



URBAN SHRINK

CAUSES, EFFECT, AND MAIN STRATEGIES

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ABSTRACT

In this study a search is performed to gain insight in the available literature concerning the causes, effects, and main strategies of urban shrink. After a wide review main bodies of literature are selected to construct an overview. It is our conclusion that urban shrinkage is a complex process in which various causes and effects blend together and interact with each other. Furthermore, the remedial strategies that are applied do not always have the desired effect. It is stressed that a strategy is highly context dependable. Therefore, to a certain extend, every urban area has to deal with urban shrinkage on the basis of their own contextual situation. This does not mean that it cannot be useful to learn from other strategies and their effects.

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INTRODUCTION

Urban shrinkage is a worldwide, continuing phenomenon with far-reaching physical and social effects. This process of decline of urban tissue often follows after a period of urban growth, of which the most recent started with the industrial revolution in the 18th century. Populations, economies, prosperity and cities in industrial countries have grown steadily since. This resulted in an increase of urban residents by 160 times worldwide (Oswalt et al. 2006, p. 11). As such, growth has become an expectation and has been the heart of ideas, concepts, theories, laws and practices around the world (Oswalt, 2006). However, this epoch of growth is expected to end, because of decline in some urban areas. The term “shrinking city” first and foremost describes a symptom: population loss (Oswalt 2006, p.6). When looking at the population change among the world’s largest urban agglomerations of one million people or more, 30 out of the 414 cities experiences zero to a negative average annual growth between 2000 and 2005 (U.N., 2005). Recently, this pattern of city contraction has been widely recognized as a global phenomenon and the need to make a shift away from the traditional theories of urban growth has been recognized (Oswalt 2006). Shrinkage, which has been part of the development of cities throughout history, will become an important aspect of urban development in the coming decades.

Problem statement and research questions

The importance of urban shrinkage in our contemporary time and in the near future has been recognized. As such there has been an increased attention for urban shrinkage in the literature in recent years. However, these often focus on certain aspects of urban shrinkage. As such an overview of the phenomenon has not been presented. In order to be able to understand and guide the complex process of urban shrink, it is very important to understand the causes and effects of the process. Another important aspect are the main strategies that have been used to counter or minimize the effects of urban shrink. At this moment a coherent overview of the causes, effects and main strategies

is not available. Therefore the following problem statement is presented for this literature study:

Urban shrinkage is a phenomenon that is, and will become an important aspect of urban development. There is however no overview of the causes and effects of urban shrink, and the main strategies concerned with this phenomenon mentioned in the available literature.

According to this problem statement a main research question is developed to address this problem. The main research question is divided in several sub-questions. The main research question in this literature study is presented as following:

What are, according to available literature, the causes and effects of urban shrink and the main strategies concerned with this phenomenon?

The main research question is divided into three sub-questions. These sub-questions also form the basis for the format of this literature study.

What are the causes of urban shrink?

What are the effects of urban shrink?

What are the main strategies concerned with urban shrink?

Method

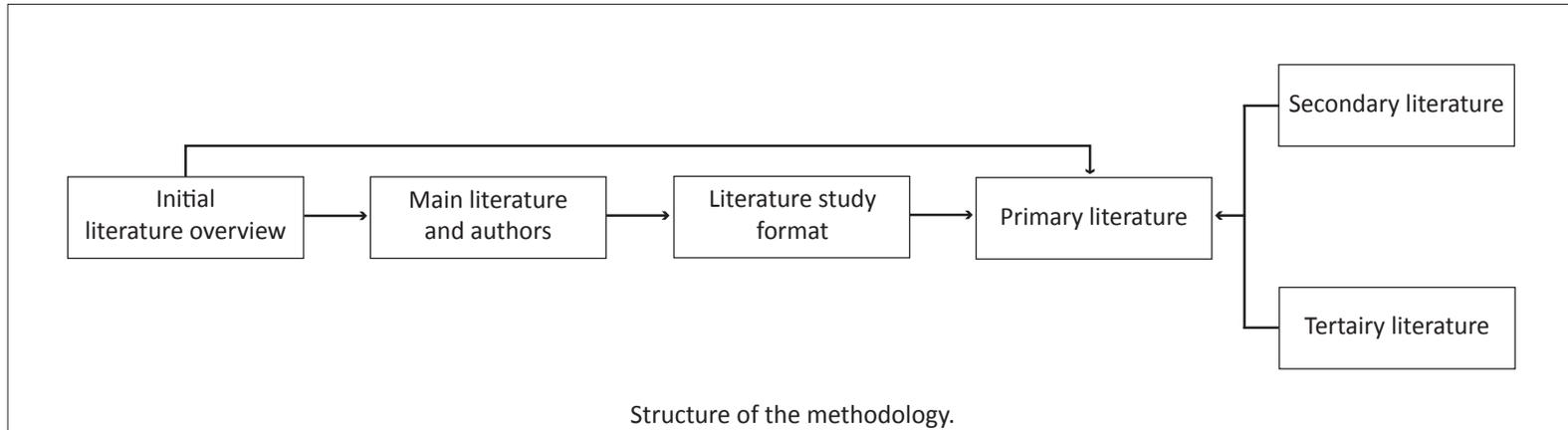
The literature study is divided in three parts, each concerned with one sub-question. To gather information to answer the sub-questions available literature has been consulted. The method for finding literature started with a broad search on the topic of urban shrinkage. From this broad search, main literature and authors have been selected. These gave insight on the subject of urban shrink and as such formed the basis for the format of this literature study.

INTRODUCTION

INTERMEZZO

BASIC FACTS CITY OF DETROIT

Location	
Country	United States
State	Michigan
County	Wayne
Coordinates	42°19'53"N 83°02'45"W
Area	
City	138.7 Square miles 359.2 Square kilometers
History	
Founded	July 24, 1701
Population Development	
	1820: 1.422 1850: 21.019 1900: 285.704 1950: 1.849.568 2000: 915.270
Population	
City	910.920 inhabitants
City rank	11th city of the U.S.



The literature has been divided in main, primary, secondary and tertiary literature. This was done to distinguish the different purposes of the literature in this literature study, and to provide an overview of the literature which make it easier for people interested in this phenomenon to find the literature available. To verify the notions derived from the main literature and to extent the scope of the research, primary literature was sought. As such literature was considered primary literature when it dealt with urban shrinkage in relation to a certain cause, effect and/or strategy. Secondary literature was added to verify and add dept to the study. Secondary literature consists of literature that describes a cause, effect or strategy without directly relating it to urban shrink. This is possible because some causes, effects or strategies have been described extensively in the literature, for example urban agriculture, without relating it to urban shrink. However, this literature is very useful to gain additional information. Tertiary literature consists of sources that have only been used to gather specific data, for example vacancy numbers of a specific town. This division of main, primary, secondary and tertiary literature for the three sub-questions can be found in tables at the end of the three chapters. An annotated bibliography of the literature that has been used can be found in the appendix.

Structure of the report

After this brief introduction the report will start with the causes, effects, and main strategies of urban shrinkage. Each of these sections will start with an introduction, followed by the results of the literature study and the answer of the sub-question. Every section is finished with a conclusion with regard to the sub-question, findings, and the literature. Each section ends with a literature three in which the used literature is divided in main, primary, secondary and tertiary literature. After these sections concerned with the sub-question the main conclusion will be presented regarding the main question and the relation between the three sections. In the attachment the annotated bibliographies for the primary and secondary literature are presented.

In the form of small intermezzo's the case of Detroit is presented as a sideline in this report. It is used to show some practical meanings for one case of various aspects found in literature and as an illustration besides the major text regarding the causes, effects and main strategies concerning urban shrinkage.

INTRODUCTION

In this chapter the causes of urban shrink are the central topic. The first sub-question concerned with what the causes of urban shrink are, will be answered according to the findings in the literature. The sub-research question concerned with this chapter is formulated as followed:

What are the causes of urban shrink?

The results found for this research question are ordered in twelve causes of urban shrink. One of the main publication concerned with the causes of urban shrink is considered to be the joint publication of Oswald et al. in the 'Atlas of Shrinking cities'. This main publication is used as a basis on which this study elaborates and give additional literature and causes. After the causes are described a conclusion regarding the literature, research question, and causes is presented. The section closes with a literature tree in which an overview of the used literature is presented.

CAUSES

CAUSES

Demographic change

Demographic change is dependable on changes in aspects like the size, distribution, age structure, fertility, marital patterns, migration, mortality, but also on social, cultural, economic, and other determinants of variation (Last, 2007). On a global scale the population is estimated to show a growing number until 2075 when the earth hits its projected maximum inhabitants of 9,22 billion (United Nations, 2004 pp. 28). On a more local scale this growth does not take place homogenously. Some countries are expected to grow exponentially for the coming fifty years, others are expected to show a decline in the number of inhabitants (United Nations, 2004). The way the number of inhabitant develops itself is highly dependable on the fertility and mortality grades of a population, in general the first has to be higher than the latter to achieve growth. However migration patters can also influence the growth or decline of the population of countries to a relative high extent. In many western societies the decline in fertility and the rise of the live expectancy have led to an ageing population, often associated with a society that will shrink in the future, and expected is that cities will shrink due to these effects of demographic change (Steinführer , 2007, United Nations, 2004 & Birg, 2006).

Economic transformation

Economic transformation is concerned with the shift on what the economic is mainly concerned with. The subdivision of economies in primary (production and extraction of natural resources), secondary (sector that produces finished products) , and tertiary (services) sectors can help to point out that certain countries or regions have made a transformation from one sector to another. In the Western World the transition from the primary to secondary sector has been completed due to the Industrial Revolution. During the twentieth century the transformation towards the tertiary sectors has set in, entering an era that is often referred to as post-industrial (Müller, 2006). Transitions between the economic sectors can be an important cause for the

shrink of a city or urban area. Especially the transition between the secondary and tertiary sectors as occurring or as occurred in many western cities can lead towards a transformation process in which the city loses its strategic advantages and enters an era of decline in which it shrinks (Cunningham-Sabot, 2009, Mallach, 2010 & Pallagst, 2009)

Energy consumption

Energy use has changed fundamentally with the introduction of fossil fuels as main energy source. The availability of large quantities of energy offered by fossil fuels shaped the contemporary city to a great extend. Making large scale construction and transportation over greater distances in less time possible. It did not only shape the city, but it is at least as important for sustaining the city, offering the possibility to use fast amounts of infrastructure and large amounts of energy to for example heat and cool buildings. The once seemingly unlimited amount of energy available in fossil fuels is expected to be depleted in the relative near future (Shafiee et al., 2008). What this specifically means for the future of urban areas is almost not to predict, however it will probably have extensive effects for the urban area as we know it today (Droege, 2002). The nature of a city can be very determinable for the possible urban shrink that might occur. This means for example that revenues in many cities are based in the 'production' of fossil fuels, resulting with the exhaustion of these fuels in a possible financial crisis. It is expected that cities can shrink significantly as a result of the change in energy consumption (Oswalt, 2006).

Environmental pollution

Environmental pollution can be defined as a term that "covers all forms of contamination of the environment by domestic and industrial substances that can cause harm" (John, 2007). Problems occur when the concentrations of these substances transcend the capacity that an environment can accumulate and/ or break down. Prime contributors of environmental pollution

INTERMEZZO

ECONOMIC TRANSFORMATION

Around the 1880s the development of the car industry in Detroit started. Detroit was chosen as a major cite for car industries in the United States because of its location near water and raw materials, and major markets for cars. The influence of "the big three" (Ford, Chrysler and GM) on the city was huge. The population grew from 116.00 to almost a million from 1880 till 1920, making it the third largest city in the United States (Steinmetz, 2009).

However, when the great depression started in October 1929, it hit the city of Detroit hard. The car production dropped rapidly which led to large scale unemployment. The oil crisis of 1973, recessions in 1979 and 2007, and increased competition from foreign manufactures further weakened the economic basis of Detroit.

The loss of its singular and monocultural economic basis and the transition from an industrial city to a post-industrial city has caused shrinkage in the city of Detroit.

REFERENCE

Steinmetz, G. (2009) 'Detroit: A tale of two crises', Environmental and Planning D: Society and Space, Volume 27, Pages 761-770.

are industry, households, transportation and agriculture (Schott, 2006). Problematic aspects of environmental pollution is that they are not fixed at one location but often move through systems in which they are located such as the water system or simply by the wind (Herwaarden, 1994). As pointed out by Lauinger the present consumer society causes a growing demand of energy that is often acquired out of non-renewable sources to produce eventually large quantities of non-recyclable waste that can pollute the soil, water, and air (Lauinger, 2006). Thereby is it important to point out that urban areas are often hot spots of these environmental pollutions because of their main function as production center as well the main area of consumption. Because concerns with environmental pollution were unknown or ignored, and only gained attention in the past decades many sites are struggling with pollution from past developments. Nevertheless, even with growing attention and awareness for the negative consequences of environmental pollution new locations and ongoing pollution are no exceptions in urban environments around the world. Sometimes it is not as much a process of long term pollution but an accidental release of high concentration of polluting substances that can cause a city to shrink significantly (Dobraszczyk, 2010)

Migration

The in and out migration consists of movement of people between regions or countries and can vary from relative local to global movements. The choice for migration is dependent on push and pull factors. Push factors are concerned with the location of origin and can comprehend aspects such as unemployment, low income, and prosecution on the grounds of race, political or religion factors. Pull factors from favorable locations may be employment opportunities, public order and freedom, educational facilities and such (Black et al., 2009). Especially when social and technical costs of changing one's place of residence are low enough when compared the advantages of movement in favors of the pull factors, migration becomes

likely (Fassman, 2006). Migration can have a temporarily nature with the eventual intention to return to the country or region of origin, but also a permanent character of migration is possible and it can have a dramatic magnitude and enormous shrinking effects on urban areas (Wild et al., 1993, Kupiszewski et al., 1998 & Ott, 2001).

Natural disasters

Natural disasters have to be considered in a wide view. This means that it is concerned with earthquakes, drought, volcano eruptions, floods, and tornados but also aspects like epidemics and conflagrations (Piers et al, 1994 & Hollander et al. 2009). What is notable on all the various natural disasters in that their destructive effects are often related to cultural aspects as well. Mitchell describes the hazardousness of an event as the result of the risk, exposure, vulnerability, and response. In which risk is the probability of experiencing and extreme event. Exposure is the degree to which the human population is at risk. Vulnerability is explained as the potential for losses. Response is about the measures that are implemented to diminish the effects of the extreme event (Mitchell, 1999). This means that in extreme events the effects are highly dependable on the physical potency of the occurrence of extreme events but also on how the urban setting is prepared for such an event, if prepared at all (Schott, 2006). It is highly likely that a natural disaster can lead towards the shrink of a city, both on the short or long term (Schott, 2006 & Chang, 2010).

Offshoring

The process of offshoring comprehends the outsourcing of employment to another location in another country (Heery et al., 2008). Offshoring is often seen as a part of the process of globalization and part of strategies of transnational corporations to create better value added figures for different production centers. In early stages often the outsourcing of labor intensive production processes was initiated, however latest trends also

MIGRATION

The economic transformation of the city of Detroit, and especially the rising unemployment, provided a major push factor that led to the migration of many citizens. In contemporary Detroit this push factor is still operative. Together with other push factors, of which most are directly related to the consequences of urban shrink as for example crime, brownfields and vacant plots, the out-migration of Detroit continues.

A net number of 109,000 people left the state of Michigan between 2008 and 2009. The people who migrate are often higher educated and receive a higher income. Out-migration of this scale does not occur regularly and the effects and strategies to deal with this have not been investigated yet. The out-migration of citizens puts downward pressure on the housing prices, reduces tax collection which makes it difficult for municipalities to invest (www.urbanophile.com).

REFERENCE

<http://www.urbanophile.com/2009/04/03/detroit-out-migration-devastates-michigan-and-the-midwest> (Accessed 17 November 2010)

show that outsourcing of complete branches of production and technology-intensive core industries are moving to other countries (Mitra, 2010 & Müller, 2006). The global intertwinement of markets that are embedded on a regional and national scale can have large influence on local and urban scales. These influences can be seen with for example the relocation of industrial production facilities that have accelerated the decline of industrial centers in the western world (Fussel, 2004 & Müller, 2006).

Political change

The political situation in a country can be a reason to migrate to another country as briefly pointed out in the cause 'Migration'. However, migration during certain political regimes might not be possible because of that political situation (Kabisch et al., 2006, Weichman, 2008 & Steinführer et al., 2010). When such a political situation changes drastically and allows movement to other places relative large flows of people might occur. Often other aspects such as the differences in economic development play an important role in for example job accessibility. Such differences in job markets might be the result of a political systems. An excellent example of this cause for urban shrink is the fall of the Iron Curtain at the end of the eighties. The tremendous differences between east and west that were developed during roughly thirty years of different political regimes became visible when the barriers disappeared. This development had major effects on the movement of people from east to west, especially in Germany . Major east German cities faces large population losses because of the political transformation (Wiechman, 2009). Political change can thus be seen as one of the possible cause of urban shrink.

Suburbanization

Suburbanization is "the process by which cities expand peripherally, initially by out-migration of population and economic activity from dense urban cores, to less dense

contiguous settlements. Developments in transport technology—such as railways, tramways, and improved roads—have aided suburbanization." (Scott et al., 2009) It can thus be seen as the diffusion of urban life from concentrated urban centers towards a periphery, in the process often provoking urban sprawl. (Hesse, 2006 & Kalish et al., 2001) The ideal of suburbia, living in more 'spacious' conditions often at the edge of the urban region, attracts fast amounts of residents in many cities. The large scale introduction and availability of the automobile for great parts of the society worked as a catalyst in the movement from core to edge (Kalish et al., 2001). Suburbanization can be a main cause for the shrink of urban centers because inhabitants and sources of income move away to surrounding suburbs or satellite cities (Audrirac, 2009).

Unemployment

In modern society employment plays a central role in structuring and distribution of wealth throughout the urban system. However situation occur when the demand for and the supply of jobs does not match. When the first transcends the later one unemployment can and eventually will occur. Various explanations of how the 'job-market' works are developed. For example liberal economics described unemployment as a phase in the organization of the market itself, more demand for jobs will lower the cost of that labor with as a result that employers hire more employees. Liberals see unemployment as a more short term situation that will change until a new equilibrium is created. Other theories see unemployment for example as side effect of various linked markets (Fassman, 2006). More important for urban shrink is the effect unemployment can have. Various reasons can lead towards the decline of number of jobs in a certain region or urban area, for example declining concurrence positions or shifts in the job market as a result of globalization. Cities which rely on a singular industry are vulnerable when entering the post-industrial era and the job demand in these former sectors decrease significantly. Often

SUBURBANIZATION

Just after the Second World War the city of Detroit reached a population of almost 1.9 million people. The city became packed and many residents started to look for something less crowded. At this time the construction of the high way system started, and the lure of wide open spaced led many citizens to move to the outlying communities north, south and west of Detroit. Working in the city of Detroit while living in the suburbs was made possible because of the system of highways (Poremba, 2003). This shift from city to suburb and deindustrialization led to a population loss of 280.00 people between 1950 and 1960 (Mallach, 2010).

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Poremba, D.L. (2003) Detroit: A motor city history. [Online] Available at: <http://books.google.com> (Accessed: 28 September 2010).

Mallach, A. (2010) Facing the urban challenge: The federal government and America's older distressed cities. Washington: Brookings Institution.

the result is structural unemployment, an important reason for urban shrink because it confronts the production centers with less investments, outmigration, and an aging population (Fassman, 2006 & Kabisch et al., 2006).

War

Many cities have their origins as fortified centers that had the main purpose of offering protection, which resulted in the fact that these cities often became the focus of many wars. As a result cities were often under siege. The industrial revolution was the start of sprawl and growth of many cities beyond the borders of defense, creating a new type of city. Contemporary cities are compared with the former fortified centers totally defenseless. These new layouts do not mean that the cities are no targets anymore during modern warfare. Modern warfare shows that especially the dense urban areas are highly vulnerable for the tools of war that can be employed from the land and the sea, but also devastating effect can be achieved as shown during the past World Wars from the air. During the Second World War cities were bombed extensively because they were the production centers of war. However, it can also be concluded that the cities were the focus of attack because of retaliation and to destroy the morale of the enemy. More modern threats against urban populations were exposed during the Cold War when the fear for the destruction via nuclear warfare was holding the world in its grip. Besides extensive bombing and total destruction of cities and their population, other aggressive tactics against urban population such as rape and genocide are no rarity. Often these aspects of war can be an important cause why cities show a (temporarily) decline and shrinkage (Jürgens, 1996, Shaw, 2006, Graham, 2004 & Markussen et al., 1995).

Water scarcity

Water is one of the most important basic human needs. It is self-evident that it is a basic need for sustaining an urban area as a livable area but also water is often needed in production

processes that 'fuel' the city for example economically. Many cities are experiencing problems with sufficient and qualitative good fresh water supplies due to their location or as a result of growth. Many cities, especially in the Third World, do not have developed a network of water supply and proper ways to dispose waste water. As a result many people do not have access to safe drinking water, something that affects the life expectancy of people living in these cities (UNESCO, 2006). Other cities may have developed such a great need to fresh water that its extraction rate is far higher than the rate at which the water system can replenish itself. Problems with sufficient clean fresh water in the surrounding of the city can lead to the search for alternatives such as desalination systems or the import of fresh water from distant locations, both often at high costs (Kürschner-Pelkmann, 2006). Water scarcity can also be a driver behind relocation of people and thus the shrink of urban areas (UNESCO, 2006).

UNEMPLOYMENT

In the past centuries the economic power of the Big Three (Ford, GM, Chrysler) declined due to lacking product qualities and improvements in the position of the employees. Dropping quality and higher production cost in combination with lacking innovations, are some of the main issues that stand at the base of the declining competitive position of the Big Three. This resulted in the deindustrialization of the city of Detroit (Pilkington, 2008). The resulting lack in sales is the start of a vicious circle for the city of Detroit and its residents.

The position of the Big Three started declining which resulted in rising unemployment rates in the city of Detroit with an average of up to 30 percent (Steinmetz, 2009). However unofficial sources suggest this number may even be higher. Compared to the national average of just under 10 percent this is a shocking difference (BLS, 2010).

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CONCLUSION

Twelve causes are presented as the result of an extensive literature study. The various causes can occur in different contexts and in different part of the world. As noted in the introduction, the collection of essays in the publication by Oswalt et al. in “the atlas of shrinking cities forms one of the main primary sources when looking at the causes of urban shrink. During the search for additional literature is was remarkable to note that most causes are referred to in several different scientific literature sources and in other researches.

It would be wrong to consider that these twelve causes are strictly separated and occurring in a singular matter. As one may conclude after reading the causes, some overlap can be identified between various causes. Additionally to this one may note that the causes can affect each other to some extend and one cause can instigate another cause. As such it becomes clear that the causes are often occurring in a complex combination in which it is often not possible to point out one singular cause as the driver behind urban shrink.

INTRODUCTION

In this chapter the effects of urban shrink are the central topic. The second sub-question concerned with what the effects of urban shrink are, will be answered according to the findings in the available literature. The sub-research question concerned with this chapter is formulated as followed:

What are the effects of urban shrink?

The result found for this research question are ordered in seven effects for urban shrink. Notable is that there is no standard work or main publisher in this part of the literature study, so the seven effects are the result of ordering the evidence from the literature regarding effects of urban shrink. After the effects are described a conclusion regarding the literature, research question, and effects is presented. The section closes with a literature tree in which an overview of the used literature is presented.

EFFECTS

EFFECTS

Abandonment & surplus real estate

One of the most recognizable effects of urban shrink are the abandoned and empty houses, offices and other buildings, partly as a result of a surplus on the real estate market (Kabisch et al., 2006, Mallach, 2010). Abandonment can be defined as real estate that is “neither being marketed for rent or sale nor being held for any other purpose” (Mallach, 2010, pp. 11). Besides the abandonment of real estate the general supply of real estate on the market is higher due to little demand of houses in such areas or cities (Kabisch et al., 2006). Abandonment and an oversupply of buildings on the market is not only an effect of urban shrink but can also be a trigger for further urban decline since it undermines the appearance and economic value of real estate in the surrounding area (Accordino, 2000). Or as Keenan et al. formulates it “one or two abandoned houses can lead to an escalation of abandonment as demand decreases and as a neighborhood loses its reputation” (Keenan et al. 1999, pp. 714).

Crime

Crime and a rising crime rate are often associated with a shrinking city. This is because aspects of a shrinking city, for example the deterioration of the cities physical fabric, the decline of public services and an impoverished resident population are associated with an increasing crime rate (Mallach et al., 2010, Delken, 2008 & Accordino et al., 2000). In a research by Delken about the impact of shrinkage on the residents of a city, it appears that although overall satisfaction is about the same as in growing cities, residents are concerned about crime (Delken, 2008). Factors that influence the fear of crime include gang presents and levels of violence in a neighborhood. Also aspects of the physical environment are important. For example the amount of vacant and abandoned properties in a neighborhood act as magnets for crime and increase the risk of fire and vandalism in neighborhoods (Roman, 2008 & Accordino et al., 2000). Also the amount of vegetation influences the crime rate, the greener a neighborhood the fewer crimes are reported (Kuo et al., 2001).

Demographic change

Demographic change is mentioned as a possible cause for the process of urban shrink. However it can also be considered as a result because other causes can lead towards the change in demographic composition of an urban area. The loss of certain age groups due to other causes of urban shrink can affect the composition of the remaining population creating for example an ageing population due to loss of youth (Haase, 2005, Steinführer, Haase et al., 2008, Haase, 2010). Demographic change has thus to be considered both as a driver and as cause, forming a spiral in which the latter can eventually result in a cause again.

Infrastructural problems

The shrinking of a city has an impact on the infrastructural networks (Haase, 2005, Kabisch et al., 2006, Haase et al., 2008 & Schwarz et al., 2010). Examples of infrastructure are underground pipes for water and energy, road structures and social urban infrastructure such as schools and public transport. Infrastructural networks are optimized for a certain demand, usually based on population density and commercial or industrial activities. Because of the outmigration of residents, industries and services the infrastructures in a shrinking city are mostly under-used (Schwarz et al., 2010). For certain types of infrastructure, for example waterworks, this usually results in increasing costs for the residents who still use the infrastructure. The reason for this is that the whole network needs to be maintained independent of the amount of people using it, while there are fewer people to share the cost with. In other cases there will be a deconcentration of the infrastructure, as for example with schools, which will result in longer traveling times to reach certain facilities (Haase et al., 2008 & Haase, 2005). It is also possible that an area enters a vicious cycle of declining population, under-utilization of infrastructure, deconcentration of infrastructure through dismantling which leaves the area even less attractive and stimulates residents to move away (Schwarz et al., 2010).

CRIME

The long term implications of the post-industrial era which Detroit entered in the past century leads towards the disinvestment in the city and the implications of this are very clear when focusing on the crime rates in the city. Lacking sources of income and deterioration of urban and social tissue has led towards a growth of crime in the city of Detroit. Draus points out the clear correlation between the rise of crime in Detroit and the aspects like unemployment, housing abandonment, and population loss (Draus, 2009). The crime rates in Detroit are extremely high. Compared to the national average index for crime Detroit scores three to four times as high (www.city-data.com, 2010).

DEMOGRAPHIC CHANGE

Demographic change is an important change in the composition of the population. In Detroit various changes in population are notable throughout the historical development of the city. Various processes such as suburbanization have played an important role in the change of demographics on a local scale as well on for the whole city. Notable for the city is the relative large amount of middle-aged persons and low birth figures and youth population (www.city-date.com, 2010). The long term effect of a relative large group in the population pyramid can lead towards a fast ageing population which can have further shrinking effects of the city of Detroit on the long term.

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Crime index of Detroit: <http://www.city-data.com/city/Detroit-Michigan.html> (Accessed 18 November 2010)

Draus, P.J. (2009) ‘Substance abuse and slow-motion disasters: The case of Detroit’, *The sociological Quarterly*, Volume 50, Pages 360-382.

Population profile Detroit: <http://www.city-data.com/us-cities/The-Midwest/Detroit-Population-Profile.html> (Accessed 18 November 2010)

Population loss

The loss of population in urban areas is often seen as an important indicator that a city is shrinking (Beauregard, 2009a). This is a relative logic connection since the loss of population can be considered to be a main effect of the various causes. Population loss can be a more temporary effect of urban shrink but it can also be a structural effect in which population loss is a long term effect of which the city never recovers. The process in which this happens can also vary. Short term losses in which a city loses population in a relative short time is possible, but also losses on the long term can occur in which the process of losing population has a more structural nature (Beauregard, 2009b, Hollander et al., 2009, Mykhenko et al., 2008 & Schetke et al., 2008).

Segregation

One of the possible effects of urban shrinkage is segregation. Segregation can be defined as the separation of a specific group from the rest of society on such grounds as race, religion, or gender (World Encyclopedia, 2008). Besides this segregation can also be the spatial separation between growing and shrinking areas next to each other in a city region. Segregation is closely related to the process of shrinkage and can be a cause as well as an effect. Segregation is often linked to poverty and gentrification (Lauria et al., 1999 & Lehrer et al., 2009). Gentrification is “the upgrading of decaying, normally inner-city housing, involving physical renovation, the displacement of low-status occupants by higher-income groups” (A Dictionary of Sociology, 2009). Services and commerce follow the higher-income groups and as such cause shrinkage in areas of a city or cities as a whole where they were located before (Moraes, 2009). A shrinking city provides an environment where segregation can easily take place. Through investment, which is often used as a strategy to rehabilitate a city, gentrification takes place which leads to segregation. Also minority groups are used to occupy vacant buildings in a shrinking city, leading to this group’s segregation (Münch, 2009). Changes in the division of labor and the social

structure of accumulation are also associated with an increase in segregation (Lauria et al., 1999). This all results in the separation of groups within a city based on grounds such as race, ethnicity and income.

Vacancy & brownfields

The abandonment of real estate means also that these buildings are not serviced and maintained anymore. Often the physical erosion and decline of the real estate is the practical result. Buildings decay and vegetation on plots grows unchecked, resulting in uninhabitable or unusable spaces which often lead eventually towards vacant plots. This vacancy is often also the result because governmental institutions demolish abandoned buildings because of safety issues or to restore the balance on the market (Deilman et al., 2009 & BSE, 2010). Altogether do these processes and actions lead towards vacant plots throughout urban areas (Kabisch et al., 2006, Mallach, 2010, Ryan, 2006 & Schetse et al., 2008). However it can also result in brownfields which are generally defined as “abandoned and underutilized industrial properties that are known or suspected to be contaminated”. (Russ, 2000 pp. 1)

INFRASTRUCTURAL PROBLEMS

Infrastructural problems are an important result of urban shrink in Detroit. Deconstruction and decay due to lack of maintenance are main results for the lacking infrastructural facilities in various areas throughout the urban area. Underuse due to causes such as abandonment often in combination with lacking financial possibilities of the city of Detroit to maintain infrastructure lead towards large infrastructural problems such as the closure of schools and the supply of electricity (Draus, 2009). Neglecting of the electricity network is causing also other problems such as large scale fires (Eley, 2010). This is just a small grasp of problems occurring with infrastructure in Detroit, others are for example concerned with water as sewage supply.

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CONCLUSION

The seven effects presented are the result of the literature study performed. Interesting notion during this study is the relative little amount of literature available in which the effects are clearly described. In most literature concerning the effects of urban shrink the effects were just a subordinate part of the text and often just seen as a simple correlation between urban shrinks causes and possible strategies or models to explain it.

The effects are described in a singular matter, however as the critical reader might guess and know is that these effect often do not occur as a single effect. Combination of different effects in the complex process of urban shrink are a relative logical result of the complex interflow of causes. Besides the complex base of causes an additional layer of complexity is added because various effects can strengthen and stimulate each other or can initiate another effect. Altogether it can be noted that the line of demarcation as presented in the above piece is not as black and white as one at first glance might think.

POPULATION LOSS

Population loss is considered to be a good indicator for urban shrink. Statistics show an enormous decrease in population since the 1950's. Once a prospering industrial city with just under two million inhabitants, it has lost half its population over the last fifty years. Regardless of this, the city itself has grown considerably and since 1950 80% of the population has lived in the suburbs while large segments of the inner city have become overgrown with grass (Oswalt, 2006 & Pallagst, 2006).

SEGREGATION

Segregation is an important spatial effect in Detroit due to various reasons, some of them as a result of urban shrink, others of racial inequality in the past (Farkey, R. et al., 1978 & Darden et al., 2000). Also differences in high and low income areas are clearly distinguishable in Detroit, clear segregation between income groups are visible throughout the city of Detroit (www.cus.wayne.ede, 2010).

REFERENCES

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INTRODUCTION

In this chapter the main strategies developed to counter or minimize the effects of urban shrinkage are discussed. The sub-question that will be answered in this chapter is:

What are the main strategies concerned with urban shrink?

The main strategies that have been found are divided under five headers, investment, regulate housing market, alternative economy, social intervention and greening. The reason for this is to structure the eighteen strategies and to provide a clear overview. In the part dealing with investment, strategies that deal with investment in deteriorating and declining urban tissue in order to reestablish, attract, and stimulate the economic activity are discussed. In regulate housing market, strategies that aim to create a more fitting supply and demand situation on the real estate market are addressed. In the alternative economy part strategies that are directed toward creating and stimulating the establishment of other means of existence for a city are described. The part about social interventions focuses on the social effects of urban shrink and greening is aimed at creating a 'green environment'. Of every strategy a description and example is given, except for three strategies that have not been implemented. These strategies are indicated using a light grey color. The section closes with a literature tree in which an overview of the used literature is presented.

One of the main publication concerned with strategies regarding urban shrink is the joint publication 'Shrinking cities volume 2: Intervention' by Oswalt et al. This main publication is used as a basis on which this study elaborates and give additional literature and strategies.

MAIN STRATEGIES

INVESTMENT

Investing in deteriorating and declining urban tissue is one of the main tools for governmental institutes and investors to reestablish, attract, and stimulate the economic activity in certain places. Five examples (Empowerment Zone, Renaissance Zone, revitalization by classic investors and new investors, and temporary uses) have shown that these investments can have various effects, both negative and positive, on the economic viability of the urban tissue. It also becomes apparent that the investments are made by different stakeholders, with a distinctive difference between governmental and large scale investors, and private initiatives and local investors. Investment is a market based tool in which the predisposition that financial stimulus will help create an economic advantage for certain places is taken into account. However results show that this is not necessarily the case, considering for example the gentrification of places or great financial losses as a result of rebuilding.

Renaissance Zone

Renaissance zones are virtually free of all state and local taxes for businesses located within their boundaries. There are over 150 geographic areas in Michigan that are designated as renaissance zones (www.detroitmi.gov 2010, ref.michigan.org 2010 & www.travelmichigannews.org 2010). This concept of granting small areas special status is nothing new. From the time cities came into existence, special privileges have been awarded to cities, parts of cities or individuals to stimulate them. An example which shows many similarities with the renaissance zones are the enterprise zones first developed in the United Kingdom in the 1980s and later adopted and adapted by the United States (Zehner, 2006).

Where

State of Michigan, US

When

1996

Example location

Fargo, US

In November 1999 the city of Fargo adopted the original renaissance plan, and in 2003 a revision was made. In 2009 there are 24 blocks that have been given the status of renaissance zone (www.cityoffargo.com, 2010). The goal for these 24 blocks is to spur development and increase investor confidence. The investment in the zones are eligible for a variety of tax exemptions and/or credits (www.cityoffargo.com, 2010).

Results

Some results include more jobs and new companies. Furthermore were existing enterprises encouraged to stay. However, the tax reduction results in less income for the municipality and the power of the new companies to function as a growth pole also after the tax reduction period is often limited (Wex, 2006). There was also no improvement of the conditions in the zones, in terms of environmental quality (Sands, 2003).

Empowerment Zone

The empowerment zones demonstrate similarities with the renaissance zones. Empowerment zones are also areas in a city that are granted special privileges. The difference is that the Renewal Communities (RCs), Empowerment Zones (EZs) and Enterprise Communities (ECs) are highly distressed urban and rural communities. These areas may be eligible for a combination of grants, tax credits for businesses, bonding authority and other benefits. The goal is to generate economic opportunities for residents living in the empowerment zones, to create sustainable community development, to build broad participation among community-based partners, and to generate a strategic vision for change in the community (Jennings, 2010).

Where

United States of America, Central US law

INTERMEZZO

RENAISSANCE ZONE

The Renaissance Zone Program is a collaborative effort between the city of Detroit and the state of Michigan. The aim is to give tax breaks to residents and businesses, which are located within sixteen designated areas of the City of Detroit (www.detroitmi.gov, 2010). The tax exemption can include utility users taxes, most city property taxes, county property taxes, and state income tax or single business tax. New businesses and residents can apply for these tax incentives and when it is granted they will receive the tax incentives for the duration of the renaissance zone program (www.detroitmi.gov, 2010).

EMPOWERMENT ZONE

The empowerment zones in the city of Detroit were developed in 1994, when the city received \$100 million in social service grants for programs located in the Empowerment Zone of 18.3 square miles (47.5 sq km.). Financial institutions and businesses in Detroit pledged an additional amount of \$1 billion for financing and investment opportunities (www.detez.org, 2010). Currently the Empowerment Zone Development Corporation (EZDC) monitors, support and funds over ninety programs. The EZDC is a community based non-profit organization that coordinates, implement and evaluate programs eligible for the empowerment zone program (www.detez.org, 2010).

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(Accessed: 21 October 2010)

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Detroit government website Renaissance Zone
<http://www.detroitmi.gov/DepartmentsandAgencies/RenaissanceZones.aspx> (Accessed: 21 October 2010)

When
1993

Example location
Manhattan, New York, US

In 1994 the Upper Manhattan Empowerment Zone was one of the nine zones established by the Clinton administration to revitalize distressed communities. Public funds, tax incentives, a federal grant of \$100 million and funding by the governor and mayor of New York resulted in a total amount of \$250 million for investment in Upper Manhattan. Since then numerous businesses have been able to use the tax incentives and loan system to start or invest in the empowerment zone (www.umez.org, 2010).

Results
The results of empowerment zones for a city or neighborhood are diverse and in some sense still unclear. There is still a lot of debating about the effects of the zones, whether positive or negative (Krupka et al., 2009). Positive results from this strategy are for example new jobs, new enterprises and better community services (HUD, 2005 & Jennings, 2010). However, as stated with the previous strategy, the tax reduction results in less income for the municipality. Furthermore, the power of the new companies to function as a growth pole also after the tax reduction period is often limited (Wex, 2006). Also the poverty levels within the empowerment zones do not improve (Jennings, 2010).

Revitalization by ‘classic investors’

The process of urban shrinkage in a city is usually a downward spiral. Empty houses and vacant plots in a neighborhood stimulate other residents of the neighborhood to also leave their houses. In order to counter this snowball effect, investors put a lot of effort and money in redeveloping parts of the city. As such neighborhoods, shopping malls, office buildings and hotels are

developed by renovating old buildings or by constructing new buildings (Schmidt, 2006).

Where
Global

When
From the 1960s

Example location
Pittsburgh, US

Pittsburgh, a former industrial city, started its first revitalization soon after the Second World War. In this first phase, also known as Renaissance I, Pittsburgh tried to bring the businesses back into the city. Nevertheless the cities population still declined and currently the city is implementing new revitalization projects which focus on reviving high-end retail, new office buildings, housing units, and high-end hotels (Pallagst et al., 2009).

Results
The results of this strategy are diverse. In some cases the original revitalization stimulates other revitalizing projects in a city, creating a snowball effect. However, it is also possible that the revitalizing projects have no further effect on the rest of the city. Thus creating one revitalized area which has no consequences on the effects of urban shrinkage in other parts of a city (Pallagst et al., 2009). This often results in gentrification of the new area. The top down way of working that is usually used in this strategy often fails because the problems and options differ greatly from area to area (Lange et al., 2006).

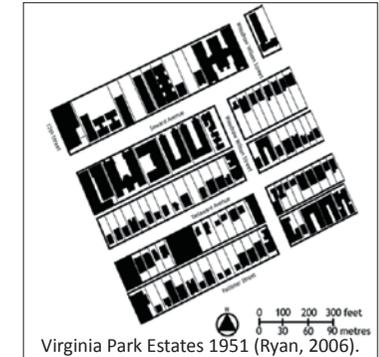
Revitalization by ‘new investors’

Besides the classic investors who try to counter the downward spiral of urban shrinkage, the vacant, derelict buildings and plots also represent an opportunity for a new kind of investor.

INTERMEZZO

VIRGINIA PARK ESTATES

Virginia Park Estates is one of the many examples in which more blocks were redeveloped. In the redevelopment of this and many other sites, the complete morphology of the existing neighborhood was destroyed. A process that can be compared with the tabula rasa, ignoring the existing.



REFERENCE

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These new investors become active in urban regions abandoned by the normal market. New investors include interim users, owner-occupants, as well as everything from initiatives and civic action projects to cooperatives, foundations, and 'progressive' investors who acquire vacant buildings, facilitate new uses and invest money and labor in a shrinking market (Schmidt 2006, p.386). Unlike the classic investors these new investors pursue other values and goals than just monetary ones, and invest for themselves rather than anonymous users. They are new economic players, contribute to the quality of a city and represent social capital for cities (Schmidt, 2006).

Where

Global

When

No specific starting date

Example location

Dessau, Germany

A small nonprofit organization, the Brauhaus Verein Dessau e.V., bought an old brewery in 1999 for the symbolic sum of one German mark. The brewery lies in an industrial section of Dessau-West and has stood empty since 1990. Real estate companies, an example of a classic investor, would not put money and effort in renovating the site. Currently the brewery is providing working space for architects, structural engineers and artists, storage room, a metal- and woodshop, an indoor climbing tower, and houses cultural events. The cellar which is still being renovated will be occupied by restaurants and bars (Steglich, 2006).

Results

The investments made by these new investors usually have positive results. Because of the more direct connection between investor and user, the enthusiasm and attachment to the project

is usually larger than with classic investors. Thus increasing the change a project will be completed. The new uses, and invested money and labor can have a positive effect on a shrinking neighborhood or city, and can possibly attract new investors and or users (Schmidt, 2006 & Lange et al., 2006).

Temporary uses

In a shrinking city it is difficult to attract new uses for all the vacant space that is available. This is because the degraded buildings and plots are generally not considered to be a suitable location for new investments. Offering plots for temporary uses can be a way to attract new uses for vacant land. This generally includes that land owners temporarily lease their land to the municipality on favorable terms. The municipality can then offer the land on favorable terms to residents. However, it is also possible that residents use the vacant land on their own initiative, without municipality influences. The new, temporary uses usually result in a very diverse urban typology. The cost for the municipality and former land owners to maintain the empty plots disappears and the city can become more attractive. However, not all vacant plots and abandoned buildings are suitable for interim land uses and the amount of vacant land is likely to exceed the demand (Overmeyer, 2006).

Where

Global

When

No specific starting date

Example location

Helle Tempo, Berlin, Germany

Helle Tempo is a neighborhood in the Berlin district of Hellendorf. Fearing that the shrink taking place in the neighborhood would spread to the new shopping district close by, the municipality decided to employ measures. The vacant lots in

TEMPORARY USES

"The lot" was initiated by artist Kathy Leisen in 2009, when she used a vacant lot next to her house as a public art venue. Since then the lot has grown into a traveling public art exhibition. The lot uses empty lots in the city of Detroit. They use the lots, change them and bring other materials to create a new lot. Initiatives for the empty lots are for example creating temporary art, archeological digging and providing space for dancing classes. The program brings people together in a neighborhood and leaves the empty plots in better condition than they were before the lot initiative (www.brokencitylab.org, 2010 & thelotdetroit.blogspot.com, 2010).

REFERENCES

The lot Detroit

<http://thelotdetroit.blogspot.com/search?updated-min=2010-01-01T00%3A00%3A00-08%3A00&updated-max=2011-01-01T00%3A00%3A00-08%3A00&max-results=16> (accessed 17 November 2010)

The lot Detroit

<http://www.brokencitylab.org/blog/the-lot-in-detroit-a-traveling-public-art-exhibition-model-for-temporary-use-spaces/> (accessed 17 November 2010)

REGULATE HOUSING MARKET

the neighborhood were indicated and interim uses could take place on the indicated lots without bureaucracy. Special rules had to be formulated to make it easy for temporary uses to be established. An example of this is that the plots are available for free, as long as the interim owner pays for the maintenance of the lot (Overmeyer, 2006).

Results

The results of this strategy are good in Helle Tempo. Many different interim uses have been established. For example gardens, pony meadows, a museum and a boxing club who adopted an old gymnasium. Residents have the possibility to acquire additional land for different purposes which would never be possible in a non shrinking city. The municipality no longer has to pay and maintain the lots and the neighborhood typology has become very diverse (Overmeyer, 2006 & Rosenfeld, 2006).

Regulating the housing market is another tool to create a more fitting supply and demand situation on the real estate market. The five examples (demolition, suburbanization of the inner city, Landbank, compact city and evolutionary city) are used to demonstrate the removal of property from the market to create less supply, in order to keep housing prices on reasonable levels. These strategies are also used to avoid deterioration to levels with public risks, such as collapsing houses and social unsafe environments. The diverse results and the effectiveness and acceptance differ per strategy.

Demolition

In order to deal with the amount of abandoned and derelict properties the process of demolition of housing stock can be applied. This demolition can have various reasons, for example to restore the demand and supply in the housing market but it is also used to demolish abandoned houses which are dangerous (Pallagst, 2009).

Where

Global

When

No specific starting date

Example location

Germany

Vacant houses in Eastern Germany are abundantly present. In the program Stadtumbau Ost 2.5 billion euros have been spend on mainly demolishing approximately 360.000 apartments between 2002 and 2009 (Fontenot, 2006). For the future estimations for demolition range up to 0.7% of the housing stock per year for the next 20 to 30 years, to keep the amount of abandoned houses under the average of 15 percent (Deilmann et al., 2009).

INTERMEZZO

DEMOLITION

Since 2010 the city of Detroit has a residential demolition program. The goal is to demolish 3000 dangerous, abandoned and dilapidated buildings in 2010 and a total of 10.000 dangerous structures at the end of 2013. The funding of \$20 million for this demolition program will be acquired through federal funds that have been committed to the neighborhood stabilization program. Additional fund need to be located and the city of Detroit also makes an effort to target owners and developers who neglect there properties (www.detroitmi.gov, 2010).

REFERENCE

Detroit governmental website demolition plan
<http://www.detroitmi.gov/DepartmentsandAgencies/MayorsOffice/ResidentialDemolitionProgram/tabid/2992/Default.aspx>

Results

Opinions differ about the effectiveness of demolition, and if demolition is the right tool to handle the vacant houses, especially in Germany (Deilmann et al., 2009). Suggestion to lower the rent is an alternative for demolition, however with decreasing population numbers is it not possible to rent or sell houses to people who do not exist. Other examples, like abandoned and damaged houses in Detroit, seem to be inevitable if demolishment is not an option (Bernt, 2009).

Suburbanization of inner cities

Traditionally the city center is a focal point for all kinds of activities including consumption and culture. However, suburbanization, extensive infrastructure and large scale shopping malls provide competition for the city center. As a result the city center loses both jobs and people, and therefore also the potential for centralization. The space which becomes available as a result of shrinkage combined with the inability of city centers to stay centralized can result in lower density building in the city center. The difference between center and suburb, and the city and its surroundings becomes more blurred (Prigge, 2006).

Where

United States

When

No specific starting date.

Example location

The South Bronx, New York, US

On the crossroad of the 178th street and the Vyse Avenue stood an apartment building with 64 apartments. After the apartment building was demolished, it was replaced by four town villas housing eight families (Prigge, 2006).

Results

In order to implement this strategy, buildings need to be demolished. The effectiveness of demolition as the right tool to handle vacant houses is still being debated. The effects of replacing high rise buildings with for example family houses differ. If this happens on a larger scale then the example described above the available housing stock drops and the quality of the houses may be higher. However, there still need to be enough potential buyers (Prigge, 2006).

Landbank

“Land banking can allow regions, states, and municipalities to remove abandoned properties from the market and either convert them into new, productive uses or hold them in reserve for long-term strategic planning. The idea is not to replace or supplant either the open market or land-use planning but to step in when there is a failure of market demand, acquiring abandoned inventory and making it available for other land-use planning” (Alexander 2009, p2).

Where

United States of America

When

First conceptual thoughts in the 1960's, widely adopted since the 1980's.

Example location

In the county of Genesee, Michigan a land bank was initiated in 2002. The land bank works together with other initiatives in Genesee such as the Genesee County Treasure Office to prevent foreclosures. The land bank stimulates reuse of properties. To accomplish this goal the bank developed nine programs; demolition, sales, side lot transfer, housing renovation, property maintenance, clean and green, adopt-a-lot, brownfield redevelopment, and development (Alexander, 2005 & Pallagst, 2009).

Results

The results of the land bank are quite extensive, in most cases positive because they stimulate use, reuse, and development of unused and vacant properties.

Compact city

Since the beginning of the 1990s, the concept of a compact city has been proposed as the ideal city image. In a compact city public transport and walking are the main means of transportation. It relates to qualities of spatial closure, functional and social mixing, and shorter distances. It requires minimal investment for infrastructure, has low maintenance cost and a moderate energy consumption. As such the compact city is environmentally superior than the decentralized, sprawled city (Ohno Laboratory/University Tokyo, 2006 & Turskis et al., 2006). In shrinking cities the cost of maintaining an extensive infrastructure for a declining population is one of the mayor concerns. This is due to the fact that the whole network has to be maintained while fewer people use and pay for it. This applies for the visible infrastructures such as roads, but also for the invisible infrastructures such as the sewage systems and water pipes. The compact city is a reversal of earlier sprawl and decentralization patterns, and might be an approach for shrinking cities. This idealized concept of the compact city can not be realized due to for example private property. It can however inspire and influence the way planners and designers think about the urban environment (Ohno Laboratory/University Tokyo, 2006). For shrinking cities it can for example mean to reorganize the city with the purpose to restructure the urban area in such a way that a more compact city model is realized with all the mentioned benefits as a possible result.

Evolutionary city

Although cities give a sense of duration and security they emerge, evolve and disappear constantly. They are always evolving. On a smaller scale level it can be compared with houses in the

Mediterranean countries. These unfinished concrete houses have been under construction for decades. They are not purposefully designed towards a static end goal, but develop through time on the basis of changing uses, ideas etc. (Huyghe, 2006). This flexibility to deal with changing circumstances is particularly important when dealing with uncertainties. In shrinking cities the morphology is constantly changing and subject to uncertainties. Planning and designing for a flexible instead of static city might be a good strategy to deal with urban shrinkage and its effects (Vockler, 2006).

ALTERNATIVE ECONOMY

Creating and stimulating the establishment of other means of existence for parts of cities, entire cities or regions is another type of action to keep the city viable. Alternative economies are often used to replace past, often singular focused economies on which a city or region relied. The five strategies under this header are the development of a knowledge economy, cultural industries, city marketing, urban agriculture and industrial heritage sites. The focus upon a knowledge economy, and in particular the cultural and creative type of economy, is often initiated by central governmental institutions. City marketing is often used as a tool to help promote a city to attract new investors, residents and tourists. Urban agriculture has a background that is located in a more local and social context. With the development of industrial heritage sites the old economy is used to (economically) support a city or area. Results of this kind of strategies are different per case and are often context dependent.

Knowledge economy

Although cities originally emerged as places where goods could be exchanged, knowledge played an important role in the production of goods and the establishment of cities. Since the 1970s the importance of knowledge, or knowledge economies, has increased dramatically. Post-industrial cities are an example of cities that have put effort in transforming from industrial into knowledge based cities. This is done in order to maintain the economical viability of a city or region after the industrial function falls away. Creating a knowledge economy is claimed to drive local economic development, promote economic diversity, stimulate innovation and creativity, enhance the image of a place and increase social cohesion (Zhao, 2010). In some cases this knowledge economy is linked to the previous main industry, as is shown in the example.

Where

Global

When

From the 1970s

Example location

Mount Isa, Australia

Mount Isa is a mining community in Queensland. Due to collapses in the metal market the mining became uneconomic and employment declined from 64% in 1954 to 10% in 2001. In order to create employment and keep the city viable, the city focused on developing and selling technical innovations in the field of mining (Pallagst, 2009).

Results

With the growing importance of the knowledge economy, developing knowledge related activities have become central in the creation of employment and wealth, and sustaining economic growth (Ofori 2003, cited in Yigitcanlar 2010). Developing a knowledge industry to support and stabilize a city can result in a positive development for the city. It can raise the living standards and expand the economic opportunities of residents (Yigitcanlar, 2010). An important condition for the success of the development of a knowledge economy is that market forces should be promoted (Zhao, 2010). However, knowledge networks are not always connected to, or dependent on a specific site. As such the developed knowledge industry is free to move to other places, taking the financial base of the depending city with it (Pallagst, 2009). There is also increasing competition between cities and regions to attract knowledge based industries. Further more is it important to investigate the where, how and by whom of the knowledge economy, because it is a phenomenon that is still unclear in some aspects (Yigitcanlar, 2010).

Cultural industries

The cultural economy, and as such cultural industries, is a major sector of the knowledge based economy. There is an increased attention for creativity as an urban asset and many cities invest heavily in cultural industries and cultural images. This strategy involves using “culture” and cultural policies as a strategy to redevelop and stimulate a city. It involves creating support networks in order to encourage entrepreneurship and the development of creative industries, including film, television, publishing, galleries, museums and design (Vanolo, 2008).

Where

Mainly Europe and the United States of America

When

From the 1980s

Example location

Glasgow, UK

Glasgow was one of the first cities to use this strategy to develop from an industrial to post-industrial city. Due to the organization of a coherent annual program of cultural festivals, Glasgow was nominated “European city of Culture” in 1990 and is currently known as a “creative hub”(Pallagst, 2009 & www.glasgow.gov.uk).

Results

The development of a new economy, especially the cultural industry, has been a crucial force in urban development and redevelopment (Zhao, 2010). This is also the case for Glasgow, where design and creative industries are largely the cause for the impressive development. However, culture and creativity as the basis for urban redevelopment asks for a delicate balance. Several key dilemmas which can occur include residents vs. tourists, gentrification and tension between city centre

and periphery. The strategy is also very dependent on little competition of neighboring cities (Pallagst, 2009). In most cases it is also necessary to invest heavily in infrastructure, cultural facilities and the quality of a city overall in order to attract creative industries, tourist and new residents (Chapain et al., 2009). Another important point is to address the consumption part as well as the role of cultural production. Furthermore, the process of developing cultural industries as alternative economic markets is highly complex. This combined with the current frequent use of this strategy and the high expectations it evokes makes further research necessary (Pratt, 2009).

City marketing

The identity of a city usually coincides with an aspect that has been, or is vital for the development of a city. If this disappears, as is for example the case with the deindustrialization of cities, the basis and foundation of a city falls apart. As a result many shrinking cities are searching for a new identity with which they can distinguish themselves. City marketing, also known as city branding, is one of the strategies to gain a new identity. Important target groups for marketing are the potential investors, consumers and the residents of a city. Investors are needed to provide money for redevelopment. Only advertisement is not enough, redevelopment is needed to provide the marketing with some credibility. After the redevelopment the marketing can attract new consumers to a city (Ward, 2006 & Vanolo, 2008).

Where

Global

When

From the 1980s

Example location

Barcelona, Spain

CITY MARKETING

The city of Detroit is trying hard to present the city in a better light than the negative image many people have of the city. On the governmental website of the city they try to attract new businesses by representing Detroit as the ideal city for a business. Slogans such as “Looking to start a business and realize the American dream?” and “Let us help you begin and grow your business. It all starts here, in Detroit” are used to attract new businesses (www.detroitmi.gov, 2010). Also visitors and tourists are attracted with tantalizing promises of culture, music, sports and events (www.detroitmi.gov, 2010).

REFERENCES

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<http://www.detroitmi.gov/Business/tabid/57/Default.aspx> (accessed 18 November 2010)

Detroit governmental website visitors
<http://www.detroitmi.gov/Visitors/tabid/59/Default.aspx> (accessed 18 November 2010)

Barcelona, a deindustrializing port, used city marketing to fill the void left after the deindustrialization. Through modest but highly visible projects the city presented itself as a city with art, design, culture and spectacle. The Olympic Games in 1992 provided an additional boost, leading towards more investments and tourism in Barcelona (Ward, S.V., 2006).

Results

The results of strategy are not easily to predict. In some cases, for example Baltimore which was a pioneer in city marketing, the crime and unemployment rate are still very high. This is because apart from tourism, city marketing generally does not alter the general competitive position of a city in relation to other cities. This is also the case for Barcelona, with all its successes, still has a relative low competitiveness related to other cities. However, without city marketing it would be likely that the city would be off worse. City marketing is a powerful tool, but it is only part of the answer for shrinking cities (Ward, 2006 & Hughes, 1999).

Urban agriculture

Urban agriculture, the production of agricultural goods within city limits, is not a new concept. Post war hunger crises and utopian models of a decentralized city spurred the use of agricultural elements within an urban context. In shrinking cities there is a large amount of vacant land available. This land can be used by individual inhabitants or organized groups for agricultural purposes. This results in a certain amount of self sufficiency regarding food supplies and can provide a source of income and employment. This is especially important considering the high percentage of unemployed people in shrinking cities. Furthermore, the land will become a source of income instead of draining the (usually limited) finances of a city. Urban agriculture can also be used to stimulate community involvement and to improve social relationships between residents (Lauinger, 2006).

Where
Global

When
No specific starting date.

Example location
Detroit, US

Detroit has various initiatives from societal nature, a good example of this public initiative is the collaborative garden program Detroit. This is an organization that forms an overarching network of The Greening of Detroit, Detroit Agriculture Network, EarthWorks Urban Farm/Capuchin Soup Kitchen, and Michigan State University. They support more than 875 urban gardens and farms in Detroit, Highland Park, and Hamtramck (www.detroitagriculture.org, 2010). Other examples within Detroit are: Avalon Bakery, Detroit Agricultural Network, Detroit Summer, Earth Works Garden, Farm-a-lot, and Gardening Angels (Oswalt, 2004).

Results

Urban agriculture within a city can have various positive effects. Examples of positive social aspects are a sense of place, aesthetics, increased social cohesion, a decline in violence and enhancement of the immediate surroundings (Lauinger, 2006 & Pearson, 2010). Examples of positive economical aspects are income and employment opportunities, diversified industry base, and less transportation. Examples of positive environmental aspects are water recycling, carbon sequestration, noise absorption and air quality (Pearson, 2010). The results for Detroit are significant, various empty plots have been reused by citizens to make them productive again for their own personal needs. Furthermore, the community gardening movement keeps expanding (Oswalt, 2004).

Industrial heritage sites

In industrialized cities the identity of a city can coincide with the dominant industry. If deindustrialization takes place, as is the case in many shrinking cities, the basis and foundation of a city falls apart. A strategy to retain the identity is to promote the old industrial sites. This process started as early as the 1930s, and was supported by a broad public from the 1970s. The intention of promoting old industrial sites is not only to preserve, but to develop as well. Economic improvement is an important aspect of this. Forms of development include transforming industrial sites in museums, exhibitions halls, concert halls and sports facilities (Hauser, 2006).

Where

Global

When

From the 1970s

Example location

Duisburg, Germany

The Duisburg-Nord landscape park is an example of preserving and developing an old industrial site. The landscape park is 200 hectares surrounding the Duisburg-Meiderich blast-furnace plant. The plant was closed in 1985 and has been made accessible again for the public through acupuncture insertions like stairwells, paths and lighting elements. Numerous groups and associations organize leisure, sport, cultural and educational activities in the park (Oswalt, 2006).

Results

Although this strategy has been implemented, it can not be applied unlimited. The circle of enthusiastic fans and expert historians is not large enough to support the numerous industrial sites. Also, the potential income generated by tourism

can not be increased indefinitely. Competition with other forms of tourism and other industrial sites prevent this. However, the preservation and development of old industrial sites can stimulate the identity of an area (Hauser, 2006).

SOCIAL INTERVENTION

Social intervention is a tool which focuses more upon the social side of effects of urban shrinkage. Beside the deterioration of urban tissue, urban shrink often leads to the deterioration of communities. The main purpose of neighborhood stabilization programs as applied in the US is to create a social viable and safe environment. The existence of such programs is an important indicator that also the social side of urban shrinkage is an existing problem.

Neighborhood stabilization programs

The effects of the economic recession have had a profound impact on the housing market. Although the housing market shows some encouraging signs of recovery, the number of foreclosures remains high. The effects of a high number of foreclosures and subsequent housing vacancies include family mental distress, increased crime rates, higher insurance rates, eviction of renters living in buildings that have been foreclosed, decreased property values and losses in tax revenues (Kingsley et al., 2009 & Leonard and Murdoch, 2009, cited in Johnson et al. 2010, p. 364). Because of these severe consequences of housing vacancies resulting from urban shrinkage the Housing and Economic Recovery Act was enacted in 2008. The main objective of this act is to address the impact of foreclosures in communities in order to stimulate market recovery and neighborhood stabilization. States, cities and counties receive a total of \$3.92 billion to acquire, rehabilitate, demolish, and redevelop foreclosed and abandoned residential properties (www.detroitmi.gov, 2010). Since this act there have been several (similar) initiatives aimed at addressing the impact of foreclosed houses (Johnson et al., 2010).

Where

The United States of America

When

2008

Example location

Detroit, the United States of America

Detroit is the city with the highest home foreclosure rate among the nation's hundred largest metropolitan areas. As such the money gained from the Housing and Economic Recovery Act to stabilize neighborhoods is very useful. In Detroit the focus of neighborhood stabilization is on demolition of vacant properties in nine neighborhoods (www.detroitmi.gov, 2010).

Results

No concrete results yet

Social welfare zone

To counter urban shrinkage there have been a lot of initiatives aimed at attracting new companies through tax free zones and other privileges. Social welfare zones combine these economic deregulations with social security measures to develop social welfare zones. The goal of the zones is to develop a self-organized community and to create space for local initiatives. These social welfare zones will be introduced step by step, starting with an agreement between the government and municipality over the rules. Fundamental principals of social welfare zones are self-administration, an unconditional basic income for residents, as little municipality influence as possible, and deregulation of labor, construction, commercial and social laws. The vacant land and reduced employment opportunities that result from urban shrinkage can be countered in the social welfare zone. The deregulation of laws makes it possible to realize uncomplicated, cheap and temporary land use. In this way the vacant land is utilized and employment created. This concept of social welfare zones is not aiming to counter urban shrinkage but to experiment with foundations of urban economy (Fezer et al., 2006).

GREENING

Green infrastructure is the main denominator in the heading greening. Greening is a wide notion in which various uses of vacant lots is stimulated to create a more 'green environment'. This means for example the creation of pocket parks and water storage facilities. The purpose of such new uses is to create a positive impact on the living environment, to stimulate housing prices, but also to equip the city for future developments such as climate change.

Green infrastructure

Traditional green infrastructure is defined as "an interconnected network of green space that conserves natural ecosystem values and functions and provides associated benefits to human populations". In shrinking cities, "past urban development will likely have removed most of the original green and natural elements. Some sites may have environmental contamination left behind by a community's industrial past. A green infrastructure network for shrinking cities will involve the regeneration of vacant properties for new parks, community gardens, restored habitat, flood mitigation and storm water treatment sites, and urban agriculture plots linked with existing green spaces" (Logan et al. 2010, p 454). The positive effect of a greening strategy might involve ecologically valuable as well as aesthetically pleasing elements. It could also stimulate social aspects (Dettmar, 2006).

Where

Global

When

No specific starting date

Example location

Buffalo & Toronto

In Buffalo's current planning green infrastructure is incorporated into an action plan for the city in combination with the land

bank initiative (Blueprint Buffalo, 2006). Toronto Waterfront is another example of green infrastructure. An ecosystem approach towards the development of brown fields and vacant properties near the waterfront was used to incorporate economic, environmental, and social elements in the development of the Toronto Waterfront (Pallagst, 2009).

Results

No concrete results yet.

INTERMEZZO

GREEN INFRASTRUCTURE

There is an organization in Detroit called the greening of Detroit. This organization has been founded in 1989. Activities of the organization include education, planting trees, cleaning empty lots and school yards, and urban agriculture. After a project is completed it is still supported by the organization in the sense of providing guidance for maintenance and funds. Through this process they build communities, strengthening friendships, fostering hope, teaching others, and ultimately create a cleaner and greener Detroit (www.greeningofdetroit.com, 2010).

REFERENCE

Greening of Detroit
<http://www.greeningofdetroit.com>
(accessed 16 November 2010)

CONCLUSION

As a result of an extensive literature study eighteen main strategies concerned with urban shrinkage have been presented. The book by Oswald et al. provides a broad overview of diverse strategies to counter or minimize the effects of urban shrinkage. Furthermore it is notable that many strategies have been applied and developed for some time, without a direct relation to urban shrink. This can also be traced back to the amount of (secondary) literature that is available regarding the strategies.

Concerning the eighteen main strategies, the focus upon economic resources to shape new viable solutions for the problems that surround the issue of urban shrinkage are notable. Many initiatives with various backgrounds and purposes are initiated to create new possibilities to establish a secure future for a city or region. However, some strategies focus upon other aspects of urban shrink, such as the social aspect of urban shrink with the community as the central aim of the supposed interventions. Another focus is on the possible solutions for the empty space inside the city, for example greening. It is also notable that the strategies are initiated by diverse stakeholders with governmental and small, local investors opposite of each other. It is also apparent that many strategies are used together. For example the investment of governmental institutions in the development of creative industries, and the use of city marketing to promote this. The effects of a strategy can depend on this cooperation of multiple strategies. The context, support, and acceptance are also important.

CONCLUSION

In the introduction of this literature study the problem statement with the resulting research questions were presented. The problem statement was concerned with the fact of lacking insight in the form of an overview of what aspects of urban shrink have been researched and published. The problem statement was formulated as following:

Urban shrinkage is a phenomenon that is, and will become an important aspect of urban development. There is however no overview of the causes and effects of urban shrink, and the main strategies concerned with this phenomenon mentioned in the available literature.

As a result of this problem statement the following research question was formulated:

What are, according to available literature, the causes and effects of urban shrink and the main strategies concerned with this phenomenon?

To answer this research question three sub-questions concerned with the causes, effects and main strategies were presented in this literature study. These sub-questions were also used to structure the literature study. As a result of the study twelve causes, seven effects, and eighteen main strategies were identified in the literature.

It is logical that the causes, effects, and main strategies are related to each other. The reason why they are presented in such a separate manner is that there is no logic and clear correlation between them. Urban shrink is a complex process in which many factors come together and various causes and effects can play in a certain urban area. There is no universal rule that predicts that if one cause occurs it always leads towards a certain effect, not even considering a strategy that will always work against this.

As Wiechmann stated “for every complex problem, there is a simple solution that is wrong” (Pallagst et al. 2009, p. 15), it can be concluded that this is certainly true for the complex problem of urban shrink. At first sight simple strategies fail because of the underestimation of the complexity and structuralism of urban shrink.

Notable in the literature is the relative poor research and description of the effects of urban shrink. Most authors describe the causes to a large extend as a base for their research or to present a strategy or model. In doing so often the precise effects are left out the picture or are mentioned in a few small lines, while it would be logical to imply these in a paper because of their relevance for the urban and social structure of an urban area.

Overall the method of selecting primary literature out of the literature search as main carriers worked out. It can be concluded that it was necessary to search for certain bodies of supporting literature out of the scientific field for example to find specific figures or examples.

As suggested there is relative little research completed concerned with the effects of urban shrink in a scientific context. Most research is focusing on causes and possible ‘solutions’ or modeling of the process of urban shrink.

A concluding point can be added for the strategies. As demonstrated, there is already a wide variety of strategies available and many have been applied recently or in the past. It can be concluded that most of them do not have the desired effect. It is important to emphasize that a strategy is and should be highly context dependable and therefore every urban area has to deal with urban shrink to a certain extend in its own way. This does not mean that it cannot be useful to learn from other strategies and their effects.

CONCLUSION

The complexity in the process of urban shrink is an important reason why a landscape architect can play a significant role in guiding this process. One of the reasons is that landscape architects already deal with high levels of complexity and uncertainty when designing landscapes. Because the landscape is such a complex systems it is also seen by landscape urbanism as an important carrier of urban development. Landscape urbanism is a growing view on how to develop the urban landscape with the landscape as one of the most relevant mediums. Waldheim suggest that "... landscape has a newfound relevance, offering a multivalent and manifold medium for the making of urban form, and in particular in the context of complex natural environments, post-industrial sites, and public infrastructure" (Waldheim 2006, p. 15). The discipline of landscape architecture must grasp this opportunity to develop a better understanding of urban processes, work together with urbanism and link their expertise to the urban area to guide the complex problem of in this case urban shrink.

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In the paper by Aber the development of a creative industry as an economic base for urban development is discussed. The author describes the origin of the rise of the creative economy and how this approach has been used as a strategy for urban (re)development. The case study of the city of Glasgow is used as one of the examples to demonstrate this. The conclusion is that a creative economy can benefit a city in several ways, but that not all cities have the potential to become creative cities. Furthermore, it is a delicate process and attention should be paid to reaching a balance economically and socially.

Accordino, J. & Johnson, G.T. (2000) 'Addressing the vacant and abandoned property problem', *Journal of Urban Affairs*, Volume 22, Number 3, Pages 301-315.

This paper addresses the nature of vacant and abandoned properties and current city effort to deal with these problems. To gather this insights a survey of the 200 most populous cities in the United States was conducted in 1997 and 1998. The results of this survey and interviews indicate that officials of the cities perceive vacant and abandoned property as a significant problem, since it affects many aspects of community life. Techniques used to address this problem include aggressive code enforcement, tax foreclosure, eminent domain and cosmetic improvements.

Alexander, F.S. (2005) *Land Bank Authorities: A guide for the creation and operation of local land banks*. [Online] Available at: <http://www.lisc.org/content/publications/detail/793/> (Accessed: 19 October 2010)

In this paper the development of landbanks in a number of American cities is discussed. As such a comparison about history, legal structure and conditions of the different landbanks can be made. This is done to provide an overview of the possibilities of a Landbank system can offer for a shrinking city.

Alexander, F.S. (2009) *Neighborhood stabilization and land banking*. [Online] Available at: www.bos.frb.org/commddev/c&b/index.htm (Accessed: 19 October 2010)

In this short paper by Alexander the principle of a Landbank is described. A Landbank can acquire, hold, manage, develop and dispose land. The goal is not to simply hold the land, but to find new users and reoccupy and return the land into the tax system.

Audirac, I. (2008) 'Urban shrinkage amid fast metropolitan growth', In Pallagst, K., Aber, J., Audirac, I., Cunningham-Sabot, E., Fol, S., Martinez-Fernandez, C., Moraes, S., Mulligan, H., Vargas-Hernandez, J., Wiechmann, T., Wu, T., Rich, J. (2009) *The future of shrinking cities: problems patterns and strategies of urban transformation in a global context*. Online publication: http://iurd.berkeley.edu/catalog/Other/Future_Shinking_Cities_Problems_Patterns_and_Strategies_Urban_Transformation_Global

In this paper the author discusses urban shrink and the metropolitan growth as to parts of contemporary urbanism. Various aspects of urban decline are introduced as examined.

Suburbanization is seen as one of the causes that lead towards urban shrink. Eventually the paper discusses how growth and shrinkage can be located near each other.

Beauregard, R.A. (2009) 'Shrinking cities in the United States in Historical Perspective: A Research Note', In Pallagst, K., Aber, J., Audirac, I., Cunningham-Sabot, E., Fol, S., Martinez-Fernandez, C., Moraes, S., Mulligan, H., Vargas-Hernandez, J., Wiechmann, T., Wu, T., Rich, J. (2009) The future of shrinking cities: problems patterns and strategies of urban transformation in a global context. Online publication: http://iurd.berkeley.edu/catalog/Other/Future_Shrinking_Cities_Problems_Patterns_and_Strategies_Urban_Transformation_Global (Accessed 8 November 2010) Pages 61-68.

Beauregard, R.A. (2009) 'Urban population loss in historical perspective: United States, 1820-2000', In Environment and Planning A, Volume 41, Pages 514-528.

The purpose of this study is to use a quantitative and theoretical assessment of the population loss in the large cities of the United States in a historical perspective. Beauregard distinguishes three main periods of large population losses in the cities. The losses are quantified in terms of prevalence, severity, and persistence and placed in a geographical view. Furthermore does the author conclude that some cities are engaged in a downward cycle of decline with a diminishing population as a continues effect.

Bernt, M. (2009) 'Partnerships for demolition: The governance of urban renewal in East Germany's shrinking cities', International Journal of Urban and Regional Research, Volume 33.3, Pages 754-769.

The demolition of housing stock is one of the strategies to bring the housing market back into equilibrium. In Germany this strategy is employed on a large scale, for example the federal program Stadtumbau Ost. However, the question arises whether demolitions is the right tool to handle the abandoned properties in shrinking cities.

Birg, H. (2006) 'Demographic Change' , in Oswalt, P. & Rieniets, T. (2006) Atlas of Shrinking Cities. Ostfildern: Hatje Cantz Verlag, pp. 120-121.

In this essay the nature of demographic change is explained, combined with its implications for the development of an urban area. It is pointed out that demographic change can have various reasons and possible implications for its locations.

Chang, S.E. (2010) 'Urban disaster recovery: a measurement framework and its application to the 1995 Kobe earthquake' In Disasters, Volume 34, , Park 2, Pages 303-327.

This paper is concerned with providing a framework which can be used to assess empirically the pattern of urban disaster recovery. It uses Kobe city in Japan as a case study, it is concluded that this city needed ten years to return to pre-disaster levels for population numbers. However it is pointed out that the repopulation of the core of the city never happened to achieve pre-disaster numbers.

Chapain, C. & Comunian, R. (2009) 'Enabling and inhibiting the creative economy: The role of the local and regional dimensions in England', *Regional Studies*, Volume 44, Number 6, Pages 717-734.

In this paper the authors integrate the findings of two projects, Birmingham and Newcastle-Gateshead from the United Kingdom, regarding the development of creative industries. They conclude that the current policies regarding creative economies should be wider, also including the importance of regional infrastructure and the 'knowledge pool' necessary for the development of such industries.

Cunningham-Sabot (2009) 'Shrinking cities in France and Great Britain: A silent process?', In Pallagst, K., Aber, J., Audirac, I., Cunningham-Sabot, E., Fol, S., Martinez-Fernandez, C., Moraes, S., Mulligan, H., Vargas-Hernandez, J., Wiechmann, T., Wu, T., Rich, J. (2009) *The future of shrinking cities: problems patterns and strategies of urban transformation in a global context*. Online publication: http://iurd.berkeley.edu/catalog/Other/Future_Shrinking_Cities_Problems_Patterns_and_Strategies_Urban_Transformation_Global (Accessed 8 November 2010)

The shrink of cities is seen in a light of globalization which result in relocation of industries and metropolitan areas. Patterns and types of shrink are discussed in the countries of France and England. It is concluded that this process does not affect every place to the same extent and that the results of shrink may vary from place to place. Furthermore it is noted that the shrink and decline of various urban areas is passing by un-discussed due to denial on various political agendas of urban and regional planners.

Deilman, C., Effenberger, K. & Banse, J. (2009) 'Housing stock shrinkage: vacancy and demolition trends in Germany', In *Building Research & Information*, Volume 37, Issue 5, Pages 660-668.

The shrink of the housing stock is the central topic of this paper. It is mainly concerned with this topic in Germany and the demolition program that is applied to keep the empty houses on the average rate of fifteen percent. In doing so the spatial effects in terms of vacancy are discussed also in relation to the process of urban shrink that will continue in Germany throughout the projected timeline of 2050.

Delken, E. (2008) 'Happiness in shrinking cities in Germany', *Journal of Happiness Studies*, Volume 9, Number 2, Pages 213-218.

In this article the impact of a shrinking city on its' inhabitants is investigated. The main question is whether growth or shrinkage really matters for the livability and day to day live of inhabitants. Questionnaires about the overall life-satisfaction of inhabitants of shrinking and growing cities in Germany were used to answer the main question. The results stated that overall satisfaction appears to be the same in shrinking cities. Also, inhabitants of shrinking cities appear to be more concerned about job-chances and crime than in growing cities.

Dettmar, J. (2006) 'Naturally determined urban development', in Oswalt, P. & Fishman, R. (ed.) *Shrinking cities volume 2: Interventions*. Ostfildern: Hatje Cantz Verlag, pp. 144-150.

In the article by Dettmar the opportunities of the use of brownfields and vacant land for natural development are discussed. Special attention is given to the development of 'wild

nature' in cities in contrast with more 'civilized nature' as for example parks. With the use of an example, the Industriewald Ruhrgebiet, the author demonstrates that providing space for wild nature in a city might be a possible strategy when dealing with the effects of urban shrink. The project appears to function well and the cost of this kind of greening is cheaper to maintain than regular green in a city.

Dobraszczyk, P. (2010) 'Petrified ruin; Chernobyl, Pripjat and the death of the city', In *City*, Volume 14, Issue 4, Pages 370-389.

In this paper the author elaborates on the city of Pripjat that as a result of the Chernobyl disaster has become unlivable and is become a restricted area. Through a reportage the author shows how a city can change on a very short term through an environmental pollution caused by human malpractice.

Droege, P. (2002) 'Renewable Energy and the City: Urban life in an age of fossil fuel depletion and climate change', in *Bulletin of Science, Technology & Society*, Volume 22, Issue 2, Pages 87-99.

In this paper the shift away from fossil fuels is seen as inevitable. The author suggest that the impacts of these changes can have great impacts on the urban form of modern cities and its life. It is pointed out that it can have implication for aspects such as policy, economy, technology, and culture.

Fassmann, H. (2006) 'Migration', in Oswald, P. & Rieniets, T. (2006) *Atlas of Shrinking Cities*. Ostfildern: Hatje Cantz Verlag, pp. 98-99.

The process of migration is central in this essay. Aspects like pull

and push factors are explained in relation to the possibilities people have to emigrate and the possible improvement of one's situation as a result of migration. The magnitude of migration is sketched and the consequence for locations of in- and out-migration are pointed out.

Fassmann, H. (2006) 'Unemployment', in Oswald, P. & Rieniets, T. (2006) *Atlas of Shrinking Cities*. Ostfildern: Hatje Cantz Verlag, pp. 74-75.

In this essay unemployment is treated as an important driver of possible urban shrink. The author uses examples to explain that especially mono-industrial cities are vulnerable for a fast growing unemployment figure what can lead towards the shrink of such a city.

Fezer, J., Lanz, S. & Rada, U. (2006) 'Special welfare zone Forst', in Oswald, P. & Fishman, R. (ed.) *Shrinking cities volume 2: Interventions*. Ostfildern: Hatje Cantz Verlag, pp. 204-211.

In the article by Fezer et al. the possibilities of developing a special welfare zone are discussed. The goal of the zones is to develop a self-organized community and to create space for local initiatives. This is realized through self-administration, an unconditional basic income, as little municipality influence as possible, and deregulation of labor, construction, commercial and social laws. In order to implement these special welfare zones the foundations of urban economy have to change.

Fontenot, A. (2006) 'Planned destruction: Modern planning, war, and public housing', in Oswalt, P. & Fishman, R. (ed.) *Shrinking cities volume 2: Interventions*. Ostfildern: Hatje Cantz Verlag, pp. 52-61.

In this article the author describes the development of the housing market, mainly focused on the United States. Through this historical development growth and demolition have always played a role. In the twenty-first century creative destruction has begun to play an important role.

Fussell, E. (2004) 'Offshoring – New hope for U.S. or inevitable as death? Online publication. Available at: http://findarticles.com/p/articles/mi_qa3739/is_200404/ai_n9399876/ (Accessed 9 November 2010)

In this short article the impact and causes of offshoring are briefly discussed in the view of the American labor market. The process is seen as practically inevitable and irreversible due to the global working of the market.

Gillotti, T. & Kildee, D. (2009) 'Land banks as revitalization tools: The example of Genesee County and the city of Flint, Michigan', in Pallagst, K., Aber, J., Audirac, I., Cunningham-Sabot, E., Fol, S., Martinez-Fernandez, C., Moraes, S., Mulligan, H., Vargas-Hernandez, J. & Wiechmann, T. 'The future of shrinking cities: problems, patterns and strategies of urban transformation in a global context. [Online] Available at: http://iurd.berkeley.edu/catalog/Other/Future_Shrinking_Cities_Problems_Patterns_and_Strategies_Urban_Transformation_Global (Accessed 5 November 2010), pp. 139-147.

In this paper the role and opportunities of a land bank system are discussed. The authors use the example of Flint and the

Genesee County Land Bank to clarify the role of a land bank in a shrinking city. They conclude that the land bank is a sound strategy for shrinking cities, stabilizing the neighbourhoods of a city and finding new uses for the vacant land.

Haase, D. (2005) 'Derivation of predictor variable for spatial explicit modeling of 'urban shrinkage' at different scales', Paper of the 45th Congress of the European Regional Science Association (ESRA), Session Modelling Land Use Change. Online publication: <http://www.sre.wu-wien.ac.at/ersa/ersaconfs/ersa05/papers/322.pdf> (Accessed 11 November 2010)

In this paper by Haase the focus is on predictor variables that explain urban shrinkage and residential decline. The paper discusses the phenomenon of urban shrinkage in the historic and current European context, the spatial effects of urban shrink and the major part focuses on identification and testing of predictor variables. The conclusion is that there are several social variables (outmigration, share of aged people, unemployment rate and share of social welfare recipients) and several spatial variables (spatial pattern of urban structural type, distance to the urban (sub-)centers and to urban green) which determine the location of residential vacancy.

Haase, D., Seppelt, R. & Haase, A. (2008) 'Land use impacts of demographic change: Lessons from eastern German urban regions', *Use of Landscape Sciences for the Assessment of Environmental Security*, Pages 329-344.

In this paper the trends and spatial patterns of the impact of demographic changes in an urban context is described. Eastern Germany is used to demonstrate an example embedded into the overall European context. The conclusion from the authors is that demographic change has considerable impact on land

use patterns. It also influences the infrastructural viability of an urban region.

Haase, D., Lautenbach, S. & Seppelt, R. (2010) 'Modeling and simulating residential mobility in a shrinking city using an agent-based approach', In *Environmental Modelling & Software*, Volume 25, Pages 1225-1240.

The topic of urban shrink in relation to urban planners and policymakers is pointed out, especially in relation to the consequences of urban shrink in terms of demographic change, fertility decline and individualization. An agent-based modeling technique is demonstrated to show the development of households. It is concluded that selective demolition of empty housing stock can help to limit the negative effects of population loss.

Hauser, S (2006) 'Making museums of industrial heritage sites: Practices of remembrance', in Oswald, P. & Fishman, R. (ed.) *Shrinking cities volume 2: Interventions*. Ostfildern: Hatje Cantz Verlag, pp. 816-822.

In the article by Hauser the preservation and development of old industrial sites is discussed as a possible strategy for deindustrializing, shrinking cities. The goal is to retain the identity of a city and to attract new consumers. The strategy can help with maintaining the identity of a city but is not unlimited applicable due to for example competition.

Hollander, J.B., Pallagst, K.M., Schwarz, T. & Popper, F.J. (2009) 'Chapter 4: Planning shrinking cities', In 'Shaken, shrinking, hot, impoverished and informal: Emerging research agendas in planning', In *Progress Planning*, Volume 72, Pages 195-250.

This chapter of the publication is concerned with the role of planning in shrinking cities. It points out that many planners are not prepared for the process of shrink in cities. Various research questions are formulated and the process of urban shrink is briefly explained combined with some causes that can lead towards urban shrink.

Hughes, G. (1999) 'Urban revitalization: the use of festive time strategies', *Leisure Studies*, Volume 18, Number 2, Pages 119-135.

In the paper by Hughes the practice of city marketing is examined. It describes the use of city marketing by cities through time, and the reasons for using marketing as a tool. He describes that city marketing can play an important role for cities to create identity and promote new economic activity. Special attention is given to festivals, with two examples the 'Night-Time Economy' and the Hogmanay Street Party.

Huyghe, P. (2006) 'Structures of possibility', in Oswald, P. & Fishman, R. (ed.) *Shrinking cities volume 2: Interventions*. Ostfildern: Hatje Cantz Verlag, pp. 132-135.

In the paper by Huyghe the possibilities of houses to be flexible is discussed. The author discusses that structures, instead of being static, can also be flexible. To clarify this an example of the unfinished houses frequently seen in Mediterranean countries is used. These unfinished concrete houses have been under construction for decades. They are not purposefully designed

towards a static end goal, but develop through time on the basis of for example changing users, uses and ideas.

Jennings, J. (2010) 'The empowerment zone in Boston, Massachusetts 2000-2009: Lessons learned for neighborhood revitalization', *Review of Black Political Economy*, page 1-19. [Online] Available at: <http://www.springerlink.com/content/j53whq5006178237/fulltext.pdf> (Accessed: 8 November 2010)

In this paper the author examines the empowerment zone in Boston between 2000 and 2009. He concludes that the initiative was successful because it revitalized some of the poorest neighborhoods of Boston. This included the initiation and completion of some projects, supporting the small neighborhood businesses and local nonprofits. As such the quality and economic activity has increased in the neighborhoods. However, the rate of poverty was not reduced within the empowerment zones.

Johnson, M.P., Turcotte, D.A. & Sullivan, F.M. (2010) 'What foreclosed homes should a municipality purchase to stabilize vulnerable neighborhoods', *Networks and Spatial Economics*, Volume 10, Number 3, Page 363-388.

The aim of this article is to develop a model that can help define the number of foreclosed buildings that need to be acquired in order to stabilize and revitalize a neighbourhood. The model that has been developed is then tested in the case of the Massachusetts city of Lowell. The conclusion is that the model looks promising and can help housing professionals with decision making.

Jürgens, U. (1996) 'City profile Leipzig', In *Cities*, Volume 13, Issue 1, Pages 37-43.

The city profile of Leipzig points out the development of the city. In doing so the influence of the Second World War becomes clear on the development of the city. It shows the decline that was set in during the war and that this decline was continued due to the socialist period after the Second World War.

Kabisch, S., Haase, A. & Haase, D. (2006) 'Beyond growth – urban development in shrinking cities as a challenge for modeling approaches', Online publication of the third Biennial meeting of the International Environmental Modelling and Software Society in Burlington 2006. http://www.iemss.org/iemss2006/papers/s8/S8_Kabisch.pdf (Accessed 8 November 2010)

In this paper the chances and limits of urban modeling to explain and assess urban shrinkage processes is analyzed. In order to accomplish this firstly the process of shrinkage is investigated, secondly how social science knowledge can be methodically brought together and lastly variables and prototypes models regarding urban shrinkage are described. The authors conclude that the process of urban shrinkage requires a different modeling approach and that developing one is necessary and will be challenging.

Keenan, P., Lowe, S. & Spencer, S. (1999) 'Housing abandonment in inner cities: The politics of low demand for housing', In *Housing Studies*, Volume 14, Issue 5, Pages 703-716.

In this paper the abandonment of property in the UK is a central topic. It outlines some of the cause and the abandonment of property as a results. In doing so it reviews some of the literature available concerning the UK and US. Various effects

of abandonment are considered in a view of policy and social results. It is concluded that the abandonment of houses is a complex process with various causes and different long term effects.

Krüger, F. (2006) 'Epidemics', in Oswalt, P. & Rieniets, T. (2006) *Atlas of Shrinking Cities*. Ostfildern: Hatje Cantz Verlag, pp. 58-59.

Krüger points out in his brief essay about epidemics what role they can play in the shrink of a city. Various examples are used to explain how epidemics can cause a significant decrease of the number of inhabitants of an certain city.

Krupka, D.J. & Noonan, D.S. (2009) 'Empowerment Zones, neighborhood change and owner-occupied housing', *Regional Science and Urban Economics*, Volume 39, Number 4, Pages 386-396.

In this paper the authors examine the effect of the federal empowerment zone program on neighborhood quality and characteristics. They remark that the effect of empowerment zones is diverse and that there is the need for more research. Also because there is a lot of debate about the results of empowerment zones, whether positive or negative. The conclusion of the paper is that there are direct positive results noticeable in neighbourhoods and that indirect effects are small or even negative.

Kuo, F.E. & Sullivan, W.C. (2001) 'Environment and crime in the inner city: Does vegetation reduce crime', *Environment and Behavior*, Volume 33, Number 3, Pages 343-367.

In this paper the effect of vegetation on crime in the inner city is investigated. The results indicate that vegetation has a negative relationship with crime. Residents living in a greener environment report lower levels of fear, fewer incivilities and less aggressive and violent behavior.

Kupiszewski, M., Durham, H. & Rees, P. (1998) 'Internal migration and urban change in Poland', In *European Journal of Population*, Volume 14, Pages 265-290.

The author discusses the population changes and migration patters over the period 1984-1994 in Poland. In doing so the conclusion is drawn that a profound change of population redistribution in Poland has taken place, large cities tended to lose population while medium large cities attracted migrating people.

Kürschner-Pelkmann, F. (2006) 'Water Scarcity', in Oswalt, P. & Rieniets, T. (2006) *Atlas of Shrinking Cities*. Ostfildern: Hatje Cantz Verlag, pp. 76-77.

This essay is used to describe the importance of sufficient and qualitative good water in an urban environment. Using examples it demonstrates that the lack of good water supply can lead to disastrous effects for a city.

Lange, B. & Matthiesen, U. (2006) 'Space pioneers', in Oswalt, P. & Fishman, R. (ed.) *Shrinking cities volume 2: Interventions*. Ostfildern: Hatje Cantz Verlag, pp. 374-379.

In this article the authors describe the space pioneers in a shrinking city. Space pioneers are individuals or small entrepreneurs who move to shrinking cities in order to facilitate new uses and invest money. In their article the authors pay special attention to the importance of networks.

Lauinger, H. (2006) 'Environmental Pollution', in Oswalt, P. & Rieniets, T. (2006) *Atlas of Shrinking Cities*. Ostfildern: Hatje Cantz Verlag, pp. 56-57.

In this essay the author describes the nature of the term environmental pollution. Various aspects such as history and contemporary attention and attitude towards the problems of environmental pollution in relation to possible effects pollution can have for residents of urban areas.

Lauinger, H. (2006) 'Urban agriculture', in Oswalt, P. & Fishman, R. (ed.) *Shrinking cities volume 2: Interventions*. Ostfildern: Hatje Cantz Verlag, pp. 156-164.

In the paper by Lauinger the phenomenon of urban agriculture is discussed. The author describes the history of agricultural production within city limits, and the utopian ideas that are part of rural urbanism. An example is given in the form of the community gardens in New York and a project in Germany. The author concludes that the search for a rural and urban mix is just beginning and urges to experiment with this since at this moment we still have the time and money needed.

Lauria, M. & Baxter, V. (1999) 'Residential mortgage foreclosure and racial transition in New Orleans', In *Urban Affairs Review*, Volume 34, Issue 6, Pages 757-786.

Lauria and Baxter describe in their article the role of residential mortgage foreclosure linked to the process of racial transition. They conclude that housing foreclosures have a negative impact on racial transition, independent of factors such as for example median income. This impact is especially high in block groups with resident income above the lowest levels and a preexisting and increasing black community.

Lehrer, U. & Wieditz, T. (2009) 'Condominium development and gentrification: The relationship between policies, building activities and socio-economic development in Toronto', *Canadian Journal of Urban Research*, Volume 18, Pages 140-161.

In this paper the development of condos in Toronto and the resulting gentrification are discussed. To support this the process of gentrification is discussed, followed by an overview of urban development in Toronto, and lastly at the new residents who move to the condo buildings. The authors conclude that the new condo buildings result in the gentrification of Toronto.

Logan, J. & Schilling, J. (2010) 'Greening the rust belt: A green infrastructure model for right sizing America's shrinking cities', *Journal of the American Planning Association*, Volume 74, Number 4, Pages 451-466.

In this article the opportunities for greening shrinking cities in America are discussed. Based on fieldwork, practitioners interviews and a review of the current literature the challenges, benefits, policies, obstacles, and promises of greening shrinking cities are discussed. This results in a model to effectively right

size shrinking cities by instituting green infrastructure plans and programs, creating land banks to manage the effort and build community consensus.

Mallach, A. (2010) 'Facing the Urban Challenge: The federal government and America's older distressed cities', [Online]. Available at: <http://www.urban.org/publications/1001392.html> (Accessed 16 November 2010)

Many of the older, industrial cities in the America have experienced job losses and a declining population. Both these processes are only aggravated by the current recession and the state of the nation's older industrial cities is perhaps worse than it has ever been. Cities have to make a choice on how to deal with the consequences of these processes and the federal government should play a role in addressing urban decline. In this paper the causes and effects of widespread urban decline are discussed and possible strategies which can be used by the federal government are proposed. There are five key areas in which the government can play a major role. These areas are strategic planning, reutilizing urban land, investing in transformative change, revitalizing neighborhoods, and addressing affordable housing. Furthermore the paper states that this is the moment for bold action, which should reflect a different approach to using federal resources based on a new vision for the future for these cities.

Markus H. (2006) 'Suburbanization', in Oswalt, P. & Rieniets, T. (2006) *Atlas of Shrinking Cities*. Ostfildern: Hatje Cantz Verlag, pp. 96-97.

In this essay the author describes the term suburbanization and towards what this can lead in terms of a shrinking city. During this process some of the complex causes of suburbanization

are introduced to explain how it works and what are the driving forces.

Martinez-Fernandez, C. & Wu, C. (2009) 'Shrinking cities: A global overview and concerns about Australian mining cities cases', in Pallagst, K., Aber, J., Audirac, I., Cunningham-Sabot, E., Fol, S., Martinez-Fernandez, C., Moraes, S., Mulligan, H., Vargas-Hernandez, J. & Wiechmann, T. 'The future of shrinking cities: problems, patterns and strategies of urban transformation in a global context'. [Online] Available at: http://iurd.berkeley.edu/catalog/Other/Future_Shrinking_Cities_Problems_Patterns_and_Strategies_Urban_Transformation_Global (Accessed 3 November 2010), pp. 29-36.

In this paper some conceptual frameworks for the process of urban shrinkage are outlined. Furthermore is the process of shrinkage investigated in relation to mining cities in Australia. It is concluded that the shrinkage of mining cities is related to globalization, but that the population losses would be less extensive if the developed knowledge economy was linked to the businesses and organizations in a city.

Moraes, S. (2009) 'Inequality and urban shrinkage – a close relationship in Latin America', In Pallagst, K., Aber, J., Audirac, I., Cunningham-Sabot, E., Fol, S., Martinez-Fernandez, C., Moraes, S., Mulligan, H., Vargas-Hernandez, J., Wiechmann, T., Wu, T., Rich, J. (2009) *The future of shrinking cities: problems patterns and strategies of urban transformation in a global context*. [Online] Available at: http://iurd.berkeley.edu/catalog/Other/Future_Shrinking_Cities_Problems_Patterns_and_Strategies_Urban_Transformation_Global (Accessed 15 November 2010)

In the study by Moraes the inequality of urban shrinkage in Latin America is discussed. The overview starts with a brief

description of the history and current socioeconomic context of Latin America. Then the case of Brazil is introduced to clarify how inequality might have influenced population mobility and urban morphology. The author concludes that there are five primary reasons for population migration. It is also concluded that the new law (Statute of the City) brings good initiatives but that there is more time needed before it can be properly evaluated.

Mitchell, J.K. (1999) 'Megacities and natural disasters: a comparative analysis', *GeoJournal*, Volume 49, Pages 137-142.

Mitchell uses case studies to point out how megacities are coping with hazard and it is explained how hazard is build up by risk, exposure, vulnerability and response. In the article is pointed out that sustainability is playing an more and more important role in the management of megacities, however it is concluded that the relation between hazard and sustainability is almost not understood or explored.

Mitra, D. & Ranjan, P. (2010) 'Offshoring and unemployment: The role of search frictions labor mobility', In *Journal of International Economics*, Volume 81, Pages 219-229.

This article is concerned frictions that occur in the labor market when it searches for an equilibrium. It is concluded that in a perfect labor market where labor is mobile the employment and unemployment will not change dramatically due to offshoring. It is concluded that without this immobility, or an imperfect labor mobility, others results may arise such as growing unemployment in the offshoring sector in the offshored location.

Müller, K. (2006) 'Economic Transformation', in Oswalt, P. & Rieniets, T. (2006) *Atlas of Shrinking Cities*. Ostfildern: Hatje Cantz Verlag, pp. 122-123.

Phases of economic transformation are discussed in this short essay. Urban shrink is especially ascribed to the transition of the second industrial phase towards the third more on service based phase. Post-industrial cities can have problems with the adaption to the new developments and may lose their significance as a result of declining concurrence position compared to other locations and cities.

Müller, K. (2006) 'Offshoring', in Oswalt, P. & Rieniets, T. (2006) *Atlas of Shrinking Cities*. Ostfildern: Hatje Cantz Verlag, pp. 100-101.

In this essay the process of offshoring is described in relation to the implication it can have on the offshored areas. The implications for urban areas are sketched using some examples such as industrial cities which suffer from job loses due to outplacement of jobs to offshore regions.

Münch, S. (2009) "'It's all in the mix": Constructing ethnic segregation as a social problem in Germany', *Journal of Housing and the Built Environment*, Volume 24, Number 4, Pages 441-455.

Ethnic segregation is a common problem in cities. In this article the German policies regarding the prevention of ethnic concentration in cities is discussed from a constructionist's viewpoint. It can be concluded that policies which strive to desegregate the housing market lack ties to empirical research. Also the approaches used differ across Europe. For the future prospects of desegregation housing policies it seems that mixing strategies will remain high

on the agenda due to the general trend in Europe to emphasize socio-cultural integration.

Mykhnenko, V. & Turok, I. (2008) 'East European cities – Patterns of growth and decline, 1930-2005', In *International Planning Studies*, Volume 13, Number 4, Pages 311-342.

In this paper the growth and decline of cities in East Europe are the central topic. The cities are discussed in terms of change in patterns and growth profiles. It is concluded that the main decline is set in since the 1960's and 1970's, various causes are pointed out such as decline in fertility rate and international out-migration. However it is pointed out that the decline is more concerned with the previous aspect than specific urban factors.

Ohno Laboratory/University Tokyo (2006) 'Fiber City: Tokyo', in Oswald, P. & Fishman, R. (ed.) *Shrinking cities volume 2: Interventions*. Ostfildern: Hatje Cantz Verlag, pp. 204-211.

In this paper the concept of a compact city is discussed. The concept has been proposed as the ideal city image. This is because it relates to qualities of spatial closure, functional and social mixing, and shorter distances. It requires minimal investment for infrastructure, has low maintenance cost and a moderate energy consumption. The author describes an example of how Tokyo could become more compact by using the public transportation routes as main development axes. However, the author also describes that a compact city is very difficult to realize due to for example private property rights, but it can serve as inspiration for urban planners and designers.

Oswalt, P. (2004) *Shrinking cities Detroit: working papers*. [Online] Available at: http://www.shrinkingcities.com/fileadmin/shrink/downloads/pdfs/WP-Band_III_Detroit.pdf (Accessed: 18 October 2010)

This report is a collection of papers by different writers about Detroit. In a chronological order the development of the city of Detroit is described. Special attention is paid to the different approaches the city has used to deal with high degrees of suburbanization, segregation and urban decline.

Oswalt, P. & Rieniets, T. (2006) *Atlas of Shrinking Cities*. Ostfildern: Hatje Cantz Verlag.

In the *Atlas of Shrinking Cities* location of cities that shrink and their context are located and briefly described. Various world maps in combination with diagrams are used to point out the main causes and locations of shrinking cities. In general the atlas offers a strong overview of main causes for urban shrink and relates this strongly to a concrete locations worldwide.

Oswalt, P. & Fishman, R. (2006) *Shrinking cities volume 2: Interventions*. Ostfildern: Hatje Cantz Verlag

The book *Shrinking cities volume 2* provides an international overview of concepts and strategies for shrinking cities. Through a number of different essays and authors the concepts and strategies are critically discussed. The overview is very broad, ranging from artistic and self-empowerment projects to architectural and landscape interventions, strategies of media communication, city marketing, and legal regulations to utopian designs. All these strategies are divided into four main categories, deconstructing, reevaluating, reorganizing and imagining.

Oswalt, P. (2006) 'Energy Consumption', in Oswalt, P. & Rieniets, T. (2006) *Atlas of Shrinking Cities*. Ostfildern: Hatje Cantz Verlag, pp. 78-79.

In this essay the changes in energy use in the past and future are evaluated. In doing so the author points out that the current energy sources are not renewable and will have to be replaced in the future. That this has implication for the cities is clear for the author, however the precise effects seem to be unclear.

Oswalt, P. (2006) 'Duisburg-Nord landscape park', in Oswalt, P. & Fishman, R. (ed.) *Shrinking cities volume 2: Interventions*. Ostfildern: Hatje Cantz Verlag, pp. 151-155.

In this article the development of the Duisburg-Meiderich blast-furnace plant into a landscape park is described. It is an example of an old derelict industrial site that has been developed for new uses and has been opened for the public. The area of 200 hectares landscape park now provides space for leisure, sport, cultural and educational activities.

Ott, T. (2001) 'From concentration to de-concentration: Migration patterns in the post-socialist city', In *Cities*, Volume 18, Issue 6, Pages 403-412.

The paper analyses changing patterns that are occurring as a result of migration in this paper as a result of the transition processes from Socialist to Capitalist (German unification). It is concluded that urban shrink was the result of migration from east to west, but also other processes contributed to the shrink of east German cities, such as suburbanization processes.

Overmeyer, K. (2006) 'Vacant lots as incubators: Interim uses in shrinking cities', in Oswalt, P. & Fishman, R. (ed.) *Shrinking cities volume 2: Interventions*. Ostfildern: Hatje Cantz Verlag, pp. 340-343.

In this article the possibilities of interim uses in shrinking cities are discussed. The conclusion is that interim uses can function very well in a shrinking city on various scale levels, for different time scales and under different regulations. However the authors also stress that not every vacant lot or building is suitable for temporary uses. And that the location of the vacant space is also important.

Pallagst, K.M. (2009) 'Shrinking cities in the United States of America: Three cases, three planning stories', In Pallagst, K.M., Aber, J., Audirac, I., Cunningham-Sabot, E., Fol, S., Martinez-Fernandez, C., Moraes, S., Mulligan, H., Vargas-Hernandez, J., Wiechmann, T., Wu, T., Rich, J. (2009) *The future of shrinking cities: problems patterns and strategies of urban transformation in a global context*. Online publication: http://iurd.berkeley.edu/catalog/Other/Future_Shrinking_Cities_Problems_Patterns_and_Strategies_Urban_Transformation_Global (Accessed 8 November 2010), pp. 81-88.

Various cases of urban shrink in the United States of America are discussed. Various causes of urban shrink are pointed out with a main focus on industrial decline. It is concluded that the focus in city planning has to shift towards an incorporation of urban decline and shrink. Furthermore is noted that urban shrink may develop itself in the future towards new types of cities such as Silicon Valley that is also based on one primarily high tech industry.

Pearson, L.J., Pearson, L. & Pearson, C. (2010) 'Sustainable urban agriculture: Stocktake and opportunities', *International journal of agricultural sustainability*, Volume 8, Number 1-2, Pages 7-19.

This paper gives an overview of literature studies regarding urban agriculture. Urban agriculture is divided in three dimensions of sustainability, social, economic and environmental. After the overview the authors suggest that further research should be aimed at identifying principles of sustainable urban agriculture and operationally trialling innovative institutional mechanisms.

Pratt, A.C. (2009) 'Urban regeneration: From the arts 'feel good' factor to the cultural economy: A case study of Hoxton, London', *Urban Studies*, Volume 46, Pages 1041-1061.

In the paper by Pratt the role of culture in the development and regeneration of post-industrial cities is critically examined. The paper is based on a case study of Hoxton square in London. Hoxton is an example of a former derelict area which through a magical injection of culture has been changed in a 'cultural quarter'. The paper concludes that the process is much more complex than that.

Piers, B., Cannon, T., Davis, I. & Wisner, B. (1994) *At Risk: Natural hazards, people's vulnerability, and disasters*, New York: Routledge.

In this book various natural disasters are introduced and described in relation to possibilities to prevent natural disasters from becoming disasters. Social causes that underlie often the magnitude of hazardousness of disasters are pointed out. It is concluded that practical and political solutions for a safer and less vulnerable environment have to be implemented.

Prigge, W. (2006) 'The suburbanization of inner cities', in Oswalt, P. & Fishman, R. (ed.) *Shrinking cities volume 2: Interventions*. Ostfildern: Hatje Cantz Verlag, pp. 225-231.

In this article the suburbanization of the inner city is described. In a shrinking city the amount of vacant and abandoned property offers opportunities to transform the city center from a centralized to a lower density building area. In this way the housing stock can drop and the quality of the houses that remain becomes higher.

Roman, C.G. & Chalfin, A. (2008) 'Fear of walking outdoors: A multilevel ecologic analysis of crime and disorder', *American Journal of Preventive Medicine*, Volume 34, Issue 4, Pages 306-312.

In this paper the degree to which individual-level demographic characteristics and neighborhood-level physical and social characteristics are associated with increased fear of crime is investigated. To gather this data a survey from 2007 and 2005 of individuals living in 55 different neighborhoods in Washington DC was analyzed. Results include gender difference unless the crime rate is very high and the amount of time residents live in a neighborhood.

Rosenfeld, E. (2006) 'What is art up to in disused buildings', in Oswalt, P. & Fishman, R. (ed.) *Shrinking cities volume 2: Interventions*. Ostfildern: Hatje Cantz Verlag, pp. 355-361.

The author of this article describes the opportunities a shrinking city offers for artists through temporary use of land and derelict buildings. Municipalities stimulate and encourage all kinds of new developments through benefits and subsidies, and artists are able to profit from this. The influences from art projects on

a shrinking city, especially social effects, are often difficult to demonstrate.

Sands, G (2003) 'Michigan's Renaissance Zones: Eliminating taxes to attract investment and jobs in distressed communities', *Environment and Planning C: Government and Policy*, Volume 21, Pages 719-734.

In this paper the initiative of Michigan to establish renaissance zones is discussed. Renaissance zones are virtually free of all state and local taxes for businesses located within their boundaries. The goal is to attract new investors and as a result boost the economic situation. The conclusion of the author is that in some designated areas have experienced significant gains. However, in some areas the privileges and benefits have not provided sufficient incentives to attract new activity.

Schetke, S. & Haase, D. (2008) 'Multi-criteria assessment of socio-environmental aspects in shrinking cities. Experiences from eastern Germany', In *Environmental impact assessment review*, Volume 28, Pages 483-503.

In this article the socio-environmental aspects of shrinking cities are investigated. In order to evaluate this in a quantitative manner, a multi-criteria assessment scheme was developed. The results show that shrinkage implies socio-environmental changes of residential livelihoods. However this cannot be simply described as either an increase or decrease of overall urban quality of life.

Schmidt, B. (2006) 'Alternative investment in shrinking cities', in Oswald, P. & Fishman, R. (ed.) *Shrinking cities volume 2: Interventions*. Ostfildern: Hatje Cantz Verlag, pp. 386-391.

In the paper by Schmidt alternative investors for shrinking cities are described. According to the author there is a difference between the 'classic investors' and the 'new investors'. These new investors become active in urban regions abandoned by the normal market. New investors include interim users, owner-occupants, as well as everything from initiatives and civic action projects to cooperatives, foundations, and 'progressive' investors who acquire vacant buildings, facilitate new uses and invest money and labor in a shrinking market. As such they are new economic players, contribute to the quality of a city and represent social capital for cities.

Schott, D. (2006) 'Natural Disasters', in Oswald, P. & Rieniets, T. (2006) *Atlas of Shrinking Cities*. Ostfildern: Hatje Cantz Verlag, pp. 54-55.

Natural disasters are described in a very brief way. After introducing the nature of the term natural disasters various historical and more contemporary examples of natural disaster in relation to the urban area are presented. It is pointed out that the extend of damage of a natural disaster is related to the nature of the city created by humankind.

Schwarz, N. & Haase, D. (2010) 'Urban shrinkage: a vicious circle for residents and infrastructure? - Coupling agent-based models on residential location choice and urban infrastructure development', Paper of the International Environmental Modelling and Software Society 2010 International Congress on Environmental Modelling and Software Modelling of Environment's. [Online] Available at: <http://www.iemss.org/iemss2010/papers/S07/S.07.16.Urban%20shrinkage%20a%20vicious%20circle%20for%20residents%20and%20infrastructure%20Coupling%20agentbased%20models%20>

on%20residential%20location%20choice%20and%20urban%20infrastructure%20development%20-%20NINA%20SCHWARZ.pdf (Accessed 11 November 2010)

In this paper the relationship between residential location choice and infrastructure is discussed. To describe this relationship two types of agents, resident and infrastructure agents, are coupled for two different scenarios. One in which there is scattered shrinkage throughout a city and one with a single declining urban district. The resulting model is difficult to calibrate and validate because of missing data.

Shaw, M. (2006) 'War', in Oswalt, P. & Rieniets, T. (2006) Atlas of Shrinking Cities. Ostfildern: Hatje Cantz Verlag, pp. 52-53.

Shaw describes the role of war in the development of cities. In doing so an historical overview of the role and part of cities in wars is created. In doing so the causal effect war can have on the shrink of a city is explained.

Steglich, U. (2006) 'These start-up times: How Dessau organizes vacant spaces of the future', in Oswalt, P. & Fishman, R. (ed.) Shrinking cities volume 2: Interventions. Ostfildern: Hatje Cantz Verlag, pp. 384-385.

In this article the author describes an example of a 'new investors', a small nonprofit organization, the Brauhaus Verein Dessau e.V. This organization bought an old brewery in Dessau-West. Currently the brewery is providing working space for architects, structural engineers and artists, storage room, a metal- and woodshop, an indoor climbing tower, and houses cultural events.

Steinführer, A. & Haase, A. (2007) 'Demographic change as a future challenge for cities in east central Europe', In Geografiska Annaler, Series B: Human Geography, Volume 89, Issue 2, Pages 183-195

This paper is concerned with the challenges that are located in the future of urban development in post-socialist cities in eastern Europe. Demographic change in these cities is considered in the view of implication for the urban structure and the housing market. It is concluded that this demographic change can create problems for cities.

Turskis, Z., Zavadskas, E.K. & Zagorskis, J. (2006) 'Sustainable city compactness evaluation on the basis of GIS and bayes rule', International Journal of Strategic Property Management, Volume 10, Pages 1850-207.

In this paper the authors describe the phenomenon of a compact city. They give a short overview of the phenomenon in general and then describe the case of Kaunas city. After this the focus is on a method to calculate the compactness of a city using GIS and the bayes rule. The conclusion is that estimating a cities compactness and sustainability is very complex and that more research is needed to develop a method.

UNESCO (2006) Water: A shared responsibility, Online publication <http://unesdoc.unesco.org/images/0014/001454/145405E.pdf> (Accessed 8 November 2010)

In this UNESCO publication water is the central topic. The water system in general is threaded, followed by the relation to changing natural systems, challenges for well-being and development, management responsibilities and stewardship, and finally it is about sharing responsibilities of the water sources. During the

report it is pointed out what the lack of water accessibility can have as a push factor.

U.S Department of Housing and Urban Development (HUD), (2005) Capturing Successes in Renewal Communities and Empowerment Zones. [Online] Available at: <http://www.hud.gov/offices/cpd/economicdevelopment/library/spotlight508.pdf> (Accessed: 22 October 2010)

In the report by the Department of Housing and Urban Development the empowerment zones are described. The goal of the zones is to promote economic development in communities which are distressed by high levels of poverty and unemployment. Through tax reduction and other incentives new businesses and investments are attracted to the zones. Also many examples of the development and results of these zones are given.

Vanolo, A. (2008) 'The image of the creative city: Some reflection on urban branding in Turin', *Cities*, Volume 25, Number 6, Pages 370-382.

In the paper by Vanolo city marketing and place branding strategies are discussed. The focus is on promoting the creative industries. The example of the city Turin is used to determine to what degree the branding and city marketing strategies used represent the ideas of creativity. In general it appears that there is an increased attention for creativity as urban asset and that many cities invest heavily in cultural industries and cultural images.

Vockler, K. (2006) 'Robert Smithson and the architecture of absence', in Oswald, P. & Fishman, R. (ed.) *Shrinking cities volume 2: Interventions*. Ostfildern: Hatje Cantz Verlag, pp. 114-125.

In the paper by Vockler the static image of cities is discussed. The author argues that while cities appear to be static, they change and develop through time. It is expanding, shrinking and changing at the same time. This flexibility is particularly important when dealing with uncertainties, and as such with shrinking cities. The conclusion is that planning and designing for a flexible instead of static city might be a good strategy to deal with urban shrinkage and its effects.

Ward, S.V. (2006) 'City marketing: Origin and critique', in Oswald, P. & Fishman, R. (ed.) *Shrinking cities volume 2: Interventions*. Ostfildern: Hatje Cantz Verlag, pp. 724-729.

In this article the author describes the process of city marketing in relation to shrinking cities. With the use of some examples the development of the process through time is described, as well as the influence of city marketing on a shrinking city. The conclusion at the end of the article is that it is very difficult to predict the consequences and influence of city marketing. However it appears that city marketing can be a powerful tool, but only if it is used together with other strategies.

Wex, C. (2006) 'Special tax zones as a fatal strategy', in Oswald, P. & Fishman, R. (ed.) *Shrinking cities volume 2: Interventions*. Ostfildern: Hatje Cantz Verlag, pp. 658-660.

In this article the author describes the debate that is going on about tax reduction or exemption as a strategy to stimulate the market. The author concludes that most of the time the tax reduction results in less income for the municipality and that

the power of the new companies to function as a growth pole, also after the tax reduction period, is often limited.

Wiechmann, T. (2009) 'Conversion Strategies under Uncertainty in Post-Socialist Shrinking Cities: The Example of Dresden in Eastern Germany', In Pallagst, K., Aber, J., Audirac, I., Cunningham-Sabot, E., Fol, S., Martinez-Fernandez, C., Moraes, S., Mulligan, H., Vargas-Hernandez, J., Wiechmann, T., Wu, T., Rich, J. (2009) *The future of shrinking cities: problems patterns and strategies of urban transformation in a global context*. Online publication: http://iurd.berkeley.edu/catalog/Other/Future_Shrinking_Cities_Problems_Patterns_and_Strategies_Urban_Transformation_Global (Accessed 8 November 2010)

In this paper there is an focus upon post-socialist shrinking cities. Dresden in Eastern Germany is the example case on which the paper elaborates. It is highlighted that the breakdown of the state-directed economy has led towards economic decline which resulted in industrial decline and growing unemployment rates. The latter is pointed out as a main reason for people to leave the city of Dresden.

Wild, T. & Jones, P.N. (1993) 'Spatial impacts of German unification', In *The Geographical Journal*, Volume 160, Part 1, Pages 1-16.

This paper examines the impacts of the German unification. It points out the regional differences that still exist and how was reacted on the challenges that arise for policy makers. Besides the challenges that occur as a result of the unification such as migration, also a prediction is made for the long-term effects of the unification.

Yigitcanlar, T. (2010) 'Making space and place for the knowledge economy: Knowledge-based development of Australian cities', *European Planning Studies*, Volume 18, Number 11, Pages 1769-1786.

In this article the author described the emergence of the knowledge economy. The author states that the knowledge economy has become a important new economic sector that has many positive influences. The conclusion about the case study regarding knowledge economies in Australian cities is that there is a lot of potential for Sydney, Melbourne and Brisbane to become knowledge based cities.

Zehner, K. (2006) 'Enterprise zones in the United Kingdom', in Oswald, P. & Fishman, R. (ed.) *Shrinking cities volume 2: Interventions*. Ostfildern: Hatje Cantz Verlag, pp. 649-654.

In the paper enterprise zones in the United Kingdom the author describes the development and effects of the concept enterprise zones. Enterprise zones are small economic zones that have been granted special status. This special status results in all kinds of benefits including exemption of taxes. The author concludes that some of these zones have proved to be a success but many have proved to be a failure.

Zhao, P. (2010) 'Building knowledge city in transformation era: Knowledge-based urban development in Beijing in the context of globalisation and decentralisation', *Asia Pacific Viewpoint*, Volume 51, Number 1, Pages 73-90.

In the paper by Zhao the phenomenon of the development of the knowledge industry is described. Important factors regarding knowledge economy, and in particular the cultural industries, are discussed. There is also attention for important factors driving this development, of which globalization is the most important. The case of Beijing is investigated, which demonstrates a rapid growth of the knowledge industry, particularly after the Olympic Games in 2008.