SPvE* are “to create dialogue between different stakeholders (15)” and “to fix agreement between different stakeholders (15)”. Furthermore, in all the cities, *SPvE* is authorised by either “the unit of mayor and aldermen” or “the municipal council”. To summarise, *SPvE* is used as an official decision with different stakeholders. The third feature of *SPvE* as a “bridge between urban planning on a larger scale and architecture on a smaller scale (17)” and, in other words, a “connection between demands in numbers and concrete space (17)” are the answers to the role of *SPvE*.

From the answers about contents, *SPvE* can be expressed in many physical proposals on different scales. Although they do not have a standard index or format, most cities gave the following answers as standard contents: “position in a context of plan on a larger scale(17)”, “sector plans (such as green, traffic housing and public space) (17)” and “plan for land use and concept or principle of spatial composition(17)”. The other answers were: the “number of dwelling or area of offices and facilities (13)”, “models (12)”. This shows that most of the cities have a similar image of the *SPvE*. In order to confirm the result of the enquiry, the analysis of real documents in practice was performed for 20 documents of *SPvE* for the concrete projects from Amsterdam and Rotterdam. As a result, in the actual *SPvE*, more physical elements are contained, such as detailed image of urban design plan, references to architecture, public space and sections of streets.

#### 3.2 *Plaberum*; Definition of decision-making process for urban design developments

As already mentioned, the *Plaberum* of Amsterdam is a document which defines a decision-making process for urban developments. The enquiry revealed that 7 cities have defined names for phases and that 3 cities have the written definition of the decision process for urban developments. For the analysis, the *Plaberum* of Amsterdam is chosen because it has been used in practice for the longest period since 1986.

The *Plaberum* defines who makes an official decision with what kind of contents to avoid confusion in a planning process. According to the written explanation of *Plaberum*, firstly, *Plaberum* is a communication tool which aims to give the clarity of a process to participants. Secondly, by means of *Plaberum*, city executives and a project leader gain an opportunity to steer a process. These functions are required because, before the introduction of *Plaberum*, many similar plans with different names by different sectors made it confusing what an authorised decision was in order to succeed in a further process.

*Plaberum* consists of three definitions: the phases in a process, the decision-maker for each phase and the contents of a product per phase. The decision-making process is divided into seven phases. For each phase, *Plaberum* designates to define the purpose, the task for each public service, the contents of a product and the political decision. The purpose is represented by the title of the phases: *starting note* (phase0), *feasibility study* (phase1), *note of starting point* (phase2), *urban design programme of requirements*, namely *SPvE* (phase3), *urban design plan* (phase4), *realisation* (phase5) and *maintenance* (phase6)<sup>3</sup>.

Furthermore, *Plaberum* defines who makes a decision per phase. Each phase has to finish with a decision by the alderman, who is in charge of spatial planning. Only for phase 3, the mayor and the city council have to agree with the proposal as well. This decision-making by the council makes the position of a proposal important in social context. All decisions per phase are open to the public.

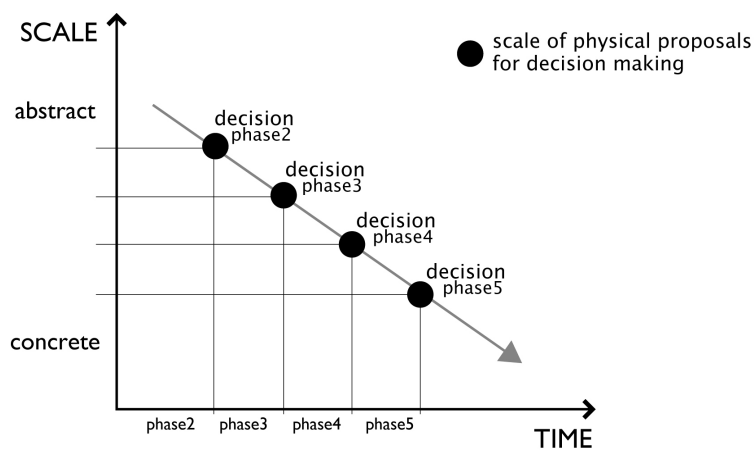
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<sup>3</sup> In Dutch, phase 0: Startnotitie, phase 1: Haalbaarheidsonderzoek, phase 2: Nota van Uitgangspunten (NvU), phase 3: Stedenbouwkundig Programma van Eisen (SPvE), phase 4: Stedenbouwkundig plan (SP), phase 5: Realiseren and phase 6: Beheer

Finally, the biggest number of pages of *Plaberum* is used to define what should be written in products for proposals. For instance, phase 2 consists of: purpose of development, possibilities and problems, research from different sectors, map of planning area, plan with study of function and programme, plot plans and land use plans. Most of the components of phases 4 and 5 are drawings and their indication of scales, for example at 1:1000 for a plot plan in phase 4 and at 1:200 for a facility plan in phase 5. The definition of contents shows that, as the process goes further, the contents contain more drawings and details.

### 3.3 Discussion

The analysis by the frame demonstrates the following features of *Plaberum*. Figure 2 shows the definition of *Plaberum*, which is applied to the frame of time and scale. Especially for phases 2 to 5, the further the process goes in time, the more detailed the scale of physical proposals for decision becomes. Thus, a decision-making trace which is shown by Fig.2 can be presumed.

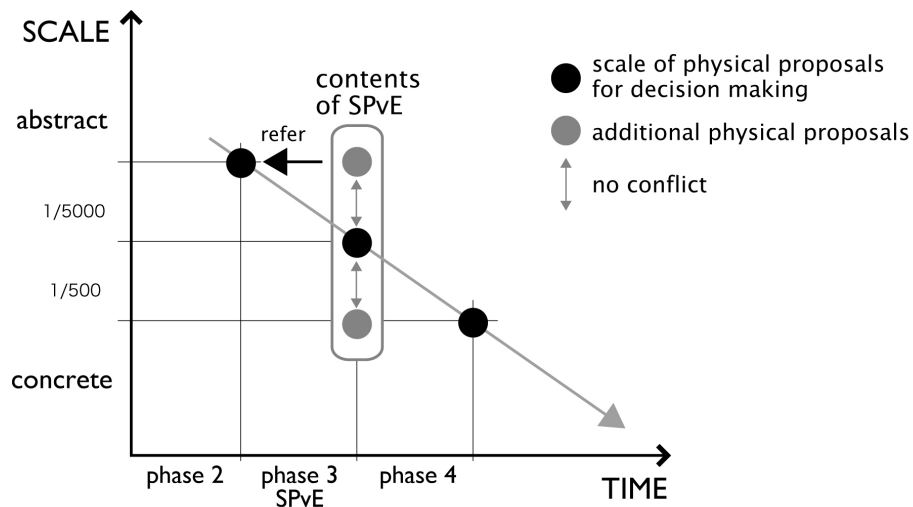


**Figure 2** The Structure of *Plaberum*

This step-wise structure of decision-making and the definition of *Plaberum* creates a possibility of having cohesion between decided proposals in a process. This structure from an abstract to a concrete scale would not only by itself be sufficient to grantee cohesion. However, *Plaberum* defines to makes reference to the decision of a former phase, so there is a possibility that it can maintain cohesion to some extent.

Further, *SPvE* is examined in detail. Although, according to the names of the phases and to the definition of the contents by *Plaberum*, both the *urban design programme of requirements*, thus *SPvE* (phase 3), and the *urban design plan* (phase 4) can be considered as the proposals of urban design, the proposal in phase 3 (*SPvE*), is considered as urban design documents for this study. This is because, from the contents, phase 3 is placed at the transition point from a text-based policy to more physical drawings. In addition, the decision of *SPvE* is the most important one because it is the only phase in which the city council is involved in decision-making, and they decide whether to go further or to stop the planning process for a project.

As Fig.3 shows, in the frame of time and scale, the components of *SPvE* make layers on scales. The scale of main proposal for decision is urban design on a scale of 1:5,000 to 1:500. Furthermore, it is accompanied by both an explanation of the former phase on a more abstract scale and references on a detailed scale.



**Figure 3** The Contents of *SPvE*

Here, *SPvE* is evaluated by the criteria of cohesion and flexibility. To begin with, the layer of scale supports to maintain cohesion. All the cities answered in the enquiry that they refer to the plan on a higher scale. Moreover, in Amsterdam, *Plaberum* defines that the proposals of each phase have to contain the decision of the former phase. In fact, from the analysis of existing *SPvE* documents, the contents of *SPvE* (phase3) normally include the description of the decision of phase 2 at the beginning of the report, as “what decided before”. In the second place, references to architecture are added in order to illustrate how the urban design proposal could be implemented later. A reference means that they are no definitive decisions and just shows possible solutions. As a consequence, in such a way of expressing, the proposals at detailed level can leave choices open for later phases. Generally speaking, proposals on different scales should not conflict with each other in one document. In this way, the layer of scales helps to keep cohesion, while the reference on a detailed scale, thus architecture here, helps to keep flexibility for later stages.

## 4 CASE STUDY

### 4.1 Process of urban design for *Borneo en Sporenburg* of the Eastern Docklands

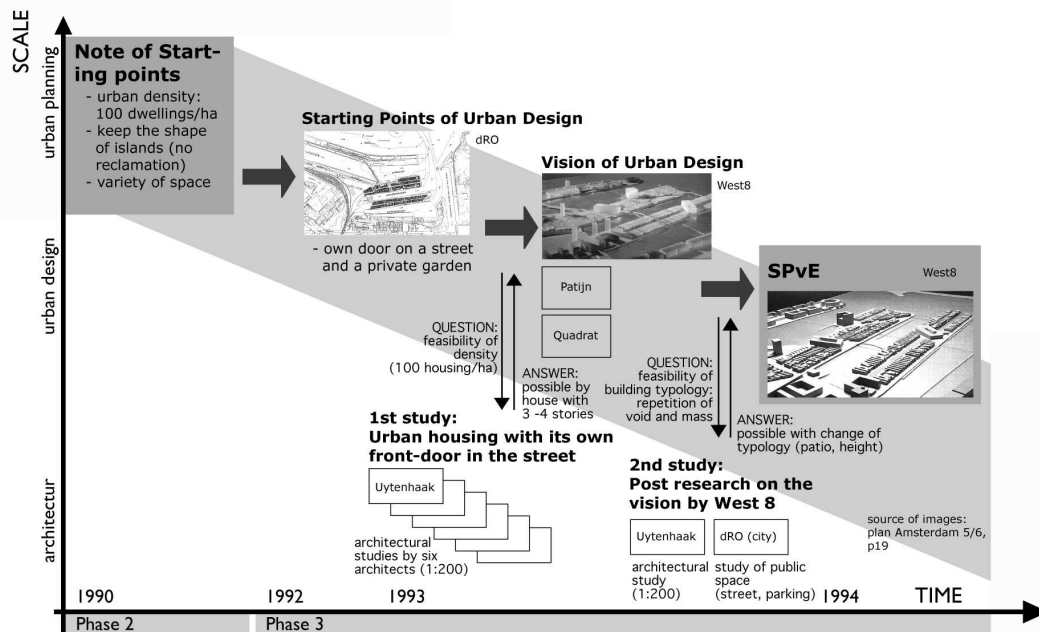
In this subsection, the first case study is conducted. *Borneo en Sporenburg* is one of the sub-districts in the Eastern Docklands, a major urban development in the city of Amsterdam. The whole Eastern Docklands occupy the area of 313 ha, including two thirds of water surface and they consist of 8500 dwellings. *Borneo en Sporenburg*, as a part of the Eastern docklands, contains about 2100 dwellings. The Eastern Docklands development began to be planned in the 1970s and sub-districts started to be built in the 1980s.

During the development of the Eastern Docklands, the ratio between the subsidised housing categories decreased from 100 to 50 per cent for other sub-districts, and then to 30 per cent in *Borneo en Sporenburg*. Because of this change, the collaboration between the municipality and market parties was increasingly needed in a planning process. For *Borneo en Sporenburg*, the new method of collaboration was tried out; the organisation called the New Deal was founded as a consortium of housing corporations and developers, and it participated in the project as a representative of market parties from the early stage of the process in order to reflect market value.

The decision process of *SPvE* for *Borneo en Sporenburg* is examined in detail. As well as other sub-districts in the Eastern Docklands, it followed *Plaberum*. However, besides the proposal according to *Plaberum*, supplemental documents were approved of by the city service and the New Deal between phases 2 and 3: two urban design proposals and two design studies. By following *Plaberum*, the *Note of Starting Points* (phase2) was designated for the whole Eastern Docklands in 1990. Then, in 1994, the *SPvE* (phase3) was authorised by the city council. The supplemental documents between phases 2 and 3 are the *Starting Points of Urban Design* in 1992 and the *Vision of Urban Design* in 1993. In addition, two design studies were conducted between these informal documents: *Urban Housing with its Own Front-Door in the Street* and *Post Research on the Vision* by West 8, both in 1993 (Fig.4). These extra documents were basically meant for the dialogue

with a municipal design team and the New Deal in order to reach an agreement.

Two urban design documents -- the *Starting Points of Urban Design* and the *Vision of Urban Design* -- were prepared as preliminary designs for negotiations towards the official decision of SPvE. The *Starting Points of Urban Design* in 1992 showed the idea of the municipal design team from spatial planning service (dRO), and then three external urban designers were invited to participate in a competition, as well as other two sub-districts (Jolles 2003). Selection was made together with the New Deal, and the selected idea by West 8 became the *Vision of Urban Design* in 1993. In comparison with the *Starting Points of Urban Design*, this was more detailed, and SPvE is more elaborated than the *Vision of Urban Design*.



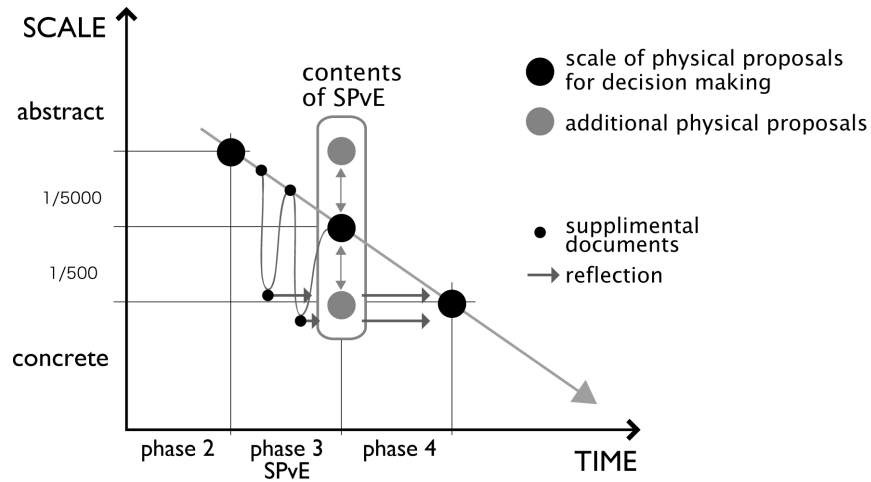
**Figure 4** The Urban Design Process for *Borneo en Sporenburg*

Besides the mentioned urban design documents, two other studies -- *Urban Housing with its Own Front-Door in the Street* and *Post Research on the Vision by West 8* -- were conducted because the New Deal had a question about the contents of those urban design documents. For example, in the *Starting Points of Urban Design*, the proposed idea was to have the housing typology with its own front-door in the streets, which was a kind of status of Dutch housing in the market. However, the market parties wondered whether it did not conflict with the required density of 100 dwellings per hectare. This question was difficult to be answered only with a proposal on an urban design scale. Therefore, the study was commissioned to six architects in order to propose possible solutions for keeping housing typology and density at the same time. The result of the study showed the possibility of building such housing types with 3 or 4 storeys with the required density and, therefore applied into the *Vision of Urban Design*. The other study also solved the problem with implementation cost of housing typology with repetitions of void and mass in the *Vision of Urban Design* by transforming typology into patio-housings (Maar 1999, Brouwer 2002).

These questions from the market parties were probably raised because of an abstract scale in urban design proposals. The urban design proposals are often drawn on the scale up to about 1:500 (section could be on 1:200). This scale, however, is not detailed enough to imagine a plan at architecture level and to judge the quality of housing, especially from the viewpoint of market demands. As a consequence, it was necessary to show possible plans of dwellings for the market parties as if they could be discussed from market parties' point of view.

## 4.2 Discussion

The process between phases 2 and 3 is illustrated in the frame with time and scale in Fig.5. The unofficial documents added more steps between the official phases 2 and 3 in *Plaberum* on the decision-making trace in Fig.2. The design studies were drawn on much detailed scales.



**Figure 5** The Deviation of the Studies

The evaluation by the criteria gives an explanation for this deviation. Such an analysis would help the cohesion of the contents in a process. The essential point of this study is that, although it is detailed on an architecture scale, the proposed plans are not definitive and they allow for the possibility of development or plan change at a later stage. Thus, the references to a smaller scale also maintain flexibility because studies and references can leave room for discussion, and diversion can happen later.

It can also be seen that concrete images for architecture might keep cohesion. These references played an important role to solve a doubt from the market party, the New Deal. This means that without these studies the New Deal could not agree and share the urban design plan. By drawing architecture at more detailed level than *SPvE*, the feasibility of the urban design proposal was checked, and then the resulted studies on architecture became more reliable for the market parties. It can be said that later architectural elaborations, as commissioned by developers, could keep more cohesion with the urban design plan, *SPvE*.

## 5 CONCLUSIONS

To answer the research question whether the Dutch urban design process has both cohesion and flexibility, the findings of the analysis are summarised here as follows. First of all, *Plaberum* forms the basis for stakeholders to share the urban design process. It has a simple structure, decisions are made with physical plans from an abstract scale to a concrete scale by time, and it is defined by the names and contents for physical proposals per phase. Although it is an internal rule in the city service, *SPvE* of phase 3 has to be decided by the council and it makes the status of a decision official.

To maintain cohesion, three features are pointed out. Firstly, according to *Plaberum*, the contents of one phase have to describe and to refer to what is decided by the former phase. Thus, to some extent, logical development from the plan of the former phase to the one of the next phase is secured. Secondly, cohesion could be maintained by multiple layers of physical proposals on different scales of *SPvE*. There are three layers: the proposal of the former phase (phase 2) is described as what decided before, urban design plans as *SPvE* (phase 3) and architecture references for later phases as possible development from *SPvE*. Generally speaking, proposals in one document have no conflict; therefore, this layer structure makes it possible to have cohesion between proposals on these three scales. Thirdly, the concept of reference can also contribute to the creation of cohesion because, if stakeholders share it, it can maintain the idea of *SPvE*, namely the urban design at a later stage.

For flexibility, as an obvious feature, a decision trace by the rule of *Plaberum*, deciding on physical plans on a abstract scale leaves the possibility of elaborating on a concrete scale in several ways in later phases. From the analysis of *Borneo en Sporenburg*, the idea of *Note of Starting Points* (phase 2) could be translated into three ideas by designers, and one idea is chosen. This contributes to make the discussion between the New Deal and the city service more flexible. Furthermore, the case study reveals that supplemental proposals and studies are added to the proposals defined by *Plaberum*. It is significant to note that these studies are not compatible with the one direction of decision from an abstract to a concrete scale. By doing this, reference



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images in the studies have reflection on the result of *SPvE*. Consequently, cohesion between *SPvE* and architectural references becomes more feasible in realisation. At the same time, flexibility is secured because they are studies on possibilities and they are not bound to happen.

To summarise, first of all, participants share the process of decision-making, which is defined by time and scale. On the basis of time and scale, decisions are taken from an abstract to detailed scales. Secondly, an urban design document has a layer of scales in which a proposal refers to the former decision properly, helping to have cohesion and references in order to make following choices flexible. Thirdly, in practice, effective supplemental proposals which are reflected on one of the layers of an urban design document can help to make cohesion more feasible.

In conclusion, urban design documents which are described on multiple layers are significantly meaningful for keeping cohesion, by defining physical relationship with bigger and smaller scales, and for leaving further choices open to flexibility at later stages. Although decision-making can follow the order of scales from abstract to detailed, strategic proposals with the deviation from the order of scales can play an important role in achieving both cohesion and flexibility.

Moreover, this deviation suggests the possibility of considering a new role of the urban design in order to generate reference frameworks with higher scales on the contexts of individual building activities. In the case study, a proposal with irregular scales, such as studies conducted with more detailed scales than the one of the urban design, could help to keep cohesion and to reach agreement by showing possible solutions to further phases. This implies that to share concrete activities before the decision of the urban design can help to guide a realistic urban design, and that the image of individual activities might stimulate to reach agreement on the spatial framework on a higher scale.

Finally, three further studies are suggested. First, in order to test and to elaborate this frame of analysis, more projects should be analysed in the same way. In particular, to examine the last findings, projects with pilot projects developed before the urban design proposal are to be investigated. Second, the latest *Plaberum 2006* should be examined. It suggests inadequacies of *Plaberum 2003* intended to be solved. *Plaberum* drastically changed in 2006 to speed up and to ensure more involvement of market parties. So, a comparative study of the latest and the old *Plaberum* as well as the applied projects could possibly offer more findings.

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