

Revitalizing a once forgotten past?

How the Arnhem Nijmegen City Region can use its industrial DNA to contribute to spatial, economic and tourist development





This report is written as a Master Thesis for the Master specialization 'Urban and Cultural Geography' from the master Human Geography at the Radboud University Nijmegen, Faculty of Management. Furthermore this research is written on behalf of the Arnhem Nijmegen City Region and the Regional Tourist Board (RBT-KAN).

Title of Report

Revitalizing a once forgotten past? How the Arnhem Nijmegen City Region can use its industrial DNA to contribute to spatial, economic and tourist development

Cover photo

Current state of former Coberco factory, Arnhem 2011.

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Date and place

Nijmegen, November 2011.

Cover map

Map of the Arnhem Nijmegen City Region

Organizations

Arnhem Nijmegen City Region and
Regional Tourist Board (RBT-KAN)

Photography

Boudewijn Wijnacker 2011

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Regional Tourist Board

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Preface

As a Master student Human Geography at the Radboud University Nijmegen, I was stimulated to find an internship in the second half of the year that would suit my preferences and qualities. After graduating in November 2010 as a Master student Cultural Geography at the Radboud University Nijmegen, my interests soon focused on the historical and urban questions that dealt with cities and urban cultures. As a cultural historian, the terrain of urban and cultural geography is a discipline of renewed insights: evolving a sole historical focus into a more practical and day-to-day attitude, focused on issues that are of relevance for society as a whole. That is what makes this specialization so special in my opinion: knowledge from the present, derived by the past. This terrain of historical urban and cultural geography became the base on which this research was founded on.

From February on till September 2011, I followed an internship at the Arnhem Nijmegen City Region, an organization that deals with infrastructural, economic and residential issues for the Arnhem Nijmegen City Region as a geographical area. Therefore, this research was focused on this specific region. In cooperation with the Regional Tourist Board (RBT-KAN), the focus of this research was determined. Since there was a need from both the Arnhem Nijmegen City Region and the Regional Tourist Board to create plans for a so-called 'Regionaal Beeldverhaal' – a concept discussed in the introduction of this research – this research was directed towards the reutilization of industrial heritage and the impact this process possesses on economic, spatial and tourist progress. What opportunities arise for the Arnhem Nijmegen City Region to use its industrial DNA for economic, spatial and tourist prosperity? Closely linked to this question is the redevelopment of many deserted factory complexes that are widely spread across the region as part of the region's historically grown identity. Together with my two tutors from the Arnhem Nijmegen City Region – Drs. Eva Verhoeven – and the Regional Tourist Board – Drs. René Kwant – I came up with the focus of this research. I want to thank them for their inspiration, their guidance and their effort in assisting me with this research. Since this research mainly deals with qualitative issues as identity, cultural history and regional tourist policy, interviews were thought to fill in the methodological needs. I want to thank every participant that I have interviewed throughout this research for their involvement in the process. Without their substantial input, this research would have suffered from a lack of substance, theoretical depth and even more, quality.

By means of interviewing relevant institutions and thorough desk research, this report tried to find a balance between scientific, theoretical notions and empirical views derived from daily practice and expertise. In this way, I tried to embed this research in relevant scientific debates as well as entangling it in relevant, practical debates. In contacting educational institutions, urban planning agencies, cultural advisory organs, cultural entrepreneurs as well as economic institutions as the Chamber of Commerce and smaller, regional entrepreneurial organizations, this research was able to balance between economic expertise and cultural significance to provide a broad overview of the questions involved. Last, but certainly not least, I wish to thank my tutor at the Radboud University – Drs. Jackie van de Walle – for her guidance, motivation and openness in interpersonal contact. I can review on a very pleasant and fruitful cooperation and I appreciate her enthusiasm and interest in the project very much. For now, I wish the reader all the pleasure in discovering a part of the region's identity that had been underexposed for many years.

Introduction



Image of the former Coberco dairy factory in
the city of Arnhem.
Boudewijn Wijnacker 2011

“New ideas must use old buildings”

- Jane Jacobs, *The death and life of great American cities* (1961)

It was 1961 when urban sociologist Jane Jacobs launched her influential urban analysis *The death and life of great American cities* as an answer to the alleged impersonal modernist city planning by visionary planners as Le Corbusier and Franklin Lloyd Wright. According to Jacobs, in the context of the rapidly modernizing American society, the increasing amount of commercial enterprises moved to newly built stores, mostly in the urban periphery, following the modernist need for ongoing urban renewal. Jacobs stated that creative businesses, such as neighbourhood bars, galleries, antique stores, book shops and art museums remained active in old buildings: buildings telling a story. Jacobs rejected the idea that educated architects and planners were the ones to create an urban identity, as she assumed that an urban environment derived its meaning through dialectical interaction within an urban population. In the eyes of Jacobs, living climate in a city benefited from the presence of old buildings that were able to attract businesses that were closely related to local or regional cultural values (Jacobs 1961).

With her statement on the value of old buildings, Jacobs referred to the reutilization of old buildings by implementing new ideas. In her opinion, preservation of these buildings for the sake of preservation was to be avoided. This notion can be linked to the current rise of redevelopment programs in Dutch monumental policy. For a long time policy was focused on the remnants of the nineteenth century, including aesthetically beautiful manor houses, neo-classical buildings and public buildings of latenineteenth-century *bourgeois* allure. Factories that were built in the context of industrialization in the second half of the nineteenth century as well as industrial complexes built in the course of the twentieth century remained absent on Dutch municipal monumental lists for a long time.

When the concept of industrial heritage received human interest in the 1970s and 1980s, many advocates turned to the view of Jacobs. The first sounds for protecting industrial heritage were heard in England in the 1950s. Neil Cossons stated that this attitude derived from the threatening destruction of nineteenth century buildings, but especially from the post-war attention for ‘physical monuments of those who had so spectacularly generated growth in the industrial revolution’ (Cossons 1975: 18). This renewed interest was also shown in Dutch society, with former factories such as the Van Nelle factory (1983) and the Westergas factory (1989) being baptized into national monuments in the 1980s. Of course, many former factories possess value without being assigned a monumental status. Several industries find their origins in the surroundings of Arnhem and Nijmegen, creating a chimney-dominated panorama, even visible from large distance. This research focuses on the redevelopment of these industrial buildings in the Arnhem Nijmegen City Region. Since this report is written as initiative by the Arnhem Nijmegen City Region and the Regional Tourist Board (RBT-KAN), the primary focus of this research is on this geographical defined area. It is interesting to see to what extent industrial characteristics determine the region’s identity and how one can describe this industrial DNA.

With this industrial DNA into mind, redevelopment of former factories is becoming more and more important for policy makers. The main goal of this research is to find out which opportunities arise for the Arnhem Nijmegen City Region to use its industrial DNA for spatial, economic and tourist development. This aim is strongly embedded in the current economic profile of the region, giving room for multidisciplinary approaches and transsectoral economic policy. Also, urban renewal programs tend to focus more and more on the redevelopment and transformation of existing

buildings, rather than advocating an urban expansion that would damage the natural landscape. With the increasing amount of office buildings, schools, military complexes, churches and factories left deserted due to the high costs of redevelopment in comparison to acquiring new construction lands, the need for redeveloping these old buildings is definitely there.

This introduction takes the reader along in explaining the motives, chosen measures and relevancy behind this research. For the sake of structure, this introduction contains the following features:

- The concept of a 'Regionaal Beeldverhaal'
- Summary of the central goal
- Summary of the research questions
- Methodology
 - Sources and methods of data collection
 - Theoretical grounding
 - Applied theories
- Research model
- Societal relevance of this research
- Scientific relevance of this research
- Criteria for and overview of the chosen case studies

The concept of a 'Regionaal Beeldverhaal'

In mapping industrial characteristics of the region and finding ways to make former industrial complexes once again profitable hubs of activity, this research will be part of a so-called 'Regionaal Beeldverhaal': an entirely new concept that tries to provide a stage for different actors in the commercial, tourist and policy making world. At this moment, the Arnhem Nijmegen City Region and the Regional Tourist Board (RBT-KAN) are creating a so-called 'Regional Beeldverhaal' in which they try to define what the identity of the entire region is. The aim of this concept is to look at how tourism can contribute to economic, spatial and tourist development. As the Randstad and the Twente Region, the Arnhem Nijmegen City Region is to be promoted as a economically strong, cultural well defined and attractive area for both tourists, investors, entrepreneurs and other interested parties. A 'Regionaal Beeldverhaal' is to be seen as an instrument to stimulate regional development and to improve spatial quality. Based on these regional characteristics, multiple involved partners should be able to create a legitimate policy program that is to be rooted in regional economy, culture and society.

According to Hans Mommaas, senior lecturer leisure studies at the University of Tilburg, tourism has too long be seen as a stand-alone concept, lacking any links with a regional economy or spatial structure (Interview Hans Mommaas 2011). Yet, in the context of the process of globalization, with disappearing borders and the loss of personal life, tourists are more and more concerned in finding a local or regional identity. Therefore, tourism is more and more to be embedded in regional contexts: how can tourism be linked to spatial and economic development? No longer should one plan 'placeless' tourist activities, that can be unplugged from a regional structure without damaging the core concept of the leisure activity. A 'Regionaal Beeldverhaal' is more than just a marketing tool: it should function as a stage on which different related actors can engage with each other. To sustain economic competition, the identity of the region should be well defined, to attract investors and to promote a clear image in marketing and tourism advertisement. How can the preservation of cultural heritage, leisure activities and profitable economic business enhance each other?

Summary of the Central Goal

As is the concept of a Regionaal Beeldverhaal, this research deals with multiple issues, varying from economic profit, leisure activities, regional marketing and economic characteristics and chances, all linked to the redevelopment of industrial heritage in the Arnhem Nijmegen City Region. How can one redevelop a former factory complex in order to make these formerly abandoned places once again thriving hubs of activity? Looking at the characteristics of the industrial sector in the Arnhem Nijmegen City Region and to what extent these characteristics contribute in defining the cultural identity of the entire region is the starting point for this analysis. Of which is this industrial identity composed, leading to the relevant question of how one can describe this industrial DNA. If one speaks of the Arnhem Nijmegen City Region, to what extent is one referring to the region's industrial DNA? Of course, industrial characterization is closely linked to the maintenance and redevelopment of industrial heritage. This research tries to find possibilities that emerge out of this DNA for policy makers. Therefore, since this report is composed in cooperation with the Regional Tourist Board (RBT-KAN), it is interesting to see in what way spatial, tourist and economic development can be linked to the redevelopment of former factory complexes. Therefore, the main goal of this research is:

To find out to what extent the Arnhem Nijmegen City Region could use its industrial DNA to contribute to spatial, economic and tourist development.

Summary of the research questions

Main question

- What are the opportunities for the Arnhem Nijmegen City Region to use its industrial DNA to contribute to spatial, economic and tourist development?

For this research, it is crucial to look at the characteristics of the industrial sector in the City Region, followed by determining the influence of these characteristics to society as a whole. What comprises this industrial identity and which opportunities arise from this industrial DNA? How important is the maintenance and redevelopment of industrial heritage in this sense and can this redevelopment lead to spatial, economic and tourist progress? How important is the region's industrial identity in comparison to other regional characteristics? These are questions that deserve further examination.

Subquestions

1. What are the industrial characteristics of the Arnhem Nijmegen City Region?

To define the influence of the region's industrial sector on its cultural identity, one first has to look at the characteristics of this sector. What makes the Arnhem Nijmegen City Region so special? What kind of industries have gathered influence in the course of the twentieth century? According to the Economic Agenda from the Arnhem Nijmegen City Region, the regional economy is mainly characterized by the clusters of energy, health care, semiconductors, fashion and design and tourism (Economic Agenda 2007-2010). These five clusters are elaborately discussed in the Economic Agenda of the Arnhem Nijmegen City Region, so if one demands more information on these clusters one should rather address this agenda in order to avoid unnecessary repetition in this research. In this

sense, main goal of this chapter is to find out which industries form the region's industrial DNA. Therefore, elaborate economic analyses of the five clusters above are more suited for economic experts and not for an urban and culturally orientated Master Thesis like this research.

Of course, industrial entrepreneurs can only start up a business if commodities and raw materials are present. Geological and physical characteristics determine business location policy for a great part. These characteristics need to be examined before one seeks a causal relation or correlation between cultural ideology and business characteristics. Therefore, to what extent can one state that there is 'one' industrial identity for the Arnhem Nijmegen City Region? Identity building is not an easy process, balancing between characterizing differences and finding similarities, as discussed in this chapter.

2. How can the redevelopment of former factory complexes contribute to spatial, economic and tourist development?

Closely linked to the issues mentioned above is the case of industrial heritage. If one states that industrial history must be considered as very important for the region's identity, maintenance and redevelopment of former factory complexes should be there on the political agenda. For this question it is important to look at in which way these former factory complexes can be of use in the present economic system, without losing the links to the past. Of course, reawakening merely old businesses is outdated by all means: these kind of businesses did not disappear without a clear reason. That is why linking up with the present demands adds to the viability of industrial heritage. Increasingly, industrial heritage is given a monumental status: a shortcoming in monumental care for many years. This chapter will elaborate on this policy towards industrial heritage. How has the concept of industrial heritage been explored during the last decades and how come many former factories are absent on various monumental lists? For this chapter, case studies will be chosen – later on in this introduction a more elaborate look on the selection criteria for these case studies is given.

3. What are the opportunities for the policy makers of the Arnhem Nijmegen City Region to promote the City Region on its industrial DNA?

When it is clear what the characteristics of the industrial sector are of the City Region and to what extent spatial, economic and tourist development can be linked to the redevelopment of industrial heritage, one can look at the consequences for current policy. What opportunities arise from this critically analyzed industrial DNA? Marketing experts are joining the stage to debate whether the concept of industrial heritage can be used in regional marketing programs. With the changing demands of the tourist market, as well as the changing role of the tourist industry itself, it is interesting to see what role industrial heritage can play in this ongoing changing context. These are questions that can only be answered by talking to representatives from the municipalities and other policy makers. Whereas tourism is more and more obliged to contribute to spatial and economic progress – as seen in the growing emergence of 'Regionale Beeldverhalen' – the industrial DNA of the City Region offers possibilities for the tourist market and for regional marketing. This chapter will elaborate on these issues, set against the background of the rise of cultural tourism and the need for historically embedded urban and regional unique-selling points.

Methodology

- **Sources and methods of data collection**

Method of interviewing

To provide this research with empirical data, this research uses semi-structured interviews besides desk research and visiting the places involved. In the interviews, 25 in total, finding the balance between spontaneous interaction and guarding the backbone of an interview was considered to be crucial. For each interview, thorough preparation was used as a way to gain scientific depth. Yet, providing space for spontaneous interaction resulted in a more natural and engaging way of obtaining information. While every interview had been taped to stimulate a dialogue with the respondent, an exchange of knowledge was promoted, although several guidelines had to be made to maintain a sharp focus within each interview. This focus depended on the expertise and knowledge of the respondent.

The interviews have been characterized by both ‘general theoretical interviews’ and ‘case study related interviews’. The first type of interview respondents refers to specialists from universities, cultural advisory organs, spatial planning agencies, the chamber of commerce and so on. In short, all people who deal with the issues involved on a daily basis, but are by no means limited to one project. Their views address the more ‘general’ issues that arise in answering the research questions of this research. Of course, one should be careful with making general statements that are valid to all related cases. Yet, based on long-lasting expertise, knowledge and daily practice, these respondents can give useful information on the general conclusions of this research.

Policy makers who have been or are actively involved in specific projects are categorized in ‘case study related interviews’. They have specific expertise on one of the addressed case studies. Their information should be seen as tailored for each case study, but not by all means as applicable to other case studies. Of course, each party brings along its own political agenda for the project, but exactly the tensions that arise in the process of debating are interesting to analyze. The tensions that arise for each project deserve thorough analysis by means of a qualitative approach. Because every case study involves completely different processes, there was no clear general interview structure in use for these case-related interviews.

Each respondent was asked prior to the interview to describe its own involvement with industrial heritage or even the specific project the respondent deals with. In doing this, it may be clear to the reader of the written-down interview how the consulted partner positions itself in the offered debates. The content of each interview depended on the expertise of the respondent. Basically, the following structure was used in each ‘general theoretical’ interview per chapter:

Structure of the interviews – Theoretical interviews					
Chapter 1		Chapter 2		Chapter 3	
<i>Industrial characteristics (both present and past)</i>		<i>The concept of industrial heritage</i>		<i>Problems of regional marketing</i>	
<i>Importance of characteristics for regional identity</i>		<i>Problems, strategies and guidelines for redevelopment</i>		<i>The role heritage can play in spatial, economic and tourist policy</i>	
<i>Future developments</i>		<i>Future developments</i>		<i>Future developments</i>	

For interviews that were used in the first chapter of this research, information on the industrial characteristics – focused on both the present economy as well as historically grown industrial enterprises – was crucial for understanding the possibilities these clusters had to offer for both the regional society, economy as well as tourist character. Based on this information, one is able to give attention to future developments: how will these industrial branches develop in the coming years? This set-up – of industrial characteristics, their importance and future developments – was taken into account for the interviews dealing with the issues of the first chapter.

For interviews that were taken for acquiring information on the redevelopment of industrial heritage as a process – as said key for the second chapter – the concept of industrial heritage was something that had to be addressed prior to the process of redevelopment itself. Therefore, questions aimed at this concept – such as the uniqueness of industrial heritage, their values etc. – were asked in the early stages of each interview. When this was made clear, one could focus on the process of redevelopment itself: what are the difficulties or recommended strategies for this process? And last but not least, questions concerning the coming years – in what way will or should redevelopment take place? – finalize the theoretical interviews for the second chapter.

For the third chapter, issues concerning the use of a regional identity – in this case the industrial DNA of the Arnhem Nijmegen City Region – were thought to be crucial for understanding the possibilities this identity offers for spatial, economic and tourist policy. Therefore, before addressing these possibilities, the difficulties of marketing should be addressed before: if one is aware of these controversies, one is able to make valid statements on the role industrial heritage can play in the process. As well as the first and second chapter, the interviews for this chapter end with predicted developments for the future.

Balancing between interviews and scientific analyses

This research mainly benefits from a qualitative approach. Besides analyzing existing reports and scientific literature, empirical research is done through interviews and actually visiting the places involved. Also, visiting several related expert meetings accounted for the conclusions of this report. For this report it is important to look at the crucial issues from multiple perspectives, because this is a research that both deals with economics, cultural values and identity concepts. Because interviews themselves are not comparable without caution to literature studies, one has to distinguish these types of sources. An author uses quotations and annotations in his work, referring to co-authors and using scientifically embedded perspectives to formulate a hypothesis. For a reader, it is – when scientific quality is sufficient – clear on which grounds an author makes his assumptions. In an interview, the absence of references and notes result in a more personal view.

Multidisciplinary Interviews in stead of quantitative analysis

Because this is a research that is closely connected to ideological issues considering identity, marketing and cultural values a qualitative approach is able to address these issues, that can't be captured in mere numbers. The qualitative character of this research is mainly rested on interviewing relevant institutions. This research deals with the hypothesis that redevelopment of industrial heritage mainly concerns policy makers and parties that are actively engaged in the process. Therefore, interviews with relevant institutions are to be preferred. Formulating a survey among ordinary citizens would have been an option as well, although the outcomes of the interviews have shown that dealing with industrial heritage is mainly something that is of use for actively engaged organizations. As Paul Klep, Cees Alewijnse and Gert-Jan Hospers have stated in an interview, the

value of former factories is only widely recognized among citizens once policy makers start dealing with it (Interview Paul Klep 2011; Interview Cees Alewijnse 2011; Interview Gert-Jan Hospers 2011). Additionally, since this research deals with multiple disciplines, this multidisciplinary approach will be used in both analysis of literature and interviewing relevant organizations.

- **Theoretical grounding**

This research has been written in the scientific fields of postmodernism and structuralism. Although this seems to be a ‘*contradictio in terminis*’ a combination of both scientific methods has been used. First of all, in finding several influential characteristics of the industrial sector of the entire City Region, one is looking at certain underlying structures that can give meaning to a cultural identity of a selected region. Characterizing influential businesses is thus a form of a structural approach, looking at several influential structures that give meaning to the identity of the region as a whole. Especially when regarding physical or natural circumstances that partly define the influence of these businesses, one can state that influence of these structures is not mainly related to subjective human consensus.

Regarding postmodernism, it is crucial to understand that these industrial ‘structures’ were given meaning by people themselves: of course the abundance of water or other raw materials and commodities can influence the reach of a company in a region, but as being said, factories themselves don’t possess any meaning: it are the people who give influence to a certain industry. This diverse dialectical process can be considered as postmodernist thought. Essentialist claims of ‘the’ industrial characteristics of the City Region are to be avoided, while stressing the importance of regional differences. As mentioned above, these internal differences can be partly related to physical and natural circumstances, but for this research the link with ideological norms and values is just as important.

It is interesting to see to what extent ideological differences or created boundaries contribute to these industrial divergence. Of course these boundaries can be natural, for example indicated by the course of the large rivers, but above all means they can be considered to be constructed. Postmodernism by all means emphasizes the deconstruction of essentialist claims, such as ‘natural borders’ or ‘the’ industrial identity of the region. This research will not use the relativism of far going postmodernists, which refuse to accept that one cannot relate to reality, because all reality is sociologically constructed. Natural and physical circumstances, given by nature, also contribute in defining the success of a certain company, resulting in the notion that familiarity and extensive reach within a region is not mainly related to dialectical human interaction. Yet, feelings of a regional identity are always very diverse, differing per individual. That is why it is dangerous to put a label on regional identity for marketing or tourism purposes. One can state that putting a single label on regional identity for the Arnhem Nijmegen City Region neglects these internal differences and is therefore very dangerous. For example, a former employee in the brick industry will emphasize the contributions of his industry for economic development in the Arnhem-Nijmegen region. An entrepreneur in the ICT-sector will probably pay more attention to current economic divisions, focusing less on the older industrial structures of the region. These are differences that need to be taken into account when examining regional identity.

Furthermore, the postmodernist notion that ‘meaning’ is derived from human interaction and not from physical places themselves is also acknowledged. Former factories can only be places of livelihood once people start believing in it. One can not assume that a former factory complex is suitable for redevelopment, because the building itself contains certain values. In stead, current

actors, varied from creative entrepreneurs, commercial enterprises, project developers, tourists or consumers on the housing market all determine whether a redevelopment program can be a success or not. Success of redevelopment is therefore strongly dependent on the wishes of a market. This follows the postmodernist assumption that meaning of an environment is linked to human interaction. Of course, the aesthetic appeal of a building can enthusiast people to bring back life to former industrial complexes, but it are people themselves who give meaning and substance to an environment. Buildings themselves are by no means essentialist concepts that possess meaning by themselves.

- **Applied theories**

Since this research is written as a Master Thesis, this research uses four important theories. In the context of the multidisciplinary character of this research and the fact that the issues involved here cover various items, including regional marketing, tourism, industrial heritage and economic progress, multiple theories have been regarded as important. These theories have been taken into account when focusing on the appointed case studies. Here follows an overview of the alleged important theories: theories that were used multiple times in scientific research.

- Jane Jacobs, *The death and life of great American cities* (1961).

One of the key publications for this research is considered to be Jane Jacobs' *The death and life of great American cities*. As early as 1961, urban sociologist Jane Jacobs took a stance against the rise of modernist planning strategies. According to Jacobs, set against the swiftly evolving American society, the move of commercial enterprises to the newly built urban periphery, suited the modernist need for ongoing urban renewal. Jacobs stated that creative businesses remained active in old buildings that were of significant influence in shaping an urban identity. Jacobs rejected the idea that an urban identity was to created from above, as she advocated a stronger bottom-up approach in which urban inhabitants give meaning to their environment by means of social and cultural interaction. As people relished the presence of buildings that have been present in the urban landscape for a long time, these objects positively influenced the image of a city (Jacobs 1961).

With her statement on the value of old buildings, Jacobs called for revitalizing these old buildings in stead of mere preserving them. This is an important assumption for this research, namely that the viability of redevelopment projects is strongly dependent on current wishes from the market. A redevelopment program is bound to fail when no one is interested in injecting new life to these buildings. In line with Jacobs, these buildings possess solely meaning by means of human interest. Objects such as old factories are not perceived as meaningful concepts by themselves, as the value of these buildings is mainly dependent on the presence of these buildings in people's memories. By means of Jacobs' emphasis on human interaction as crucial for spatial meaning, the appointed case studies will be researched: what are the possibilities for redevelopment when looking at current demands?

- John Urry, *The Tourist Gaze: Leisure and Travel in Contemporary Societies* (1990).

When it comes to linking the redevelopment of industrial heritage sites to economic, spatial and tourist development, urban sociologist John Urry published an influential work. Urry argued in *The Tourist Gaze* (1990) that for most of us the city is a (photo)graphic image. According to Urry, city tourism without graphic images is hardly conceivable. In his influential book, Urry develops a theory on why we travel for leisure and why we visit certain places. Urry argues that a tourist is going away

to search for visual experiences that differ from what we normally see at home or at work. The dominant activity of tourists is 'gazing' at 'signs,' that is, looking at particular features of a place, such as a famous mountain, mediaeval cathedral or exotic dance. This gaze can be either static (looking from a balcony or an 'official' viewpoint) or dynamic (looking through, say, the screen of a car or the window of a train). Places to be gazed upon are not randomly chosen by the tourist; there is always an element of anticipation, imagination and expectation involved. There is no universal tourist gaze, Urry argues. In line with what marketing expert Gert-Jan Hospers states, the gaze is always socially constructed (Hospers 2009: 228). This suits the partly postmodernist character of this research.

The work of Urry suggests how important it is for city marketers to scan the urban landscape for built objects and (pseudo)authentic attractions that can be photographed well. If a city does not have imaginable and photogenic features, it will be a hard job to communicate it to the outside world. In the view of Gert-Jan Hospers, as a territorial unit, a city is too complex to just treat it as a product that can be sold using insights from standard marketing theory, as some authors have propagated (Kotler *et al* 1999; Rainisto 2003). Hospers states that cities are historically grown entities that are made up of people in a built environment. Anyone who wants to market a city should pay attention to 'life between buildings' (Jacobs 1961; Gehl 2006). Of course, this notion follows the assumptions made by Jane Jacobs. That is why Hospers thinks it is important to look at city marketing from the perspective of urban planning and the sociology of tourism (Hospers 2009).

In line with the view of Hospers, Greg Richards, senior lecturer Tourism at the University of Tilburg, notes that the importance of allowing visitors to construct their own narratives is emphasized by the important role played by 'authenticity' in tourism consumption. In his analysis on the concept of 'cultural tourism' for the constituted report *Erfgoed voor toerisme*, Richards gives an overview of the combined view on the relation between cultural heritage and tourism (Richards 2003). Richards states that the need for authentic experiences is high among a broad group of tourists, but particularly among cultural tourists. By allowing tourists to work creatively with cultural biographies and to accumulate their own views of local culture, the perceived authenticity of the tourism product can be increased. Tourists who have the feeling that they are being represented with a 'staged' version of local culture will soon become dissatisfied. Tourists who can choose to construct their own versions of local identity become themselves involved in the staging process, which therefore slips into the background (Richards 2003: 43).

In the context of the process of globalization, with disappearing borders and the loss of personal life, tourists are more and more concerned in finding a local or regional identity. Therefore, tourism is more and more to be embedded in regional contexts. With the rising importance of concepts such as a 'Regionaal Beeldverhaal' taken into account, these theories show that finding regional characteristics, such as historically grown industrial enterprises, follow the ongoing need for authenticity and local or regional values. British marketing expert Simon Anholt spoke of creating a 'competitive identity' in city and regionmarketing, based on thorough historical research to illustrate a region's uniqueness (Anholt 2003).

- Richard Florida, *The rise of the creative class. And how it is transforming work, leisure, community and everyday life* (2002).

According to American sociologist Richard Florida, the attractiveness of cities is mainly related to the presence of a creative class. Many municipal policy makers have used the theory by Florida as an instrument to stress the importance of this alleged influential group. According to

Florida, a creative economy starts with the rise of a creative class. With this class, one sees the starting point of building up a new economy. People who earn their money based on their creativity attract other entrepreneurs. Too often, policy makers have started to promote the creative industries as an isolated economic branch. This has resulted in a blossoming economic sector, although it lacked links with the entire urban economy. Florida states that one should not limit this progress to a cultural elite (Florida 2002). Charles Landry coined the term 'creative city', referring to a city where people could think, plan and act based on the power of imagination. Florida claims that human creativity is the engine for economic development (Florida 2002). As the interviews have shown, the consequence of putting several creative entrepreneurs together in former factories, allegedly creating 'creative centres', mainly have indirect economic consequences. As urban geographer Gerard Marlet shows in his *De aantrekkelijke stad*, putting together these entrepreneurs in a single building does not automatically lead to giving birth to direct economic profit (Marlet 2009).

Furthermore, as made clear by the interviews, too often policy makers have used this 'creative solution' in redevelopment programs. As the analyses of the involved case studies reveal, there is no single 'golden formula' when it comes to redeveloping industrial heritage. Therefore, the theory of Florida can be useful if properly adapted: one should not expect an emerging economic progress from the creative solution, although on the long term, a city's image can be positively influenced by it. If there is market and economic potential for implementing creative businesses inside old factories, this solution can be advised, but one should not be afraid to look at other redevelopment strategies, such as building residences or creating leisure activities in redevelopment projects.

- Laurajane Smith, *Uses of heritage* (2006).

In her elaborate critique on the heritage policy issued by UNESCO, cultural heritage expert Laurajane Smith, Senior Lecturer in Cultural Heritage Studies and Archaeology at the University of York, emphasizes the importance of performance, memory and intangibility of cultural heritage. According to Smith, heritage sites themselves have too long been seen as meaningful concepts, too often used to promote an unchallenging consensual view of both the past and the present. Smith rejects UNESCO's emphasis on architectural beauty of a heritage site, which diminishes the importance of human interpretation of heritage. According to Smith: "The identity that is created may, depending on those defining the discourse, revolve around a sense of nation, class, gender, ethnicity, family or a range of collective experiences...and some heritage discourses have more power and authority than others do." (Smith 2006: 276).

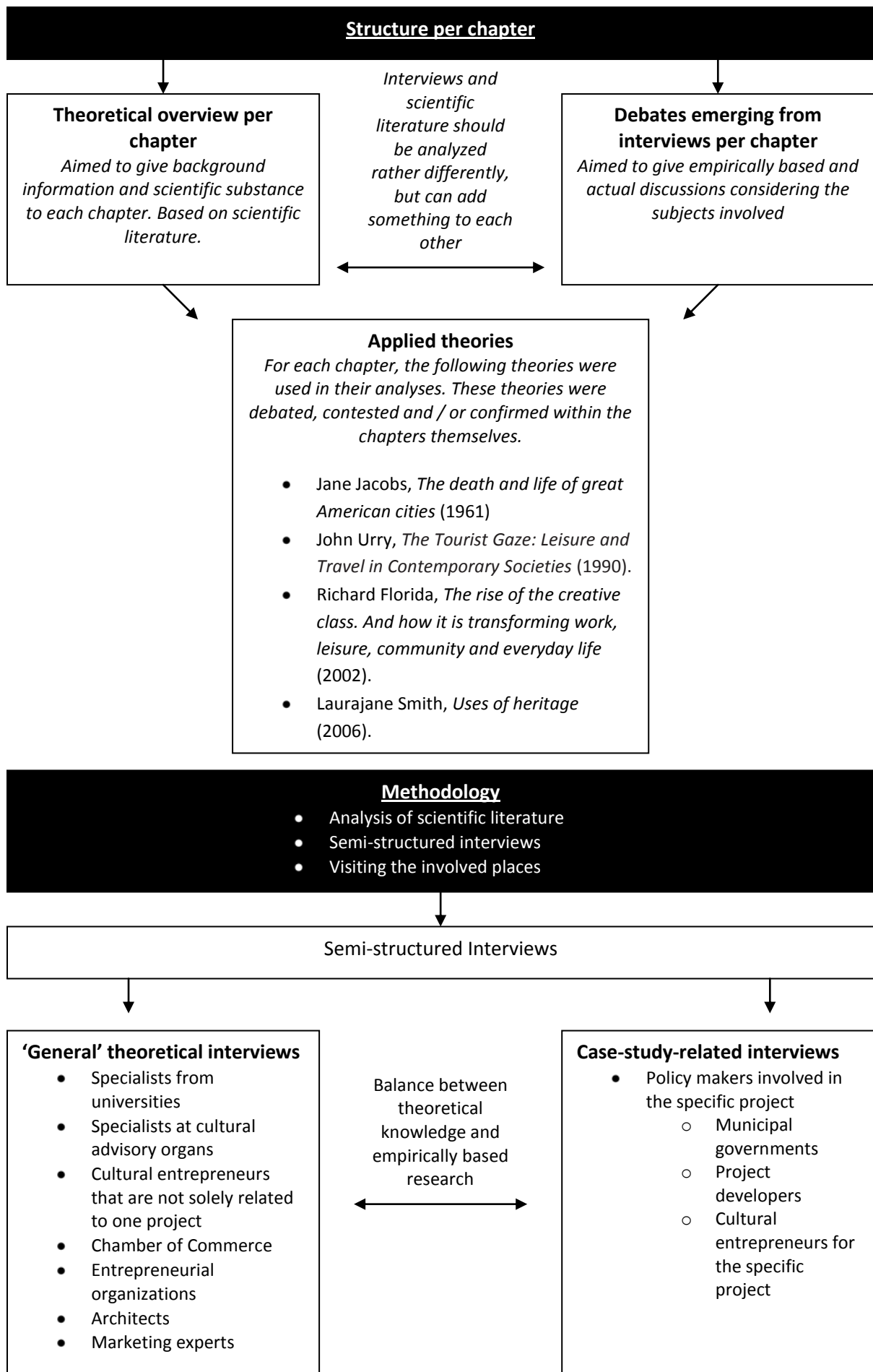
Following Smith, heritage sites themselves can be interpreted in multiple ways, as is the case with industrial heritage. While some former factories will be seen as ideal breeding places for visual artists for example, others will more likely end up as residential areas. Urban infrastructure strongly determines the wishes of the market, with accessibility of the heritage site, the construction of a building, proximity of other services or businesses, location near the livelihood of a city centre or a presence in a more deserted urban periphery all determine the meaning and usefulness of a former factory complex for future use. Heritage sites do not possess the same values for every entrepreneur, in line with the view of Smith. Therefore, the ending results of the research concerning the different case studies will only function as possible guidelines, without ending up in what Smith calls 'authoritative heritage discourses'. Dutch cultural historian Willem Frijhoff advocated a similar approach in his *Dynamisch erfgoed*, stating that heritage is a concept that is plural in its meaning,

used by different parties to suit their own ideals. According to Frijhoff, heritage is a concept that is not representing a pure reconstruction of the past, as it is a concept that is to be understood through a contemporary lens. This leads to the assumption of this research that the viability of redevelopment programs is closely dependent on current needs. As Frijhoff states, ‘heritage is culture of and for the future’ (Frijhoff 2007).

Research model

To create structure for this research, the research methods are put into the following schedule:





Societal relevance

As said, at this very moment the Arnhem Nijmegen City Region is formulating a Regionaal Beeldverhaal to capture the identity of the entire region. Main issue of this plan is to look at how tourism can add to economic and spatial prosperity. This concept is new due to its transsectoral approach, in the sense that it links tourism, commerce and spatial development in one policy program. Within this context, it is relevant whether the still present industrial heritage in the Arnhem Nijmegen City Region contributes to this region's identity.

Part of this story will be a description of the industrial characteristics of the region's economy. Therefore it is important to examine what the main characteristics of the industrial sector in this region have been, are and will be. This can also lead to revisiting the heritage agenda, which offers in its current state little attention to industrial heritage. Of course, applying for monumental status for industrial buildings is not the main target of this report. Especially since this report follows the assumption that it is important to realize that the liveability of former industrial complexes is dependent on current usefulness of the building. In concluding with a list of factors of success in redevelopment programs, this report can be of use for policy makers which are faced with the question of redeveloping industrial heritage. The second chapter of this research elaborates on these issues.

For this research, it is important to look at the industrial sector from a critical point of view. Essentialist claims of 'the' industrial characteristics of the City Region are to be avoided, while stressing the importance of regional differences. Yet, this does not mean that one can not find common characteristics of the region: mapping these characteristics can lead to useful results for the economic agenda of the region. Ending up with a list of characteristic industrial businesses, this research can be of opportunity for governmental organizations to acquire a certain regional identity, as well it can be beneficial for tourist and marketing organizations which can use these characteristics to attract tourists, investment agencies, private investors or other City Regions which might be interested in creating mutual bonds or fusion activities on industrial grounds.

Since this report is written in cooperation with the Regional Tourist Board (RBT-KAN) an important issue concerning industrial heritage is finding the link with tourist programs. Currently, the policy of the Regional Tourist Board is focused on reawakening the memory of the Roman age, the Medieval duchy of Gelre and last but not least the Liberation Route focusing on the Second World War. Now the question arises whether one is able to incorporate industrial vestiges in current tourist policy. In transforming abandoned factory complexes into sightseeing places or centres of cultural activity, one can create new vibrant and economically functional places.

Furthermore, in contacting relevant institutions, one can search for possibilities that expand the range of the tourist purposes of these complexes: as the second chapter of this research reveals, heritage includes more than just the physical appearance of buildings. Linking up the creative industry with cultural history can lead to historically embedded new product lines, that seek the link between innovation and cultural heritage. By means of interviews this terrain of possible mutual corporation had been explored. For entrepreneurs themselves – mainly focused on making profit –, the outcomes can be used to give their business historical legitimacy or to find cooperation with other sectors or companies to enhance economic activity. For example, if an entrepreneur wishes to establish himself inside an old industrial complex, the adding of other types of business (such as the creative industry) to the entire concept can lead to diversification of economic activity. This adds to the societal relevance of this research.

Scientific Relevance

Structure per chapter

To focus on the scientific relevance of this thesis, one has to distinguish policy papers and scientific literature, because different aims determine the substance of the existing reading materials. A policy paper is often written to justify or to explain a certain policy, while scientific literature mainly exists of critical analyses without trying to convince the reader of a certain policy that needs to be worked out. That is why one has to make a distinction between policy reports and scientific literature, as it is done in this research.

For the sake of structure and critical analysis, each chapter of this research starts by giving a theoretical overview of the relevant scientific debates, as of use for the specific chapter. Balancing between empirical case-related data that was acquired through interviews and more general scientific debates end up in a report that is both embedded in relevant scientific debates, as well as it stands firmly with both two feet in practice.

The following division has been made in the discussion of the relevant scientific debates:

1. Chapter 1: Overview of scientific analyses and policy reports on the industrial characteristics of the Arnhem Nijmegen City Region:
 - a. How has industry developed itself in the Arnhem Nijmegen City Region?
 - b. Can one see any internal differences in industrial development in the region?
 - c. How can one characterize the industrial DNA of the Arnhem Nijmegen City Region?
2. Chapter 2: Overview of the relevant debates regarding the concept of industrial heritage:
 - a. What is meant when talking of 'industrial heritage'?
 - b. What makes industrial heritage so special in comparison to other types of heritage?
 - c. Why has industrial heritage been absent in municipal heritage policy for many years?
3. Chapter 3: Overview of the relevant debates concerning regional marketing and the nature of the Dutch tourist market
 - a. What are the crucial factors for making regional marketing successful?
 - b. How can one adapt to the continuously changing demands from tourists in Dutch society?
 - c. What role can cultural heritage play with these changing demands into mind?

Based on these questions, scientific debates are ought to contribute to the empirical data that is acquired through interviewing relevant institutions. Aim is to embed the empirical data into relevant scientific debates, while giving these scientific debates practical usefulness by means of the performed interviews.

Scientific relevancy of this report

Because this research is done on behalf of the Arnhem Nijmegen City Region, the focus will be on the entire region. Many scientific texts are focusing on either the city of Nijmegen, either the province's capital of Arnhem and not on the other related municipalities. A focus on the entire region is hard to find, mainly because the concept of a 'City Region' is still a very recent phenomenon, absent in many scientific analyses. According to Simin Davoudi, the notion of polycentricity is not new. Indeed, different variations of the concept can be traced back in the literature of the early twentieth century on conceptualization of urban spatial structure and particularly the work of urban

sociologists in the Chicago School. (Davoudi 2003: 979). As early as 1932, the first remarks on the notion of polycentricity were made. But, in practice, scientific analyses of the polycentric urban region of Arnhem-Nijmegen are lacking and it is therefore that this research can be of use.

It is clear that much has been written particularly on industrial development in the Nijmegen area. Yet, as Paul Klep has shown, information and guidelines for defining and protecting industrial heritage are lacking. That is why it is important to address industrial characteristics of the region, to decide which buildings deserve to be reused, reconstructed or maintained. In the view of Paul Klep, Nijmegen may be called a typical industrial town, in contrast to other authors. It is up to this research to take a stand in this discussion, by particularly focusing on current industrial development in the Nijmegen region. History will be taken into account of course, but with the societal relevance of the project in mind, it is important to give guidelines for industrial policy programs. One can see that many policy reports nowadays lack a clear historical approach to industrial heritage: a shortcoming that is to be avoided in this research. Also, these policy programs almost never pay attention to leading scientific publications, which of course will be the case for this research, since it is written as a Master Thesis. Embedding empirical research in scientific debates is therefore considered to be crucial for the quality of the final product.

On the other hand, many historical scientific theories and writings focus primarily on historical developments, without linking up with the present. This is something that will be the case for this research. Of course historical developments foreshadow current situations, but it is relevant to see in what way history plays a part in current policy. Especially since many scientific articles are written from a socio-economical perspective, a stronger cultural approach can lead to new insights. As seen, many socio-economical analyses are mainly focusing on economic processes such as industrialization and economic growth or refer to social practices such as segregation within neighbourhoods, (un-)employment and socially constructed tensions within society. The link with questions concerning identity and cultural awareness of a region is often absent: a terrain that offers possibilities for this thesis. To capture to what extent industrial characteristics contribute in the region's identity, historical developments are considered to be important, just as current political, socio-economical and cultural trends are.

Also, the combination of reading scientific literature with empirical research in the form of interviews can lead to a sustained balance between scientific depth and empirical novelty and originality. This has to lead to a thesis that is well embedded within scientific debates, but stands with both two feet firmly in discussions that dominate current policy programs.

Case studies

Criteria for election

To address the issues concerning the redevelopment of industrial heritage, as portrayed in the second chapter, six case studies have been examined. In doing this, one can relate to the industrial characteristics of the Arnhem Nijmegen City Region as elaborated on in the first chapter. A few key notions were taken into mind when these case studies were chosen:

1. Diverse geographical locations in the Arnhem Nijmegen City Region: in taking this notion along in this research, industrial heritage from the entire region will be addressed, to avoid a sole urban focus on the cities of Arnhem and Nijmegen. Of course, the Arnhem Nijmegen City Region represents more municipalities than both core urban regions;

2. Actual developments taking place: for the sake of societal relevance, recent or planned redevelopment of industrial heritage is considered to be important. In this way, the report gains in practicality and usefulness for further research projects. Also cooperation from involved parties was easier to find, due to its actual relevance;
3. Covering various branches of the industrial sector: follows the fact that multiple industrial activities have taken place in this region. A shortcoming on focusing just on one industrial sector is considered to be narrow-mindedness, as redevelopment of industrial heritage is taking place in various former industrial complexes, regardless of the business that used to take place there;
4. Production should be focused on industrial products: Of course, old military complexes, governmental buildings, schools, university buildings of course represent valuable heritage. Yet, cultural historical value differs strongly from industrial heritage, which represents the memory of a generation that is bound to disappear in the process of globalization and production shifting to Third World countries. As to be seen, industrial heritage is a specific issue within the large supply of cultural heritage. To maintain a sharp and distinctive focus, for this research industrial heritage should solely deal with the production of industrial goods, heavily influenced by the mechanization and large-scaledness of the industrial revolution. The latter fact distinguishes industrial heritage from agricultural heritage.

Case studies involved

Based on the mentioned selection criteria, the following six case studies have been examined:

1. VASIM-factory in the city of Nijmegen: Planned to be a creative centre since 2006. The former factory was considered to be as important industrial heritage that was destined to give birth to creative entrepreneurship. According to the first reports, painters, constructors, dancers, thinkers, creators, entrepreneurs and skaters should be given the space to develop themselves. Issues as arts, graphical design, cultural institutions and festivals are mentioned destinations for this redevelopment. The VASIM-factory case shows that redevelopment can be successful in attracting creative industry, funded by an innovative funding system to support economic competitiveness.
2. Former Coberco Factory Complex in the city of Arnhem: Originally destined to be a multidisciplinary creative centre in 2002. Yet, in the context of the present economic crisis, plans are shifting towards another redevelopment scheme. The tension between economic motives and the redevelopment of industrial heritage is therefore very recent and influential: a tension that is perfectly shown in the case of the developments on the Coberco terrain. This case study therefore perfectly illustrates the controversies surrounding the redevelopment of industrial heritage, while at the same time it shows the alleged importance of former factory complexes for the image of a city. What went wrong in this program and how can these problems be avoided next time? This case study will therefore be critically addressed: what can one learn from the problems involved here?
3. British American Tobacco (BAT) Factory in Zevenaar: In 2008, British American Tobacco shut its doors in the city of Zevenaar. Around 570 employees lost their jobs and were forced to seek for another employer. Since the 1920s, tobacco industry flourished in the Liemers area. As the exposition on the history of cigars and cigarettes in the Liemersmuseum shows, the tobacco industry is considered to be important for the identity of the Liemers Region. This is

an issue that deserves further attention. The case study shows a perfect link between cultural tourist programs like the Liemersmuseum and former industrial production.

4. Former brick producing factory 'De Panoven' in Zevenaar: As one of the many brick producing factories, the former 'De Panoven'-factory in Zevenaar is another interesting case study in the Liemers Region: In its current state, the former factory is transformed into a regional museum focused on the history of the brick producing industry of the region. Also, the building offers possibilities for weddings, sleepovers, congresses and other business meetings. The former factory, built in 1850, is present on the national monumental list. This case study perfectly seeks the link between tourist aims and former industry, treating industrial production as a cultural value that needs to be preserved and kept alive for further generations. While 'De Panoven' is already linked to another 'Regionaal Beeldverhaal' called 'Dijk van een Delta', it is interesting to see how one can position industrial heritage in identity campaigns like this.
5. Paper industry in the municipality of Renkum: This case studies perfectly illustrates the economic necessity for redeveloping old industrial complexes. With the current plans for linking sustainable energy supply to the infrastructure of this once so environmentally damaging industry taken into account, it is interesting to see how one can link current economic potentialities to these industrial activities. This case study will reveal more on these issues. In the process, plans are currently made for a museum, initiated by Stichting Papiergeschiedenis Renkum-Heelsum, an organization run by former employees of the Parenco factory and other volunteers to maintain the heritage of the printing industry in this part of the Arnhem Nijmegen region. Therefore, this case study exceptionally addresses economic and cultural values that foreshadow the process of redevelopment.
6. The Bodewes-shipyard near the village of Millingen: Water is one of the characteristic natural elements of the Arnhem Nijmegen region. Therefore it is not staggering that the maritime industry has been very influential in this region, especially due to the region's proximity to the German Ruhr-area. Ever since the Roman age, in which the Roman army settled its shipyard near the village of Millingen, ships have been docked here. To address this history – relevant for RBT-Kan with its tourist Roman Limes-program – a project called 'Liburna' has been launched: the reconstruction of an old Roman vessel on the shipyard to pay attention to the far reaching history of the Bodewes-shipyard is taking place. The official website of this project speaks of combining cultural history with tourism. Certainly this last focus is in line with the main research goals of this report.

Consulted organizations

For this research, the following organizations have been approached to gather information.

Organization	Profile	Persons
<u>Leading organizations for this research</u>		
Arnhem Nijmegen City Region	Organization that makes infrastructural, economic, residential and spatial policy for the entire region. Also deals with ideological questions focused at the entire region, whereas representatives from the department of economics possess the required expertise. Also participated in the 'Cool Region Project' to enhance the image and appeal of the City Region.	<ul style="list-style-type: none"> • Drs. Eva Verhoeven, economic advisor at Arnhem Nijmegen City Region; • Drs. Paulus Blom, Project Manager 'Cool Region' at Arnhem Nijmegen City Region • Mrs. Victoria van Krieken MA, Advisor European Affairs at Arnhem Nijmegen City Region. Cooperator Liberation Route Project in Brussels. Concerned with applying for subsidies and finding international partners.
Regional Tourist Board (RBT-KAN)	Organization that develops tourist policy for the Arnhem Nijmegen City Region.	<ul style="list-style-type: none"> • Drs. René Kwant: Project Manager and Advisor Tourism at Arnhem Nijmegen City Region and Project Manager and Initiator 'Spannende Geschiedenis' at RBT-KAN. Former manager Public Affairs at Museum Het Valkhof, Nijmegen.
<u>Municipalities</u>		
The municipality of Arnhem	Makes policy for the municipality of Arnhem.	<ul style="list-style-type: none"> • Mrs. Annet Rosenboom, Policy Maker Economic Affairs and Tourism and Mr. Marcel Robben, Senior Strategic Advisor at Municipality of Arnhem.
The municipality of Nijmegen	Makes policy for the municipality of Nijmegen.	<ul style="list-style-type: none"> • Mr. Ruud Schilder, policy maker Economic Affairs at the Municipality of Nijmegen.
The municipality of Renkum	Makes policy for the municipality of Renkum.	<ul style="list-style-type: none"> • Mr. Ton van Lier, Manager Economic Affairs. Spatial and Economic Development, and Mr. Michiel Lasse, Policy Maker Monuments, Archaeology and Tourism, Municipality of Renkum.
The municipality of Zevenaar	Makes policy for the municipality of Zevenaar.	<ul style="list-style-type: none"> • Mrs. Yvette Abbing, Policy Maker Economic Affairs at Municipality of Zevenaar and Mrs. Lilian Werdmuller, Policy Maker Monuments and Archaeology at Municipality of Zevenaar.
<u>Educational institutions</u>		
Radboud University	University of Nijmegen, in this case the Faculties of Arts and Management	<ul style="list-style-type: none"> • Prof. Dr. Paul Klep, socio-economic historian at the Faculty of Arts, specialized in industrial history and industrial heritage for the Nijmegen region; • Prof. Dr. Gert-Jan Hospers, professor in City and Regionmarketing at the Faculty of Management and and lecturer Economic

		<p>Geography at the University of Twente. Since 2000 he has explored place marketing, the particularities of old industrial areas, regional cluster and innovation policy and the hype of creative cities. He is member of the <i>Regional Studies Association</i> and the <i>Koninklijk Nederlands Aardrijkskundig Genootschap</i>. He is also member of the scientific committee of <i>Cittaslow International</i> and chair of <i>Stichting Jane</i> that propagates the ideas of urban thinker Jane Jacobs.</p>
ArtEZ Institute of the Arts	Arnhem Art Academy, specialized in (visual) arts, fashion, graphic design and the creative economy	<ul style="list-style-type: none"> • Prof. Dr. Dany Jacobs, tutor Arts, Economy and Culture and lector Industrial Development and Innovation at the University of Amsterdam. Specialized in the links between culture, economy and arts and founder of ARCCI, The Arnhem Research Centre for the Creative economy and Innovation;
HAN University of Applied Sciences	University for highly educated students, offering applied sciences.	<ul style="list-style-type: none"> • Drs. Roy van Dalm: Senior lecturer Urban Development and Innovation at Han University of Applied Science, Arnhem. He is also chairman of Design Platform Arnhem (OPA) and is a key person in the development of the economic cluster of fashion and design for the Arnhem Nijmegen City Region. Specialized in the importance of the creative industry for urban development, also related to tourism. He is also a research fellow of ARCCI. On a larger scale, he is a member of the Advisory Group of the Future Cities Forum, Prague, and a long time contributor to the Lisbon Council, European think-tank on innovation, in Brussels. He is also associated with the British Council programme of Creative Cities. Furthermore, he is one of the main propagators of the ideas of Richard Florida in the Netherlands;
University of Tilburg	University of Tilburg	<ul style="list-style-type: none"> • Prof. Dr. Ir. Hans Mommaas, full professor leisure studies at the University of Tilburg and tutor of the international Mastercourse 'Polis, European Urban Cultures' from the University of Tilburg in cooperation with the University of Brussels, Manchester and Helsinki. Furthermore, he is director of Telos, Brabants Centrum voor Duurzame Ontwikkeling . For Telos, he is initiator behind the ICES/KIS-3 Transforum Program. ICES stands for Interdepartmental Commission for European Structure-enhancement: an initiative that involves almost all EU-members. He is also lecturer

		Urban Dynamics and Culture at the University of Utrecht. Mommaas is considered to be a specialist when it comes to formulating a so-called 'Regionaal Beeldverhaal'.
<u>Semi-governmental advisory or policy organs</u>		
Arcadis BV	Internationally operating advisory organ on all kinds of areas, including urban planning and redevelopment issues.	<ul style="list-style-type: none"> • Ir. Jaap van Gelder, Corporate Manager Marketing and Communications Arcadis Nederland BV.
BOEi BV	A widely-known national organization focused at the restructuring of industrial heritage. Involved in many redevelopment programs on a national scale;	<ul style="list-style-type: none"> • Ir. Clemens Veraa: Owner and Director Project NU BV: focused at project development, projectmanagement, construction management of residences and commercial real estate. Shareholder at BOEi BV
Chamber of Commerce Centraal Gelderland	Overarching economic organization that deals with business policy, business settlement, economic statistics, development of business terrains and the demands of regional entrepreneurs;	<ul style="list-style-type: none"> • Drs. Pascal Belo, senior policy advisor at Chamber of Commerce Centraal Gelderland and Advisor Regional Economy West-Veluwe.
Gelders Genootschap	Cultural advisory organ in spatial quality from the city of Arnhem. Deals with redevelopment and maintenance of cultural heritage, defining spatial qualities in an urban context, spatial and environmental planning and monumental care	<ul style="list-style-type: none"> • Drs. Eva ter Braak: cultural heritage advisor at Gelders Genootschap and coördinator Knowledge Center Redevelopment and Transformation of Industrial Heritage.
Industriële Kring Nijmegen (IKN):	An organization for industrial entrepreneurs in the Nijmegen region;	<ul style="list-style-type: none"> • Mr. Paul Schmitz, vice-president Industriële Kring voor Nijmegen en Omgeving (IKN) and Owner of Organization Advisory Organ Schmitz.
Lindus	Entrepreneurial organization for the Liemers Region. Cooperating with municipalities, tourist organizations, entrepreneurs to find a balance between living, working and tourism in regional policy.	<ul style="list-style-type: none"> • Ir. Jan de Nooij, vice-president Lindus.
OKA (Ondernemers Kontakt Arnhem) and Stichting KIEMT	OKA: Entrepreneurial organization in the city of	<ul style="list-style-type: none"> • Mrs. Petra van Stijn, chairman at OKA Services, VÉBé Van Steijn and Vice Versa

(Kennis Instituut voor Energie en Milieutechnologie):	Arnhem that deals with the interests of local entrepreneurs. Stichting KIEMT (Kennis, Innovatie, Energie en Milieu Technologie) is mainly concerned with the emerging energy and environmental technologies within the region's economy;	Gelderland (a network for female entrepreneurs); <ul style="list-style-type: none"> • Ir. Peter Dessens, secretary and financial manager Stichting KIEMT. Furthermore, secretary Stichting Arnhem Art Ambassadors and secretary Stichting Dutch Fashion and Design. Former Manager Acquisition and Maintenance Industriepark Kleefse Waard, Arnhem.
SAB Arnhem	Advisory organ in spatial planning and architecture. Also concerned with questions related to the redevelopment of industrial heritage.	<ul style="list-style-type: none"> • Ir. Wim Lavooij, owner and founder of Lavooij over Vorm BV, Advies over Stedenbouw en Architectuur. Partner and former director of SAB, Stedenbouwkundig Adviesbureau Arnhem.
Stichting Gang	Organization in the city of Arnhem that seeks the link between architecture, arts and spatial planning. This organization is closely connected to OPA (Design Platform Arnhem), CASA (Centre for Architecture and Urban Planning Arnhem). Possesses insight in the demands of creative entrepreneurs in Arnhem. Also, redevelopment and maintenance of former industrial complexes are present on their agenda.	<ul style="list-style-type: none"> • Drs. Hans Jungerius: Founder Stichting GANG and cooperator LEGENDA Gesellschaft für Explorative Landeskunde EV: a German-Dutch organization that develops study programs in the German Ruhr Area. • Mr. Rob Groot Zevert: Founder Stichting GANG.
Stichting Millingse Liburna	Organization that tries to realize the reconstruction of an old Roman vessel on the Bodewes shipyard in Millingen.	<ul style="list-style-type: none"> • Mr. Erik de Gans, Ambassador Energy4All, Project Coordinator Stichting Millingse Liburna and Owner at IR3 Leisure Consultancy (a company for developing, consulting and performing leisure activities). Former Director at Regional Tourist Board Arnhem Nijmegen and former vice-president of VVV Rijk van Nijmegen.
Stieneo (Stichting Industrieel Erfgoed Nijmegen en Omgeving)	A voluntary organization focused at mapping (in-)tangible industrial heritage for the Nijmegen region (Oral History);	<ul style="list-style-type: none"> • Mr. Cees Alewijnse, chairman of Stieneo, Stichting Industrieel Erfgoed Nijmegen en Omgeving. Former Director at Chamber of Commerce Nijmegen and former director at Stichting De Stratemakerstoren.
<u>Creative, recreational entrepreneurs</u>		
Buitengoed de Panoven	Museum, conference hall, and event hall located inside an old brick producing factory	<ul style="list-style-type: none"> • Mrs. Erna Kruitwagen, General Manager at Buitengoed de Panoven • Padmini Kruitwagen, Bba Msc. Strategic Marketing Manager at Buitengoed de

		<p>Panoven. Former Communication Cooperator at RECRON, Vereniging Recreatie Ondernemers Nederland. Buitengoed de Panoven is a recreational organization located near an old brick producing oven. Specialized in making the history of brick production accessible for a wide audience.</p>
Liemersmuseum Zevenaar	<p>Museum in the city of Zevenaar that addresses the history of the Liemers region, including an exhibition on the tobacco industry in this region.</p>	<ul style="list-style-type: none"> • Drs. Ingrid Mens, director at Liemersmuseum, Zevenaar. The Liemersmuseum addresses regional history of the Liemers region, also focusing on the importance of the brick producing and tobacco industry in the region.
<u>Architects</u>		
024-architects	<p>Small architectural firm in the city of Nijmegen that made plans for the redevelopment of the Vasim terrain. Considers redevelopment to be an important foundation of their work.</p>	<ul style="list-style-type: none"> • Mr. Kees de Wit, Owner and Architect at 024 Architects and LOU (Laboratory of Urban Transformation).

Related to these interviews, visiting several congresses and meetings contributed to the practical approach of this research. The following meetings were addressed:

- On the 25th of January 2011 there was an exhibition on the industrial past of the city of Nijmegen from the 'Huis van de Nijmeegse Geschiedenis' – an initiative by the municipality of Nijmegen and various other institutions (check for more information: www.huisvandenijmeegsegeschiedenis.nl/info/Partners).
- On April 5th 2011, a congress for the emerging EMT-sector was visited at the Open Lucht Museum in Arnhem.
- A conference for involved parties in tourism and leisure activities, linked to spatial development, near the village of Voorthuizen, Utrecht, was visited on April 21st 2011
- On May 18th 2011, a conference for real estate developers was attended at sports centre Papendal in Arnhem.
- On May 19th 2011, the so-called 'Atlas voor Gemeenten 2011' was presented in the city of Arnhem. This is to be seen as a meeting for related parties in the cultural sector of the city of Arnhem
- The 'Gelders Erfgoeddag 2011' was visited on June 21st in the DRU-factory in Ulft. On this congress there were several experts on the redevelopment of cultural heritage attending. Furthermore, the DRU-factory itself has just recently been subject to redevelopment itself.

For this research it was thought to be beneficial to combine scientific analyses and policy reports with more empirical information acquired by interviews and visiting congresses and the industrial locations themselves. In this way, this research tried to find a fine balance between theoretical depth and empirical novelty.

Chapter 1

What's smoking in the City Region?



*Analysis of the industrial characteristics of the Arnhem Nijmegen
City Region*

Image of the former Dobbelmanfactory in the city of Nijmegen.
Boudewijn Wijnacker 2011

Before one can determine to what extent the still existing industrial relics of the past within the Arnhem Nijmegen City Region are suitable for spatial, economic and tourist development, one has to distinguish the industrial characteristics of the Arnhem Nijmegen City Region. It is interesting to see to what extent ideological differences or created boundaries contribute to this industrial divergence. It is this search for a regional identity, based on industrial characteristics, that can be of use for a 'Regionaal Beeldverhaal'. Therefore, the main question of this first paragraph is: What are 'the' industrial characteristics of the Arnhem Nijmegen City Region and how can one use these characteristics in postulating a well-defined regional identity?

One size fits all? Problems related to identity building

When referring to the industrial 'identity' of the Arnhem Nijmegen City Region, one is assuming that one can find an identity that is able to refer to characteristic industrial sectors for the region as a whole. Of course it is difficult to assume homogeneity among a region that possesses multiple identities and values. Identity building for an entity like a region is therefore a controversial process: how can one find the balance between stressing the internal heterogeneity and defining an identity that covers the entire region? Within the world of cultural anthropology, the process of identity building has been a topic of debate for a long time. In a documentary from documentary maker Chris Kijne from the Dutch broadcasting station of the VPRO, Indian anthropologist Amartya Sen states that forming an identity is a matter of choice. Depending on the socio-cultural context an individual can choose his own identity according to Sen, and this identity is by no means based on one characteristic (VPRO 2009). In his book, 'Identity and violence', Sen criticizes the fact that multicultural policy is more and more focused on communal rights, resulting in freezing each culture into its own box. This categorization of identity denies the internal differences in different communities. Sen rebuts the "singular affiliation" falsehood with a cursory historical, literary and cultural survey of the diversity of supposedly monolithic civilizations (Sen 2006: 1-20).

As Sen shows, defining an identity is always a controversial process. If one assumes, in line with the postmodernist tradition, that identity is not a homogeneous, naturally given concept, then one acknowledges that identity is closely related to the creation of boundaries. In creating differences towards others, one is not only conceptualizing 'the other', as one is mainly creating an own identity. Shelley Fishkin argues that these constructed differences result in in- and exclusion of certain groups. This process of in- and exclusion is based upon the notion of an essentialistic culture. Identity here is portrayed as static, biologically given and unreachable for outsiders (Fishkin 2004). In this context, cultural anthropologist Kathryn Woodward states that an identity is mainly formed by defining what this identity is not. Woodward claims that critics who create an us-them dichotomy effectively create a binary opposition between an own identity and the other (Woodward 1997 : 28).

This can also be applied to the long-lasting competition between the cities of Arnhem and Nijmegen: a tension that endangers the process of regional identity building. Cultural historian Stuart Hall states that creating these differences is the main presupposition for forming an identity (Hall 2003). In this sense, Rajesh Parekh from the University of Oxford states that 'the basic concern of multiculturalism is to which extent ethnically, religiously, culturally and racially diverse societies can achieve a state of mutual recognition and respect among the different social groups without assimilation' (Parekh 2000). Following Sen, Hall and Woodward, Parekh states that exactly these differences in society form an identity, also applicable for the City Region in this sense.

Paul Klep, socio-economic historian at the Radboud University Nijmegen adds that creating an identity is very difficult. Klep: "It is important to stress the heterogeneous character of the term

‘identity’. On the one hand, one can speak of ‘objective identity’, the identity of a region, city or neighbourhood as a whole towards others. This identity is formed by the public image of the chosen entity. On the other hand, ‘subjective identity’ refers to the desired image of the city or the region by specific social groups. The most dominant image is the one that is closest to the media to proclaim the desired image” (Interview Paul Klep 2011). Within this context, one has to bear in mind that searching for ‘the’ industrial characteristics of the Arnhem Nijmegen City Region and to define to what extent these characteristics determine the region’s identity is a difficult process.

Where the past meets the present: how we look at history

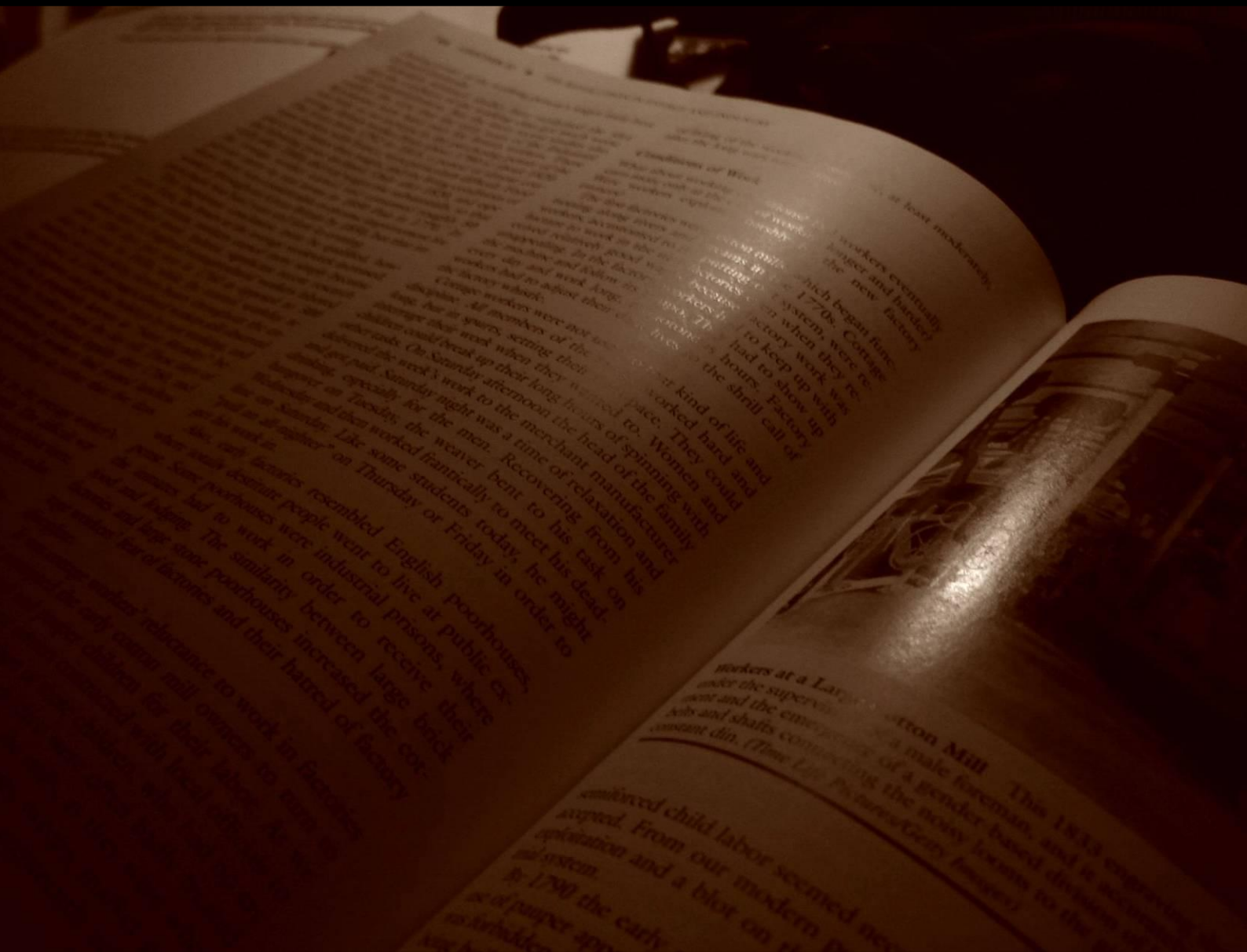
With the controversies related to identity building taken into account, it is difficult to make notions on a singular affection within the City Region when it comes to industrial business. As Jane Jacobs already argued in 1961, it are the people themselves who give meaning to their environment (Jacobs 1961). The use of statistical production data can be a tool for pointing to the economic relevance of an industry, just as employment numbers can point to the familiarity of a company inside a selected area. Yet, this does not have to lead to acknowledging the importance of a certain industry: this research presupposes, in line with Jacobs, that the importance of an industry is derived from the meaning people give to this industry. Of course, the City Region does not possess a homogeneous population that obtains a one-dimensional view on the region’s industrial business. In practice, this does not have to mean that one cannot find common industrial characteristics for the entire region.

To understand these industrial characteristics, one has to distinguish the past and the present industrial circumstances. Historian Johan Huizinga once stated that history is the spiritual form in which a culture acknowledges its past (Huizinga 1926). Huizinga referred to the fact that the present is always shaped by the past, whereas the past is always seen through the present. That is why the current industrial profile of the region took its shape as a consequence of historical developments, whereas those that we see as ‘important’ industrial branches are determined by the use of current criteria. Therefore, in focusing on the current industrial profile of the City Region, one has to delve into the past. Based on policy reports, scientific analyses and empirical research, this chapter will elaborate on the industrial characteristics of the region.

From the city to the countryside: industrial business all across the region

To prevent this research for getting a sole urban focus, one has to look at the industrial characteristics for the Arnhem Nijmegen City Region as a whole. The five economic clusters of opportunity are elaborately discussed in the Economic Agenda of the Arnhem Nijmegen City Region and will not be highlighted in this chapter itself (Economic Agenda 2007-2010). A closer look at the historically grown industrial identity – since identity is by no means fixed, but a gradual consequence of time – is key to find out what this industrial DNA is and has become. That what is rooted in the past, gives historical substance to the present. The influence of an industry for society is only revealed in the course of time. Yet, since history is not mere deeply rooted in the past, but also of influence for the present, one has to look at the current economic situation of the Arnhem Nijmegen City Region as well. If one wants to obtain more elaborate information on the current economic profile of the region, one should rather address the Economic Agenda from the Arnhem Nijmegen City Region or the Regional planning report 2005-2020 of the Arnhem Nijmegen City Region (Economic Agenda 2007-2010; Regionaal Plan 2005-2020).

1.1 Taking a dive into history



Important historical industrial businesses in the Arnhem Nijmegen City Region

As mentioned, identity is never fixed. The industrial identity of the Arnhem Nijmegen City Region may be called a result of historical developments, taking shape during time. In the context of globalization and the shift of heavy industry towards countries with lower loan costs, many of these industrial activities have faded away in the course of years, with often only deserted material remains memorizing people of a once vibrant history. Especially since many of these activities have disappeared, opportunities arise when it comes to the redevelopment of these old factory complexes.

To define this industrial identity, characterizing several important industrial activities is important. If an identity lacks any notions to the past, one can easily get lost in proclaiming empty phrases, lacking crucial bonds with earlier times. One can not invent a tradition, as Eric Hobsbawm would say (Hobsbawm 1983). Therefore, a closer look at the historical industrial enterprises of the region adds to the legitimacy of the region's industrial identity. After looking at the industrial character of both Arnhem and Nijmegen, the following (often peripheral) regional industrial businesses will be discussed and due to the following reasons:

1. Brick producing industry: All across the region, the construction of bricks was flourishing for a long time. The abundance of natural reserves – water, clay – and often the strategic locations near rivers contributed to the rise of this industrial activity. What used to emerge as a side-activity of farmers, was transformed by the industrialization of the Netherlands in the course of the nineteenth century. The rapid urban expansion of the Netherlands from the 1870s on, fuelled the need for bricks, stretching the influence of these companies all across the region. A lot of former brick producing factories are still there, making them subject for debate when it comes to redevelopment programs.
2. Paper industry: Near the villages of Renkum and Oosterbeek in the west of the City Region, impressive chimneys dominate the aerial panorama. These chimneys refer to the long-lasting tradition of producing paper in this part of the region. Even now, these factories are still running, although often being incorporated in international conglomerates. Due to their high levels of energy-use, these companies have to adapt to stand ready for the future, in an age that cries for smart energy-use and reduction of CO₂-emissions.
3. Tobacco industry: Especially in the eastern part of the Arnhem Nijmegen City Region, the Liemers region, the tobacco industry developed itself from the 1920s on. The Turmac-company – later on the British American Tobacco firm – has been extremely important for the identity of the Liemers region, due to its large concern for societal issues.
4. Maritime industry: Besides the fact that many industrial enterprises benefited from transporting abilities across the rivers, several shipyards emerged in the region. The proximity of Germany and the Rotterdam harbour, as well as the presence of river cross points contributed to the rise of these shipyards. Currently, the Bodewes-shipyard in Millingen – with a history reaching back to the Romans – is still active, finding a way to embed itself in a more sustainable global, economy.

1.2 An ongoing battle?

The working class versus the provincial elite



The industrial character of Nijmegen and Arnhem discussed

Images of the Thermion building near Lent (left)
and the City Council House in Arnhem (right)
Boudewijn Wijnacker 2011

The working class versus the provincial elite; Catholics versus Protestants and NEC versus Vitesse: all constructed metaphors for the different characters of the cities of Nijmegen and Arnhem. These kind of adversary contradictions have dominated the discourse of the past as thresholds for mutual cooperation. With the emergence of the concept of a polycentric urban region cooperative bonds between both cities emerged. For many people, the adversaries remain: just look at the ongoing conflicts between the hardcore football fans of both NEC and Vitesse. These contradictions are partly based on socio-economic mechanisms, even on industrial grounds. A look at the history of the industrialization of both cities reveals the differences between the two cities, as well as the similarities. The identity of both cities is partly derived from this industrial past. Therefore, these developments need to be taken into account when searching for the industrial DNA of the Arnhem Nijmegen City Region and to look to what extent ideology and industrial character are connected to each other.

1.2.1 Shoes, soap and socialism. The industrial history of Nijmegen exposed

In 2006 Stichting de Stratemakerstoren launched a report on disappeared industrial heritage in Nijmegen. According to the author, Nijmegen has never been a typical industrial city. Causes trace back to the early nineteenth century: lack of space within the city walls and prohibition of permanent building outside these walls resulted in a lack of large companies settling in the city of Nijmegen. The isolated location at the eastern border of the Netherlands, the absence of a economically strong hinterland and a bad infrastructure – for a long time, connection to the Dutch railroad system was denied – all contributed in the fact that entrepreneurs found Nijmegen definitely not an attractive place to settle. According to Paul Marijnissen and Yop Segers, industry remained for a long time small-scale. (Marijnissen 1988: 47; Segers 2006: 6).

One of the most substantial analyses of the industrialization process of Nijmegen comes from socio-economic historian Paul Klep, who wrote two elaborate chapters on the industrialization of Nijmegen in a book that was published, as assigned by the municipality to celebrate the 2000 year-existence of the city. Klep shows that during the nineteenth century, the amount of inhabitants in the city of Nijmegen rose from 13.000 to around 44.000 people. Klep points to three factors that played a role in the economic success of the city in the last decades of the nineteenth century. First, a decrease of food prices in the 1870s led to growing expenditure among the citizens of Nijmegen: larger entrepreneurs could now benefit from an expanding market. Second, the railroad revolution from the 1860s till 1900s – connections to Arnhem (1879), Den Bosch (1881) and Venlo (1883) were made – improved infrastructure and distribution possibilities, while the invention of the steam engine strengthened the maritime transporting facilities. Third, as well as other authors, Klep points to the abolishment of the ‘Vestingwet’ in 1874, which provided space for urban and industrial expansion (Klep 2005: 59). From 1875 on, the economy of Nijmegen changed rapidly:

Sector	Percentage of employment	
	1875	1899
Craftsmanship and industry	25	42
Services	60	49
Agriculture	15	9

Fig 1.1 Overview of employment ratios per sector for the city of Nijmegen 1875-1899. Numbers based on: Klep, P. (2005) De economische en sociale geschiedenis van de negentiende eeuw. In: Brabers, J. (eds), *Nijmegen. Geschiedenis van de oudste stad van Nederland*. Wormer: Inmerc BV. pp. 66

According to Klep, industrialization followed the pattern of a growth of local, smaller industries and a booming construction sector (Klep 2005: 67). Klep states that the Dobbeltmann soap factory contributed in creating a Catholic image for the city of Nijmegen (Klep 2005: 79-81).

Klep points to the nineteenth-century notion of Nijmegen as 'Woonstad' among the political and cultural elite of those times (Klep 2005). Klep claims that while Nijmegen gradually developed towards a successful industrialized city, adversary towards the label 'industrial city' became prominent. Although many laborers in Nijmegen around 1900 worked in the modernized factories – and modernity as an economic phenomenon was widely accepted – cultural and political elite would rather portray the city as a luxurious living environment, the so-called 'Nijmegen Woonstad'-campaign. Klep states that this attitude can be seen as a form of collective schizophrenia, a denial of reality in favor of an idea. The lack of clearly given protectionist measures for industrial heritage – such as factories, manor houses, churches, monasteries and land houses – can be seen as an example of this attitude. (Klep 2009: 3). Klep follows Paul Marijnissen, who stated in 1988 that the municipality of Nijmegen did not want to attract heavy industries after 1870 to maintain the peace and beauty of the urban environment (Marijnissen 1988: 48).

The discouragement of industrialization by the municipality can be linked to the so-called rural-urban dichotomies that emerge in many geographical debates. Sociologist Raymond Williams states that the contrast of country and city is one of the major forms in which people became conscious of a central part of human experience and the crises of a country, in which the rural is a secure, innocent, existence of community and solidarity, in contrast to the industrialized city (Williams 1973). Harry Lintsen also points to the link between industrialization and socialism: according to Lintsen, the political elite in Dutch cities detested the large-scale construction of factories, since it could lead to moral depreciation. For the liberal urban elite, factory life came connected to the notions of alcohol misuse, violence, shouting and immoral behaviour (Lintsen 2005: 164). As Deborah Stevenson and Stuart Hall state, this kind of thinking in dichotomies is crucial for forming an identity. (Stevenson 2003; Hall 2003). Also in the area of Nijmegen, the clergy called for a longer stay in the country for many job seekers to prevent them becoming subject to the sins of life.

The rise and fall of the industry in Nijmegen

Industrialization could not be stopped, despite the efforts by the municipality. Yet, De Vries and Marijnissen state that not one industry became hegemonic (Marijnissen 1988: 46). 'The image of industrial Nijmegen is an image of diversity', in the view of De Vries (De Vries 1969: 66). This is a view that is shared in the interviews by Paul Klep and Cees Alewijnse, chairmain at Stieneo – Stichting Industrieel Erfgoed Nijmegen en Omgeving (Interview Paul Klep 2011; Interview Cees Alewijnse 2011). According to De Vries, most industries in and around Nijmegen began to grow after 1900. In his analysis of the industrialization in Nijmegen, Klep points to the prosperous 1950s that marked a strong industrialization of the city. As Klep shows, Philips did not enter the city of Nijmegen until 1953. When the American telephone company of Bell invented the transistor – closely related to the semiconductor – in 1947, the transistor soon became the beating heart of modern technology. Televisions, radio-machines, refrigerators: all kinds of household devices became dependent on the transistor. When the company of Philips encountered the benefits of the transistor, the first semiconductor-group emerged in 1953 in the heart of Nijmegen (Klep 2009).

The rise of Philips coincided with industrial urban expansion. Between 1947 and 1960, the amount of people working in industry grew from 15.850 till 21.419. In 1960, industry formed 47 percent of the total working community, as it formed 55 percent among male employees (Klep 2009:

1). Klep claims that Nijmegen possessed many ambitious and revolutionary entrepreneurs ever since the 19th century, that profited from the postwar economic boom. The principles of cost reduction, mechanization and specialization were also used by the Dobbelman Soap Factory and the shoe factories of ASW (1899) Nimco (1914), Robinson (1923), Swift (1930) and Wellen (1930). (Klep 2009: 5).

Jan Brabers shows that protestant entrepreneurs were also present in the city of Nijmegen, such as the Thieme Publishing company, established in 1887 (Brabers 2005). In his appraisal for the 82nd Dies Natalis from the Radboud University, economic historian Paul Klep states that although secularization created tensions in late nineteenth-century Nijmegen, religion still remained a main ingredient for urban culture: memberships of religious communities, especially Catholic organizations, flourished, while clerics remained influential for financing the university. Klep states that Protestant organizations were far less influential, due to the private character of their religion. Lack of social welfare, rapid urban expansion and the University which attracted many Catholic entrepreneurs all contributed in an enduring influence of the Catholic church. (Klep 2005: 27-28).

In the 1960s the rise of the service sector – with the university and the medical centre as frontrunners – diminished the importance of the industrial sector. Paul Klep points to three causes for this shift towards more service business. The rise of income, demands and services, technological improvements in industrial production processes as well as the globalization of the world economy lead to a shift from industrial production towards the Third World (Klep 2009: 2). Therefore, the economy of Nijmegen became more dependent on the service sector from this time on.

1.2.2 Celebrating the bourgeois belief? The industrial history of Arnhem

In contrast to the abundance of publications focused on the industrial past of Nijmegen, the historical developments of industry in Arnhem are way less substantial. This change of attitude might suggest that the city of Arnhem was less industrial than its southern neighbor. This is a question that deserves further interest. In doing so, one has to look at the question whether the city of Arnhem is just as 'industrial' as the city of Nijmegen.

The lack of a substantial analysis of the industrial past of Arnhem might be an indicator for the lack of an industrial DNA of the city. In its analysis on corporate buildings in the city of Arnhem for Stichting Monuscript, J. Vredenberg shows that the fact that Arnhem was located at the Sint-Janscreek instead of the Rhine river slowed down economic progress in the urbanization of the city (Vredenberg 2002: 11). One of the most elaborate analyses of the industrialization of Arnhem is written by historian Willem Huetink. Huetink states that the common idea on the industrial character of Arnhem is that the city replaced its living function by an industrial after 1895. According to Huetink, this idea is based upon four main assumptions. First, one can see a downgrade of establishment numbers in Arnhem since 1880. Concretely, less wealthy people came to live in Arnhem. Second, as a consequence, many old manor houses were left deserted, with the construction of new *bourgeois* residential areas experiencing the same problems as well. Third, the crisis on the sugar producing market in Dutch-India forced many real estate holders, living in Arnhem, to shift their business. Last but certainly not least, Huetink points to the increasing competition from cities as The Hague, Haarlem and Nijmegen – which all proclaimed their urban image as 'residential city'. According to Huetink, this image of Arnhem as a less residential-orientated city since the 1880s have dominated the scientific debates for a long time (Huetink 1991). Already in 1886, journalist A.J.C. Kremer wrote:

“Ontneem Arnhem haar wandelingen, en men vermoordt de stad. Het zijn niet de huizen, de straten, de winkels of de gemakkelijkheden die de vreemdelingen lokken zich hier te vestigen, maar de mooie omgeving, het golvend terrein, de vele vergezichten, de frisse boslucht en de klaterende beekjes. Arnhem’s bloei is afhankelijk van het behouden en vermeerderen van haar natuurschoon.”

Quoted in: Huetink, W.M.M. (1991) *Arnhem, Haagje van het oosten*. Utrecht: Matrijs.

As Huetink shows, from 1817 on, the policy makers of Arnhem decided to create park-like natural surroundings, after acquiring pieces of land from the national government. According to Huetink, the combination of natural beauty versus the presence of a wealthy aristocracy were the main engines for building up this elite image (Huetink 1991). The enormous population growth between 1847 and 1891 fuelled the need for urban expansion. As Huetink shows, Arnhem inhabited 14.500 inhabitants in 1830, while inhabiting 64.000 people in 1910. The former peripheral static boulevards became encapsulated by the newly planned neighbourhoods such as the Spijkerviertel, Klarendal and Rietebek. For the municipality, purchasing the surrounding country estates and attracting spatial planners such as J.D. Zocher were to be seen as strategies to turn the tide: at the end of the nineteenth century, the city of Arnhem should have had an urban city park that could compete with other city parks such as the Amsterdam Vondelpark. Thus, Park Sonsbek was born. In their city marketing campaigns, the municipality of Arnhem tried to describe the city as a pleasant, wealthy and aesthetic appealing place to live (Huetink 1991).

The first steps towards industrialization

With the emergence of electricity, the city of Arnhem took the first steps towards industrialization. According to Huetink, the presence of electricity was seen as a way to adapt urban life to the wishes of modern society (Huetink 1991). Yet, Huetink states that governmental policy mainly served the interest of a small, wealthy elite, neglecting the awful living conditions in areas such as Klarendal. A substantial amount of municipal money was still spent on decorating the urban environment. For example, the neighbourhood of Klarendal did not possess a sewer system until 1907 (Huetink 1991). Consequently, Huetink shows that the development of the industrial sector could not match national developments or the progress in Nijmegen. Arnhem became a city of trade, not of production. The rise of banks and offices in the early twentieth century points to this development as well. According to Huetink, Arnhem did not possess an ‘industrial spirit’ (Huetink 1991). Vredenberg adds that this image of trade remained until the beginning of the twentieth century (Vredenberg 2002: 14). The establishment of the Chamber of Commerce in 1845 can be seen as an indicator of this character. Anyone who walks nowadays on the Korenmarkt in the heart of the city can see the traces of this trade-related past (Vredenberg 2002: 13). According to Huetink, one-third of total inhabitants, earning an above-average income, of Gelderland lived in Arnhem. Many of these wealthy inhabitants – with an income over 8.500 Dutch florin a year - used to position important political functions in municipal organs, resulting in a policy that used to suit their own ideals (Huetink 1991).

Yet, with the industrialization taking shape, Vredenberg shows that the municipality constructed industrial park ‘Het Broek’ in the 1920s as the first industrial park of the city. Vredenberg shows that the presence of a railroad, the Rhine river and the proximity of the German Ruhr area made it interesting for companies to establish themselves on this new business park (Vredenberg 2002: 50). Vredenberg speaks of a gradual development towards industrialization, instead of a

revolutionary emergence. Often, factories emerged out of the world of millers and farmers (Vredenberg 2002: 14).

Still, from 1910, several wealthy inhabitants began to leave the city. According to Huetink, increasing competition from other 'living cities', such as Renkum, The Hague, Oosterbeek and Velp and the aging population resulted in many young, wealthy landowners to settle somewhere else (Huetink 1991). Vredenberg adds that the crisis on the sugar market resulted in the fact that many landowners did not possess the financial means to settle in Arnhem (Vredenberg 2002: 18). According to Vredenberg, the city of Arnhem did not possess large industrial parties in the course of the nineteenth century. Counting 674 employees in 1924, the ENKA synthetic silk factory (realized in 1913) was by far the largest employer of the city, whose industrial character was to be characterized by its small-scaleness and diversity (Vredenberg 2002: 19). From the 1920s on, Vredenberg shows that the industrialization accelerated. Due to this development, the Kleefse Waard industrial park was created in the 1940s. Slowly, Arnhem industrialized but never obtained a true industrial image (Vredenberg 2002: 51-53).

The analyses of Huetink and Vredenberg are acknowledged in the performed interviews. Annet Rosenboom and Marcel Robben agree with Huetink in stating that Arnhem did not possess a true industrial spirit. They state: "the presence of the provincial government, the military court, the fact that Arnhem has always been a centre for the entire province (in economical, societal and cultural sense) all resulted in the fact that Arnhem cannot be called a typical industrial city. When the decay of industry began, Arnhem did not encounter mass unemployment, since the city obtained a wide economic base, exceeding the industrial sector alone" (Interview Annet Rosenboom and Marcel Robben 2011).

1.2.3 Conclusion

As seen, after the abolishment of the Vestingwet in 1874, the city of Nijmegen expanded rapidly on industrial grounds. Although the municipality had discouraged the arrival of industrial companies – a strategy that had been used before by the city of Arnhem – the industrialization became a force that could not be stopped. Soon, the city became to be the fourth industrial town of The Netherlands with many labour-intensive industries in the beginning. In the context of globalization, the city needed to adapt itself. Therefore, more knowledge-intensive industries began to characterize the city's industrial identity, with the university and NXP as frontrunners. Yet, unemployment ratios grew significantly after the de-industrialization process from the 1960s on.

In contrast to Nijmegen, the city of Arnhem had never developed a true industrial identity. In contrast to Nijmegen, Arnhem was never faced with high unemployment ratios as a consequence of the demise of industrial business. With the proclamation of Arnhem as a fine, residential city for the urban elite, the settlement of factories was seen as an undesirable development. The fact that many land-owning elite magistrates determined municipal policy contributed heavily to these developments. Therefore, a fierce industrialization emerged rather late in the city. The spatial planning of the city reveals the large inequality among citizens for a long time. Whereas the wealthy, landowning elite inhabited the north of the city, the factory workers came to live in neighbourhoods of a far lower standard, such as Klarendal. Due to this social inequality and long-lasting *bourgeois* appeal, the city of Arnhem has been called the 'The Hague of the east' for many years. Thus, one can see some differences between both cities when it comes to industrial history: developments that have laid their shadow on the current identity of both cities.

1.3 The industrial core of the City Region?



*The importance of the brick producing industry for the Arnhem
Nijmegen City Region*

Image of the brick producing factory near Heteren.
Taken from the other side of the Rhine river.
Boudewijn Wijnacker 2011.

One of the most visible remnants of the region's industrial business is definitely the brick producing industry. Located at the edge of the Waal, IJssel and Rhine river, the chimneys of these (former) factories dominate region's aerial panorama. The villages of Angeren, Bemmelen, Deest, Dodewaard, Doorwerth, Erlecom, Elst, Gendt, Heteren, Lobith, Oosterbeek, Pannerden, Randwijk, Spijk and Wageningen all possessed or still possess brick producing factories (list of organized brick producing companies to be found on Official Website of Royal Union of Dutch Brick Producers: www.knb-baksteen.nl/leden/index.htm). These remains indicate an importance for the region's industrial identity. Yet, as visible as the physical remnants of this industry are, as absent are the archival remains of this once thriving business activity. The latter can be related to the fact that brick producers almost never mapped their statistical data: especially in the early days of this industry, data-containing papers were often burnt to fuel the brick producing ovens. Therefore, primary sources are mainly copied from scientific analyses instead of derived from archives.

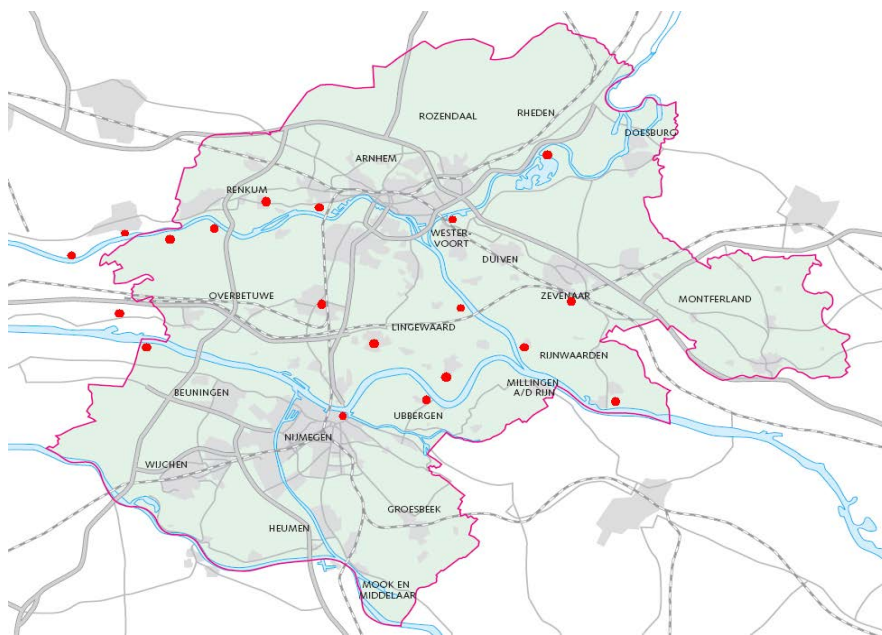


Fig 1.2 Map of cities and villages that used to possess or still possess brick producing factories. It is striking that the majority of these factories was located near the rivers. Customized map, based on a list from the KBN. List to be found on: www.knb-baksteen.nl/leden/index.htm

1.3.1 The history of a widely spread industry

Many of the published works on the Dutch brick producing industry mainly focus on the technical and production-related aspects of bricks and tiles in Dutch society (Janssen, Mombers and Stoffels 2004; Mombers and Van der Veen 2006). Due to their technical focus, these works lack links with societal issues that are relevant for this research. One of the most influential, useful and elaborate analyses on the importance of the brick producing industry has been written by socio-economic historian Ben Janssen. Janssen starts his analysis as early as the early nineteenth century, with the brick producing industry widely spread across the Netherlands. The very first traces of this Dutch industry trace back to the Roman age, with producers thriving in the area of Nijmegen. In his *De aantrekkelijke stad*, urban geographer Gerard Marlet argues that nineteenth-century industrial entrepreneurs established a business at a certain place, based on the calculation of transport costs; the presence of commodities; the distance to a market and the costs of labour (Marlet 2009).

This classical settlement-policy theory resulted in regional diversity, based on physical-geographical deterministic factors. Therefore, it was logical for entrepreneurs in the brick producing industry to settle their business near the rivers, with the availability of low transporting costs and the abundance of commodities. Archaeologists also found remains of this industry near the edge of the

Waal and Maas river. Brick producing industry gradually evolved from a side-activity of farmers into an industrialized business. Farmers used to see the crafting of bricks as small-scale activity in winter times when harvest was not sufficient to survive. In the course of the nineteenth century, with the industrialization taking place, this industry obtained a more industrialized character (Janssens 2008: 5-9).

Most industries in and around Nijmegen began to grow after 1900 with entrepreneurs Willem and Steven Arntz, coming from a traditional brick producing family, as frontrunners. Yet, De Vries claims in line with Klep that the brick factories were already successful in the early nineteenth century, when the course of the rivers became regulated and the demands for brick exploded due to the construction of roads, houses and factories (De Vries 1969). Paul Klep illustrates this time in showing the rise of the people working in the construction industry: whereas the construction working population in Nijmegen counted 439 workers in 1875 (around 6 per cent of the total labour population), this number grew to an amount of 2.040 employees in 1899 (around 14 per cent of the total labour population) (De Vries 1969: 72-73).

Janssen indicates three main reasons for the rise of the brick producing industry within the Arnhem Nijmegen City Region. First, the stock of clay in Holland and Utrecht – till that moment hegemonic within the market – was decreasing. Second, improving transporting abilities by regulating the large rivers resulted in lower transport costs, leading to increasing competitiveness of brick industry located at the edges of the Waal river. Production and winning of clay were not necessarily bound to spatial proximity anymore. Also, the rise of coal – mined in the German Ruhr area – as a prime commodity for industrial production instead of turf contributed to this development. Transport across the rivers of these commodities and final products made production in the north and centre much more efficient than in the west. Adding to this notion, the rise of the railroad resulted in a growing demand for bricks for the construction of tracks, stations, bridges and so on. Third, the need for bricks of fine quality increased as the economy grew, just as wealth and the population itself (Janssen 2008: 12-13). While the province of Gelderland possessed 39 brick factories in 1924 with around 700 employees total, in 1854 the province obtained 104 factories with over 4250 employees. (Statistisch Jaarboek 1854).

Summarizing, between 1850 and 1875 brick industry expanded swiftly. Janssen shows that in 1850-1851, the Netherlands possessed 469 factories, growing to an amount of 643 factories in 1860-1861, resulting in 883 factories in 1878-1879. While commodities near the large rivers were abundant, the amount of employees was also very large, especially in the Betuwe, Bommelerwaard and 'Land van Maas en Waal' (Janssen 2008: 12-13).

1.3.2 Deeply rooted in the soils: the value of (former) brick producing factories

According to Janssen, the most important cultural historical value of current brick producing factories is the fact that the very old traditional way of producing bricks is still visible inside modern factories. Furthermore, Janssen states that these buildings form recognizable beacons in a river-dominated landscape. Architectural value is largely absent according to Janssens due to the fact that the architecture of the buildings is mostly subject to ongoing change, as production processes are adapted through the course of time. Yet, the circular oven at 'Buitengoed de Panoven' in the city of Zevenaar is one of its kind on even a European scale. Janssen states that when the policy report 'Ruimte voor de Rivier' appeared in 2001, possibilities for redevelopment were limited as a consequence of increasing rules for environmental protection. Creating space for river expansion and creating new natural zones lead to an increasing demolition of former factories (Janssen 2008:

396). According to the Masterplan 'Dijk en Kolk' from DLA Landscape Architects BV, Historical agency Van Hemmen and MARC heritage advisors – published in 2009 – the areas of the Ooipolder, Duffelt and Old-Zevenaar/Bijlandt near the Rhine show the importance of the brick producing industry for the natural landscape. According to this report, the natural environment here is strongly influenced by old brick producing factories, which resulted in a landscape from clay pits, dikes and old factories, giving room for specific flora and fauna to develop themselves in these natural zones. The reports indicates that several birds, disappeared for decades in the Netherlands, entered the stage once again in the 1980s in the clay pits that emerged as a consequence of brick producing industry. Therefore, the brick producing industry not only resulted in the abundance of physical built objects, as the method of producing bricks influenced the natural landscape as well (Masterplan Dijk en Kolk 2009: 27).

1.3.3 Touching the region's core? The brick producing industry according to interviews

The importance of the brick producing industry is also mentioned in the performed interviews. Especially Erna Kruitwagen, General Manager at Buitengoed de Panoven – a former brick producing factory – reckons the importance of this industry: "In this region, you are finding yourself in the (historical) centre of stone industry of the Netherlands." (Interview Erna Kruitwagen 2011). While managing a museum near the town of Zevenaar that addresses the importance of the brick producing industry for the Liemersregion, Kruitwagen continues: "Industry has been here for a long time and laid its shadow on the regional identity. All kinds of flora and fauna has grown up in the old clay pits, creating a unique natural reserve. This shows that the character of this region is closely related to the stone industry here" (Interview Erna Kruitwagen 2011). Yet, as Ben Janssen, Theo Keultjes, Franks Wienk and Gerrie Willemsen show, 'De Panoven' did not contribute much to the regional employment: in the early twentieth century only a very small group of men, women and even children earned their living there (Janssen, Keultjes, Wienk and Willemsen 2005: 131). The view of Kruitwagen, of course influenced by her role as entrepreneur who addresses the importance of the brick producing industry for the sake of her museum, yet follows the omnipresence of the crafting of bricks across the region, as indicated on the previous map.

1.3.4 Conclusion

Concluded, the presence of brick producing factories near the large rivers can be called characteristic for the Arnhem Nijmegen City Region. In the area of Renkum, the Rijnstrangen area as well as the Ooijpolder, brick producing factories have been active for many years. The abundance of water and thick clay soils made these areas the heart of the Dutch brick producing industry. Yet, the urban industrial identity of both Arnhem and Nijmegen does not refer solely to this kind of industrial enterprise, since this kind of industrial business is dependent on the abundance of water and transport abilities as offered by the rivers. Being both intrinsic part and shaper of the natural landscape, these brick producing factories refer to an age in which labour-intensive industries were important for the region. Still, there are some running factories located in the Arnhem Nijmegen City Region. In the context of an increasing education level among inhabitants of the region, industrial business has acquired another character with brick producing industry becoming less important. This does not mean that one should demolish these old factories or let them be overpowered by the forces of nature: since these factories contribute to the spatial panorama of the region, with their omnipresence near the large rivers and the fact that they moulded the landscapes themselves, these factories are there to preserve.

1.4 Where the past and the future collide



*Analysis of the paper industry for the Arnhem Nijmegen
City Region*

Where the past and the present meet.
The Norske Skog Parenco paper factory
near the village of Renkum.
Boudewijn Wijnacker 2011

Besides the omnipresent brick producing industry, the regional economy had for a long time been characterized by the presence of several paper producing factories. Especially in the area of Renkum, Oosterbeek and Heelsum, paper industry dominated the industrial world for a long time. Also, the city of Nijmegen possesses a small paper factory in the form of Sappi Nijmegen BV. Anyone who currently visits this northern western part of the Arnhem Nijmegen City Region, is confronted with several still running paper factories, which dominate the urban scenery. How has this industry shaped the industrial spirit of the region and how is this industry able in doing so in the coming years?

1.4.1 Something new for the common man: paper production for the entire society

One of the key analyses on Dutch paper industry was written in the 1950s by H. Voorn (Voorn 1950). In 1957, B.W. de Vries added another important work on Dutch paper industry of the nineteenth century (De Vries 1957). Both works mainly deal with the origins of the industry, without elaborately referring to twentieth century developments. More recent works reveal a more scientific approach, embedded in later scientific debates. In 2004, historian Bram Bouwens from the University of Utrecht, assigned by the Union for Dutch Paper Factories (VNP), wrote an elaborate analysis on Dutch paper industry, focusing on the post-war period. To give his analysis some historical substance, Bouwens began his analysis with the early days of the paper producing industry, tracing back to the European Renaissance. Bouwens states that this industry developed particularly on the Veluwe and in the province of Holland (Bouwens 2004: 19). The abundance of clear water in these areas contributed to the rise of the paper industry.

In his analysis on the Dutch paper industry, socio-economic historian Huub Kockelkorn states that Dutch paper industry had been traditional instead of mechanized for a long time. Following developments in Great Britain, Germany and Belgium, Dutch paper industry transformed into a more mechanized production sector after 1850. Abundance of commodities, the efficiency of windmills and the emphasis on quality instead of quantity were the main reasons for this nostalgic approach in the view of Kockelkorn (Kockelkorn 1993: 14). Bouwens speaks in this context of 'a limitless trust in the quality of hand-made paper' within the paper producing world (Bouwens 2004: 40). The stability of the prices for paper diminished the importance of investment in machinery: the costs for purchase of machines and the costs for gasoline to keep the machines running often resulted in the notion that mechanized production was just as efficient as a more traditional production scheme (Kockelkorn 1993: 14-15).

In comparison to other countries, Dutch paper production remained very small scale. Around 1850, Dutch paper industry only accounted for 3,5 per cent of the total European paper production. In contrast, Germany accounted to this production for almost 40 per cent (Kockelkorn 1993: 15). Bouwens illustrates that Dutch paper factories produced 5.000 tonnes of paper, being only a mere fraction of British production, counting for a staggering 63.000 tonnes of paper in the same year (Bouwens 2004: 36). Industrialization fuelled the need for mechanization of the production process, as paper became a product for the mass instead of merely the elite (Kockelkorn 1993: 15-17).

Meanwhile, graphical industry flourished: following Kockelkorn, the increasing level of education of the Dutch population, the introduction of the telegraph, the emancipation of the working class resulted in the growing importance of newspapers (Kockelkorn 1993: 20). Hans Buiter from the University of Tilburg notes that modern industry fuelled the need for advertisements, as growing bureaucracy contributed in the growing demand for office books and forms (Buiter 1997: 127). This rise of paper producing companies is also visible in statistics. In 1850, 92 daily-, news- and

weekly- magazines were published with almost 24.000 customers, while in 1862 this number reached a height of 159 magazines for over 89.000 customers. By the time of 1910, the number of magazines rose to over 900. Also publishers benefited from this positive economic cycle: one of these publishers was D.A. Thieme in the city of Arnhem (Kockelkorn 1993: 20-23). As a consequence of business up scaling,, the Van Gelder firm bought the firm W. Sanders in the village of Renkum In 1907, incorporating a once small-scale family company into a larger corporation. Between 1911 and 1919, the first industrial paper factory in the city of Renkum emerged (Official Website Stichting Papiergeschiedenis Renkum-Heelsum: <http://www.papiergeschiedenis.nl>) Several miles away from this factory the family of Schut initiated a new factory in the village of Heelsum In 1908, the first industrialized paper factory in Nijmegen emerged. This was largely a consequence of the rise of cheap electricity and water supplies of decent quality, if we follow the historical analysis by Paul Klep (Klep 2005: 319)

From the 1960s on, international competition and the international oil crisis contributed to the decline of this industry, with the Van Gelder Papier company going bankrupt in 1981, evolving into the German Parenco in 1981. Until 1982, the largest share of stocks remained in the hands of the Schut family concerning the paper factory in the village of Heelsum (Official Website of Paper Factory Schut BV: <http://www.papierfabriekschut.com/>). Kockelkorn states that rising prices for paper, better loans for employees, rise of copy machines instead of traditional press materials and growing international competition all contributed in the downfall of the printing industry (Kockelkorn 1993: 39). Bouwens adds that as a consequence of this development, the ongoing internationalization of Dutch paper industry resulted in Dutch companies fusing into foreign enterprises. In this context, Paper Factory Schut BV became part of the French Papeteries de Clairfontaine company in 1998. In 2001 followed the sell of the Parenco Factory to the Norwegian company of Norske Skog.

1.4.2 From local to global: the widening scope of the paper industry

As seen in the scientific analyses, paper industry had for a long time been very labour-intensive. This character is also indicated by Ton van Lier, Manager Economic Affairs, Spatial and Economic Development, and Mr. Michiel Lassche, Policy Maker Monuments, Archaeology and Tourism, from the municipality of Renkum. Both state: "Paper industry used to provide many people in the municipality with a job, due to its labour-intensive production process. As a consequence of the shift in the production process and increasing mobility, the character of the production has changed. Yet even now, paper industry is one of the largest regional employers with around 200 jobs. This industry is still seen as very important for the identity of Renkum and surroundings" (Interview Ton van Lier and Michiel Lassche 2011).

According to the Official Website of Norske Skog Parenco the paper machine (PM) of the former Parenco factory has a production capacity of 260.000 tonnes of paper per year. The success of the mill is based on the know-how and commitment of its approximately 265- strong highly skilled workforce. Currently, the Norske Skog Company is operating in Northern-Africa, Asia, Australia, Europe, the Middle East, North America and even South America, making it definitely a globally focused multinational (Official Website Norske Skog: <http://www.norskeskog.com>). Ton van Lier and Michiel Lassche acknowledge the consequences of this globalizing process, stating that linkage to the region diminished in the globalization process (Interview Ton van Lier and Michiel Lassche 2011).

With the Schut Paper Factory being still active, it is the smallest paper factory in the Netherlands, with a production that does not exceed a modest 3.000 tonnes a year, especially

focused at producing high-quality exclusive paper. The still existing paper factory in Nijmegen is also in foreign hands: “Sappi is a global paper and pulp group” tags the Official Website of Sappi (<http://www.sappi.com>) with over 15.000 employees world-wide.

1.4.3 Where the past is still present: Paper factories in the current economy

One of the main problems of the paper industry, besides international competition, is the energy-use of this type of industry. Ton van Lier from the municipality of Renkum indicates this problem for the current regional economy: “Paper industry is characterized by a relatively high use of this energy. Seventy per cent of production costs is related to energy supply. If a company finds a way to save money in energy use, preservation of this kind of industry is more likely” (Interview Ton van Lier and Michiel Lassche 2011). In October 2010, the Province of Gelderland published a report on the province’s paper industry. The report concluded that in order to survive, companies inside this industrial sector needed to modernize its business regarding sustainability and environmental friendly energy use. The report states that increasing international competition from China, the rise of the bio-based economy, the shortage in commodities and increasing land prices fuel the need for new sorts of commodities. (Quickscan Papierindustrie 2010: 25).

Jaap Koppejan, consultant bio-energy at the Province of Gelderland states on the importance of Norske Skog: “Parengo is of great importance for the economy of Gelderland, being an engine for the province and providing a lot of people with work. On the other hand, Parengo is one of the largest energy wasting companies of this province. We are willing to help the company in their search for innovative production of bio-energies” (Quickscan Papierindustrie 2010: 9). A look at current policy aims of both Norske Skog Parengo and Schut BV reveals a similar strategy. The Official Website of Norske Skog reports: “Our mills work continuously to reduce emissions and discharges. At Norske Skog, we believe that industry must participate actively in the process to control climate change” (Official Website Norske Skog: <http://www.norskeskog.com/Responsibility.aspx>). Policy from the Clairfontaine firm of which Schut BV is part of, reveals a similar target: “Unlike other companies, Rhodia-Clairfontaine manufactures its’ own paper from sustainable forests with minimal environmental impact.” (Official website Rhoda-Clairfontaine: <http://www.clairfontaine.com>). In line with Norske Skog Parengo and Schut BV, the company of Sappi acknowledges the importance of new sorts of energy use.

1.4.4 Conclusion

Looking at the question to what extent the paper industry determines the regional identity, the paper industry has been influential for the City Region from the nineteenth century up until today. Originating from the Veluwe, paper factories emerged in the villages of Renkum, Heelsum and the city of Nijmegen. Especially for the region of Renkum, the paper industry has been influential for many years, up until today. Once entering the village of Renkum, the massive appeal of the Norske Skog Parengo factory refers to the influence the factory had for this part of the City Region. While paper industry has been one of the largest energy wasters in the last decades, the industry is forced to find other solutions. Against the background of a demand for energy recycling, lowering of CO₂-emissions and a more environmental way of production, the paper industry is focusing itself on these matters in order to survive. While local producers have been fused into international firms, the focus on sustainability is definitely there. In moving towards sustainable production, this industry is securing its position for the future.

1.5 About cigarettes and cigars



The influence of the tobacco industry on the region's industrial identity

In a time when smoking was not conceived to be a felony, tobacco industry flourished in the Arnhem Nijmegen City Region. Especially in the town of Zevenaar and the city of Nijmegen, tobacco industry had been active for many years. In the beginning of the twentieth century, the economic reason for existence still dealt with agriculture, with industrial businesses slowly taking their place in the urban landscape. One of the more important branches in this development had been the tobacco industry, with the Turmac tobacco factory in the village of Zevenaar as an eye-catcher in this sense. The fierce entanglement with urban life distinguishes this kind of industry from other forms and is therefore of interest for this research. Because archival pieces have not been saved by any means, this analysis will use mainly scientific literature and reports, just as interviews in analyzing the importance of this industry for this part of the Arnhem Nijmegen City Region.

1.5.1 Cigarettes, cigars and community: How the tobacco industry influenced urban life

In their critical and thorough analysis of the former Turmac tobacco factory in the village of Zevenaar, Ben Janssen, Theo Keultjes, Frans Wienk and Gerrie Willemsen address the social and cultural significance of this factory for the Liemers region, the eastern lands of the Arnhem Nijmegen City Region. The focus of their work on these socio-cultural issues instead of technical assets adds to its usefulness for this research (Janssen, Keultjes, Wienk and Willemsen 2005). According to these authors, the village of Zevenaar was characterized by a strong agricultural image by the time of 1900, with a population that did not exceed 4.500 inhabitants. World War 1 marked a turning point: with the high level of unemployment, labour unions called for municipal action. Yet, as the authors show, the development of industry near the village of Zevenaar was hampered by the fact that many municipal policy makers were large landowners, lacking any interest in developing industrial business in the urban cores. For them, stimulating industrial businesses would damage their position of power and hegemony (Janssen, Keultjes, Wienk and Willemsen 2005: 11-14).

According to the Official Website of British American Tobacco, the arrival of tobacco resulted in fierce discussions. Terms ranging from “vile custom of manifold abuses” and “feast for the fiend” to “the divine herb” and “cornucopia of all earthly pleasure” dominated the pursued debates (Official Website British American Tobacco: <http://www.bat.com>). Yet, from Amersfoort, the Veluwe, the Utrechtse Heuvelrug. Rhenen, Wageningen, industry began to emerge in the Over-Betuwe and the ‘Land van Maas en Waal’, reaching on to the Liemers region. Clay grounds in the Liemers region suited the cropping of tobacco very well, becoming an important tobacco producing centre for the region. Buiter adds that tobacco industry flourished particularly in the cities of Utrecht and Amersfoort and the village of Veenendaal (Buiter 1997: 92). Many local analyses have been written in this context, such as the works from Van Amerongen (1988) and Valkenburg (1985) on the Veenendaal tobacco industry. Within the Liemers region, the families of Frowein and Buschhammer were the main producers, exporting tobacco to areas like Southern Germany, Austria and Italy. Slowly, tobacco for smoking pipes was replaced by the rise of the cigar. At the same time, Janssen et al. point to the Crimean War (1853-1856), which added to the emergence of the cigarette, with British soldiers casually smoking the fear of war away (Janssen, Keultjes, Wienk and Willemsen 2005: 31). By the time of 1870, Dutch cigar industry employed nearly 12.000 people. While during the First World War production was stopped, the 1920s marked a turning point.

1.5.2 A ‘divine herb’ for the world? Globalization in the tobacco industry

In 1920, Buschhammer sought connection to Greek-Turkish entrepreneur Kiazim Emin, who participated in the establishment of the Turmac (Turkish Macedonian Tobacco Company) factory.

Emin, rooted in the old Ottoman empire, possessed multiple companies in Germany, counted for 12 per cent of the total German tobacco production. According to Veldman, Emin's motives for establishing a factory in Zevenaar were related to the long-lasting history of producing tobacco in the region, the presence of a fine railroad connection to Germany and the presence of the Rhine (Veldman 1985: 86). Janssen, Keultjes, Wienk and Willemsen add that the personal connections between Buschhammer and Emin contribute to a larger extent. They point to the fact that Emin also possessed factories in the city of Nijmegen, although loan costs were much lower in the Liemers region than in the urban environment of Nijmegen ((Janssen, Keultjes, Wienk and Willemsen 2005: 17-18). With the rise of the tobacco industry in the United States of America and the United Kingdom, the first global concerns emerged, with Turmac evolving into British American Tobacco in 1902(Official Website of British American Tobacco: <http://www.bat.com>).. Slowly, tobacco production concentrated itself in larger multinationals. Janssen, Keultjes, Wienk and Willemsen note that this internationalization is largely related to the high import tariffs on cigarettes, making the establishment of new departments in foreign country necessary(Janssen, Keultjes, Wienk and Willemsen 2005: 39).

1.5.3 An industry for society: Turmac's societal concern

Meanwhile, Turmac influenced society a lot. In 1925, the company founded a football club, followed by a bowling club in 1929. In 1945 followed a chess union Furthermore, Turmac financed local art exhibitions and financed local artists in the course of the twentieth century. Also, most employees came from Zevenaar and surroundings. To care for its employees, the Turmac company had fine bonds with the Catholic church. This exquisite care for its employees was pursued throughout the entire history of Turmac. The industry's societal and cultural significance for the Liemers region traces back a long time. According to Janssen, Keultjes, Wienk and Willemsen this societal concern was related to three main motives (Janssen, Keultjes, Wienk and Willemsen 2005: 183): first, For the employees themselves it was considered to be important that other people knew and appreciated the Turmac factory. Second, attracting new employees was thought to be easier if people knew the company by name. Last, but certainly not least, Turmac used to be the region's largest employer. This role came with a certain responsibility for society as a whole. If one looks at employment ratios of the municipality of Zevenaar in the 1930s, one can see the importance of this industry as well:

	1934	1935	1936	1937	1938	1939	1940	1941
Turmac	909	780	-	456	384	32	369	365
Gimborn Ink factory	40	34	-	42	58	57	63	75
Brick producing factory	14	13	-	12	13	14	12	11
Postal Service	19	22	-	24	27	29	27	25

Fig 1.3 Overview of employment numbers for the municipality of Zevenaar (1934-1941). Source: Janssen, B., Keultjes, T., Wienk F. and Willemsen, G. (2005) *Onder de rook van Turmac. De betekenis van de Turmac sigarettenfabriek voor Zevenaar en de Liemers*. Uitgave van de Cultuurhistorische Vereniging Zevenaar. Doesburg: Drukkerij Zeegers BV. pp. 131.

In 1955, in the context of the increasing globalization on the world tobacco market, the company of Turmac fused with the South-African company of Rothmans, becoming part of an international network organization. Shortly after the Second World War, Russian entrepreneur Alexander Orlov

entered the stage. In an article for Time Magazine from 1966, Orlow states that the appeal of the working environment was important for the satisfaction of his employees. Like many other industrial leaders, Orlow figured that boredom was reflected in production figures, so he commissioned 13 painters to produce art for his plant: the so-called 'Peter Stuyvesant collection' was born (Time Magazine 1966). Being asked of what they thought of the paintings, 86 per cent of the company's employees responded positively in 1960 (Janssen, Keultjes, Wienk and Willemsen 2005: 187-188). According to Eva Rovers from *De Groene Amsterdammer*, this care for employees slowly transformed into a more corporate cultural responsibility (Rovers 2010).

Slowly, tobacco industry in the Liemers region began to operate on a European and even global scale. If one looks at the European market shares of the Rothmans group, one can see that the Dutch industry is the most important for the group compared to other countries. In 1992 the Turmac-Rothmans factory was baptized in the Rothmans factory, with British American Tobacco taking over the factory in the year 2000. After almost 90 years of production, BAT was forced to shut its doors in 2006, leaving more than 500 people unemployed.

1.5.4 At the heart of the Liemers region. The BAT-factory as seen in interviews

The legacy of the BAT-factory goes beyond scientific analyses. In the interviews, this societal concern is acknowledged (Interview Ingrid Mens 2011). The sponsoring of cultural events, high employment numbers are mentioned by Yvette Abbing and Lilian Werdmuller from the municipality of Zevenaar. As Ingrid Mens puts it: "You can state it was a company that was really rooted in this region. People really associated the region with the tobacco industry. Especially the first Turmac-company, predecessor of BAT, was really familiar among people in the region. After takeovers by Rothmans (1992) and BAT (2000), people were less receptive for the company: instead of the official British American Tobacco (BAT) translation, people began to perceive 'BAT' as 'Blief Altied Turmac'" (Interview Ingrid Mens 2011).

As seen, globalization of the tobacco industry laid its shadow on the Liemers region. When the company of Rothmans took an interest in the Turmac company in the 1950s, focus became more international. According to Ingrid Mens, this had consequences for societal concern: "Due to globalization, societal concern had been degrading for several years already. Our museum had been on the terrain of BAT for several years, mainly because the BAT-company couldn't find a suitable destination for the building we were settled in." (Interview Ingrid Mens 2011). When British American Tobacco disappeared in the village of Zevenaar, questions concerning the redevelopment of the former factory complex arose. The second paragraph of this research will elaborate on these issues.

1.5.5 Conclusion

As seen, the tobacco industry has been very societal concerned in the Liemers region and is therefore indispensable when looking at the region's industrial DNA. This societal concern marks its relevancy for this research: a factory that was that heavily embedded in the region must be taken into account when looking at the industrial DNA of the Arnhem Nijmegen City Region. From the 1920s on, this industry was heavily involved in societal life, with the emergence of sports clubs, labour unions and the establishment of cultural events. As time went by, this societal care remained but diminished in comparison to the early days. When British American Tobacco decided to shut its doors in 2008, a large amount of people faced unemployment and Zevenaar was left with the presence of a very large industrial complex.

1.6 From the Romans to the globe



How the maritime industry has developed itself in the course of years

A look at the map of the Arnhem Nijmegen City Region reveals the importance of water for the region's natural reserve. With the Rhine, the Waal and the IJssel river, the regional landscape is largely formed by the flow of rivers. The regional planning report from the Arnhem Nijmegen City Region affirms that the 'special river landscape is one of the main pillars of the region's identity' (Regionaal Plan 2005-2020: 22). The spatial structure of the region had been fiercely moulded by the forces of nature, with the Waal and the Rhine rivers lifting the soil to greater heights: the existence of the 'Veluwe' and 'Rijk van Nijmegen' is a consequence of the expanding rivers, resulting in an uneven landscape with many characteristic river forelands, such as the 'Rijnstrangen', 'Gelderse Poort' and 'Millingenwaard'-areas. Various vegetation and large forests contribute determining the scenery. This particular physical situation suited the industrial age perfectly: the abundance of brick producing factories near rivers indicates this importance. Not only commodity-based industry emerged near the rivers, with shipyards entering the regional landscape as well. Just as Mother Nature, does this industry add to the region's industrial appeal?

1.10.1 Navigating towards profit: the transporting possibilities as offered by the rivers

Before one looks at the omnipresent shipyards in the Arnhem Nijmegen City Region, one has to look at the importance of the rivers for further industrial expansion. Arnhem, Nijmegen, Dodewaard, Millingen, Grave and Lobith all experienced the rise of the maritime industry. As Ben Janssen states in his analysis on the brick producing industry, improving transporting abilities by regulating the large rivers resulted in lower transport costs, leading to increasing competitiveness of brick industry located at the edges of the Waal river. Production and winning of clay weren't necessarily bound to spatial proximity anymore. Also, the rise of coal – mined in the German Ruhr area – as a prime commodity for industrial production instead of turf contributed to this development. Transport across the rivers of these commodities and final products made production in the north and centre much more efficient than in the west (Janssen 2008: 4-5).

In his analysis of industrial heritage in the province of Utrecht, Hans Buiter notes that power plants were often located near rivers, because water was able to cool down the generators, besides the fact that water could be used to deliver resources, such as coal.

Adding to these theoretical views, Erik de Gans, project leader 'Stichting Millingse Liburna' and founder of IR3, a recreational tourist agency that develops, guides and actually performs tourist policy for projects inside the Arnhem Nijmegen City Region, states that the region's maritime history goes way back in history: "Tracing back to the Roman age, around 2.000 years ago, there was a major settlement of the Roman army near the city of Nijmegen. The Rhine river functioned as an important border-zone with the unoccupied areas. Especially near Millingen, at the intersection of the Waal and the Rhine river, transport abilities and the strategic settlement resulted in the presence of a shipyard. It is very likely that the Romans have built ships here, as they built ships all across their empire on this kind of strategic locations. The Roman writer Tacitus already wrote that the Romans built their ships here. Ever since 1896, the Bodewes shipyard was able to build ships here, largely fuelled by the industrialization. The reasons for this specific location shows similar patterns with the Roman age: the location of Millingen near the crossroad of the Waal and the Rhine and the close connection to Germany were of significant influence here (Interview Erik de Gans 2011). As De Gans points out, the strategic location of the shipyard in Millingen contributed to its success: an indicator that was also remarked by Janssen, Klep and Buiter.

1.10.2 Building boats as industrial enterprise: the emergence of shipyards

Already in the early nineteenth century, with the invention of the steam engine, the first steam powered boats entered the rivers. In his research on the industrial development of Nijmegen in the nineteenth century, Paul Klep shows that the rise of the steam engine heavily fuelled the expansion of the maritime industry of Nijmegen. With a trip from Nijmegen to Rotterdam by sailing boat lasting a staggering 55 hours, a steam-powered boat travelled the same distance in less than seven hours (Klep 2005: 78). The growing size of the ships increased the transport capacity, resulting in lower transporting costs for industrial enterprises. Of course, the province of Holland dominated the maritime industry for a long time (Lesger 2001: 29). Yet, the very recent analysis by Piet van Crujningen, Joke Korteweg and Marlies Hummelen shows that the city of Arnhem possesses a long history of ship construction as well. These authors focus on the history of the Arnhemse Scheepvaart Maatschappij (ASM), which traces back to 1889. With this typical family-company emerging as a producer for machines, production soon shifted towards the repair and construction of ships for both domestic and foreign assigners (Van Crujningen, Korteweg and Hummelen 2011). For a long time, the ASM was one of the largest employers of the city. Paul Klep shows that, although the municipality of Nijmegen tried to monopolize the market of the ship construction, several companies in Nijmegen dominated the local market.

The rise of the railroad diminished the importance of the maritime industry, with municipalities stressing the importance of a fine railroad system. When railroad connections between Arnhem and Nijmegen, the Betuwe region and Dordrecht emerged in the late nineteenth century, the maritime industry needed to specialize its production in order to survive (Klep 2005: 100). The real crisis for shipyards emerged in the 1960s and 1970s, when the demands for ships deteriorated heavily. The high loans and increasing competition from abroad damaged the competitive position of Dutch maritime industry. Especially the competition out of Asia was to be seen as a large competitor, with the Japanese industry as frontrunner with its relatively low loan costs and high levels of productivity. It was in 1978 that the ASM went bankrupt as a consequence of these developments (Official Website Provincial Archive: <http://www.geldersarchief.nl>). When the Bodewes shipyard faced bankruptcy in 1987 and 116 people feared of losing their job, the Bodewes shipyard near Millingen was incorporated in the international 'Damen Shipyard Group'. Currently, this company is operating in countries all over the world.



Fig 1.4 Overview of companies attached to the Damen Shipyard Group. It may be clear that it is an internationally operating enterprise, with the Dutch shipyards only forming a small fraction of the company's playing ground. Source: Official Website Damen Shipyards Group: www.damen.nl/Companies/index.aspx?mId=8562.

The Bodewes-shipyard in Millingen is not an exception here. Currently, the Damen Shipyard Group counts ten members in the Netherlands including companies in Bergum, Den Helder, Amsterdam, Nijkerk, Gorinchem, Stellendam and, as said, Millingen (Official Website Damen Shipyard Group: <http://www.damen.nl>). Incorporation in order to survive: it is to be seen as a strategy that was used all across the Netherlands.

In an interview, Erik de Gans addresses the relation between this globalization process and societal concern: “Bodewes is operating rather independently of the Damen International Group. Therefore, Bodewes itself can decide how to perform its business, requiring mere approval of the Damen Group. From the 1950s on, the shipyard became the main employer of Millingen and its surroundings: life in the factory dominated the life of many people. People adapted their daily rhythm to the working times in the factory. Economically, but certainly also socially, the shipyard was of great importance for many people. Yet, the importance and linkage of the factory with its direct environment is degrading, as more and more foreign employees are joining the stage due to their lower loan costs. Therefore, increasingly fewer people from this region are working at the shipyard.” (Interview Erik de Gans 2011).

1.6.3 Conclusion

From the Roman age on, the construction of ships contributed to the region’s industrial character. With the close connection to the German Ruhr area, as well as the interconnectedness of the Rhine, Waal and IJssel river, it was interesting for entrepreneurs in this maritime industry to settle their business in the region. Often, the more agricultural areas with their low ground prices and cheap labour that was needed for production fuelled this development. Due to globalization, many shipyards were forced to fuse into international companies, such as happened with the Bodewes shipyard in Millingen that was incorporated in the Damen International Group. In the process of globalization, with the demise of many shipyards, questions concerning the redevelopment of this complexes emerged. For example, the ASM-terrain in the city of Arnhem is still a topic for debate. The implementation of tourist activities on these terrains highlight the importance of revitalizing these areas. One of these projects is the so-called ‘Liburna’-project on the Bodewes-shipyard in Millingen. The second chapter will elaborate on this topic.

Conclusion chapter 1

E pluribus unum?



What are the industrial characteristics of the Arnhem Nijmegen City Region?

Image of a former brick producing factory near Renkum.
Boudewijn Wijnacker 2011

'E pluribus unum': one of the most widely used phrases by Barack Obama in the American presidential elections in 2008. This originally Latin phrase 'out of many there is one' can also be applied to the industrial character of the Arnhem Nijmegen City Region. A look at the main question of this chapter – what are the industrial characteristics of the Arnhem Nijmegen City Region? – reveals that especially this diverse, plural industrial character determines the industrial DNA of the region. This answers the question that was raised in this chapter. Therefore, creating an identity – as identity building is a creative process based on mutual consensus, deliberate choice and the creation of 'otherness' – is a difficult process. These difficulties emerge when looking at 'the' industrial spirit of the Arnhem Nijmegen City Region. Both large cities within the region are characterized by different industrial identities, that have evolved throughout history. These identities are by no means fixed as this research has shown, but a result of a historical evolution.

For many years, the city of Nijmegen has been the fourth industrial city of the Netherlands, with factories producing soap, shoes, automatic screw works, tobacco and paper in the course of time. Although the municipality of Nijmegen tried to portray the city as a pleasant, green environment to live for the urban elite, the abolishment of the so-called 'Vestingwet' in 1874 fuelled industrial expansion. With the outer walls of the city being demolished, the space for industrial expansion was there. With the entrance of the first Dutch power plant in the early twentieth century, the city of Nijmegen started to industrialize rapidly. The presence of many low- and middle-income earning inhabitants, increased the labour potential of the city, which in combination with its cheap land prices resulted in fierce industrial progress. In the course of time, with heavy industry moving towards Third World countries, the city of Nijmegen was forced to adapt to the challenges of the modern age. The transfer towards a more knowledge-intensive economy, with the university, the NXP Semiconductor company – that originated as the Catholic Philips – and the medical-related institutions resulted in a new industrial character, that followed the trend of a population getting smarter.

In contrast, a rapid industrialization in the city of Arnhem had been absent for many years. With the presence of a wealthy, landowning elite – that obtained lands in the East Indian colonies, and the influence they had within municipal organs resulted in the proclamation of Arnhem as the 'The Hague from the east': luxurious clothing stores, marvellous boulevards for the urban *flaneur*, the presence of neoclassical manor houses and cultural facilities as the Musis Sacrum baptized the village into the residential dream of the latenineteenth century *bourgeois* elite. In contrast, the first neighbourhoods for the working class – with companies as ASM, ENKA, later on KEMA – were of the worst kind, fuelling the extreme social and income-related inequality of the city. This inequality is still visible in the spatial planning of Arnhem, with the appealing upper-class neighbourhoods being located up north, in strong contrast to formerly known problematic areas as Klarendal.

The construction of the railroad from the 1850s on resulted in the emergence of the first factories in the urban landscape. Yet, the substantial growth of one single industrial branch remained absent due to the relatively late industrialization from the 1920s on, when the first industrial parks near the Rhine river appeared. For a long time, the governmental beating heart of Gelderland was characterized by trade, NUTS-companies, banks, fashion and retail stores and insurance companies. With the increasing appeal of other Dutch cities and the industrialization from the 1920s on, Arnhem was confronted with the first patterns of industrialization from the 1920s on, but it never became a truly industrial city.

With its current emphasis on EMT and fashion and design, the city of Arnhem is successful in finding its historical roots. The character of a company as AKZO can be traced back to the ENKA-

factory from the 1920s, whereas the energy-related industries refer to the emergence of the first energy-related companies in the first years of the twentieth century as well. Yet, the fact that the shift of heavy industries towards Eastern Europe and Asia from the 1960s did not result in mass unemployment in Arnhem, already shows that the economy of the city is characterized by its diversity.

The diverse character of this industrial DNA is also visible in the more peripheral areas of the region. Most of these industrial activities have disappeared due to their labour-intensive character and high costs of production. Often emerging out of traditional agricultural side-activities, the crafting of bricks became one of the prime industrial activities of the region, scattered throughout the landscape. The abundance of clear water and clay grounds and the transport abilities that were offered by the presence of the large rivers fuelled the expansion of the brick producing industry, especially in the Rijnstrangen area, the area of Renkum and Oosterbeek and the Ooijpolder. Due to its way of production, the natural landscape was shaped by this industry, resulting in the existence of clay pits, dikes and small river-branches.

At the same time, paper industry emerged in the city of Renkum, still producing until today. Whereas brick producing factories are still there as relics of an almost forgotten past – since the production of bricks became subject to mechanization – the paper industry is still performing its business. In order to survive, the paper industry followed the current societal trend of an ongoing search for sustainable energy use, reduction of CO₂-emissions and renewable energy supplies. In the eastern part of the region, British American Tobacco entered the stage as one of the most influential and societally interested industrial companies. Heavily embedded within urban life, the company that started as the Turmac factory employed many people, created sports clubs, labour unions and sponsored cultural events. When the BAT-factory was closed in 2008, the village of Zevenaar was confronted with mass unemployment. Whereas the brick producing industry and paper industry were strongly dependent on water supplies and the course of the rivers, the same accounts for the construction of ships. On different places, such as Westervoort, Arnhem and Millingen shipyards entered the urban and rural landscape. Just as paper factories, these shipyards were fused into international concerns in order to survive. In most cases, societal concern of these companies decreased as foreign investors became the owners of the companies.

In taking all these industrial activities into account, it is difficult to state that there is one industrial character that is to be applied to the whole region. Of course, the still standing brick factories near the rivers indicate a past that is about to be forgotten. With former employees getting older and older, the experience of factory life is subject to decay. Therefore, in order to preserve this valuable part of the region's history and identity, redevelopment is required. How to achieve successful redevelopment is something the second paragraph will elaborate on. Thus, the diversity of the industrial character of the Arnhem Nijmegen City Region is in fact its unique selling point. Often, factories are a crucial part of a city or region's history, also when it comes to the spatial location of these buildings as part of the region's panorama or entrance of the city. As relics of a once thriving past, these buildings represent exactly this diversity, which forms the basis for the region's heterogeneous industrial identity.

Chapter 2

Reawakening the history of the common man?



Analysis of the redevelopment of industrial heritage within the Arnhem Nijmegen City Region

2.1 A memory of the working class?



Analysis of the concept of industrial heritage

Industrial artefact at Buitengoed
de Panoven, Zevenaar
Boudewijn Wijnacker 2011

They are there as relics of a once forgotten past. They stand proud above the pillars of the earth, referring to an age in which working was the prime interest of urban life. Factories: buildings that used to be portrayed as representatives of an old, undesirable time in history. As we have seen in the previous chapter, the Arnhem Nijmegen City Region possessed multiple industrial branches in the twentieth century, thriving in the region. Yet, in the course of time, these often labour-intensive industries were subject to the consequences of globalization, with labour-intensive industries moving towards the east of Europe or even South-East Asia. Although many factories were closed and demolished in the process, several old factories remained present in the urban and even rural landscape. Therefore, in the context of the growing importance of industrial heritage within municipal heritage policy, the question emerged what to do with these old buildings. The aim of this chapter is to look how the region's industrial heritage can be linked to economic, spatial and tourist progress. By means of six case studies this chapter actually discusses the problems involved: how can one preserve these often valuable traces of the past, while at the same time linking up to present demands? By means of a conceptual analysis of the term 'industrial heritage' and the problems that emerge with redevelopment programs this chapter will elaborate on the difficulties and opportunities that arise with the redevelopment of industrial heritage.

2.1.1 The emergence of the concept of 'industrial heritage'

The concept of industrial heritage was introduced in the 1950s in the United Kingdom. Originally the concept was coined by British historian Michael Rix as 'industrial archaeology', studying 'the early remains produced by the industrial revolution'. At first, technical and aesthetic values were very prominent. The first sounds for protecting industrial buildings were also heard in the United Kingdom from the 1950s. Neil Cossons stated that this attitude derived from the threatening destruction of nineteenth century buildings, but especially from the post-war attention for 'physical monuments of those who had so spectacularly generated growth in the industrial revolution. The mid-1950s, therefore, saw for the first time the growth of a national pride in past industrial achievement which began to counterbalance those adverse social consequences that had formerly been so wholeheartedly associated with it' (Cossons 1975: 18). Already in 1959, Youngson noted in this sense that economic historians should address 'the great immediate mainspring of progress', calling for the preservation of industrial heritage (Youngson 1971: 228).

When the 1970s arrived, R.A. Buchanan advocated placing the concept in a wider societal context (Buchanan 1972). At the third Congress of the international 'Committee for the conservation of Industrial Heritage' (TICCIH) the concept of industrial archaeology was transformed: industrial heritage was born. According to Nijhof, this change in definition was closely related to change in conceptualization: no longer company and technical advances were mentioned, but also landscapes, sites and products were linked to the concept of industrial heritage (Nijhof 1995). Cossons adds that industrial archaeology became more and more focused on cultural history, as factories represented societal developments in a certain time (Cossons 1975: 15). Hudson defined industrial monuments for the Council for British Archaeology as 'any building or other fixed structure – especially of the period of the industrial revolution – which either alone or in association with is the beginning and evolution of industrial and technical processes. These may be concerned with either production or communication' (Hudson 1976: 19).

An important work on the concepts of industrial heritage and industrial culture, *Het tijdperk van de machine. Industriecultuur in België en Nederland*, is written by Dutch socio-economic historian Erik Nijhof and his Belgian colleague Peter Scholliers, who state that industrial heritage in practice is

not a value-free concept: actors use the concept to make sense of the past, to obtain a monopoly of sense making in history (Nijhof and Scholliers 1996: 15). When speaking of a so-called 'industrial culture' Erik Nijhof and Peter Scholliers are referring to 'the whole of representations that can be tangible as well as intangible, reflecting the influence of societal actors on the process of industrialization. In the process of doing so, they create a culture that displays itself in industrial products, factories, machines, spatial structures, small houses for labourers, paintings and pictures and of course in ideology, mentality and of course way of life (Nijhof and Scholliers 2006b: 17-18).

Hudson notes in this sense that the architectural appeal of a former factory could stimulate historical consciousness: in researching industrial relics, a researcher can be motivated to address societal issues. Belgian historian Adriaan Linters stated that 'industrial archaeology is a historical aimed discipline, which would want to subject material infrastructure to thorough research, because one wants to know how and why this infrastructure developed and because one wants to know how the present is determined by the material past' (Linters 1982: 30-31). Just as industrialization emerged at a slower pace in Dutch society, attention for industrial heritage was introduced in a later stage. First initiatives that were focused on industrial heritage were aimed at the maintenance of objects, that should have architectural appeal, a decent age and certain nostalgic values (Van Dalen and Boon 1986: 58-59).

2.1.2 Function instead of form: Dutch monumental policy concerning industrial heritage analyzed

From laissez-faire to ideological monumental care: Dutch monumental policy considering industrial heritage

Nijhof and Scholliers offer a wide range of essays which focus on industrial culture, heritage and the debates surrounding these phenomena (Nijhof and Scholliers 2006a). In one of the essays, Erik Nijhof and Henk Weevers state that until 1875, Dutch government did not pay attention to cultural heritage. According to both scholars, this was related to the notion that government should adopt a *laissez-faire*-policy and that cultural heritage was seen as an issue for the cultural elite (Nijhof and Weevers 1996: 183). The far reaching influences of industrial development for urban modernization fuelled the concerns of governments with spatial quality inside the industrializing cities (Nijhof and Weevers 1996: 184). This led to fiercely debated controversies that can be linked to the already mentioned 'rural-urban dichotomies'.

The liberal policy and consequently, the lack of protectionary measures, resulted in the demolition of many old factories. It took a war in 1940 to make policy makers realize that to preserve industrial heritage, one had to define certain rules for it. In 1961 the first Monumental Law was passed, while an age of 50 years for a building was considered to be crucial in deciding whether a building was monumental or not. It was not until 1975, the European 'Monument Year', that factories were considered to contain value. In 1978, Peter Nijhof wrote the first Dutch thorough analysis on industrial heritage (Nijhof 1978). According to economic historian Paul Klep, Dutch interest for industrial heritage followed the same pattern as in England, emerging in the 1970s as an initiative of local participators (Klep 2009: 24). Although concern for industrial heritage was rising, Erik Nijhof and Henk Weevers state that industrial heritage still remained underweight. They point to the fact that many monumental magistrates were educated in the classical arts: for many factories, this meant denial of monumental status. (Nijhof and Weevers 1996: 196). In addition, Paul Klep states that in the beginning of heritage policy, aesthetic values were seen as extremely important. During the course of time, the concept of 'monument' widened (Klep 2009: 24).

Meanwhile, still many factories were closed. Protests emerged, especially since these buildings became to be regarded as physical proof for socio-economic development in certain areas. The definition of a 'monument' therefore became more and more associated with socio-economic context. In 1990, this resulted in the *Rapport Industrieel erfgoed en de kunst van het vernietigen* from the Ministry of Wealth, Social Healthcare and Culture (WVC, nowadays the Ministry of Social Healthcare, Wealth and Sports and the Ministry of Education and Culture) which also pointed to the societal context as a relevant indicator for determining value of heritage (Ministerie van WVC 1990). When in 1996 the Year of Industrial Heritage was pronounced, Klep speaks of a 'massive rediscovery' of local heritage, both tangible and intangible (Klep 2009: 25). It is exactly this revival, that keeps discussions going until today.

For the sake of beauty? The debates considering industrial heritage policy according to interviews

The lack of care for industrial heritage in Dutch society evoked a lot of discussion, as seen in the performed interviews for this research. The respondents of the interviews mainly point to the architectural criteria that have dominated Dutch monumental care for a long time (Interview Paul Klep 2011; Interview Kees de Wit 2011; Interview Eva ter Braak 2011; Interview Clemens Veraa 2011). Yet, all respondents show that industrial heritage mainly possesses cultural historical value. Wim Lavooij, urban planner at Lavooij over Vorm BV and former director of SAB (Stedenbouwkundig Bureau Arnhem) speaks in this sense of Industrial heritage as "the 'clotted history' of the city, as it shows how people worked, lived and were assigned to produce. If one demolishes these buildings, one erases a part of the city's history in the process" (Interview Wim Lavooij 2011). With his background as advocator for the preservation of industrial heritage, Cees Alewijnse from Stieneo pays attention to the intangible heritage as well, as people are aging with their stories fading away (Interview Cees Alewijnse 2011).

Besides the architectural attitude of policy makers for a long time, as well as the 'fifty-years-old-regulation', Paul Klep adds that the mass unemployment after the globalization of industrial activities was not popular to capture in monumental care. Additionally, not everyone considers this mass unemployment as a consequence of de-industrialization as a tragedy: a shift towards a more service-focused economy is sometimes applauded as a necessary and logical economic development. (Interview Paul Klep 2011).

2.1.3 Looking, listening and feeling: the two-face character of industrial heritage

The unique-selling-points of industrial heritage

The long-lasting neglect of industrial heritage might suggest that industrial heritage possesses a totally different character than other forms of cultural heritage. The fact that organizations exist that primarily deal with the redevelopment of old factory complexes is also an indicator of this presupposition. Therefore, it is important to look at what makes industrial heritage so special in comparison to other types of cultural heritage. In talking to experts on these terrains, information was acquired on the unique-selling-points of industrial heritage.

Clemens Veraa from BOEi BV (Nationale Maatschappij tot Behoud, Ontwikkeling, en Exploitatie van Industrieel erfgoed red.) states that it is difficult to make general notions on the unique value of industrial heritage: "Of course, there is an overlap between different sorts of heritage, such as agricultural heritage. Think of farmers that used to see the crafting of bricks as small-scale activity in winter times when harvest was not sufficient to survive" (Interview Clemens

Veraa 2011). As Veraa states, it is difficult to classify the key aspects of industrial heritage. Wim Lavooij, urban planner at Lavooij over Vorm BV and SAB (Stedenbouwkundig Bureau Arnhem), takes it a step further in proclaiming that the term 'industrial heritage' can be misleading. Wim Lavooij adds that industrial heritage is closely related to abandoned office buildings as well, due to their labour-intensive values associated with it (Interview Wim Lavooij 2011).

The nuanced approach by Veraa and Lavooij is also used by cultural heritage advisor Eva ter Braak from independent cultural advisory organ Gelders Genootschap. Ter Braak: "It is important to stress the heterogeneity among industrial complexes: what is characteristic for one complex does not have to be for the other case" (Interview Eva ter Braak 2011). Wim Lavooij also reckons the architectural value of former factory complexes: "These buildings represent another kind of history than heritage that used to be very popular. These industrial objects represent chaos, traces of past use, while the buildings themselves were adapted to contemporary demands. You can definitely state that these buildings are really experienced by many people, adapting themselves to the course of time" (Interview Wim Lavooij 2011). According to Cees Alewijnse from Stieneo and architect Kees de Wit, industrial heritage can become part of a collective urban memory, mainly due to their cultural significance (Interview Cees Alewijnse 2011; Interview Kees de Wit 2011).

The rise of intangible industrial heritage

Within the scientific world, the debates on the characteristics of cultural heritage are an ongoing struggle. With the concept of 'industrial archaeology' evolving into the broader concept of 'industrial heritage', the represented cultural history of the historical site was taken along in the process. As a consequence, the interest for non-physical heritage – such as old stories, factory songs, experiences from many people – increased. These kind of discussions between tangible heritage – the actual, material part of heritage – and intangible heritage – the values, spoken stories, experiences associated with the site – dominate the scientific world until today.

An important work regarding the controversies surrounding heritage is Laurajane Smith's *Uses of Heritage*. In her work, Laurajane Smith notes that "the ability to control and define the experiences of being in place, and of remembering and meaning making, are central to defining identity, and asserting and making sense of an individual and community's place in the World and the social, political and cultural networks in which individuals and communities may reside" (Smith 2006: 290). In her elaborate critique of the heritage policy by UNESCO – regarded by Smith as the Authoritative Heritage Discourse (AHD) – Smith criticizes the presupposition of many western 'experts of the past' that heritage is by all means tangible and essentialist in its meaning. Smith heavily criticizes UNESCO's emphasis on architectural beauty of a heritage site, which diminishes the importance human interpretation of heritage. According to Smith: "The identity that is created may, depending on those defining the discourse, revolve around a sense of nation, class, gender, ethnicity, family or a range of collective experiences...and some heritage discourses have more power and authority than others do" (Smith 2006: 276). Yet, as Smith argues, many communities know their own history which is often defined and conveyed through oral history and tradition and may have little or no synergy with archaeological versions of the past. That is why it is important to address the importance of cultural interaction in defining the meaning of an environment (Smith 2006: 279).

Dutch cultural historian Willem Frijhoff advocated a similar approach in his *Dynamisch erfgoed*, stating that heritage is a concept that is plural in its meaning, used by different parties to suit their own ideals. According to Frijhoff, heritage is a concept that is not representing a pure reconstruction of the past, as it is a concept that is to be understood through a contemporary lens.

This leads to the assumption of this research that the viability of redevelopment programs is closely dependent on current needs. As Frijhoff states, 'heritage is culture of and for the future' (Frijhoff 2007). Robert Rotenberg from the University of Oxford therefore states that postmodern thinkers see space in this sense not as an essentialist, meaningful concept, but as the result of social interaction and intercultural exchange (Rotenberg 2001). As George Muskens and Dineke Stam show, intangible heritage is growing in importance for Dutch society (Muskens 2005; Stam 2006).

The preservation of intangible industrial heritage is an issue that is, in the context of the growing Dutch appreciation for industrial heritage, increasing as well. Museum-director Ingrid Mens, director of the Liemers Museum in the village of Zevenaar, reckons the importance of intangible industrial heritage for her museum (Interview Ingrid Mens 2011). In their interviews, Paul Klep and Cees Alewijnse – specifically focused on capturing the stories of old factory workers – emphasize the importance of this intangible heritage as well (Interview Paul Klep 2011; Interview Cees Alewijnse 2011). These views indicate that one should not limit oneself to the mere preservation of the physical objects in the redevelopment of industrial heritage. Since the cultural history of these old factories indicates the importance of feelings, activities, thoughts, stories and experiences all added to the value of industrial heritage as a concept, one should take intangible heritage into account as well. With the aging of population in mind, it is up to historians to preserve the stories of the slowly disappearing generation that experienced factory life.

2.1.4 Providing substance to the city? The ideological influence of old industrial complexes for an urban environment

Reinventing yourself in the city core? Finding your urban soul in cultural heritage

According to Joks Janssen, professor of Spatial Planning and Cultural History at the Wageningen University and Research (WUR), the new economy and the preservation of cultural heritage often go hand in hand. Janssen states that heritage supplies knowledge-intensive industries and creative thinkers with authenticity and the historical appeal of an urban environment. Throughout the entire country, municipalities, governments, unions and entrepreneurs are busy removing the dust from existing historical buildings. The rise of historical 'canons', local histories, the search for predecessors and the documentation of local languages are all indicators of an increasing societal interest in history (Janssen 2011). Huysmans and De Haan note that the SCP (Sociaal Cultureel Planbureau red.) counts an annually rising interest for heritage: museums, old buildings, urban cores and archaeological programs (Huysmans and De Haan 2007). Janssen relates this attitude to the human need for identification and recognition in an increasing globalizing and fragmentizing world (Janssen 2011: 14). Janssen refers to Manuel Castells' 'the global space of flows'; a world that is losing out on remarkable and recognizable anchor points (Castells 1997). Janssen claims that the physical environment is turning into a base for an own identity and mutual feeling, as fencing off your own identity towards the other (Janssen 2011: 14). This follows the assumptions made in the first chapter of this research, namely that an identity is also by formed by what it is not.

Janssen also points to the rise of the Post-Fordist economy, with economical and political power being disentangled towards supranational powers such as the EU and the WTO (Janssen 2011). Urban geographer Michael Pacione speaks in this sense of the rise of 'glocalism': the growing need for stressing a local urban identity in a world that is globalizing at a large pace (Pacione 2009: 160). Hans Mommaas states that cultural heritage might fill in the needs as a 'spatial identification and differentiation within a reality in which established clusters of identification and differentiations

(such as nation, class, religion) are becoming less apparent' (Mommaas 2002: 33). According to Janssen, the rise of postmodernism, which attacked the technocratic and rationalistic character of modernism, also fuelled the need for authentic, place-based city planning. Furthermore, the rise of a middle-class that seeks idealized images of rurality and urbanity is also mentioned by Janssen as engine for heritage-related city planning (Janssen 2011: 15). This search eventually leads to the transformation of the city as a production environment to an experience environment: consumption is replacing production while people are recognizing the importance of an attractive, aesthetically appealing and inspiring living environment much more (Janssen 2011: 15). Cultural historian Deborah Stevenson adds that twenty-first-century postmodernist city planning is stressing the unique and plural identity of each region, in which historical buildings add to the appeal of an urban environment (Stevenson 2003: 87).

A more practical approach in economic value of historical buildings is performed by ABF-research. ABF-Research shows in their research report '*Cultuurimpuls stedelijke vernieuwing*' that monuments can be seen as 'value-creators': objects that fuel a rise of real estate values in a neighbourhood. For example, if a problematic neighbourhood is characterized by the presence of monuments, the attractiveness of these neighbourhoods for potential buyers or renters – which is normally 15 per cent below an average neighbourhood – equals more healthy neighbourhoods due to the presence of monumental historical buildings. ABF-Research shows that the real estate value of problematic neighbourhoods without these historical buildings is 20 to 30 per cent less than problematic areas with historical monuments. ABF-Research concludes that the recovery possibilities for these neighbourhoods are increased, since investments in the cultural historical characteristics of these areas will lead to higher real estate values, which in turn attracts other investors as well (ABF-Research 2007).

Janssen relates the historical authentic appeal and diversity of old industrial complexes follows the need for locality and authenticity within a city. Often, these buildings are characterized as engines for further spatial development, trying to bring back life to a meaningless or 'rotten' urban environment (Janssen 2011: 17). As seen in the literature, there is a clear reciprocal relation between material, intangible heritage and the urban community itself. An object is, as already mentioned, meaningless without people. Yet, as different authors show, in those places where historical buildings, in this case the cultural historical important former factories, are present, an area gains in historical legitimacy. A feeling of home, coherence within a neighbourhood – these buildings can form a landmark in an otherwise unrecognizable borough – economic progress by means of entrepreneurs taking place in these buildings and the redevelopment of these buildings can go hand in hand with further spatial progress.

On the other hand, the only way to preserve historical buildings as old factories successfully, is to give them usefulness to the urban community. For maintenance and profitability of a building, utilization is crucial. At the same time, these often abandoned places gain in vitality by human interaction. Instead of grimy, eroded relics of the past, these areas can become once again thriving hubs of activity. Last but certainly not least, the stories, experiences, songs and so on form heritage just as much. With the aging of people being in full development, the redevelopment of former factories should be on the political agenda to prevent these memories to fade away.

If one combines these visions into a visual overview, the following outcomes emerge, as portrayed in this customized figure:

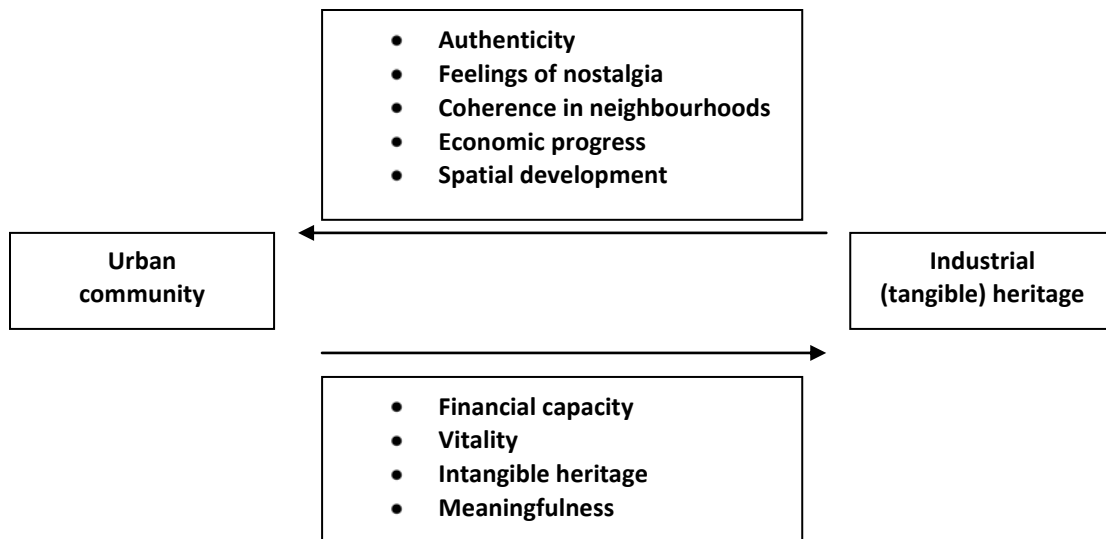


Fig 2.1 Customized figure on the role industrial heritage can play for an urban community and likewise.

Being gentle with what you have. The importance of industrial heritage for a city according to interviews

As 'de Vastgoedrapportage 2011' for the Arnhem Nijmegen City Region shows, the redevelopment of abandoned office buildings is something that will occur in the coming years (Vastgoedrapportage 2011). The report illustrates that structural abandonment of offices in both Arnhem and Nijmegen had given rise in the last three years as a consequence of technological improvements and the entry of the 'Nieuwe Werken'-working strategy. Therefore, redevelopment of existing buildings goes hand in hand with concentrating the urban core (De Vastgoedrapportage 2011: 3).

The respondents of the interviews point to the need for redevelopment: urban expansion is not unlimited, whereas more and more office buildings are facing abandonment. Furthermore, the ideological influence of historical buildings such as old factories in neighbourhoods that used to be built for the working class is called as important for an urban environment (Interview Jaap van Gelder 2011; Interview Clemens Veraa 2011; Interview Wim Lavooij 2011; Interview Eva ter Braak 2011). In this regard, Kees de Wit, architect and founder of 024-architects underlines the positive appeal of redeveloping old buildings: "It is not remarkable that all old city centres are places that are visited by large amounts of people. For example, planning a new residential area around former factory buildings can result in creating identity for a neighbourhood. In my opinion, current Vinex-areas are very impersonal and I believe that building a certain neighbourhood that is located near an old factory – also by building in the same architectural aesthetics – can result in a more unique and characteristic neighbourhood" (Interview Kees de Wit 2011).

As seen, in this globalizing world in which people are longing for to historical embedded anchor points in an urban environment, the preservation of historical buildings can add to the identity of an area. Especially with many Vinex-neighbourhoods being place-independent concepts, unplugged from a local or regional identity, the redevelopment of old buildings such as factories can help to embed these neighbourhoods into urban society. For project developers and architects, using relics of the past results in a positive connotation among citizens. Using the existing buildings – in line with the increasingly important spatial concentration of the urban core – as pillars on which urban renewal can occur, leads to more locally embedded environments.

2.1.5. The rise of the creative city? How the concept of the creative class can be linked to urban development

One of the most widely known final goals in many Dutch industrial redevelopment programs is the so-called 'creative solution': transforming abandoned factory complexes in thriving hubs of cultural and creative activities. For an elaborate answer on the question of how the redevelopment of former factory complexes can contribute to spatial, economic and tourist development, it is important to give this creative solution a closer look. If wants to know whether this goal is successful – as elaborately discussed by Richard Florida – one has to look at the concept of creativity itself. This concept has been topic for debate for a long time. It was urban planner Charles Landry who coined the term 'creative city' in the late 1980s. In his book *The creative city: a toolkit for urban innovators*, published in 2000, Landry points out that 'creativity' is not solely related to economic progress, as he states that 'creativity' is a concept of how people, think, act and plan based on the power of imagination in order to turn urban innovations into reality (Landry 2000: XII).

When Richard Florida entered the stage in 2002, he added that 'human creativity is the ultimate economic resource', stressing the economic importance of the concept of creativity (Florida 2002: XIII). Florida stated that the rise of the creative economy is even more influential than the process of nineteenth-century industrialization: "the great transition from the agricultural to the industrial age was of course based upon natural resources and physical labour power, and ultimately gave rise to giant factory complexes (...). The transformation now in progress is potentially bigger and more powerful. For the previous shift substituted one set of physical inputs (land and human labour) for another (raw materials and physical labour), while the current one is based fundamentally on human intelligence, knowledge and creativity" (Florida 2002: XIII). When one combines both visions, one is assuming that the birth of a creative industry leads to urban regeneration. Bol and Bastiaansen show that 'In Manchester, underground pop culture ultimately proved one of the engines that powered the city's comeback' (Bol and Bastiaansen 2009: 224).

Florida characterizes the creative class as a dynamo of urban growth and change for the economy as a whole. Florida builds heavily on the view of Jane Jacobs, who already argued in 1961 that culture could improve the innovation power of other economic sectors as well (Jacobs 1961). Ken Robinson, international expert, consultant and speaker on educational renewal, adds that the core principles and advantages of a lively creative urban scene are the following (Robinson 2005: 197-198):

- A remarkably powerful creative synergy arises when people of different professional backgrounds and skills work together. This creative synergy has led to successful problem-solving, revolutionary ways of seeing, thinking and approaching the conflicts of our daily human lives, in both the arts and sciences, time and time again;
- Creative environments give people time to experiment, to fail, to try again, to ask questions, to discover, to play, to make connections among the seemingly disparate elements. This experimentation or research may not lead to an artistic product or scientific application for many years, as all original ideas and products spring from an initial period of experimentation or fooling around. This may sometimes seem purposeless but it is the essence of the creative process;
- Creativity is a basic human attribute that must be nurtured among all people, not just artists and scientists. The freedom to learn, to create, to take risks, to fail or ask questions, to strive, to grow; this is the ethic upon the US was founded. Promoting creativity among all people of all occupations, economic classes and ethnic backgrounds is essential to the common good.

Jinna Tay adds that existing features of a city such as manufacturing infrastructure (warehouses and tailoring) for the redevelopment of industry through culture. In this way, Tay states that creative city policies can provide opportunities for regional and old industrial cities to connect with the new service-based economy; to regenerate their industries or create new ones (Tay 2005: 223). John Hartley, Professor of the Creative Industries Faculty at the Queensland University of Technology, indicates that the creative industries might help to revitalize cities and regions that had moved out of heavy industry (Scotland, England) or had never developed a strong manufacturing base (Queensland, New Zealand) or who had been over-exposed to declining IT industries (Taiwan, Singapore) (Hartley 2005: 19). Journalist David Ward from *The Guardian* follows these assumptions, by claiming that 'a city with artists, a nightlife, diversity will also draw entrepreneurs, academics, tech geeks – those able to drive economic growth in the new age' (Ward 2002).

This social aspect of the creative industries links the cultural network to economic and creative production. Additionally, Charles Leadbeater and Kate Oakley argue that creative industries and entrepreneurs play a critical role in reviving large cities that have suffered economic decline and dislocation over the past two decades. According to both authors, creativity and culture are not just a source of jobs and income but also a sense of confidence and belonging. Cities that have invested successfully in cultural renewal do so to generate not just economic growth, but also a renewed sense of civic pride and purpose (Leadbeater and Oakley 2005: 303). Both authors add that cultural and creative entrepreneurs play two major roles in the regeneration of larger cities. First, these entrepreneurs often take over offices, warehouses and factories left behind by the demise of older city-based industries. According to Leadbeater and Oakley, culture is increasingly central to how cities 'brand' themselves to attract students, inward investment and tourists (Leadbeater and Oakley 2005: 303-304). The third chapter of this research will elaborate on these marketing issues.

2.1.6 More than meets the eye? Revisiting Richard Florida

For an elaborate and empirically based research on the attractiveness of cities, one should consult Gerard Marlet's *De aantrekkelijke stad*. In this elaborate analysis, urban geographer Gerard Marlet looks at the factors of success for the appeal of cities. Often, policy makers invest heavily in building up a lively, creative and cultural scene in order to attract people and investors coming to the cities, pointing to Florida's theory. Marlet notes there are two major shortcomings in this view (Marlet 2009). First, according to Marlet, amenities such as naturally given characteristics as space, water, green zones, climate, coastal areas all contribute to the appeal of a region, as well as human-created facilities, such as nightlife facilities, theatres, restaurants, monuments, shops, events, schools of great quality, child care facilities, residences of fine quality and so on. Not only cultural and creative facilities should therefore be taken into account if one seeks a causal explanation for the attractiveness and economic prosperity of a city.

Second, Following Rosenthal and Strange, Marlet states that infrastructural issues need to be taken into account as well: cities with a fine physical infrastructure attract entrepreneurs much easier. There is no direct relation between the growth in urban employment numbers and the growth of a creative class. Input sharing, labour market pooling, knowledge-spillovers – the 'human capital'-theory in which employment follows knowledge - consumption advantages and home market effects all contribute to the appeal of cities for investors. According to Marlet, investments in culture are only able to improve the appeal of a city if these cultural activities are small-scale and diverse and located at a suitable location in the city, favourably inner cities, so cultural events can benefit from hospitality services and the history and aesthetics of an old inner city. Furthermore,

Marlet claims that these cultural events should be continuously available and aimed at local inhabitants (Marlet 2009: 339).

The need for small-scale investments in the cultural and creative sector, as claimed by Marlet, follows the fact that direct economic output of the creative industry is rather limited. This is a view that is recognized among the respondents of the interviews, due to the limited economic progress that evolves out of the creative solution (Interview Eva ter Braak 2011; Interview Roy van Dalm 2011; Interview Kees de Wit 2011). In this sense, Jaap van Gelder from Arcadis – an internationally operating advisory organ for urban development – states that one should not expect miracles out of stimulating the creative industry: “Turning former industrial complexes in hubs of cultural activity is not an exquisite formula: giving birth to creativity in a specific area is nice of course, but economic impact is very limited. Therefore, it is not a strategy that is to be applied to all cases. In my opinion there is an overkill in ‘creative factories’, therefore limiting yourself in this strategy is to be advised. These kind of factories will not automatically become self-generating economies” (Interview Jaap van Gelder 2011).

2.1.7 Thriving hubs of cultural activity? Old factories as stages for creative and cultural production

The regional planning report from the Arnhem Nijmegen City Region states that older factory complexes and other public buildings can be used to enhance the creative industry, such as Koers West in Nijmegen and the Cobercoterrain and Klarendal in Arnhem. Concentration of knowledge in a small area that is located near city centres aims at the progress of the creative industry inside these buildings. According to the report, the creative industry benefits from an urban climate and settling near city centres. Old factory complexes in old boroughs suit these ideals perfectly (Regionaal Plan 2005-2020). According to Florida, creativity has a beneficial effect on spatial surroundings, resulting in increasing value of real estate. Also creativity adds to the livelihood of an environment, attracting others investors, tourists and entrepreneurs (Florida 2002: 21-67).

However, in practice, policy makers make economic claims that can’t be verified. Gerard Marlet states that implementing creative businesses in former factory complexes does not have to lead to large-scale economic profit: diversity of economic activities and entrepreneurship contribute to economic success much more significantly. Rising prices of real estate and being a magnet for other entrepreneurs by means of just turning old factories in creative breeding places remain unproven as Marlet indicates. Marlet states that binding the creative class to an urban environment is beneficial for the living climate of the urban environment: the cultural production of artists as cultural producers, as well as a diverse supply of cultural attractions increases the appeal of a city for potential newcomers (Marlet 2009: 382-383). Cultural supplies do contribute to the living qualities in an area, able to attract many highly-educated people of whom a significant number is working inside the creative sector (Marlet 2009: 128).

Phil Hubbard adds that artists and creative thinkers are specifically drawn to buildings that show scars of an intense history, because these spaces reflect their cosmopolitan disposition and can be rescripted and reimagined as artistic districts with little resistance. Hubbard states that these desires follow the socio-economic trends of low rental costs (Hubbard 2006: 221). Drake adds that the symbiosis of economy, culture and place involves more than just a coming together of people in places of sociality: there is also the question of how the public spaces of cultural production present artists with a density of sights and sounds which inspire them and give them a creative edge over artists located elsewhere. According to Drake, the local environment may be especially important as a source of aesthetic inspiration (Drake 2003).

These theoretical views are also mentioned in the performed interviews. The respondents address the space and practicality, the dialectical interaction within an old factory with other small, creative entrepreneurs, the inspiring environment and central location of these buildings (Interview Hans Jungerius and Rob Groot Zevert 2011; Interview Kees de Wit 2011; Interview Pascal Belo 2011). As heritage expert Clemens Veraa from BOEi BV reckons: “Creative entrepreneurs are often interested in these buildings, with their central location inside a city, their characteristic appeal to a spatial surrounding, their aesthetic values and the fact that these entrepreneurs can benefit from each other’s knowledge when settled with other companies within one physical structure. Of course, the benefits of redevelopment focused on the creative industry are strongly place-dependent” (Interview Clemens Veraa 2011).

Therefore, although the creative solution is able to generate a buzz in formerly abandoned buildings, economic outputs remain scarce. Furthermore, a strong correlation with the rise of real estate prices in surrounding areas is almost nowhere to be seen, making it difficult to verify that the implementation of creative businesses in old factories adds to the economic prosperity of a certain urban area. Yet, a renewed sense of civic pride, the possibilities for innovation and the fostering of the human creative mind can be called consequences of this creative process. Therefore, one should be nuanced about the value of the creative solution, instead of using it as a golden formula in redevelopment programs. Cause in practice, the success of redevelopment is strongly place-dependent.

2.1.8 Injecting life to the city: factors of success and failure when it comes to the redevelopment of industrial heritage

As seen, the redevelopment of former industrial complexes is a process that contains multiple assets. According to the report of the reutilization of the former ‘Witte Dame’ industrial complex in the city of Eindhoven, the question arises how to incorporate vestiges of an industrialized, product-oriented past into a clearly process-oriented present. (Ferrill 1998: 11). The trend towards industrial preservation has given rise to a growing number of redevelopment projects. As Ferrill shows, the process is highly complex, involving a host of qualitative and quantitative factors which, taken alone or in combination, contribute either to the building’s renewed success or recurred demise. In all cases, it is crucial whether the plan is viable over the long-term. And similarly, whether the project can generate sufficient capital investment to ensure a solid risk-return profile.

Therefore, research is key. The building’s overall value has to be determined and evaluated. For instance: In what way does the building’s history inform its present public image? What about aesthetic value and architectural significance, and how might these contribute to the building’s image after redevelopment? Are the values expressed by the project’s concept and the values associated with the building’s image reconcilable? What are the environmental and ecological implications associated with its redevelopment? What about the building’s location and infrastructure? In what ways does the project fit into current city planning policies? Think of using redeveloped factories as engines for urban gentrification. Is subsidy a possibility? And what about supply and demand, and the potential for private investment? (Ferrill 1998: 23).

In 2009, BOEi BV launched a report on how to make industrial redevelopment successful. With their long-lasting expertise on the redevelopment of former factory complexes, BOEi gave an overview of how to accomplish success. Based on desk research and empirical research through interviews, BOEi concluded with a list of what they called ‘the ten commandments for the successful redevelopment of industrial heritage’. It is interesting to test these commandments to the

information that was acquired for this research. Because BOEi is responsible for many successful redevelopment projects, these commandments should be taken seriously. In addressing each of these commandments more elaborately, one obtains a clear view on the problems involved in the process. These ten commandments are (BOEi 2009):

1. Thou shalt focus on the future: You have to make long-term goals in mapping the exploitation and maintenance models of redeveloping programs.

One of the main problems of redeveloping industrial heritage is related to the exploitation costs of the involved building. Since a lack of maintenance of a building will result in spatial depreciation, it is important to make clear arrangements on the maintenance and exploitation of the project (BOEi 2009: 22). In the interviews, the problems of financing are mentioned. The respondents claim that financing by multiple partners, in practice the spreading of financial risk, is to be recommended. Finding the balance between governmental subsidiary help and private investments not only spreads the financial responsibility and thus risk, but also generates enthusiasm among different partners, adding to the viability of the final project. (Interview Gert-Jan Hospers 2011; Interview Jaap van Gelder 2011; Interview Roy van Dalm 2011; Interview Bert Bates 2011; Interview Ruud Schilder 2011). Clemens Veraa from BOEi elaborates on the exploitation modelling: “Financial control is very important: eventually a redevelopment program needs to finance itself due to a positive cash flow, being independent of governmental subsidies. To reach this stage, subsidies are in many cases required: municipalities, a province or national governments usually need to invest in these programs to get them started” (Interview Clemens Veraa 2011). This view is not only acknowledged by specialists at cultural advisory organs and spatial planning agencies, but also by policy makers themselves, who of course call for the self-sufficiency of redevelopment policy, resulting in lower involvement costs for municipalities themselves.

2. Thou shalt not enforce the implementation of certain functions: A function should suit a building, both technical and emotional. The spatial surrounding of the building is extremely important. Therefore, you have to map the demands of the specific region in order to come to a fruitful solution.

In redevelopment programs, one should abandon the idea of a ‘golden formula’ that can be applied to any redevelopment program. The respondents of the interviews address the uniqueness of each industrial complex (Interview Eva ter Braak 2011; Interview Clemens Veraa 2011). Whereas a factory in one region offers possibilities for the creative solution due to its central location, emerging creative class and characteristic value of the building, other factories might be more suitable for residential use due to demands on the housing market. Of course, some factories might be suitable for tourist use, due to their location on a strategic tourist hotspots and their characteristic location in a region’s natural reserve. Eva ter Braak adds that utilization of a building is crucial. Ter Braak: “The spatial context of a building influences possibilities, desires and limits concerning redevelopment. Wishes of surrounding inhabitants, building construction of the building itself, accessibility and logistics, location in relation to already present services, land costs and so on all influence redevelopment programs” (interview Eva ter Braak 2011). To add to the vitality of the selected area, Roy van Dalm also advocates diversification of functions (Interview Roy van Dalm 2011).

3. Thou shalt know thy monument in facts and figures: You have to analyze the building on its history, technical facts, the identity it obtains due to its environment and chances for new functions.

As said, the vitality of a building is its usefulness for current goals. A redevelopment program will only succeed if it follows current demands. According to Ruud van der Kemp, the fate of an industrial building depends on the balance between cultural and historical value aspects and financial aspects. These aspects are main determinants, functional value aspects are an extra means to financial revitalization; as Van der Kemp puts it, a living monument generates income, a dead one doesn't. Cultural and historical value aspects summarize all soft values a building possesses, like architectural value, emotional value, identity value, historic value and so on (Van der Kemp 2009).

4. Thou shalt focus on other people's success: You have to take a look at other successful projects to actually see the possible results of fruitful redevelopment projects.

According to BOEi, in actually visiting other successful redevelopment projects as well as acquiring information of other projects results in an increasing drive and enthusiasm among the involved actors. Of course, a too strict expertise with other 'success stories' might endanger the project to a certain degree: as every case study is different, one should not assume there is a 'golden formula' in redevelopment projects. In the interviews for this research, many times there is referred to other successful projects, such as the Westergas factory in Amsterdam, the DRU-factory in Ulfst, the Verkade-factory in Den Bosch (Interview Roy van Dalm 2011; Interview Eva ter Braak 2011).

5. Thou shalt create livelihood: You have to use the building as soon as possible to create support and enthusiasm among local people and participants. By means of temporal use a building is able to enter the news positively.

BOEi states that temporal use results in the maintenance of a building. In communicating with the involved users, the project development team creates insights in the building's potentials and weaknesses (BOEi 2009: 26). Temporal use can be seen as a means to gradually develop an abandoned complex, as Roy van Dalm and Clemens Veraa argue (Interview Roy van Dalm 2011; Interview Clemens Veraa 2011). They argue that permanent renting could lead to an aging of people working or living there, whereas temporal use gives entrepreneurs the chance to generate the necessary income in the search for permanent settlement. Besides lower economic vulnerability, temporal use can also add to the diversity and livelihood of an old factory terrain, since there are always things taking place, able to adapt to the ongoing changing demands of the consumer.

6. Thou shalt trust on experience and expertise: You have to hire specialists in your projects, since redevelopment is not an easy process.

As was seen, there can emerge a lot of difficulties and problems with the redevelopment of industrial heritage. Of course, every involved partner enters the stage with his or her own agenda. For a municipality or policy making actor, it is important to address the knowledge and expertise of experts. As BOEi shows, cultural historical agencies cry for the preservation of valuable heritage, while policy makers take along their own municipal interest, with commercial partners seeking

maximum economic profit. Therefore, it is important to use expertise on these terrains, which have experience with other successful projects.

7. Thou shalt facilitate instead of control: Especially for governments this is importance. In facilitating – which means clearing the road for the redevelopment process – the rate of the project is accelerated so designers have more opportunities to find creative solutions. A common improvement of the image of the process of redevelopment might be a consequence of this attitude.

This commandment is one of the most widely accepted notions among the respondents of the interviews (Interview Wim Lavooij 2011; Interview Eva ter Braak 2011). For policy makers, it is not sure if a project will develop itself when a municipality acquires a role of facilitator instead of a role of director. A municipality often wants to know how the project will end up to be, taking all kinds of regulations and financing models into account (BOEi 2009: 27). Yet, in In proclaiming a final goal postulating desires from the start, one dismisses the importance of the working of the free market (BOEi 2009: 27). Hans Jungerius and Rob Groot Zevert, founders of Stichting GANG, note in this sense that “Instead of gradually developing an area, making it sustainable on a long term and at the same time spreading economic risks by attracting smaller investors, municipalities are afraid to spread their chances. Instead, policy makers usually prefer to negotiate with larger developers, based on the alleged control a municipality still can act. Giving spatial qualities the chance to become visible requires time and a more ‘laissez-faire’-policy by a government” (Interview Hans Jungerius and Rob Groot Zevert 2011). Roy van Dalm from the HAN University and Hans Mommaas from the University of Tilburg relate this attitude to the notion of the ‘maakbare samenleving’ (Interview Roy van Dalm 2011; Interview Hans Mommaas 2011). According to them, policy makers are convinced they are able to create spatial development drastically from the start, without what Mommaas and Van Dalm call a ‘Third Space’ (Soja 1996): according to Mommaas “A space that is created to bring together different interests of related parties: in this space there is no hierarchy or monopolization of meaning, resulting in a dialogue of different opinions. Bringing different interests and forms of knowledge together is crucial here” (Interview Hans Mommaas 2011).

8. Thou shalt appoint a project leader that takes initiative: It is important to have a project leader that is competent

As said, redevelopment involves multiple actors to spread financial risks and to create common enthusiasm for the project. Involving multiple, enthusiastic partners adds to the probable success of the project (Interview Kees de Wit 2011; Interview Hans Mommaas 2011; Interview Eva ter Braak 2011; Interview Wim Lavooij 2011). In this regard, Roy van Dalm reckons the importance of mutual enthusiasm: “In redevelopment it is just as important to involve people that have sympathy for the selected environment, people who are in love with a building or site. This is one of the success factors of the Westergas Factory. People that possess this passion do have commitment for the greater purpose, looking beyond their own personal interests.” (Interview Roy van Dalm 2011).

9. Thou shalt find project partners which you get to know: You have to make an inventory of your partner’s wishes and demands

Redevelopment projects often involve many actors. These can be project assigners; architects; construction companies; advisory organs; project developers; historical agencies; environmental organizations; former users of the building; new users of the building and subsidizing partners. All actors take along their own agenda in the process (BOEi 2009: 24). In 2011, Gelders Genootschap took the initiative for the founding of the so-called Centre of Redevelopment and Transformation of Industrial Heritage. Founder of this centre, Eva ter Braak, illustrates the main goals behind this initiative: "Redevelopment is a process that has to be done in cooperation with municipalities, project developers, entrepreneurs and architects: the new centre can function as a platform for the demands and questions of the related parties. It is our task to combine their wishes in the most ideal solution for the situation" (Interview Eva ter Braak 2011).

Although every partner is primarily concerned with their own interests, finding the balance between their demands is crucial for success. Hans Jungerius and Rob Groot Zevert show that even involving commercial partners does not have to lead to damaging the cultural historical value of a place: "The Van Nelle-factory in Rotterdam shows that commercial entrepreneurs can be consulted in redevelopment projects. Many small creative businesses, such as advertising companies, graphic designers and so on develop themselves into commercial companies, increasing the financial possibilities for the project" (Interview Hans Jungerius and Rob Groot Zevert 2011). In this sense, although all partners enter the debating stage with different agendas, it is not impossible to find common goals and interests in the project as well.

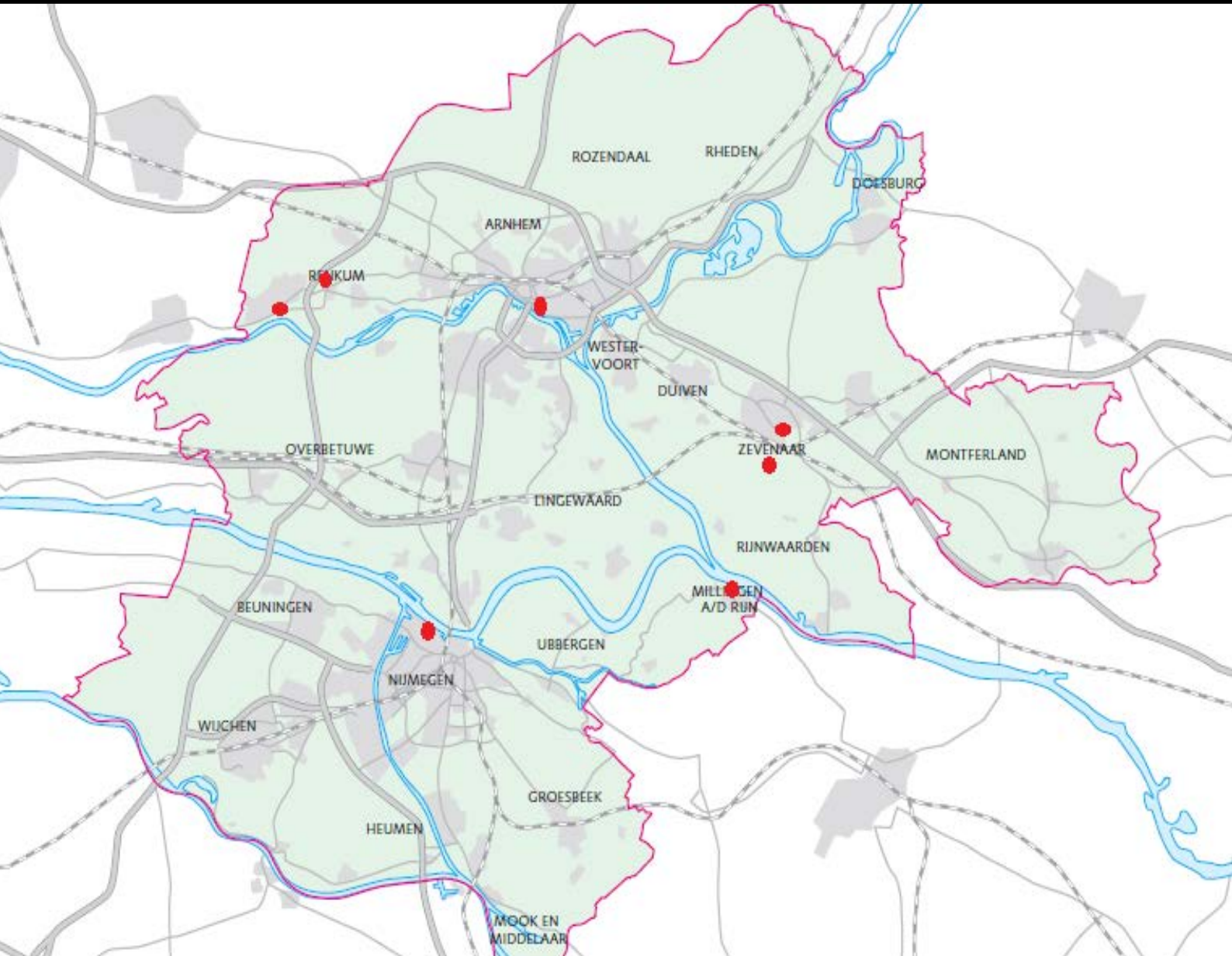
10. Thou shalt create an appealing destination plan: You have to stress the opportunities within a certain area instead of the limitations.

As said, there might be a lot of partners interested in redeveloping former factories. Of course, this strongly depends on the selected case. The wishes of people in the proximity of the complex, the possible economic activities taking place on these grounds, the authentic appeal of the environment and the role these complexes can play in urban renewal programs should all be taken into account when looking at the redevelopment issues.

2.1.9 Conclusion

As all the respondents of the interviews have shown, you should stress the heterogeneity among industrial complexes that need to be redeveloped. The ten commandments of BOEi BV are widely shared by the respondents of the interviews, adding to their legitimacy and usefulness. As said, a spatial surrounding, the architectural appeal of a building, possible exploitation costs, the presence of enthusiastic partners, a positive connotation among citizens, the amount of money involved in the process and the cultural historical value of a building all contribute in the process of redevelopment. Of course, these assets all provide limits to a certain degree. Environmental regulation and exploitation models will difficult the process. Yet, one can also stress the possibilities on these place, creating enthusiasm among the involved partners and people living in the proximity of these buildings (BOEi 2009: 41). It is important to look at redevelopment from a process-perspective, instead of from a goal-perspective. Redevelopment is not a process that is to be postulated from above, as it can only work if multiple actors are involved in the decision making. This process is highly difficult and requires thorough research in order to book success. If successful, these buildings can add something to an urban environment, as portrayed in the previous pages.

2.2 Case Studies



To bring the theories and ideas concerning the redevelopment of industrial heritage into practice, and to make them visible for the Arnhem Nijmegen City Region, several case studies were chosen to fill in the needs. It is important to note that these case studies should be regarded as examples of how redevelopment takes place and what is associated with it. They can offer guidelines for redevelopment projects in general. Consequently, these analyses are not elaborate destination programs, since each case in itself should be researched more elaborately in taking different involved actors into account. It is not up to this research to determine which redevelopment goals are to be achieved for each case, since these case studies mainly function as illustrations of the processes that are related to the redevelopment of industrial heritage. It is up to the involved actors themselves to look at the most fruitful solution for each case and this is a process that takes time, debate and willingness of all involved parties. As mentioned in the introduction of this research, these case studies are chosen according to the following criteria:

- Diverse geographical locations in the Arnhem Nijmegen City Region;
- Actual developments taking place;
- Covering various branches of the industrial sector;
- Production should be focused on industrial products.

Based on these criteria, the following case studies were chosen:

1. VASIM-factory in the city of Nijmegen;
2. Coberco Factory Complex in the city of Arnhem;
3. British American Tobacco (BAT) Factory in Zevenaar;
4. 'Buitengoe De Panoven' in Zevenaar;
5. Paper industry in the municipality of Renkum;
6. The Bodewes-shipyard near the village of Millingen.

To address the redevelopment of these case studies rightfully, for each case study an analysis is made focused on the following issues:

- The past: What kind of industrial business has taken place here?
- The plan: What are or have been the main plans for the redevelopment of this complex?
- The views: How are the respondents of the interviews looking at the redevelopment of this project?
- The future: What can one expect in the near future and what kind of issues need to be taken into account in redeveloping the factory complex? This part of the analysis will find the relation between the project plans and the acquired information on the success of redevelopment programs as portrayed earlier in this research.

The analyses of the case studies is done with the main question of this chapter into mind:

How can the redevelopment of former factory complexes contribute to spatial, economic and tourist development?

In analyzing the mentioned case studies, this research tries to find a balance between the theoretical background that is offered in the previous pages and empirical research through expert interviews. Of course, the empirical nature of these analyses is rather high, due to their very recent relevancy which consequently results in an absence of thorough scientific analyses that are particularly focused on each project.

2.2.1 VASIM factory – Nijmegen



A warm welcome to the city?

The VASIM factory in its current states inhabits several creative entrepreneurs.
Boudewijn Wijnacker 2011.

The oldest city of the Netherlands is alive and kicking. With its rapid urban expansion to the north, the city of Nijmegen is laying its shadow on its surroundings. The construction of the new bridge over the Waal river is not solely related to infrastructural urban issues. Besides the entrance in the south and the large entry near the Valkhof park the city is acquiring a third entrance. One of the key issues of this plan involves the former NYMA-factory, currently the VASIM terrain. Car drivers should be dazzled by the presence of this once so thriving industrial complex, when entering the city. To achieve this goal, the VASIM terrain is targeted to be rejuvenated, as a means to bring back life to this formerly depreciated environment. It is exactly this aim of making this formerly abandoned factory terrain a landmark to rejuvenate this area of the city of Nijmegen that makes it interesting to focus on.



Fig 2.2 Aerial overview of the location of the current VASIM-factory in Nijmegen. With the planning of the new bridge over the Waal river, the VASIM will play a crucial part in the renewed entrance of the city.

Source: Google Maps.

The past

It was 1928 when the company of NYMA was established by textile-producers from the Twente region. These entrepreneurs became specialized in the production of synthetic silk. The main cause for this establishment was the fusion of the 'Eerste Nederlandse Kunstzijdefabriek te Arnhem' (ENKA, 1911) with the German factory of 'Vereinigte Glanzstoff Fabriken A.G.'. As a consequence, in 1929, the Algemeene Kunstzijde Unie N.V. (AKU) was born. The city of Nijmegen was claimed to be an interesting place for settlement, with the Waal river offering exquisite possibilities for transport of commodities and final products, while the water supplies also functioned as commodity for the production of synthetic silk itself. With World War I accelerating the demands for synthetic silk, the factories of ENKA in Arnhem and Ede became frontrunners on the market. Textile producers in the Twente Region called for action: the hegemony of ENKA was to be challenged with the establishment of a synthetic silk-producing factory in the city of Nijmegen. In 1928, the company of NYMA was established (Stenvert 2006).

Despite the economic crisis of 1929, the NYMA soon became one of the largest employers of the city. While the company provided 814 citizens with a job in 1938, this number had given rise to an amount of 2.131 people in 1955. In 1947, all Dutch synthetic silk producing factories (Arnhem,

Breda, Ede and Nijmegen) produced 12.900.000 kilograms of silk, of which 2.659.000 kilograms (21 per cent) by the NYMA. Throughout time, the factory itself became subject to expansion (Stenvert 2006). In the course of time, the importance of this labour-intensive industry for Dutch society diminished. In 1969, the NYMA in Nijmegen was forced to shut its doors. In the year 1985, the former NYMA-factory, closed since 1969, obtained a new industrial function. In 2000, the VASIM factory was closed, giving small, creative entrepreneurs the chance to enter the building.

The plan

The first sounds for the redevelopment of the VASIM-terrain were heard in 2006, when 'Cultuurspinnerij De Vasim' – representing the wishes of the already present creative entrepreneurs inside the former VASIM factory – and LOUT (Laboratory of Urban Transformation) from 024-architects created the first plans. According to the report, the VASIM terrain should be a place where cultural artists, visual artists, designers, theatre producers, musicians and dancers could meet to make this part of the city once thriving again (Cultuurspinnerij and LOUT 2006). Richard Florida's *The Rise of the Creative Class* is specifically mentioned as main theory for the added value of this future destination (Cultuurspinnerij and LOUT 2006: 19). In 2009, 'Cultuurspinnerij De Vasim' and housing corporation 'Standvast Wonen' launched a report on the redevelopment of the former NYMA and VASIM factory. At that moment, the VASIM factory complex in Nijmegen provided space for 35 entrepreneurs in the creative industry. Still, there is room for further development, such as businesses in theatre, arts, educational institutions and other small, innovative entrepreneurs up to 75 places (Stichting Standvast Wonen and the Cultuurspinnerij 2009).

In this report, the Vasimcomplex is described as a 'New European Art Space': a place in which the audience is engaged with new forms of art and culture, a place in which boundaries are stretched, where the visitor plays a central role and in which entrepreneurs like to cooperate with other cultural entrepreneurs. This is also clear in the defined policy requirements: highly profitable companies are obliged to fund less successful entrepreneurs to maintain their business. Profitable festivals should lead to subsidizing less profitable, small-scale creative ideas (Stichting Standvast Wonen and the Cultuurspinnerij 2009). To achieve this goal, the report states that the following functions should be implemented in the building that contains 9.000 square meters (Stichting Standvast Wonen and the Cultuurspinnerij 2009)± Working places and office space; working places for traditional professions; common and private artistic rooms; a large event hall; a Grand Café; The creation of an art-hotel; A large, outside terrain that is suitable for large events. In implementing cultural and creative activities on this terrain, the factory is aimed to be a breeding place for cultural and creative minds. It is questionable whether the creation of these kind of breeding places will indeed add to the economic competitiveness of an environment, as discussed in the first chapter of this research. The performed interviews might assist in understanding these mechanisms.

The views

In the performed interviews, it was discussed whether the VASIM terrain was suitable for the creative solution, while at the same time benefiting the entire city in the process. Architect Kees de Wit from 024-architects – the main designer of the project – indicates that the physical characteristics – size, large halls – of the building make it very suitable for this 'creative solution' (Interview Kees de Wit). Furthermore, the fact that the wishes of the creative entrepreneurs that are currently temporarily based inside the undeveloped factory building adds to the success of the project. De Wit states that "Especially with the urban transformation around the newly planned

bridge over the Waal River in mind, the VASIM factory can be turned into a landmark that provides soul for the future urban entry. Creating new urban landmarks is very difficult as it can often lead to a substantial amount of inventing traditions. That is something totally different than intensifying already present spatial qualities” (Interview Kees de Wit 2011). This view is shared by Ruud Schilder, Policy Maker Economic Affairs at the municipality of Nijmegen (Interview Ruud Schilder 2011).

In line with the commandments of BOEi, the planned VASIM-complex contains multiple function. De Wit: “For the functionality of the building we assumed the importance of a diverse ways of using the building: concerts, expositions, room for creative entrepreneurs, room for workshops and discussions and so on can lead to a diversification of user routines. Focusing on the more tourist focused redevelopment of former factory complexes, in case of the VASIM-complex, paying attention to creating a room for expositions, workshops and concerts might benefit the tourist industry as well” (Interview Kees de Wit 2011).

The future

As said, Schilder and De Wit indicate that the role the Vasim plays in the urban renewal of the Waalfront changes the role of the Vasim-factory: a building once hidden in the urban periphery becoming an urban landmark in the process, as relevant as John Urry shows in his ‘The Tourist Gaze’. As said, the influence of a former factory on a spatial surrounding is of significance. Although the current users of the building, ‘Stichting de Cultuurspinnerij’ already invested a substantial amount of money for the maintenance of the building, permanent redevelopment will lead to the preservation of a valuable part of the city’s history, with the former NYMA-factory once being the largest employer of the city. The presence of a creative class will not be a problem for the project. The Chamber of Commerce noted in 2010 that the share of the fashion and design cluster in the city of Nijmegen as part of the total urban economy grew with 12,5 per cent in the period 2000 to 2009 (Belo and Hammink 2010: 9). This means that the creative industry is becoming more important for the urban economy. The growing importance of this sector for the economy of Nijmegen is mainly to be related to the growing amount of companies in the cultural and art-related companies in the city. As the Chamber of Commerce shows, Nijmegen experienced a dramatic rise of companies that are related to cultural business.

Summarizing, the potentials for a cultural destination are definitely there. The fact that ‘Cultuurspinnerij De Vasim’, which addresses the demands of the current creative entrepreneurs already, indicates the importance of a cultural solution illustrates that the artists themselves see the Vasim Complex as an interesting place to settle their business. Yet, as the elaborate analysis of the added value of creativity in the first chapter of this research has shown, it is questionable whether creative businesses can lead to economic profit. Important in this sense is the implementation of multiple functions inside one building to spread financial risks and to create livelihood based on several functions. The project plan from 2008 actively promotes the multidisciplinary character of the final destination with the presence of exposition galleries, rooms for artists, possibilities for the organization of events as well as smaller, more artistic theatre productions. This multidisciplinary character adds to the viability of the project. Yet, bringing back life to this location is definitely possible, as long one does not automatically assume the economic value of the creative industry settling in this factory. With the new bridge over the Waal attracting new visitors to the city, the Vasim terrain will be torn out of its invisibility towards the city, making it at least an attractive welcome to the city.

2.2.2 Coberco factory complex - Arnhem



Saying goodbye to the creative dream?

The Coberco factory in its current depreciated state.
Boudewijn Wijnacker 2011

When crossing the John Frost bridge to enter the city of Arnhem one can see the ongoing urban construction works from a clear distance. It is an image of contrast. The reconstruction of the Eusebius-church, as well as the many road constructions jump into mind immediately when observing the urban panorama. At the other side of the bridge however, livelihood is hard to find. That what was once aimed to be a thriving cultural hub of activity is now nothing more than a gated barren landscape, with some depreciated old buildings there as a sad memory to a once influential past. The redevelopment of the Coberco terrain has been one of the prime concerns of the municipality and is still topic for debate and is therefore interesting to focus on. What were the aims behind this project and where did difficulties appear? This analysis will focus on the redevelopment of the former dairy factory and the problems that come with it.



Fig 2.3 Indication of the location (indicated in green) of the Coberco terrain near the John Frost Bridge, Arnhem as part of the planned urban renewal program near the Rhine (indicated in red). Source: AM & Ballast Nedam (2008) Arnhem Cobercokwartier. Assigned by CobercoKwartier CV/BV. Designed by: Inbo Adviseurs Stedenbouwkundigen Architecten and Group A.

The past

As early as 1879, the NV Arnhemsche Melkinrichting was established. The history of the Coberco factory traces back to the 1870s. Several farmers decided to bundle their powers and started local dairy factories (Official Website Friesland Campina: <http://www.frieslandcampina.com>). In 1921, the NV fused within the 'Cooperatieve Arnhemsche Melkinrichting' (CAMIZ) and in the same year a new factory complex emerged in industrial park 'Het Broek', located near the Rhine river. CAMIZ moved its business that originated in 1919 at the Kerkstraat to this new location. After the Second World War with the Battle of Arnhem, the terrain became gradually developed, resulting in an ongoing clustering of buildings on the terrain. The majority of the realized buildings was realized between 1949 and 1957, representing the modernist spatial ideas of those times. According to the spatial development program for the Coberco terrain, the complex illustrates the reconstruction period as well as the spirit of modernization and progress (Bestemmingsplan Coberco, to be found on Official Website Municipality of Arnhem: <http://www.arnhem.nl>). In 1965, CAMIZ was fused into Vecomi, evolving into Coberco after a fusion in 1970. According to the spatial development program,

the complex is characterized by its lack of connection with its spatial surroundings. Solely business-related decisions fuelled the transformation of the building in the course of time: if production needed to be expanded, the building was expanded without taking cultural or urban planning traditions into account. According to the report, it is therefore really an isolated complex (Bestemmingsplan Coberco 2009).

The plan

In 2002, the municipality of Arnhem launched a report, the 'Nota Randvoorwaarden', in which regulations and limits for the redevelopment of the terrain were given. Together with the project developer, the municipality tried to design schemes for redevelopment. The municipality tried to enhance the link between inner city and the Rhine-shore. Creating vitality on this former industrial area, which used to be free from visitors, was one of the main priorities of the project. Even now, the municipality is trying to strengthen this bond. When the first ideas for the redevelopment of the Coberco terrain emerged in 2002, a diversification of functions was propagated: the construction of houses, the development of office buildings, the implementation of retail trade and hospitality services were aimed to add to the livelihood on the specific terrain.

In 2008, the municipality assigned project developers AM & Ballast Nedam to redevelop the Coberco terrain. Inside the renovated Cobercofactory, space for the creative industry was provided. For artists, it was thought to be useful that they were able to link their residence to their workshop. According to the report, the large chimney and the front side of the building at the Westervoortsedijk are intrinsically connected to the identity of Arnhem. Also its signature location near the Rhine as part of the skyline of the city of Arnhem jumps into mind (AM & Ballast Nedam 2008). The restructuring of the Cobercofactory is embedded within a larger urban restructure program. Key issues of the restructure process were the implementation of the valuable parts of the former industrial complex, the creation of a special waterfront, a logical connection to the inner city and a clear overlap between public and private areas. As indicated in the report, the arrival of hospitality business, several stores, art galleries, social services, residences and offices indicate that restructuring of industrial heritage can lead to new spatial and commercial development (AM & Ballast Nedam 2008).



Fig 2.4 Overview of the rejuvenated Coberco Terrain. The remains of the old factory are indicated in dark brown, whereas the newly planned buildings are portrayed in light Brown. Source: AM & Ballast Nedam (2008) *Arnhem Cobercokwartier VO Stedenbouwkundig ontwerp*. Assigned by CobercoKwartier CV/BV. Designed by: Inbo Adviseurs Stedenbouwkundigen Architecten and Group A.

According to the plan, several parts of the complex were targeted for preservation, to function as a centre for the new project. According to the plan, the notion of 'preservation through renewal' has been the main assumption. The large building near the Westervoortsedijk will be preserved, as well

as the U-shaped buildings embracing the large chimney. The diversity of the implemented functions should result in a lively and continuously changing piece of the city, that obtains a unique history and identity. The factory should contain companies inside the creative sector, differing in size from 50 to 300 square meters each, to promote the exchange of knowledge and profitable ideas (AM & Ballast Nedam 2008). In linking up this part of the Rhine shore to the rest of the city, the Coberco terrain was aimed to be a very important project.

In an interview, Bert Bates acknowledges the importance of the creative industry for the development of this terrain. Bates: "In the programs, we tried to attract creative businesses that should have formed the backbone of this area's economic appeal. A residential area on itself did not possess enough characteristic value. The factory building of Coberco was seen as a beacon for this area. Thought was to attract small entrepreneurs for utilization of the large factory building" (Interview Bert Bates 2011).



Fig 2.5 View from the Eusebiusbuitensingel on the renewed Coberco project. As seen, the complex should inhabit multiple functions, aimed at enhancing the creative economy of Arnhem and enhancing the link between the inner city and the Rhine shore. Source: AM & Ballast Nedam (2008) *Arnhem Cobercokwartier VO Stedenbouwkundig ontwerp*. Assigned by CobercoKwartier CV/BV.

According to the 'Made in Arnhem'-website, the livelihood of the creative industry fuels urban development in de Cobercoquarter. Cultural, media and creative business companies all thrive with the redevelopment of the Coberco terrain (Official Website Made in Arnhem: <http://www.madeinarnhem.nl/>).

The views

A look at the current situation of Coberco reveals the difficulties when it comes to redeveloping industrial heritage. Whereas the graphic images from the 2008-program mark a lot of positivism, the current situation in 2011 is far from that standard, as seen in the photo's that were made for this research. Based on several interviews, this discussion is portrayed.

Bert Bates points to the lack of money that played a crucial role in the course of the project: "The economic crisis certainly laid its shadow on the project. This land had been bought commercially: the owner demanded a substantial amount of money for selling his property: only larger scale businesses were able to meet this demands. In times of economic progress, entrepreneurs will follow market trends and engage a lot sooner in these kind of projects. Now, we were not able to attract enough businesses to this terrain since these entrepreneurs did not take enough risk" (Interview Bert Bates 2011).

Other respondents address the fact that the municipality tried to guide the redevelopment process from above, with the final goal of the project already in mind, in stead of gradually developing the area (Interview Roy van Dalm). Hans Jungerius and Rob Groot Zevert from Stichting GANG indicate that the failure of the project is mainly related to the fact that the municipality sold

the property to the project developer. Both state: “The Coberco-project in Arnhem showed that once a municipality sells its property to a real estate agent, redevelopment is bound to fail. Therefore it is important to address multiple parties as well. You have to be careful that the most wealthy partner is not becoming hegemonic. Many redevelopment projects have often been too drastic from the start. Policy makers should just guide and promote small, gradually developing entrepreneurs, instead of postulating desires from above. This recommended attitude will result in spatial improvement, without risking large-scale investments” (Interview Hans Jungerius and Rob Groot Zevert 2011).

Bert Tates indicates the difficulties when it comes to granting entrepreneurs the chance to perform their business on relatively low conditions. Tates: “Municipalities are forced to seek money, as budget cuts are spreading fast. If a municipality owns a certain building, say a school, military building or old governmental building, energy costs, profit aims and buying prices of pieces of land should be earned back when granting this building for small creative businesses. Demolishment is always the cheapest solution, but you don’t want to do this in many cases” (Interview Bert Tates 2011).

The future

According to Bert Tates, the redevelopment of Coberco will eventually take place. Tates: “Redevelopment will take place within ten years. Yet, budget cuts made it necessary to find the most profitable solution. Of course, valuable elements are to be preserved as much as possible, but since demolition is much cheaper, my estimation is that more and more characteristic elements will be lost to make the project profitable. If you can’t attract enough creative entrepreneurs that can afford and are willing to settle themselves in the remaining factory buildings, building new structures on these grounds is more likely to take place. With our desire to increase spatial quality near the shore of the Rhine, we are looking at increasing livelihood near this place. One should not expect the placement of offices or industrial businesses on this terrain, since they don’t contribute in bringing life back on this side of the urban shore. That is our main target in the redevelopment of the Coberco terrain” (Interview Bert Tates 2011).

As portrayed in the first paragraph of this research, success will not be hampered by the lack of creative business in the city of Arnhem. In comparison to other Dutch cities, the creative industry in Arnhem – certainly with the municipal emphasis on this sector in mind – is of significant size and still rising. The case of Coberco shows that the way a redevelopment project is organized is way more crucial in this respect. As the respondents of the interviews have shown, in accordance with the ten commandments of BOEi BV, a redevelopment project is benefited by room for the working of the market itself. One should not project a final goal of a project onto project from the start. A policy maker should facilitate a project, giving entrepreneurs the chance to develop themselves in the course of time. A more temporal solution would have been better in the case of Coberco, making creative entrepreneurs able to pay the rents which were now too high as a consequence of the financial demands of the project developer. In selling the land to the project developer, the municipality did not spread financial risks, forcing a project developer to reclaim the money he had spent on buying the property. As redevelopment is often a process that involves multiple partners, finding more exploitation partners results in a less hegemonic stance by one participator as was the case with Coberco. Therefore, looking at the future, the municipality of Arnhem is advised to grant more freedom for creative entrepreneurs, who lack the financial needs for entering fully developed redeveloped historical buildings. Instead of selling a project to one actor, one should involve other parties as well.

2.2.3 British American Tobacco (BAT) factory – Zevenaar



At the heart of the Liemers region?

It is a remarkable fact: a multinational that has performed its business in the relatively small village of Zevenaar for many years. Tracing back to the late nineteenth century, the company we now know as British American Tobacco (BAT) emerged in the centre of Zevenaar. In a region that was to be characterized by agriculture for many years, a giant tobacco-producing factory emerged in the course of years. When BAT decided to shut its doors in 2008, the consequences were staggering: almost 570 people lost their job and Zevenaar was left with an enormous to be deserted factory complex in the heart of the village. The fact that this company was heavily embedded in society makes the redevelopment of the terrain even more relevant for this research. Questions concerning the redevelopment entered the debate, while the public functions of the municipality took their place in the main building of the former tobacco plant. But questions concerning the future remain until today.



Fig 2.6 Aerial view of the former BAT-factory in the village of Zevenaar. As seen, the size of the factory complex is very large compared to other parts of the urban core. Source: Google Maps.

The past

As more elaborately portrayed in the first paragraph of this research, the history of the tobacco history in the Liemers region reaches back to the nineteenth century. According to Janssen, Keultjes, Wienk and Willemsen it were the families of Frowein and Buschhammer who became the main producers for the first tobacco market, exporting tobacco to areas like Southern Germany, Austria and Italy. Slowly, tobacco for smoking pipes was replaced by the rise of the cigar. In 1920, Buschhammer sought connection to Greek-Turkish entrepreneur Kiazim Emin, who participated in the establishment of the Turmac (Turkish Macedonian Tobacco Company) factory. According to Veldman, Emin's motives for establishing a factory in Zevenaar were related to the long-lasting history of producing tobacco in the region,, the presence of a fine railroad connection to Germany and the presence of the Rhine (Veldman 1985: 86). Janssen, Keultjes, Wienk and Willemsen add that the personal connections between Buschhammer and Emin contributed to a larger extent.

With the rise of the tobacco industry in the United States of America and the United Kingdom, the first global concerns emerged. In 1901 the English Imperial Tobacco Company was established. Slowly, tobacco production concentrated itself in larger multinationals, who were

expanding rapidly on a global scale. In 1955, in the context of the increasing globalization on the world tobacco market, the company of Turmac fused with the South-African company of Rothmans, becoming part of an international network organization. In 1992 the Turmac-Rothmans factory was baptized in the Rothmans factory, with British American Tobacco taking over the factory in the year 2000. After almost 90 years of production, BAT was forced to shut its doors in 2006, leaving more than 500 people unemployed. As shown in the first chapter of this research, the Turmac company influenced society in this part of the City Region a lot.

The plan

In the first week of June 2011, the city council agreed on the movement of the council house to the former BAT-factory. The terrain that was bought in cooperation with project developer Klok Bouw counts twelve acres with around 54.500 square meters of physical buildings. The municipality bought three historical buildings of BAT, with Klok Bouw purchasing other parts of the terrain for the realization of new residences. In turn, Klok Bouw purchased the old city council on the so-called Raadhuisplein to turn it into a shopping area. In contrast to the VASIM and Coberco factories, there is no clearly defined project plan for the BAT-factory yet. Currently, the public desks of the municipality are located in the main building of the former BAT-terrain. Yvette Abbing – Policy Maker Economic Affairs and Tourism – and Lilian Werdmuller – Policy Maker Archaeology and Monumental Care at the municipality of Zevenaar – elaborate on these first ideas: “The settlement of the council house in this complex may be the best solution. Currently, the factory complex is very isolated and disconnected to urban life. It is our task to breach this isolation and to bring back life to this environment. Because we want to improve livelihood in this part of the city, the redevelopment of the BAT-factory is very important. We believe the connection between the environment of the railroad station and the inner city can be improved. This is part of our ambition to improve this area, enhancing the link between the Rhine area and Oud-Zevenaar. The redevelopment of the BAT-factory is therefore to be seen as an engine for urban development” (Interview Yvette Abbing and Lilian Werdmuller 2011).

The views

Since an elaborate plan for the redevelopment of the BAT-factory is still missing, the respondents of the interviews mainly address the possibilities of the redevelopment project. Ingrid Mens, director at the Liemersmuseum, is aware of the possible problems in turning the BAT-factory in a creative factory. Mens: “Due to its size, the complex consists of several buildings. The former office building has a size of 4.000 square metres, offering a lot of possibilities. Yet, it is questionable whether this plan could be profitable since it asks for a large-scale reshuffling of cultural activity in the region. Also, the city of Zevenaar inhabits around 35.000 people, being the largest hub in the Liemers region, while the region as a whole inhabits between 120.000 and 130.000 people. I don’t know if that is enough for profitable cultural business. Looking for example at our current theatre, the number of visitors is decreasing. Therefore it is not sure whether cultural aims are realistic” (Interview Ingrid Mens 2011).

Roy van Dalm, expert on the creative economy, states that the creative solution is by no means a golden formula: “In order to baptize the BAT-factory in a creative factory, you should attract all creative thinkers in the entire Liemers region to make this complex a thriving cultural hub. This is not realistic of course” (Interview Roy van Dalm 2011).

The mentioned 'Peter Stuyvesant-art collection is also a topic for debate in redevelopment programs. Ingrid Mens and Roy van Dalm both state that it is a shame that this nationally famous art collection was sold, since they offered exquisite possibilities for tourist use (Interview Ingrid Mens 2011; Interview Roy van Dalm 2011). Yvette Abbing and Lilian Werdmuller also reckon the importance of this art collection and possibilities for tourist use: "Because BAT owned this collection, there was not much we could do. Furthermore, the value of these paintings exceeded municipal budgets. There was no way we could buy this collection. Although the mayor called for action, our budgets were insufficient. Due to this hard work, we received some paintings from BAT on loan. This collection possesses paintings with that much allure, that they could be placed inside international museums" (Interview Yvette Abbing and Lilian Werdmuller 2011).

The future

If one wants to make valid recommendations for the redevelopment of the former BAT-terrain, one has to look at the socio-economical conditions of the Liemers region as a whole, since the economy of Zevenaar is both too small and both intrinsically linked to the local and regional economy. Jan de Nooij, Vice President of Lindus – entrepreneurial organization in the Liemers Region – states that the economic potential of this part of the City Region is related to logistics and transport and not on the cultural industry. De Nooij: "The construction of several business parks will take place, while the periphery will only obtain small-scale industries and more recreational businesses. Concentrating logistical companies near the highways, due to their relatively fine accessibility is something that will occur. With the Musiater, the city of Zevenaar profiles itself on theatre and music" (Interview Jan de Nooij 2011).

Although the city of Zevenaar does possess some expertise within the cultural industry, the massive size of the BAT-factory is impossible to fill in with merely cultural entrepreneurs. Taking into account that the Liemers region is investing in the logistics and transport sector in the coming years, one should look at other possibilities for the redevelopment of the BAT-factory. Since the world-wide known Peter Stuyvesant collection has already been sold to private owners, a cultural destination is impossible, since you cannot assume that you can use these paintings for exhibitions for example. As Yvette Abbing and Lilian Werdmuller show, the decrease in population might endanger the project as well: you should not build houses without looking at the demographics of a region. All these issues are important to address when it comes to the redevelopment of the former BAT-terrain (Interview Yvette Abbing and Lilian Werdmuller 2011).

Even after the municipality had bought the three buildings of BAT, there still remains a lot of criticism. Although the political parties of 'Lokaal Belang', 'CDA' and 'Sociaal Zevenaar' all agreed with the purchase, The Socialist Party (SP), the Labour Party (PvDA), the VVD, the Democratic Party (D66) and Groenlinks tried to block the purchase, pointing to the fact that redevelopment of the BAT-factory is way more expensive than redevelopment of the still existing, but old city council. According to local newspaper 'the Zevenaar Post' from June 8th 2011, this criticism is focused on the fear for the hegemony of project developers as Klok Bouw (Zevenaar Post June 8th 2011, article to be found on: <http://www.deweekkrant.nl>). Despite these criticisms, the absence of a substantial creative class; the regional investments in the A12-economic zone; the overload of space and high maintenance costs of the factory terrain all contributed to a search towards another destination. Of course, the construction of residences and the implementation of governmental functions within several buildings of the former BAT-terrain do not automatically damage the cultural history of that place. As is mentioned earlier, the usefulness of a building is its insurance for the future.

2.2.4 De Panoven – Zevenaar



Where nature and culture merge together

Suddenly it is there. Amidst a typically agricultural landscape a large chimney is rising above the earth. As with many other brick producing factories, 'De Panoven' is located near water supplies, as a consequence of the traditional water-demanding way of producing bricks. Currently, De Panoven is taking visitors back in time, to experience the traditional way of shaping, pressing and baking bricks. The former brick producing oven, one of its specific kind in Western Europe, is now turned into a museum that addresses the history of the brick producing industry following the current trends of emphasizing the 'experience' in the world of museums. As a former factory that has already been subject to redevelopment, De Panoven shows how one can link tourist activities to former industrial complexes and which role tourism can play in improving spatial quality in a specific area. Therefore it is interesting to take a closer look at this project.



Fig 2.7 Aerial overview of Buitengoed de Panoven, located in the Rijnstrangen-area, that is part of the National Park 'De Gelderse Poort'. In the north, one can see the railroad station of Zevenaar. Source: Google Maps.

The past

De Panoven is located within a unique national reserve with dead-ending river arms, islands, whirls and grass lands. This Rijnstrangen-area is part of National Park 'De Gelderse Poort', an area which covers over 20.000 acres of land. For an elaborate research on the importance of the brick producing industry for the region, one should definitely read Ben Janssen's analysis on the brick producing industry in Gelderland (Janssen 2008). In 1865, the first initiatives were taken to build a brick producing oven in the village of Zevenaar, which was very agricultural of its kind.

As shown in the first chapter of this research, the brick producing industry is of great significance for the region's industrial identity. De Panoven, which was set up in 1860, is part of this regional identity. Yet, as Ben Janssen, Theo Keultjes, Franks Wienk and Gerrie Willemsen show, 'De Panoven' did not contribute much to the regional employment: in the early twentieth century only a very small group of men, women and even children earned their living there (Janssen et. al. 2008). In 1901 De Panoven began supplying the first machine-made roof tiles and bricks. It controlled the business until it was closed in 1982. In 2002, the factory acquired its current destination. Erna Kruitwagen, General Manager at Buitengoed de Panoven, shows that because the pollution of the

soil was resulted in the fact that the terrain was incompetent for agricultural use. Therefore, tourist and recreational purposes entered the political arena as possibilities for redevelopment. In the process an industrial museum, camping site and a conference and information centre emerged (Interview Erna Kruitwagen 2011). Since 1985, the circular zig-zagkiln – built in 1926 – and the drying shed are to be seen as national monuments: this kiln is the only circular zigzagkiln in the whole of Western-Europe.

The plan

Buitengoed De Panoven is part of the ‘Dijk van een Delta’-project: a ‘Regionaal Beeldverhaal’ incorporating leisure activities proximate to the large rivers of the Netherlands. As is the case with ‘Regionale Beeldverhalen’ – see the introduction of this research for more information on this concept – the aim of the ‘Dijk van een Delta’-program is to give tourism the chance to contribute to economic and spatial development. Instead of using an environment, tourism should add something to it (Masterplan Dijk van een Delta 2010). One of the assigned cultural hotspots of this project is Buitengoed de Panoven. According to the Masterplan, Buitengoed De Panoven is focused on the awareness of the dynamics of the water tide, the experience of the river dynamics as well as the cultural history of the Rijnstrangen area and The Gelderse Poort. Finding the link between industrial heritage and the cultural history of the natural environment in a sustainable way is issued as being the main goal of the redevelopment of De Panoven (Masterplan Dijk van een Delta 2010: 50). In emphasizing the links with other hotspots of the ‘Dijk van een Delta’-program, De Panoven should be able to combine the benefits of the natural environment of the Rijnstrangen-area with the experience of the industrial cultural heritage of the factory itself (Masterplan Dijk van een Delta 2010: 52).

According to the Masterplan ‘Dijk en Kolk’ from DLA Landscape Architects BV, Historical agency Van Hemmen and MARC heritage advisors – published in 2009 – the areas of the Ooipolder, Duffelt and Old-Zevenaar/Bijlandt near the Rhine show the importance of the brick producing industry for the natural landscape. Production resulted in a landscape made from clay pits, dikes and old factories, giving room for specific flora and fauna to develop themselves in these natural zones. The reports indicates that several birds, disappeared for decades in the Netherlands, entered the stage once again in the 1980s in the clay pits that emerged as a consequence of brick producing industry. Therefore, the brick producing industry not only resulted in the abundance of physical built objects, as the method of producing bricks influenced the natural landscape as well (Masterplan Dijk en Kolk 2009: 27).

According to Erna Kruitwagen, the tourist purpose of De Panoven suited the natural characteristics of the Rijnstrangen-area because even the landscape itself attracts tourists (Interview Erna Kruitwagen 2011). Besides the nationally orientated program ‘Dijk van een Delta’, Buitengoed de Panoven is also an official anchor point of the European Route of Industrial Heritage (for the full list of official anchor points see: <http://www.erih.net>). This route contains anchor points in The Netherlands, Belgium, Czech-Republic, Denmark, France, Germany, Great Britain, Luxembourg, Norway, Poland, Spain and Sweden. Erna Kruitwagen elaborates on this issue: “Originally, a route was to be made across industrial heritage, but this was never officially completed. Of course, this line from the Ruhr to Rotterdam is present, visible from both the river and the road. With our chimney-dominated panorama we are also linked to the chimney route of the German Ruhr area, because machines used to run here on German coals. Therefore our site can be embedded in an international context” (Interview Erna Kruitwagen 2011).

The views

According to Yvette Abbing and Lilian Werdmuller, Buitengoed de Panoven is of great importance for the tourist industry of Zevenaar (Interview Yvette Abbing and Lilian Werdmuller 2011). Erna Kruitwagen wishes to expand the fame of De Panoven by seeking other alliances. Kruitwagen: “Brick industry is from all times, originated in the Roman age developing itself during the course of centuries. Therefore it could perfectly fit in the ‘Spannende Geschiedenis’-project by the Regional Tourist Board (RBT-KAN)” (Interview Erna Kruitwagen 2011). Currently, the ‘Spannende Geschiedenis’-project by the Regional Tourist Board addresses the brick producing industry in pointing to the Roman brick producing industry ‘De Holdeurn’ in the village of Berg en Dal. Since the three selected time periods of the project – The Roman Age, The Duchy of Gelre and the Liberation Route – Buitengoed de Panoven is nowhere to be seen (for more information on the ‘Exciting History’-program, see Official Website ‘Exciting History’: <http://www.spannendegeschiedenis.nl>)

In contrast, Erna Kruitwagen is eager to seek the links with other projects of the Arnhem Nijmegen City Region: “Infrastructural improvement which can be beneficial for logistic companies – a very strong sector in the Liemers region – might also lead to increasing spatial awareness, as it is easier for people to move across the region to reach places that used to be hard to find: places telling a story. Think of a farmer that used to detest the construction of roads in a beautiful regarded natural environment: with the help of a ‘Regionaal Beeldverhaal’ you can involve this farmer in the process by giving him opportunities to create awareness for his or hers business for tourists. In this sense, economic progress and spatial awareness go hand in hand” (Interview Erna Kruitwagen 2011).

In this regard, Jan de Nooij, secretary at Lindus – an entrepreneurial organization for the Liemers region – states that the role of the periphery of the Liemers region is very suitable for recreational development, because livelihood in the region is also very dependent on liveability of the smaller peripheral areas, we are stimulating the settlement of small-scale businesses in the smaller villages. Redeveloping older buildings such as farms, manor houses and so on can be of use here. We try to create a market for regional or local products here, as a means for profitable business and a means to preserve the ‘couleur locale’ of these parts of the region” (Interview Jan de Nooij 2011).

The future

With the emphasis of the Liemers region on business development near the A12-highway and the proclaimed importance of tourism for the more peripheral areas, the future of Buitengoed de Panoven is likely to be sustainable. In finding links with other tourist programs, Buitengoed de Panoven can gain in visibility towards a larger audience. The theme of the museum is multifaced, with both environmental and cultural values being represented in the concept. Therefore, attracting multiple kinds of tourists – historically interested as well as visitors that are interested in the natural surrounding or the combination of both – is certainly possible. In finding the links with local entrepreneurs, the economic competitiveness of De Panoven might increase. Think of selling local products near the museum, to capture both local and regional specialties and economic profit. Cooperation with organizations as Lindus and the Arnhem Nijmegen City Region could lead to embed De Panoven more into the regional economy. The presence of De Panoven in both a Regionaal Beeldverhaal for the Arnhem Nijmegen City Region, as well as the existence of the site on the ‘Dijk van een Delta’-program should not result in many problems, as it fuels the visibility and appeal of the site to an ongoing growing amount of people.

2.2.5 Paper industry – Municipality of Renkum



From pollution to environmental solution

Ask people what they think when they hear of the village of Renkum and most of them start telling about the presence of an enormous factory, covering a substantial part of the village in shadow. In doing so, people are referring to the presence of paper producing factory Parenco, which has been there since 1981 as an evolution of earlier paper producing companies. As the production of paper is an energy-wasting activity, the industry is faced with challenges for the future: adapting its business to today's standards of sustainability and ecofriendly production is considered to be the main objective in order to survive. In the process, can one also attend the cultural history of these factories, since they represent a time of labour-intensive industry, long before the traces of globalization had laid their shadow on this labour-intensive character of production? This is a question that deserves further attention.

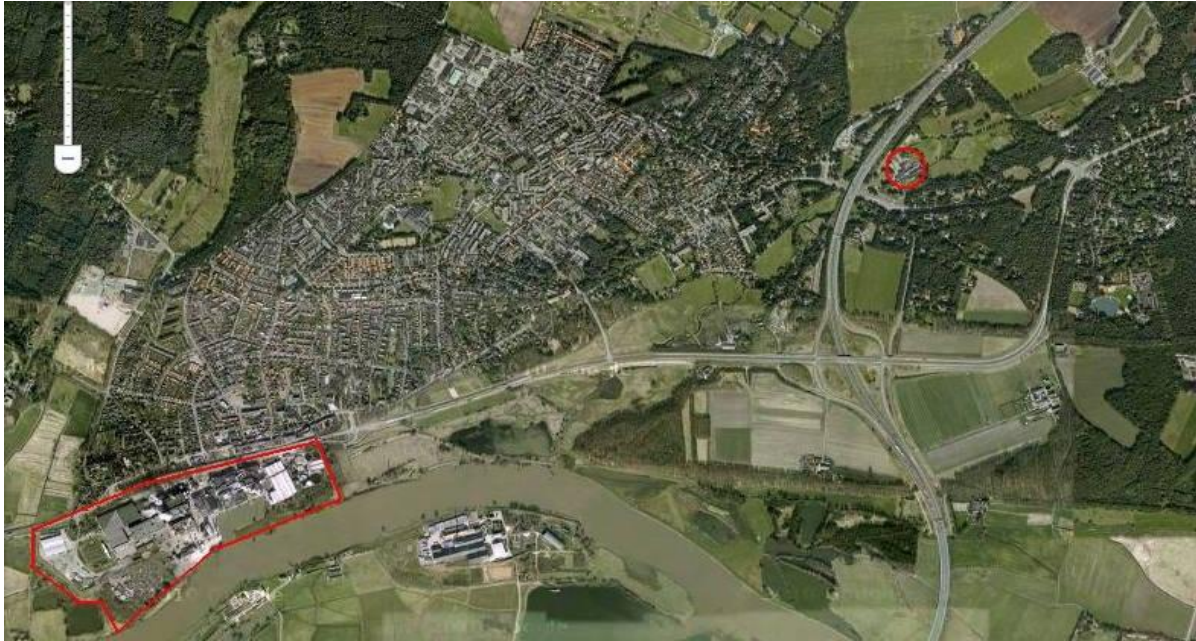


Fig 2.8 Aerial overview of the Norske Skog Parenco (left) and the Schut BV paper factories (right) near the villages of Renkum and Heelsum. As seen, the presence of two paper factories near a relatively small village as Renkum is remarkable. Source: Google Maps.

The past

For an elaborate analysis of the development of Dutch paper industry, the first paragraph of this research elaborates on these developments. For purists, the substantial analyses by Huub Kockelkorn (1993) and Bram Bouwens (2004) might fill in the needs. As a consequence of business upscaling, the Van Gelder firm bought the firm W. Sanders in the village of Renkum In 1907, incorporating a once small-scale family company into a larger corporation. Between 1911 and 1919, the first industrial paper factory in the city of Renkum emerged (Official Website Stichting Papiergeschiedenis Renkum-Heelsum: <http://www.papiergeschiedenis.nl>). The first papermachine entered the stage in 1913, making industrial production at a larger scale possible (Bouwens 2004: 54). Several miles away from this factory the family of Schut built a new factory in the village of Heelsum in 1895.

The production of the Van Gelder company increased significantly after the Second World War, because the management invested heavily in production infrastructure. Bouwens shows that between 1949 and 1952, the Van Gelder company invested over 35 million in its production centres in Apeldoorn, Renkum, Velsen and Wormer. With a production of 80.000 tonnes in 1946, the company produced over 177.000 tonnes of paper by the time of 1951 (Bouwens 2004: 121). By the

time of the 1950s, the Van Gelder company employed over 1.400 people, being the largest employer of the municipality (Werkgroep Papiermuseum 2010: 13).

From the 1960s on, international competition and the international oil crisis contributed to the decline of this industry, with the Van Gelder Papier company going bankrupt in 1981, evolving into the German Parenco in 1981. Until 1982, the largest share of stocks remained in the hands of the Schut family concerning the paper factory in the village of Heelsum (Official Website of Paper Factory Schut BV: <http://www.papierfabriekschut.com/>). Bouwens adds that as a consequence of this development, the ongoing internationalization of Dutch paper industry resulted in Dutch companies fusing into foreign enterprises. In this context, Paper Factory Schut BV became part of the French 'Papeteries de Clairfontaine' company in 1998. In 2001 followed the sell of the Parenco Factory to the Norwegian company of Norske Skog.

The plan

In the process of shifting towards sustainable energy use – a process elaborately described in the first chapter of this research – the municipality of Renkum is taking along recreational purposes in its plans. According to Ton van Lier – Manager Economic Affairs, Spatial and Economic Development at the Municipality of Renkum – and Michiel Lassche – Policy Maker Monuments, Archaeology and Tourism – ‘the natural landscape with the abundance of plantings and water offer chances for further development. For tourists, the municipality is more of a green municipality than an industrial centre. High-quality industry focused on energy and environmental technology can be adapted in this green, water-rich landscape. We try to promote this region as ‘Valley of Wellness’, located between ‘Food Valley’ in Wageningen and ‘Health Valley’ in Nijmegen. Together with the HAN University and the ROC Rijnijssel, we try to create a large-scale wellness-centre here” (Interview Ton van Lier and Michiel Lassche 2011).

In cooperation with the HAN University of Applied Sciences and ROC Rijn IJssel, the municipality of Renkum launched a report on the feasibility of the realization of a wellness-centre in the village of Renkum. Annually, the centre is thought to attract 142.500 visitors. The aim of the concept is to create an innovative wellness centre in which the facilities and wishes of the client. Furthermore, the centre should obtain an educative function aimed at students of both the ROC Rijn IJssel and the HAN University of Applied Sciences. The Valley of Wellness should be the innovative knowledge-centre of the Dutch wellness industry and to contribute to the health-image of the region (Ondernemingsplan Valley of Wellness 2010: 5). This follows the emphasis the City Region puts on the health-cluster of the economy. According to the business plan, the municipality of Renkum actively addresses its environmental and historical qualities to profile itself as a ‘green theatre’ (Ondernemingsplan Valley of Wellness 2010: 7). According to this report, the core qualities of the municipality are the natural surroundings, the natural and cultural historical qualities, visual arts and the history of Operation Market Garden (Ondernemingsplan Valley of Wellness 2010: 7).

The views

The increasing environmental awareness among entrepreneurs in the paper industry, can be seen as an attitude aimed at survival in the eyes of Ton van Lier and Michiel Lassche. Both state that the municipality supports these measures due to two reasons. The historical value of the industry and the fact that physical infrastructure is already present and suitable for durable and sustainable production, with the abundance of industrial buildings, a very fine accessible harbour and fine road infrastructure” (Interview Ton van Lier and Michiel Lassche 2011).

Despite the efforts being made to turn the Norske Skog Parenco factory into a sustainable hub of activity, the former Van Gelder paper factory is downgraded to a mere ruin. Ton van Lier and Michiel Lassche state that environmental care cried for the demolishment of this factory: “With the acceptance of the so-called ‘Renkums Beekdal’, the former Van Gelder Paper factory had to be demolished for a great part. The main focus was to create a connection between two natural zones for plants and animals. When this project was initiated, around ten years ago, people believed that this factory complex was an obstacle that needed to be demolished” (Interview Ton van Lier and Michiel Lassche 2011).

The fact that one can hardly see any traces of this once so thriving past when visiting this location – see the photos – is something that should change according to both magistrates. “The demolishment of the Van Gelder paper factory does not mean that you can not address history anymore in this area. Think of walking routes for example. In the context of the ‘Regionaal Beeldverhaal’ from the Regional Tourist Board there is an organization in Doorwerth called ‘Stichting Maak je Route’, focused at creating a digitalized walking route in the region, strongly linked to the implementation of new social media. We would like to create a similar walking route focused on the paper industry. Within this route, we want to implement the hospitality business as well. We want people to be aware of the importance of this industry for this region, by linking natural environment with cultural history” (Interview Ton van Lier and Michiel Lassche 2011).

The future

In March 2011, the Werkgroep Papiermuseum – consisting of Stichting Papiergeschiedenis Renkum-Heelsum, the Stichting Oud Renkum, het Genealogisch Historisch Genootschap Redichem, Stichting voor Heemkunde in de gemeente Renkum en de Werkgroep Beken en Sprengen – created a plan of feasibility for the realization of a paper museum inside the village of Renkum. According to the Werkgroep, exquisite possibilities exist due to several reasons. (Manifest Werkgroep Papiermuseum 2010). First of all, the Netherlands do not possess a museum on the paper industry yet, as well as the municipality of Renkum does not possess a museum in itself. Together with the airborne history and the ‘Oosterbeekse School’ style of art, the paper industry forms the cultural heritage of the region, since there are two still running paper factories within the municipality, Schut BV and Norske Skog Parenco. Furthermore, the realization of the museum should go hand in hand with the implementation of hospitality services, a child care institution and possible new residences. In the process, possible educational purposes add to the viability of the project. In the municipal policy plan, researching the possibilities for a certain museum is one of the municipal priorities (Coalitieakkoord 2010-2014). This is a project that is supported by Ton van Lier and Michiel Lassche from the municipality of Renkum.

The need for the preservation of valuable heritage considering the paper industry is not without a cause. As seen, the environmental pollution and energy waste of the paper industry for many years made the need for adaptation to current demands necessary. This economic necessity for redevelopment adds to the project’s value for this research. The shift to more sustainable production in combination with the preservation of the (both tangible and intangible) heritage of the once so thriving industry results in the survival of this industrial activity. In stressing the importance of durable energy use and the reduction of CO₂-emissions, preservation of the valuable regional history – as supported by companies as Schut and Norske Skog Parenco – is something that is to be applauded. It is exactly this willingness to adapt to the modern society that will result in the preservation of one of the most influential regional industrial businesses.

2.2.6 Shipyard Bodewes - Millingen



Thriving business at the border

Shipyard Bodewes near the village of Millingen.
Boudewijn Wijnacker 2011

At the intersection of the Waal and the Rhine river, near the Pannerden channel, there stands a massive industrial complex in the natural landscape. Ever since the Roman age, sailors, strollers, cyclists and other travellers crossed this intersection and were confronted with the robust and impressive industrial conglomerate. Currently, the Bodewes shipyard is an internationally operating company, with an company range that at least stretches all across the Netherlands. Remarkably, a global enterprise as Bodewes provides a small recreational project, the so-called 'Millingse Liburna'-project the chance to address the importance of the ship yard for the region. Why is a company like Bodwes stimulating a certain initiative and how can a tourist activity like the Liburna-project contribute to economic, spatial and tourist development. These are questions that will be addressed in this analysis.



Fig 2.9 Above: Aerial overview of the Bodewes-shipyard near Millingen. Indicated in yellow is the exposition room and workshop from Stichting Millingse Liburna. Although the property is owned by Bodewes, this organization is provided the room to perform its business on the terrain. Source: Google Maps.
Fig 2.10 Below: Overview of the Roman Limes. As seen, Millingen was of prime interest for the Roman army due to its location near the cross point of both the Waal and the Rhine river. Source: Official Website Stichting Millingse Liburna: <http://www.liburna.nl>).



The past

To find the origins of the shipyard industry near the village of Millingen, one has to go all the way back to the Romans. When the Romans entered the area we now know as the Netherlands in 18 B.C., Drusus, (adopted) son of emperor August, realized the first water-related enterprises to increase

mobility in the drenched and badly accessible Dutch lands. Nijmegen became a large fortress for the first Roman troops. Near the village of Millingen, Drusus built a dam to regulate the course of the water between the Rhine and the Waal, as well as he dug a channel between the Rhine and the Old IJssel (the so-called Drusus channel). With his son Germanicus failing to penetrate into the German

lands, emperor Claudius officially proclaimed the northern border of the Roman empire in 47 AD. With the construction of many fortresses and constructed roads the Limes was born. To link all these fortresses to each other, the navy became very important for supply and combat support (Official Website Stichting Millingse Liburna: <http://www.liburna.nl>).

In 1896 one of the largest shipyards of the region emerged near the village of Millingen, at the intersection of the Rhine, the Waal and the Pannerden channel. Already in the early nineteenth century, with the invention of the steam engine, the first steam powered boats entered the rivers. Adding to these theoretical views, Erik de Gans, project leader 'Stichting Millingse Liburna' and founder of IR3, a recreational tourist agency that develops, guides and actually performs tourist policy for projects inside the Arnhem Nijmegen City Region, states that the main settlement cause shows similar patterns with the Roman age: the location of Millingen near the crossroad of the Waal and the Rhine and the close connection to Germany were of significant influence here. From the 1950s on, the shipyard became the main employer of Millingen and its surroundings: life in the factory dominated the life of many people (Interview Erik de Gans 2011). As De Gans points out, the strategic location of the shipyard in Millingen contributed in its success: an indicator that was also remarked by Janssen, Klep and Buiter (Janssens 2008; Klep 2005; Buiter 1997).

The shipyard experienced severe problems in the 1960s and 1970s, with international competition, especially from Asia, with its low loan costs and high productivity, damaged Dutch shipyard industry. As a consequence, the Bodewes shipyard near Millingen was incorporated in the international 'Damen Shipyard Group'. Bodewes is not an exception here. Currently, the Damen Shipyard Group counts ten members in the Netherlands including companies in Bergum, Den Helder, Amsterdam, Nijkerk, Gorinchem, Stellendam and, as said, Millingen (Official Website Damen Shipyard Group: <http://www.damen.nl>). Incorporation in order to survive: it is to be seen as a strategy that was used all across the Netherlands.

The plan

One of the most interesting aspects of this shipyard for this research, is the presence of the so-called Liburna-project, located on the shipyard itself. This cultural historical tourist project possesses of multiple aspects according to the Official Website Stichting Millingse Liburna (Official Website Stichting Millingse Liburna: <http://www.liburna.nl>). First, building a scientifically embedded and historically correct replica of a Roman patrol-ship – a Liburna vessel – that has sailed the rivers ever since the birth of Christ is considered to be a crucial aspect. Second, creating a thematic and educational exposition of ship construction in the Roman age, to function as a so-called 'bad-weather facility' in the region. Project Leader Erik de Gans states that this is important for enhancing the regional economy. De Gans: "Because Millingen was located between the German Xanten – where a Roman theme park is located – and Nijmegen, the possibilities for addressing the Roman history of this region were exquisite. The need for linking the maritime industry to the Roman history of this region resulted in the emergence of the Liburna-project. This can lead to an ideal combination of archaeology, cultural history and tourism. Local hospitality business can profit from these kind of projects that are aimed at keeping tourists for a longer time in Millingen" (Interview Erik de Gans 2011).

The third asset of the project plan consists of combining cultural heritage and (rural) tourism is a prime interest as well. Fourth, seeking cooperation with Millingen aan de Rijn, Nijmegen, the German city of Kleef, Köln and Mainz is an important strategy. Last but not least, creating an educational workshop, in cooperation with ROC and CWI. According to the project plan, visualizing

the Roman history of Millingen should go hand in hand in linking industrial heritage, tourism and wellness to each other. In doing so, one creates cultural historical awareness and support for the project, as well as one creates a cultural historical contribution to the regional economy in terms of cultural historical region marketing. As said, the project is performed on the property of Bodewes. According to Erik de Gans, the relatively small investments of Bodewes in the project result in a better corporate image, because tourists are able to come to a shipyard and see production with their own eyes (Interview Erik de Gans 2011).

The views

In focusing on the Roman history of Millingen, Erik de Gans indicates that – as interesting for this research – that finding the links with a focus on industrial heritage is certainly possible. Erik de Gans: “Indeed, industrial heritage refers to a region’s nostalgia. Although this theme is not of the size of the Second World War of the Roman empire, the industry of a region also refers to a specific time in history. Industrialization and all the revolutionary developments that were linked to this process resulted in mass-production of manufactured goods. The Second World War could not have been that large without the industrialization. You can portray the industrial past in this sense as a ‘conditio sine qua non’: as a condition for further developments. People that visit the information centre of the Liburna-project, are able to take a closer look at the Bodewes shipyard as well, while this complex has always been very isolated and invisible for people driving by” (Interview Erik de Gans 2011).

According to De Gans, finding the links with regional entrepreneurs is crucial for linking the project to the society of this part of the region. De Gans: “Annually, we attract around 100.000 to 150.000 bicyclists to the village of Millingen. We are trying to attract these visitors to our information centre, followed by a visit to the local restaurants, cafés or hotels. Therefore, we are deliberately discouraging the settlement of hospitality services near our information centre, as we want visitors to enter the hospitality businesses in the centre of Millingen. For the sake of the village’s economy, We refuse to compete with the local hospitality services in the centre of Millingen. A cultural historical project like the Liburna-project should be an engine for economic development” (Interview Erik de Gans 2011).

The future

In the context of the growing need of tourism to add to economic, spatial and recreational development, the Liburna project is the prime example of how to embed a cultural historically aimed project as the reconstruction of the Liburna-vessel into society. In cooperating with educational institutions, the project gains in societal relevance, which is also increased by cooperating with local hospitality services. In creating mutual bonds like these, one fuels the cross pollination of both cultural history, tourism and economic development. The fact that a company like Bodewes still shows interest in a project like Liburna is to be related to the small-scale investments it requires and the fact that involvement in cultural projects improves the visibility and image of the company to society: people can actually see the construction of ships now, with the shipyard being pulled out of its isolation to the crowd. For the future, intensifying in border crossing cooperation with German Xanten or cooperation with the city of Nijmegen with its Valkhof-museum will benefit all parties. Linking a certain project to a ‘Regionaal Beeldverhaal’ increases the project’s visibility and appeal to an increasing amount of people.

Conclusion chapter 2

Reawakening the history of the common man?



*Analysis of the questions involving the redevelopment of
Industrial heritage in the Arnhem Nijmegen City Region*

The redevelopment of industrial heritage within the Arnhem Nijmegen City Region is a process that is closely linked to the preservation of a valuable part of the region's identity, as described in the first chapter of this research. The aim of this second chapter had been to find out to what extent the redevelopment of industrial heritage within the Arnhem Nijmegen City Region is able to lead to economic, spatial and tourist progress. After looking at the concept of industrial heritage, it was found out that the value of these complexes is mainly cultural, while criteria in Dutch monumental care have for a long time been heavily based upon aesthetic appeal instead of upon cultural values. In the course of time, this attitude was subject to change, with the rise of cultural history in Dutch monumental care.

It is important to stress the heterogeneity of the concept of industrial heritage: both tangible and intangible elements are there to possess potential value. With the aging of the Dutch population into mind, the need for documenting the stories related to factory life is increasing. At the same time, against the background of increasing concentration of urban construction works and the need for revitalizing abandoned existing buildings, the redevelopment of industrial heritage is becoming more and more important. Urban expansion begins to slow down as several large, corporate buildings are subject to vacancy and consequently, depreciation. Although the cultivation of newly acquired lands is still much more efficient than redeveloping existing schools, military buildings, office spaces or factories due to exploitation costs, the time is there to look at the existing infrastructure. While industrial heritage can add unique characteristics to an urban environment, the spatial quality of a city increases as more unique buildings are preserved. Especially against the background of the ongoing search for an urban identity, the reutilization of valuable buildings from the past adds to the appeal of a city.

This redevelopment is not an easy process as the selected case studies have shown. Based on the acquired information for this research, one should acknowledge the following recommended policy strategies when it comes to redeveloping industrial heritage:

- Facilitate instead of direct from above: Too often, policy makers have projected the final goal of the redevelopment project onto its starting phase. The result was that after acquiring a piece of land, a municipality or project developer desired to earn this money back by demanding high rental costs for a building. For many entrepreneurs, this became a threshold that was unable to take. Therefore, giving the chance to small entrepreneurs to start up their business according to market mechanisms increases the chances of survival. Temporary use of industrial complexes might cope with the needs and financial limits of small entrepreneurs. In some projects, temporary use can be a stage towards final utilization. Some companies will benefit from their temporary use in old factories, giving them the chance to establish themselves there on a more permanent base in the course of time.
- Involve multiple actors in policy making: To spread financial risks in redevelopment programs, one should involve multiple actors. A project developer is often mainly interested in making profit, while a government is concerned with the implementation of certain functions. Therefore, creating a platform in which multiple actors can engage increases the chance of success. Both users and producers of this space should be all aware of the process of redevelopment.
- Look at the specific infrastructure and demands: there is no 'golden formula' when it comes to redevelopment. What are the demands of the municipality? A function should suit a building, both technical and emotional. The spatial surrounding of the building is extremely

important. Therefore, you have to map the demands of the specific region in order to come to a fruitful solution. These aims can be very diverse, ranging from residential use to the creation of a creative breeding place.

- Diversification of functions: the vitality of a building is its insurance for the future. In involving multiple functions into one building, one creates vitality based on multiple activities. Therefore, one can attract different groups to one area. Living, working, leisure and performing all attract other groups, making an old factory once again a thriving hub of activity, since people are attracted by lively, continuously changing functions. If one assumes that the 'creative solution' is to be preferred – when being aware of its shortcomings – it is important to reckon that the concept of creativity does not contain homogeneous 'creative' entrepreneurs. Therefore, creating a chain of creativity, from the idea to the marketed product, adds to the success of a project.

As seen, the process of redevelopment involves multiple crucial issues. For too long, policy makers assumed the importance of knowing what a selected area was destined to be, since they were in all cases able to sell the acquired lands. Baptizing former factory complexes in residential areas or creative factories within five years was no exception, since the economic conjuncture made usability

Chapter 3

Exposing your industrial DNA?



*Analysis the opportunities for the Arnhem Nijmegen City Region
to promote itself on its industrial past*

‘The times they are a-changin’” famous singer-songwriter Bob Dylan once said. Although written in 1964, Dylan’s melancholic song echoes on to the present. Whereas industrial heritage had for a long time been disposed as a valuable part of a village’s or city’s history, the concept of industrial heritage is gaining in support. The German Ruhr area has already presented itself for a long time as an industrial region. A region possessing an ‘Industriekultur’ as our eastern neighbours like to proclaim. As is seen in the previous paragraphs of this research, the Arnhem Nijmegen City Region does possess industrial characteristics to a certain extent. Yet, what does this mean? Can one use this industrial DNA in regional marketing, or to attract tourists? How can policy makers generate support among society for their projects in these times of economic crisis? This chapter deals with the role industrial heritage – both tangible and intangible – can play in regional marketing and tourist campaigns.

3.1 The problems of regional marketing

To address the role industrial heritage can play for the identity of the City Region, one has to pay attention to the concept of regional marketing itself. Following Gert-Jan Hospers, regional marketing can be described as the sum of different interrelated activities, aimed at keeping and attracting specific target groups for a certain region. Hospers states that region-marketing is mainly aimed at attracting residents, companies, visitors and intellectuals. The targeted group of governors is rising. Creating economic competitiveness and appeal to other regions can be seen as main purposes. Hospers states that especially companies, residents and creative people can be enthusiastic by region-marketing, while students and visitors are willing to a lesser extent (Hospers 2010).

According to Gert-Jan Hospers, city marketing is usually addressed from the perspective of marketing theory. An article of Gert-Jan Hospers for *Place branding and public diplomacy* follows an alternative approach by exploring city marketing from the viewpoint of urban planning and the sociology of tourism. In his classic ‘The Image of the City’ (1960), planner Kevin Lynch found that people perceive the city predominantly as a built image, made up of distinct paths, edges, districts, nodes and landmarks. In turn, sociologist John Urry argued in ‘The Tourist Gaze’ (1990) that for most of us the city is a (photo)graphic image. The work of Lynch, Urry and their colleagues suggests how important it is for city marketers to scan the urban landscape for built objects and (pseudo)authentic attractions that can be photographed well. If a city does not have imaginable and photogenic features, it will be a hard job to communicate it to the outside world.

The idea that cities can be marketed like products has found widespread application (Ward, 1998; Kotler *et al* 1999; Rainisto 2003; Braun 2008). In the competition for inhabitants, companies, tourists and knowledge workers, cities increasingly make use of marketing techniques to attract the attention and build an image. To turn the principle ‘unknown, unloved’ into ‘known, loved’ urban authorities usually hire a team of city marketers to market their place. This practice of treating cities like products has been criticized, such as by Simon Anholt, who argues that in marketing places ‘actions speak louder than words’ (Anholt 2003). Anholt stresses that it is not enough for a place to say it is remarkable – it has to be remarkable. In the view of Gert-Jan Hospers, as a territorial unit, a city is too complex to just treat it as a product that can be sold using insights from standard marketing theory, as some authors have propagated (Kotler *et. al* 1999; Rainisto 2003). Hospers states that cities are historically grown entities that are made up of people in a built environment. Hospers refers to Jane Jacobs, stating that who wants to market a city should pay attention to ‘life

between buildings' (Jacobs 1961; Gehl 2006). That is why Hospers thinks it is important to look at city marketing from the perspective of urban planning and the sociology of tourism.

In his 'The Image of the City' (1960), Kevin Lynch (1918-1984) focused himself on what comes to people's minds when they are asked about their home cities. According to Lynch, the image of a city is defined by five pillars: paths, edges, districts, nodes and landmarks (Lynch 1960). In practice, these elements overlap, while their recognisability varies from person to person. During the course of years, the theory of Lynch has been criticized for many reasons. To start with, the mere focus of Lynch on the mental map of inhabitants can be questioned. In general, residents will have a clearer image of their city than non-residents, a phenomenon known as 'the neighbourhood effect' (Pellenbarg 1991). Hospers claims that Lynch overemphasizes the visual and material structure of the city. Charles Landry (2006), for instance, suggests that cities are 'sensescapes': people's mental maps turn out to be formed as well by the smells, sounds and tastes of a place. Moreover, in his 'Good City Form' (1984), Lynch himself suggested that the mental maps of people are not only formed by their 'sense of place'. He recognized the importance of a 'sense of occasion' related to a city's image coming from periodical festivals, events and other temporary activities. Also, Hospers states that Lynch neglects the role of the media plays in creating images (Hospers 2009: 228).

According to British sociologist John Urry, city tourism without graphic images is hardly conceivable. In his influential book 'The Tourist Gaze' (1990), Urry develops a theory on why we travel for leisure and why we visit certain places. Urry argues that tourism is going away to search for visual experiences that differ from what we normally see at home or at work. The dominant activity of tourists is 'gazing' at 'signs' that is, looking at particular features of a place, such as a famous mountain, mediaeval cathedral or exotic dance. This gaze can be either static (looking from a balcony or an 'official' viewpoint) or dynamic (looking through, say, the screen of a car or the window of a train). Places to be gazed upon are not randomly chosen by the tourist; there is always an element of anticipation, imagination and expectation involved. There is no universal tourist gaze, Urry argues. As in line with Urry, Hospers states that the gaze is always socially constructed (Hospers 2009: 228).

Hospers points to the fact that guide books, newspaper articles, adverts and, more contemporary, websites enable Lynch, Urry and city marketing us to form a more or less clear image of what to expect when visiting a place. Thus, both tourists and tourist sites are manipulated: the gaze falls upon exactly those features of the environment at which the gazer already anticipated (Hospers 2009: 228-229). To support his thesis, Urry refers to the rise of mass tourism since the second half of the nineteenth century (Urry 1990). Right from its invention, photography started to accompany tourism: by taking pictures of places that were no longer used, 'sites' were turned into 'sights'. The 'rise of the eye' drove tourism and resulted in 'site sacralisation' (MacCannell 1999): tourists visited churches not to pray, but to photograph them. In this regard, the growth of digital photography and Internet since 2000 has made Urry's argument even more relevant. A recent analysis of 35 million images on Flickr, a public photo-sharing site, suggests that its users take pictures of exactly those spots ('signs') that have been photographed already the most often before (Crandall et al 2009). Apparently, as tourists we are not looking for surprises: with our cameras, we rather reproduce pictures confirming what we were expecting to see (Hospers 2009: 229).

In this respect, Urry (1995) distinguishes between two characteristic forms of the tourist gaze. First, there is the 'romantic' gaze emphasizing authenticity and suggesting solitude, privacy and a personal relationship with the object of the gaze. This is the gaze of tourists looking for the 'real' place by following 'insider tips' from locals. Second, there is the 'collective' gaze that presupposes a large number of other tourists in the place gazed upon. Tourists with such a gaze do not care about

authenticity and feel safe in following the herd. Urry (1990, 1995) , however, sees the emergence of a new type of tourist, that is, the 'post (mass) tourist' for whom being at a historic spot with a real story is as valid as gazing upon Las Vegas and Eurodisney. The post-tourist knows that most places are pseudo-attractions (Hospers 2009: 229). Assuming the homogeneity among this 'post(mass) tourist', Urry was subject to a lot of criticism considering the fact he neglected the heterogeneous character of the modern day 'tourist'.

According to Gert-Jan Hospers, city marketers could learn from Lynch that they should be more concerned about the possible 'image ability' of their city. In this respect, they might ask different questions than before. For instance, to what extent does the city already stick in people's minds? What distinctive carriers in the built environment does the city have – if any? What are the edges or landmarks of which tourists take a picture of or that can be put on a post card or a website? (Hospers 2009: 229-230). Urry agrees with Lynch in highlighting the importance of a city to have clear 'signs' that can be gazed upon, such as cultural heritage sites. In their opinion, tourists actively search for specific cultural markers, the signs and symbols that signify typical cultures and histories.

3.2 From site to sight: the growing importance of cultural tourism

The concept of cultural tourism

The report *Erfgoed voor toerisme* from the Dutch Museum Union (NMV), Stichting National Contact Monuments (NCM), Stichting for Dutch Archaeology (SNA)n and the Union for Documentary Information Supply (DIVA), in cooperation with the Union Digital Dutch Heritage (DEN) gives an overview of the combined view on the relation between cultural heritage and tourism. In this report, Ferguson states that cultural tourism refers to tourism linked to 'the whole of cultural supply', differing from contemporary art, theatre, educational institutions, 'culture from the streets' and so on. Ferguson notes that cultural *historical* tourism differs itself considering the historical focus (Ferguson 1996). A heritage site can be a useful asset of this kind of tourism, although the concept refers to other related leisure activities as well, such as visiting shops, restaurants and so on.

Greg Richards, senior lecturer Tourism at the University of Tilburg, states that the term 'cultural tourism' is losing its meaning in modern society, as the concept of culture is widened to a far reaching term. Richards points to the fact that the World Tourism Organization (WTO) asserted that cultural tourism accounted for 37% of global tourism, while forecasting a growth of 15 per cent per year. The WTO assumed in calculating this percentage that cultural tourism is to be seen as 'movements of persons for essentially cultural motivations such as study tours, performing arts and cultural tours, travel to festivals and other cultural events, visits to sites and monuments, travel to study nature, folklore or art, and pilgrimages' (WTO 1985). At the same time cultural visits have increased significantly. If one looks at statistical data, the European Commission reported in 1998 that attendance at museums, historical monuments and archaeological sites has doubled between 1977 and 1997 (European Commission 1998).

One can argue that these descriptions are funded on the view that all tourism is culture: the WTO for example defines cultural tourism as 'all movements of persons (...) because they satisfy the human need for diversity, tending to raise the cultural level of the individual and giving rise to new knowledge, experience and encounters' (Official Website World Tourism Organization). ICOMOS followed this broad approach, by implying that cultural tourism is 'any form of tourism to another place that involves the visitor experiencing all of the 'cultural' aspects about that place, its contemporary lifestyles, food, topography, environment, towns and villages, just as much as its

historic sites and cultural performances' (ICOMOS 1999: International Cultural Tourism Charter). Following these definitions, Littrel states that cultural tourist is not just about visiting sites and monuments, which has tended to be the traditional view of cultural tourism, but it also involves consuming the way of life of the areas visited (Littrel 1997).

LauraJane Smith follows a similar approach in her *Uses of Heritage*, claiming that heritage is a cultural process (Smith 2009). Steve Watson and Emma Waterton state in line with Smith that for a long time, there has been an obsession with material culture, seeing the reification of social relations that create, sustain and reproduce heritage objects as autonomous things that tell their own story about the past, which is expressed, limited and satisfied by their very materiality (Watson and Waterton 2010: 2). David Crouch, professor of cultural geography at the University of Derby, agrees with Smith, Watson and Waterton: 'Representations are not merely of a visual kind; sound, taste and all the senses have the capacity to represent (...) Each of these varied components affecting and occurring in heritage do not act in isolation but in interplay, act in mixture (Crouch 2010: 59). Burkitt takes it a step further by implying that identities may be constituted and characterized in practice and performativity, and negotiated with other contexts. Through our bodies, we expressively perform who we are. Heritage, however it is experienced, engages in a wider self and a wider self-other, relationally (Burkitt 1999). Steve Watson claims that heritage is produced within dynamic processes of cultural production that select and present objects and embed them in the representational practices associated with tourism (Watson 2010: 249). According to Watson, "visuality as a metaphor for cultural significance is an essentially socio-political process operating through the nexus of tourism and employing touristic representational media and sign systems" (Watson 2010: 266).

Greg Richards therefore defines cultural tourism as 'the movement of persons to cultural attractions away from their normal place of residence, with the intention to gather new information and experiences to satisfy their cultural needs' (Richards 2003: 34). Concretely, it is important to acknowledge that cultural heritage entails more than just the physical object, as this space is given meaning by people themselves: visiting, smelling, touching, observing, interpreting and experiencing these places results in the creation of an identity we connect to the specific heritage site. As seen in the multiple definitions one can give of cultural tourism, Dutch national heritage organizations note that the cultural tourist is not homogeneous. In some definitions the cultural tourist is someone who wants to learn something from the history or identity of a certain place or region. Yet, besides the desire to obtain knowledge, the experience of the visit itself is becoming more and more important in the cultural heritage discourse. According to the report, experiencing cultural heritage can lead to curiosity, openness to new information and eventually leading to the desire to obtain knowledge (NCM et. Al. 2003: 9-10).

A new way of life? Reasons for the growth of cultural tourism

As heterogeneous as the cultural tourist might be, the numbers show that the amount of visits of cultural historical attractions has been growing for the last years. According to Greg Richards, the growth of cultural tourism is to be related to two main processes. First, increasing multiculturalism as the consequence of a de-differentiation of previously distinct social and cultural spheres, with the emergence of an economy of signs. The convergence of 'high' and 'low' culture, 'art' and 'life' for example. Richards notes that objects and people and objects have become increasingly mobile, while boundaries between previously distinct cultures are subject to elimination. Second, Richards states that tourism has attained a greater cultural content, through the growth of

cultural tourism as well as through the increasing significance of signs in the production of tourist signs. Not only do tourists consume a wide range of signs during their holidays, but the signs attached to travel are increasingly produced and circulated by the cultural industries. According to Richards, tourism itself has become a culture, or a so-called 'way of life' (Richards 2003: 30-31).

According to Tracy Metz, the rise of the so-called 'zap-culture' results in an enormous growth of leisure activities: people design their leisure time more diversely than they used to do (Metz 2002). Munsters states that the current tourist seeks differentiation in his leisure activities. In an increasing globalizing world with disappearing physical boundaries the modern tourist is searching for local, regional or national identity: a search that can benefit from the presence of cultural history (Munsters 2003). The fact that the so-called 'Dag van de Architectuur' emerged in 1985 followed this increased interest since the 1980s. In his analysis, Munsters also states that industrial heritage is becoming a common interest, heritage that is called 'monuments of the working man' (Munsters 2003: 48).

According to Richards, the number of people entering higher education in Europe is much higher than decades ago, resulting in an increased interest for 'high' cultural attractions. Furthermore, Richards states that the rise of what he calls 'nostalgia' also plays a major part in the process: the increasing pace of life and feeling of disorientation and loss associated with modernity has ensured that the preservation of the past have become big business. In the view of Richards, aging of western population resulted in a growing feeling of nostalgia, which on its turn fostered the development of cultural industry. (Richards 2003: 31). Richards notes that the combination of nostalgia for the past, the need to reassert national and local identities in an increasing globalizing world and the perceived economic benefits of cultural development have had a dramatic effect on the supply of cultural attractions within Europe (Richards 2003: 31). De Cauter notes that through new patterns in consumption, people have been separated from a cumulative form of experience (*erfahrung*) and are increasingly reliant on individual experiences (*erlebnis*) for development of the life course. De Cauter relates this attitude to the 'basic experience hunger that characterises (post)modern societies'. (De Cauter 1995)

Greg Richards relates to the view of De Cauter, by stating that a cultural attraction is no longer a what he calls a 'factory of meaning', whose authority to produce cultural narratives was unchallenged by the visitor. These days, Richards points to the fact that the visitor is more likely to be seeking part of their own story when they visit a cultural attraction like a museum or heritage site – a piece of the puzzle that constructs their identity (Richards 2003: 42). According to Richards, the importance of allowing visitors to construct their own narratives is emphasized by the important role played by 'authenticity' in tourism consumption. Richards states that the need for authentic experiences is high among a broad group of tourists, but particularly among cultural tourists. By allowing tourists to work creatively with cultural biographies and to accumulate their own views of local culture, the perceived authenticity of the tourism product can be increased. Tourists who have the feeling that they are being represented with a 'staged' version of local culture will soon become dissatisfied. Tourists who can choose to construct their own versions of local identity become themselves involved in the staging process, which therefore slips into the background (Richards 2003: 43).

Selling your soul to society? Marketing your cultural heritage

In marketing cultural heritage, Dutch heritage organizations call for turning heritage into an exciting, lively story. Meethan states that within the restrictions of the global economy, policies and

marketing strategies assign symbolic and aesthetic value to the material attributes of space. In turn these representations or narratives of people and place assume an exchange value as the objects of consumption becoming commodities to be traded and consumed the same way as the material goods and services which are associated with them (Meethan 2001: 37). Levine points to the inevitable tension between the cultural integrity of an object – its historical legitimacy – and the ‘heritage narratives’ that are constructed as a crucial part of the ‘production of locality’ that is needed as a basis for heritage tourism marketing (Levine et al 2005). Often, Eric Hobsbawm’s ‘invention of tradition’-concept is used as legislative force for these critical assumptions (Hobsbawm 1983).

According to their report from the Dutch heritage organizations, the ‘scientific facts’ of heritage such as age, building construction and functions are embedding a heritage site into a historical context, giving the presupposed ‘exciting’ heritage site historical legitimacy. Placing these facts into an appealing story for the mass, also by involving intangible heritage such as stories, audiovisual aids and so on, should be the main focus of turning heritage into a place for tourists. (NCM et. al 2003: 18-19). Already in 2006, the VROM-council called for action in their ‘Groeten uit Holland’-report to embed tourism more into society, with organizations within the recreational and tourist industry being enclosed within their own economic sector until then. Chances to improve spatial quality, instead of being funded on aged subsidy, license-related and tax-system-dependent financing systems was to be applauded. Instead of being dependent on these governmental funds, tourism should generate money (VROM-raad 2006: 9-10). According to this report, there were six main objectives to be supported (VROM-raad 2006: 9-15):

1. Consider recreation and tourism to be contributors to spatial quality instead of users of it: for too long, tourists have been seen as consumer of space. Instead, tourism should add something to an environment, such as employment, income, economic profit;
2. Reckon the increasing importance of cooperation within the tourist sector and between the tourist sector and other economic clusters: tourism used to look too strictly within its own cluster. Recreation and tourism benefit from qualities that are offered by other economic sectors. In turn, the development of leisure facilities might contribute to the spatial quality of an area, especially the working and living environment. Therefore, cooperation with other sectors might lead to public-private cooperations to diminish the importance of governmental subsidies;
3. Develop so-called ‘Regionale Beeldverhalen’ as a base for renewal: As mentioned in the introduction of this research, these kind of concepts should lead to spatial, economic and tourist progress.
4. Create multifaceted tourist activities: with the rise of the zap-culture, people are becoming more and more interested in multiple tourist activities. Therefore, cooperation with hospitality services, museums, stores etc. leads to diversification of economic activities and more regional embedding of tourist activities.
5. Invest in innovation, seeking transsectoral alliances to create innovative product-market combinations. Think of linking environmental qualities to cultural qualities, museum visits to commercial activities and so on. In doing so, one underlines the possibilities for economic progress for the tourist sector.
6. Invest in innovative, integral development abilities: tourists should no longer be the users of space, as they are to be perceived as contributors to spatial quality.

In their analysis for the scientific council for governmental policy (WRR) Mommaas, Van den Heuvel and Knulst point to the fact that marketing and packaging of the art- and cultural industry is crucial for making the tourist industry profitable: thematic substance is no longer sufficient to cope with current tourist demands. According to the report, the presence of heritage sites in a certain area can lead to a positive effect for their environment, for example by attracting hospitality businesses, shops and so on. Heritage sites are therefore extremely benefited by the tourist industry, as the macro-economic effects of tourism can lead to improved maintenance and developing of a cultural tourist infrastructure (Mommaas *et al* 2000: 12-13). Yet, according to this report, tourist industry and heritage industry should enhance each other. Heritage sector requires the tourist industry in selling its values as tourist product. On the other hand, the tourist industry needs the expertise of the heritage industry in creating products for the mass (NCM *et. Al.* 2003: 15). Discussing the growing significance of tourism to urban development and regeneration, Shaw and Williams note that more and more national and local governments have increasingly tried to create public-private partnerships for spatial progress that are focused on, or incorporate, tourism (Shaw and Williams 2004: 206).

The changing role of tourism is also acknowledged in the interviews (Interview Victoria van Krieken 2011; Interview Erna Kruitwagen 2011; Interview Erik de Gans 2011; Interview Roy van Dalm 2011). In an interview, Hans Mommaas states that “Linking spatial, economic, environmental and socio-cultural space was a crucial focus of these renewed attitude. Tourism can be seen as the furnisher for your environment: it creates new places, identities, cultural meanings and so on. Tourism should not only profit from a spatial area, it should contribute to it. Otherwise, people will feel as if their environment is being dispossessed by tourists. This is a problem known as the ‘free rider problem’: someone benefits from an environment without adding something to it. This implies that the tourist industry should not be a ‘stand-alone’-economic sector anymore” (Interview Hans Mommaas 2011).

Taking the conclusions from the report from the Dutch heritage organizations into account, one of the results of the researches towards cultural tourism is that people are becoming more and more interested in history as globalization is spreading its wings. People are searching for their own identity, traditions and history: history is to be found on a local scale due to the preservation of heritage. In marketing your tourist industry, finding place-based characteristics can add thematic power to the product, as people are more and more interested in finding unique qualities. This is exactly what entrepreneurs Erna Kruitwagen and Erik de Gans, Dany Jacobs – professor of Arts, Culture and Economy at the HAN University of Applied Sciences and ArtEZ institute of the arts – and Hans Mommaas, full professor in leisure studies at the University of Tilburg, note in an interview (Interview Erna Kruitwagen 2011; Interview Dany Jacobs 2011; Interview Hans Mommaas 2011). As Mommaas puts it: “Currently, it is not possible to create tourist programs that are not linked to a regional or local economy. Several years ago the construction of bungalow parks was omnipresent: concepts that were in a sense stand-alone ‘placeless’ tourist initiatives: by no means linked to regional identity or infrastructure. As the tourist industry is developing, former stand-alone-concepts are evolving into more regionally embedded enterprises” (Interview Hans Mommaas 2011).

In practice this means, as Victoria van Krieken – Advisor European Affairs at Arnhem Nijmegen City Region and Cooperator Liberation Route Project in Brussels – means that a project like ‘The Liberation Route’ is aware of these new demands: “What makes this project so special is the fact that it is not solely focused on revitalizing history, as it is portrayed as a project that is aimed at economic progress. This economic approach is relatively new, because many museums are primarily

focused on history and not on the search for economic development. We try to create a marketing tool and a business project, involving small and middle-sized companies, hospitality services, touroperators, museums, creating tourist packages that possess multiple characteristics. We are aiming at a more integral project, instead of seeing tourism as an isolated branch in itself" (Interview Victoria van Krieken 2011).

3.3 The possibilities for industrial heritage in regional campaigns

Against the background of an increasing need for place-based tourist activities, that are rooted in the cultural history of a specific region, industrial heritage – with its cultural historical significance – might fill in the needs. In redeveloping an old, abandoned factory complex, policy makers often try to use this process of redevelopment for the spatial and economic improvement of the specific area. As seen in the first paragraph of this research, the 'creative solution' is often used as a way to achieve these goals, referring back to Richard Florida's *The rise of the creative class*. Now, taking the described discussions into account, it is questionable whether the Arnhem Nijmegen City Region can use its industrial DNA for promoting the region. With people yearning for regional characteristics when they come to visit a city or region, can the Arnhem Nijmegen City Region use its industrial past to meet these demands?

The respondents of the interviews address the limits of the region's industrial identity. They state that the Arnhem Nijmegen City Region offers more than just industrial history, with the Second World War, the Roman history and the natural surroundings being intrinsically part of the region's core qualities as well (Interview Dany Jacobs 2011; Interview Erik de Gans 2011; Interview Hans Jungerius and Rob Groot Zevert 2011). Hans Jungerius, expert on the German Ruhr Area and founder of Stichting GANG and Rob Groot Zevert, cofounder, have an outspoken opinion on this matter: "We don't believe it is possible to promote the region primarily on its industrial past. The German Ruhr area is for example drenched with heavy industry: without industrial production, we wouldn't be discussing this area right now. Before industry emerged, the area we now know as the Ruhr area was an agricultural region, with small farmers focusing on food production. When German industry started to deteriorate, people began to map the characteristics of the region and concluded that this area was very characteristic due to its heavy industry. So, industrial heritage became to be seen as highly valuable. The Arnhem Nijmegen City region possesses multiple identity pillars. We think promoting the Arnhem Nijmegen City Region as an industrial region, is too ambitious and not in line with reality" (Interview Hans Jungerius and Rob Groot Zevert 2011).

According to Hans Mommaas, the notion of 'borderzones' is way more characteristic for the region: "Ever since the Roman age, northern and southern Europe were separated in this area: this historical and geographical data is unique within Europe" (Interview Hans Mommaas 2011). The fact that promoting the region on its industrial past alone evokes a lot of discussion among the respondents of the interviews, shows that it is very difficult to find a common consensus among the interested parties to profile the region as an industrial region. As the first paragraph of this research has shown, this region contains several industrial enterprises throughout the course of history. Still, there is more. The fact that a tourist campaign as 'Exciting History' by the Regional Board of Tourism focuses on three prime time clusters – the Roman Limes, the duchy of Gelre and the Liberation Route – already indicates that his region is characterized by other valuable issues as well.

Conclusion chapter 3

Exposing your industrial DNA?



The times are changing

Overview of the Turmac exposition
at Liemers Museum, Zevenaar.
Boudewijn Wijnacker 2011

As Bob Dylan already mentioned in the 1960s, the times are changing indeed. In a time where amusement parks, living statues and bungalow resorts formed important attractions of the tourist world, attitude is changing. The aim of this chapter has been to investigate the possibilities that emerge out of the industrial DNA of the region: how can one use this identity for tourist policy and regional marketing? In the context of an ongoing need for identity and authenticity, the search for specific place-based tourist activities continues. In this context, the rise of cultural tourism is interesting, especially with cultural heritage becoming more and more important for selling a region's unique character. Although one should abandon the idea that a heritage site itself offers meaning to an environment – as the visit itself, being a cultural process, forms the concept of cultural heritage just as well – the growing importance of the number of visits to historical places, monuments or sites indicates that people are more and more interested in the cultural history of a place.

Against this context, possibilities for the Arnhem Nijmegen City Region emerge. Important to note is that the role of tourism itself is changing as well, transforming this sector into a producer of spatial quality instead of being a user of it. No longer should tourists be seen as users or consumers of space, as their presence can add to the living and working climate of an area. To achieve this goal, one should proclaim the importance of cooperative bonds between recreational entrepreneurs, historians, hospitality services and even more commercial partners, who wish to seek their bonds to society much more intensively in the context of emerging 'Maatschappelijk verantwoord ondernemen' (MVO). For policy makers, finding the balance between an authentic tourist experience and the profitability of the performance is crucial: a tourist activity should not be 'disneyfied' or transformed into an 'invention of tradition'. For the sake of improving spatial quality and gaining public support for their business activities in a certain region, an increasing amount of commercial partners is interested in supporting local cultural activities much more than before. Therefore, recreational entrepreneurs and commercial entrepreneurs should find each other within the Arnhem Nijmegen City Region to enhance each other's qualities. To fuel spatial development, the redevelopment of industrial heritage can be an exquisite tool. These places in themselves represent specific place-based cultural values, as seen in the second paragraph of this research. The redevelopment of these potentially historical important places follows the societal trends of finding an identity in an ongoing changing world, the need for authenticity, local and regional characteristics and the wish to preserve valuable historical elements that are associated with life in the factories.

Therefore, the redevelopment of industrial heritage should be on the political agenda, especially since urban expansion is coming to an end with many office buildings left deserted in the urban centre and periphery. This abandonment calls for redevelopment instead of unlimited urban expansion in newly acquired areas. Yet, this does not mean that one should portray the Arnhem Nijmegen City Region as an industrial region *par excellence*. In contrast to the German Ruhr area, which is characterized by its sole industrial function, the Arnhem Nijmegen City Region possesses multiple identity pillars. The early presence of the Romans, the Medieval battles of the duchy of Gelre, the battlefield experience from the Second World War and the diverse natural reserve all contribute to the region's identity. Part of this identity is the industrial DNA of the region, that has been portrayed in the first chapter of this research. Yet, stating that the Arnhem Nijmegen City Region is an industrial region at its core, denies the diversity, the heterogeneity and multi-faceted assets this region has to offer.

Chapter 4

Final conclusion



Revitalizing a once forgotten past?

Relic of a former brick producing factory
near the village of Renkum.
Boudewijn Wijnacker 2011

When entering the Arnhem Nijmegen City Region as a visitor, the unique natural reserve of the region jumps into mind immediately. With the railroads cleaving through the landscape, the diverse and characteristic environmental qualities create a one-of-its-kind spatial panorama. With the presence of large rivers, the typical river landscape with dikes, hills, river branches and river forelands may seem as given by Mother Nature, but the sky-reaching chimneys of old factories reveal human influences. In this sense, there is more than meets the eye. The aim of this thesis had been to look to what extent the Arnhem Nijmegen City Region could use its industrial DNA for economic, spatial and tourist progress. A closer look at the industrial DNA of the Arnhem Nijmegen City Region, as main target of the first chapter of this research, reveals its diversity. This diversity comprises the industrial identity of the region and follows the assumption that identity building is a difficult process, balancing between finding common characteristics and preserving unique local political, socio-economic and cultural features. In fact, the heterogeneity of this industrial DNA is in fact the region's unique selling point.

The city of Nijmegen possessed an industrial character from the nineteenth century on, when the abolishment of the so-called Vestingwet in 1874 accelerated industrial expansion. Nijmegen possessed a population that was characterized by many low- and middle-income groups, creating a lot of potential for acquiring factory workers. Several large factories appeared in the city, baptizing Nijmegen into the fourth industrial town of The Netherlands by the time of 1960's. The factories themselves were strongly embedded in society, adding to the city's industrial image.

In contrast to the city of Nijmegen, Arnhem had for a long time successfully discouraged the arrival of factories in the city. In the second half of the nineteenth and early decades of the twentieth century, the city possessed a very wealthy land-owning elite, that obtained lands in the far east for their sugar plants; an elite that possessed power within the municipality as well. All municipal initiatives were metaphors for the ideal image the policy makers of latenineteenth century Arnhem wanted to proclaim, as was the rise of insurance companies, department stores, stock markets, trading markets and knowledge-intensive industries. By the time of 1920s, Arnhem was forced to follow the Dutch industrialization trend as other cities were becoming more and more attractive. The realization of industrial park 'Het Broek' (1920s and 1930s), the KEMA-terrain (1930s) and Koningspleij (1930s) fostered the industrial progress of the city, although Arnhem never truly achieved an 'industrial' characterization.

In the more peripheral areas, industrial businesses were heavily involved in society. As shown, the Arnhem Nijmegen City Region possesses a very diverse and heterogeneous industrial character. The region's rivers became the veins of the industrial beating heart of producing bricks, crafting paper and building ships. Since most of these industrial activities were very labour-intensive and subject to the process of globalization, unemployment became a common issue from the 1960s on. With labour-intensive industries moving towards the east of Europe and the south-east of Asia, these industrial enterprises started to decline. Many companies faced bankruptcy from the 1960s on, while others were incorporated in international firms.

With the demise of heavy industry, questions emerged on how to redevelop the existing factory complexes. To look at the relevant research question of how to redevelop former industrial complexes – as shown in the second chapter – several experts were consulted in the process. For a long time, these factory complexes remained absent on governmental monumental lists. Factories were to be seen as unattractive buildings that represented a time that was associated with pollution, unemployment and a lack of *bourgeois* appeal. In the course of time, this attitude was subject to change, with the rise of cultural history in Dutch monumental care. No longer the architectural

appeal of a building was regarded to be the sole reason for granting value to a specific building. The time it represented, the stories associated with it as well as the impact a factory could have on the lives of many people all entered the stage as criteria in municipal monumental care. Because the value of former factories is mainly a cultural historical issue, the preservation of intangible heritage is just as important. For museum experiences, this kind of heritage adds to the increasing emphasis on a cultural 'experience' inside the cultural world, instead of observing mere objects behind glass.

In revitalizing these former factories, many mistakes can be made. The second chapter of this research has elaborated on recommended policy strategies when it comes to redeveloping industrial heritage, with – based on the acquired information – the following results evolving out of the process:

- Facilitate instead of direct from above
- Involve multiple actors in policy making
- Look at the specific infrastructure and demands
- Diversification of functions

These issues have already been mentioned in the discussed ten commandments by BOEi BV, which were affirmed by other parties as well. Therefore, these commandments – as are the four recommendations made here – should be taken seriously when it comes to redevelopment. The ongoing search for an urban identity and the need for familiar landmarks inside an urban environment call for the preservation of valuable historical buildings such as old factories. More importantly, the time of limitless urban expansion lies behind us, as more and more inner cities are confronted with the abandonment and depreciation of old offices, military buildings, schools, post offices and factories. The old buildings desire new uses, as the only way to preserve heritage on the long term is to use it. Due to the economic crisis, exploitation and maintenance costs call for projects that are able to finance themselves.

As shown in the third chapter of this research, this industrial DNA offers possibilities. In the context of an ongoing search for identity and authenticity in a world that is becoming more impersonal, the rise of cultural tourism is interesting, especially with cultural heritage becoming more and more important for selling a region's unique character. Furthermore, the role of tourism is changing, able to add economic value to an urban environment by finding links with other recreational and commercial entrepreneurs. Although one should abandon the idea that a heritage site itself offers meaning to an environment – as the visit itself, being a cultural process, forms the concept of cultural heritage just as well – the growing importance of the number of visits to historical places, monuments or sites indicates that people are more and more interested in the cultural history of a place.

Yet, this does not mean that one should portray the Arnhem Nijmegen City Region as an industrial region at its core. In contrast to the German Ruhr area, which is characterized by its sole industrial function, the Arnhem Nijmegen City Region possesses multiple identity pillars, such as presence of the Romans, the Medieval battles of the duchy of Gelre, the battlefield experience from the Second World War and the diverse natural reserve all contribute to the region's identity. Part of this identity may be the industrial DNA of the region, that has been portrayed in the first paragraph of this research. Against this background, the Arnhem Nijmegen City Region could use its heterogeneous industrial DNA for spatial, economic and tourist development, although a sole focus on this industrial past in regional campaigns denies the other mentioned qualities of this region.

Recommendations for further research

Since the reach of this report is limited due to size, time and expertise, this research evoked several other questions in the process of researching the industrial DNA of the Arnhem Nijmegen City Region. These are questions that deserve further research, since they represent that much issues that they should be given more attention separately.

1. Is it possible for the Arnhem Nijmegen City Region to distinguish itself in the redevelopment of industrial heritage compared to other regions? Now that we know the industrial characteristics of the Arnhem Nijmegen City Region, can one use these characteristics to create unique redevelopment projects in comparison to other redevelopment projects in The Netherlands? Of course, the redevelopment of former factories is a national development, but is it possible for the Arnhem Nijmegen City Region to create unique projects for the region in addressing the history of the involved locations?
2. Can one state that redevelopment of former factory complexes into hubs of creativity are a sole urban matter?: Of course, creative entrepreneurs want to be there 'where it happens'. They receive inspiration from human interaction and other daily, continuously changing encounters. But, for some creative minds the rural side might be more interesting, such as painters and sculptors. This research was not able to look at this question and maybe this generates chances for further research.
3. Are there any differences in the factors of success for redevelopment of industrial heritage in urban centres on the one hand and more peripheral regions at the other? Since the land prices in more peripheral areas are usually lower, does this fact contribute to the success of redevelopment stories or not?
4. To what extent does the notion of creativity attract entrepreneurs, residents and/or tourists: as seen in this report, the creative industry is a very suitable instrument in regional marketing. Yet, it remains unclear which groups are specifically attracted by 'creativity' as a whole? Does this account entrepreneurs or is one mainly attracting tourists? These kind of detailed questions deserve further investigation.
5. How can one make commercial partners interested in redevelopment programs aimed at spatial development? The goal of a 'Regionaal Beeldverhaal' is to let tourism add to the spatial and economic quality of an area. This can be done for example by revitalizing an old factory terrain and to implement multiple functions, such as tourist activities, into this area. Now the question arises how to make commercial partners enthusiast for these initiatives. Of course, the increasing awareness for society of commercial companies adds to this notion, as is the aimed profitability of the final project. But, as seen in the first paragraph, more and more companies are fused into international firms. How can one persuade these internationally operating companies to join the forces in spatial development programs. By actively addressing potential commercial partners, one might be able to create a general image on the wishes of these entrepreneurs.

Critical reflection

In this paragraph, I will give a critical reflection on the process of writing this Master Thesis, its substance, its methodology and societal relevance.

Writing this Master Thesis has been an elaborate and intensive task, that I have thought to be challenging and inspiring at the same time. After finishing my internship at the Arnhem Nijmegen

city Region, I was faced with the task of rewriting the report as it was written for the Arnhem Nijmegen City Region and the Regional Tourist Board towards a university Master Thesis. After almost nine months of internship – consisting of actual field work, the performance of twenty-five interviews, intensive desk research and exchange of knowledge with coworkers and my supervisors – I had finished a report that was considered to be of great use for both involved organizations. Against the background of a need for creating a so-called ‘Regionaal Beeldverhaal’, this research was written as a manual for discovering the region’s industrial DNA and the possibilities that emerged out of it. At the same time, this research had to function as a Master Thesis, which of course asks for a slightly different approach. Limiting the size and scope of this report had not been an easy task, as the last months of research have shown. Cutting out information that was interesting for the involved partner organizations for the sake of structure and clarity on the main targets of this thesis – answering the research questions – was not an easy task. Yet, in the process, I was able to critically look at the core qualities of this research and the main goals of this report as a whole. In the end, in downsizing the amount of pages I tried to explicitly highlight the key issues of this research: issues that I think and hope have become visible in answering the relevant research questions.

When looking at the substance of this research, I think the quality of this research is connected to its multidisciplinary character. In using different views from different organizations, in combination with the analysis of both historical, social, geographical and economic literature, I think this research balances on a thin line. Yet, if one wants to read a thorough economic analysis, one will be disappointed by the mainly cultural approach of this research. Of course, one can argue that in balancing on multiple disciplines, this report diminishes the quality of each discipline – such as socio-economic or cultural issues – but it had been exactly this balance that added to the innovation and societal relevance of this research. Yet, as shown, some questions were not answered and raised in the process. This requires further research in the future.

Regarding the methodology of this research, I have experienced that the willingness of many organizations in assisting in this research by means of responding to interviews was very high. Thanks to the elaborate network of the Arnhem Nijmegen City Region, especially that of some of my colleagues, I was able to approach several influential organizations, such as Arcadis BV, BOEi BV and representatives at the mentioned universities. Using the benefits of a position as intern of an organization as the Arnhem Nijmegen City Region, I was able to interview several key persons that possess many experience on the issues involved. Using these in-depth interviews has proven to be a rich and inspiring way of dealing with the research questions, delivering a lot of useful data for critical analysis. In finding the balance between spontaneous interaction and thorough research before each interview was taken, I tried to optimize the quality of the outcomes of the interviews. In the process, I think the societal relevance of this research has increased significantly, due to the many views that were analyzed in this research, connecting multiple views to each other. In combination with the many reports and literature I have analyzed, I tried to correctly address the multidisciplinary character of this research. Using multidisciplinary semi-structured in-depth interviews suits the ideological questions that were raised in the process.

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Interviews (functions and organizations described in introduction)

Interview Annet Rosenboom and Marcel Robben (2011)

Interview Bert Tates (2011)

Interview Cees Alewijnse (2011)

Interview Dany Jacobs (2011)

Interview Erik de Gans (2011)

Interview Erna Kruitwagen (2011)

Interview Eva ter Braak (2011)

Interview Gert-Jan Hospers (2011)

Interview Hans Jungerius and Rob Groot Zevert (2011)

Interview Hans Mommaas (2011)

Interview Ingrid Mens (2011)

Interview Jaap van Gelder (2011)

Interview Jan de Nooij (2011)

Interview Kees de Wit (2011)

Interview Pascal Belo (2011)

Interview Paul Klep (2011)

Interview Paul Schmitz (2011)

Interview Paulus Blom (2011)

Interview Petra van Stijn and Peter Dessens (2011)

Interview Roy van Dalm (2011)

Interview Ruud Schilder (2011)

Interview Ton van Lier and Michiel Lassche (2011)

Interview Victoria van Krieken (2011)

Interview Wim Lavooij (2011)

Interview Yvette Abbing and Lilian Werdmuller (2011)

Appendices

To provide the reader with some background information, here one can see some examples of several interview questions that were used in the ‘general theoretical’ interviews per chapter. Of course, each interview was tailored according to the respondent’s expertise, but as mentioned, one could use some structure in the interviews.

Chapter 1

- How would you describe your own involvement with the region’s industry?
- What do you consider to be the region’s current industrial characteristics?
- Can one see a shift in industrial development between the last decades and the current economic situation?
- Will industrial activities for the coming years mainly take place in newly built complexes in the urban periphery or in existing industrial buildings?
- Is it possible to speak of one industrial identity that is applicable for the Arnhem Nijmegen City Region?

Chapter 2

- How would you describe your own involvement with the redevelopment of industrial heritage?
- What makes industrial heritage so special in comparison to other forms of cultural heritage?
- Why has industrial heritage been absent in municipal monumental programs for many years?
- What role plays the economic crisis in redevelopment policy?
- What kind of redevelopment policy would you recommend when it comes to redeveloping old factories, based on your expertise?

Chapter 3

- What is your own expertise with the promotion and tourist policy of the Arnhem Nijmegen City Region?
- When you think of the Arnhem Nijmegen City Region, what do you consider to be the region’s core environmental, social, economic and cultural qualities?
- Do you see a connection between the current rise of cultural tourism and the increasing need for nostalgia and locally embedded cultural values?
- How can one make a cultural heritage site as for example an old factory complex economically profitable?
- Do you think you can use the region’s industrial identity for regional promotion?