

Self-organization in urban regeneration

A two case comparative research

Ingmar van Meerkerk, Beitske Boonstra and Jurian Edelenbos

Paper for 9th meeting of AESOP Thematic group on Complexity and Planning. Self-organization and spatial planning. Istanbul, 29th-30th April 2011.

Abstract

In this paper urban regeneration projects are approached as local self-organizing processes, in which different local actors like commercial actors, non-for-profit organizations and residents redevelop urban areas. We elaborate on the functioning of self-organizing processes in urban regeneration, especially on the conditions that shape and structure these processes and its effects on the vitality of urban regeneration processes. In our study we conducted a two case comparative research of self-organization of two urban regeneration projects in the UK: Caterham Barracks and Broad Street BID Birmingham. We analyze the evolution of these two self-organizing regeneration processes by using two distinct characteristics of self-organization: autopoietic and dissipative characteristics. In both cases a strong interplay of these two forms led to vigorous urban regeneration processes.

Author information

Ingmar van Meerkerk is Ph.D. student at the Department of Public Administration at the Erasmus University Rotterdam, The Netherlands, email: vanmeerkerk@fsw.eur.nl.

Beitske Boonstra is researcher at the Netherlands Organisation for Applied Scientific Research (TNO) and Ph.D. candidate at Utrecht University, Department of Human Geography and Urban and Regional Planning, email: beitske.boonstra@tno.nl.

Jurian Edelenbos is professor of Public Administration at the Erasmus University Rotterdam, The Netherlands, email: edelenbos@fsw.eur.nl.

I Introduction

Urban regeneration projects are accompanied with high complexities. Urban regeneration projects are embedded in complex network environments, in which different governmental agencies, commercial actors, non-for-profit organizations and residents reshape urban areas (Byrne, 1998; 2007; Wagenaar, 2007; Teisman et al, 2009). Governments have dependent relations with local stakeholders in urban areas (for example businesses and residents), because they have the means and resources to on the one hand uphold regeneration processes and the other hand to improve the plans and make them tailor made to the specific situational circumstances and features of the local area (Koppenjan and Klijn, 2004). Therefore, it is important to establish collaborative and vigorous relations between those various actors in order to create and maintain urban areas of high qualities. However, the establishment of such vital collaborative relations is often perceived as problematic (Sullivan and Skelcher, 2002). In developing vigorous collaborative multi-actor relationships local governments also need to better connect to bottom-up processes, in which local stakeholders develop ideas for regenerating urban areas.

These local stakeholder processes can be framed as self-organization (Teisman et al, 2009). Self-organization is defined here as the emergence of new structures out of local interaction, without any external or internal actors imposing these structures (Cilliers, 1998; Heylighen, 2002; Jantsch, 1980). Self-organization is the reflexive capacity of actors and (sub)systems who are able to receive, encode, transform and store information and use this to consider their actions (Teisman, et al, 2009: 9). Self-organization is the internal capacity of elements within the systems to spontaneously adjust and develop.

However, we lack a clear understanding of the conditions that favour (or obstruct) the establishment of these local self-organizing processes in urban regeneration. In this article we therefore focus on the functioning of self-organizing processes in urban regeneration. The following research question is leading for our research and paper: in what ways do self-organizing processes evolve in urban regeneration projects, and which conditions facilitate these processes? In this article urban regeneration is approached as not only as the demolition and (re)building of houses, apartments, or offices, but also as other investments in city districts like branding (image building), maintenance projects, etc. We conducted a two case comparative research of two urban regeneration projects in the UK: Caterham Barracks and Broad Street BID Birmingham. These cases are examples of urban regenerations in which local actors (users, residents) took initiative and responsibility in redeveloping parts of cities.

The structure of our paper is the following. In section 2 we provide our theoretical and analytical framework, in which we elaborate two forms of self-organization i.e. autopoietic and dissipative self-organization. In section 3 we provide background information on our two cases. In section 4 we conduct the two case comparative analyses. In section 5 we draw conclusions, formulate lessons and finish with a discussion.

II Theoretical framework: framing self-organization

We argued in the introduction that we approach local urban regeneration as processes of self-organization. In this section we theoretically elaborate the concept self-organization. The origin of the concept lies in complexity sciences in physics, stating by the second law of thermodynamics that the entropy of a system, the measure of ‘disorder’, can only increase (Cilliers 1998: 7-8). However, ideas from complexity sciences also entered social sciences (Wagenaar, 2007; Edelenbos et al, 2008; Teisman et al, 2009; De Roo, 2010).

The concept of self-organization within complexity thinking is broadly defined as the emergence of new structures out of local interaction, without any external or internal actors imposing this structure to the system (Cilliers, 1998; Heylighen, 2002; Jantsch, 1980). “System-level order emerges because of interactions among entities with individual schemas at a lower level in the system (Anderson, 1999), that is, nested systems (Ashmos & Huber, 1987)” (Plauwman et al., 2007). Self-organization is a continuous process, which occurs “...as a result of communication, selection, and adaptation processes within the system itself and between the evolving system and its environment” (Comfort, 1994: 396). Cilliers (1998: 12) describes self-organization as a process whereby a system can develop a complex structure from fairly unstructured beginnings. This process changes the relationships between the distributed elements of the system under influence of both the external environment and the history of the system. Since the system has to cope with unpredictable changes in the environment, the development of the structure cannot be contained in a rigid programme that controls the behaviour of the system. “*The capacity for self-organization is a property of complex systems which enables them to develop or change internal structure spontaneously and adaptively in order to cope with, or manipulate, their environment*” (ibid: 90).

Self-organization is therefore about the emergence of new structures (Kauffman, 1993; Prigogine and Stengers, 1984). This means that sufficient flexibility should be present to adjust behaviour to dynamic changes in the environment, including behaviour of other actors (Comfort, 1994). An important feature of self-organization is distributed or decentred control: there is no central place or actor that is controlling the information and knowledge running or present in the system, but rather this is distributed among all the different elements that constitute the system (Cilliers 1998: 10-12) Control of the organization is typically distributed over the whole of the system, and all parts contribute to the resulting arrangement (Heylighen 2001: 4-6). At the same time self-organization is not possible without any memory and identity (Cilliers, 1998). Too much flexibility or continual adaptations could lead to a chaotic systems state in which producing results becomes highly difficult. Hence, besides sufficient flexibility, sufficient structure to hold and exchange information is an important condition for self-organization (Comfort, 1994). This dynamic balance could be found in the so-called ‘edge of chaos’ (e.g. Kauffman, 1993; Merry, 1999).

Autopoietic and dissipative self-organization

In this respect, in the literature a distinction is made between autopoietic and dissipative self-organization. Autopoietic self-organization is about self-maintenance

and reproduction of systems (Jantsch, 1980; Maturana & Varela, 1980).¹ Autopoietic, or conservative self-organization aims at stabilizing and sometimes intensifying boundary judgments in social settings, attain an existing structure and maintain it (In 't Veld et al. 1991). Applied to social systems it refers to relatively stable identity structures (cf. Luhmann, 1995). The specific meaning is rather isolated or closed with regard to the specific social subsystem. It does not have specific value for or is not connected to other social subsystems.

Prigogine and Stengers (1984) mainly focus on dissipative self-organization, which is boundary breaking. Dissipative self-organization refers to the (increasing) connection of different subsystems leading to highly dynamic process in which systems are driven towards far-from-equilibrium situations (Jantsch, 1980; Prigogine and Stengers, 1984; Heylighen, 2002; Morçöl, 2005).² Without any stabilizing forces these highly dynamic processes could lead to chaos.

Thus, dissipative self-organization is understood as attempts to establish new relationships and to broaden the network. Autopoietic is understood as attempts to confirm the collectiveness of the actors, legitimate its existence among its group members and structuring the internal organization. Dissipative behaviour is aimed at enhancing external robustness, while autopoietic behaviour is enhancing internal robustness.

Systems (physical as well as social) show sometimes features of both autopoietic and dissipative self-organization. Systems are then in a situation of so-called 'bounded instability' (Merry, 1999; Griffin et al., 1999; Stacey, 2003; McElroy, 2003; Van Buuren and Edelenbos, 2008). In a situation of bounded instability ".....the organisation can find the mix of confirmation and novelty that allows it to be a learning system that is able continually to self-organize and thus renew itself. It is able to have enough stability to maintain its identity, while at the same time it has enough creativity, novelty, and change-ability to be sustainable in the rugged, networked landscapes it inhabits. It has found the balance between chaos and order, novelty and confirmation, change and continuity, autonomy and interdependence" (Merry, 1999: 275). In situations of equilibrium, systems are too static to be really adaptive to new, unanticipated situations. Such a system can grow isolated and thus

¹ Its origin stems from the biologists Maturana and Varela (1980). Their research was about the question 'what makes a living being an autonomous whole?'. This question was raised because of the paradox that different parts (e.g. molecular structures and cells) of a living whole are constantly replaced by new ones, while at the same time the 'whole' keeps its identity (Morçöl, 2005: 10). This is because "...a living system is organized in such a way that all its components and processes jointly produce those self-same components and processes, thus establishing an autonomous, self-producing entity" (Mingers, 1995: 13). The renewing is possible because of exchange relationships with the environment. Because the environment is changing those exchange relationships have to be adaptive. However the "...organizational form of the system determines how to adapt, not the other way around" (Morçöl, 2005: 10). This means that systems are thermodynamically open, but organizationally closed (Heylighen, 2001).

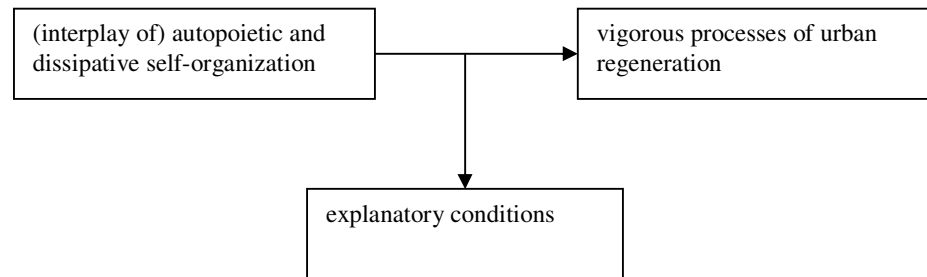
² The concept of dissipative self-organization or dissipative structures is originally developed by Prigogine and Stengers (1984). According to them most systems in universe, at least living systems, are open systems. This means that energy, matter and information are flowing through them and that they have the tendency to move from stable equilibrium situations to far-from-equilibrium situations (Jantsch, 1980; Heylighen, 2001; Morçöl, 2005). In these far-from-equilibrium situations systems are much more sensitive to external influences and their behavioral patterns are non-linear; small changes in the components of a system may lead to large-scale changes (Morçöl, 2005: 11).

become irrelevant to its environment. On the other hand, when a system is totally unstable, it is not capable to respond in a coherent way to new challenges and such a system could easily become rudderless. Situations of bounded instability are thus characterized by autopoietic and dissipative self-organization. In this article we want to explore how this interplay between the two types of self-organization evolves in the practice of urban regeneration and we want to investigate under which conditions this interplay takes place.

Self-organization in urban regeneration: the analytical framework

Urban regeneration, formed and carried out by local 'stakeholders' (residents, companies, non-for-profit organizations, etc.), could be framed as (an interplay of) autopoietic and dissipative self-organization when these local stakeholders take initiative to come to collective action.

Figure 1: conceptual framework



In our research we approach urban regeneration processes as (an interplay of) autopoietic and dissipative self-organization. These processes of self-organization can be initiated by governmental actions (Edelenbos, 2005; Wagenaar, 2007), they can emerge as pro-active responses to governmental policies and actions (Edelenbos, 2010) or even autonomous from governmental actions (Boonstra and Boelens, 2011). Sometimes these local self-organizations turn into collaborative and vigorous processes for urban renewal, but then again they fail and suddenly 'die'. Our objective is to explain the rise (and fall) of self-organizing urban regeneration processes and explore explanation conditions for this.

We define dissipative self-organization as the openness of social systems and the exploration for (increasing) interconnection of different subsystems leading to highly dynamic and vigorous processes (c.f. Jantsch, 1980; Teisman et al, 2009). Dissipative self-organized systems are characterized by external orientation and wide boundary judgments (Flood, 1999; Teisman et al, 2009) in which variety and redundancy of ideas (plans, content) and actors are allowed.

We define autopoietic self-organization as the inwards orientation of social systems that is about self-maintenance, identity forming and stabilization, and reproduction (c.f. Jantsch, 1980; Maturana & Varela, 1980; Luhmann, 1995). Autopoietic self-organized systems are characterized by internal orientation and narrow boundary judgments (Flood, 1999; Teisman et al, 2009) in which variety and redundancy of ideas (plans, content) and actors are blocked or not allowed.

We operationalize autopoietic and dissipative self-organization therefore as follows:

Table 1: operationalization of the variables dissipative and autopoietic self-organization

Main variables	Indicators
Dissipative self-organization	<ul style="list-style-type: none"> - external orientation through a) open boundaries, and b) looking for exposure - wide orientation through a) exploring new content, and b) involving and connecting a large number of actors
Autopoietic self-organization	<ul style="list-style-type: none"> - internal orientation through a) closed boundaries, and b) strengthen internal identity - narrow orientation through a) explicating and consolidating content, and b) stabilizing or even reducing the number of involved actors

We define vigorous and vital urban regeneration processes as the way different actors jointly and collaboratively develop problem definitions and solutions for solving problems in the urban area (c.f. Sullivan and Skelcher, 2002; Edelenbos, 2005; Klijn et al, 2010). The processes are characterized by ongoing interaction in which mutual communication and understanding are present and high-level conflicts are absent.

We therefore operationalize vigorous and vital self-organization as follows:

Table 2: operationalization of the variable vigorous urban regeneration

Main variables	Indicators
Vigorous urban regeneration	<ul style="list-style-type: none"> - co-production through a) joint problem-definition and b) joint solution finding - ongoing interaction through a) the presence of mutual communication an understanding, and b) the absence of high-level conflict

Case studies

We selected two cases that in our view provide examples of self-organization in urban development. It was important that a certain level of self-organization was present in the cases. The case Caterham Baracks Community Trust is an example of community-based initiative that led to self-organizing community trust. The case Broad Street Birmingham is an example of the establishment of a Business Improvement District in which property owners and business actors develop proactive behaviour and self-organizing capacity for redeveloping the urban area.

We conducted theory-informed case studies in a focused way, to empirically analyze a particular theoretically relevant issue, self-organization in urban regeneration, and generate new theoretical knowledge from the empirical analysis. The research design of two case studies does not enable us to develop generalized empirical knowledge about but it does provide a detailed understanding of contextual and situational conditions influencing the trust and control interplay. From the cases we draw theoretical insights, which need to be empirically validated in other contexts before we know in how far they can be generalized. This is in accordance with conventional case study methodology (e.g. Stake, 1998; Yin, 1984). We conducted an instrumental case study rather than an intrinsic case study (Stake, 1998). In an instrumental case study the researcher uses a case to gain more understanding about a particular phenomenon of interest. An intrinsic case study is carried out because of an interest in the case itself, and what happens in the case. We applied theory to analyze the cases and we used the cases to develop new insights (emerging from the cases) in finding

facilitating condition for self-organizing processes in urban regeneration. Our goal is to discover which conditions facilitate self-organizing to result in vigorous processes of urban regeneration.

Data were collected through a combination of interviews with key actors, observations and document analyses (see appendix A). All relevant written documents were subjected to accurate study, such as memos, reports, newsletters, proposals, websites, political documents, statutory instruments etc. In addition, the key players in both cases were interviewed. These key actors in the cases were: the involved individuals in the bottom-up initiatives (local residents in Caterham and the BID management in Birmingham) and other involved actors in the regeneration process, such as civil servants of the local authority, council members, developers and other involved governmental agencies. The interviews were semi-structured. Firstly, the process and history of the cases were reconstructed. Secondly, questions were asked about the indicators mentioned in table 1 and 2: how did the self-organizations developed and how did they demarcated the content and the process of the regeneration: how did they involved other actors, how did they decided on the themes and projects of the regeneration and how did they structured the interactions and communications with the other involved actors and the local community?

III Introduction of the case studies

Both regeneration processes start off in the nineties and are examples of how local stakeholders (end-users with a direct interest) take responsibility for the vitality of their (living and business) environments. An important difference concerns the origin of the self-organization. The Broad Street Birmingham case is initiated by private businesses, while the Caterham Barracks case is initiated by local residents. In the following of this paragraph the two cases are further introduced. In Table 3 the two cases are compared regarding their main characteristics (see appendix B for some impressions).

Caterham Barracks

Caterham Barracks is an urban regeneration project which is developed and management in a cooperation process between local community, a private developer and the District Council. The site is located in the Northwestern edge of Caterham-on-the-Hill. Caterham is a town in the Tandridge District of Surrey and located south of London. The self-organizing character of the case is represented by the emergence of the Caterham Barracks Community Trust, which took responsibility for developing community managed facilities. Caterham Barracks refers to a Depot used by the army until 1990 when it was declared redundant by the Ministry of Defense. The site comprises of 57 acres (23 hectares) divided into three parcels of land. The main part is 40 acres (16 hectares) in size. In 1995 the barracks were closed. This had its impact on the local economy and the character of the area. The population of the Barracks contributed to the social life and economic well-being of the local area for a long period of time (Tandridge District Council, 1998: 2). When the Barracks were closed, several local residents successfully lobbied with members of the town council to preserve the area (Bovaird, 2006: 90; Interview Moran, 2008). This way the demolition of buildings and the construction of high-end and middleclass housing was prevented; the scenario most interesting to private investors. From that moment on the redevelopment of the area becomes a process in which local residents in cooperation

with a private developer play a key role. The District is mainly facilitating the self-organizing residents and the cooperation between the residents and the private developer.

Broad Street Birmingham

Broad Street BID Birmingham is a Business Improvement District which is initiated by local businesses, property owners and the Birmingham City Council. The main goal of the organization of this BID is to bring down the nuisance of the night time economy on the business environment within the Broad Street area. The self-organizing aspect of the case is that the establishment of the BID and the BID itself are mainly business-led, and only facilitated by the City Council. The concerns about the business environment on and around Broad Street Birmingham start off in the early nineties. The establishment of a convention centre in this part of the city centre boosts the local economy around Broad Street, both business-oriented as an emerging night time economy. The quality and reputation of the area is however seriously challenged as the night time economy starts causing an increasing nuisance, thus devaluating the expensive real estate investments made in the area. When a person is killed during a night time fight, people realise it is time to find a solution. At that moment (2003) local businesses, the city council and the police start coming together to discuss the problems on and around Broad Street. It was the businesses in the Broad Street area were the main stakeholders in all respects: they suffered most from the controversy between “drunks and bankers”, but also held the keys in providing solutions, and by establishing a BID, they took responsibility for solving this problem themselves. Thus, the Broad Street BID is an example of local entrepreneurs who take an autonomous position in maintaining and developing their business environments, mainly out of their own interest and due to local circumstances. The fight is in that respect the trigger for private and civic actors (together with the City Council and police) to start institutionalizing their shared responsibility.

In the next paragraph the case studies are described and analyzed by focusing on the autopoietic and dissipative characteristics.

Table 3: main characteristics of the two cases

	Broad Street Birmingham	Caterham Barracks
Leading actors	Broad Street businesses Property owners and developers City Centre Partnership West Midland Police Broad Street BID	Caterham Barracks Community Trust (Local Group) Linden Homes District Council
Issue	The nuisance of the night time economy on the business environment within the Broad Street area affects the local economy and character of the area. The BID is a chance to counter this controversy and make Broad Street “cleaner, brighter and safer”.	The closing of the Barracks has impact on the local economy and the character of the area. The redevelopment of the site is a chance to create new vitality for the area.
Timeframe	Phase one: 1991 – 2003, Growing controversies Phase two: 2003 – 2004, Establishing the BID Phase three: 2004 – 2009, Proving the BID Phase four: 2009 – 2010, Expanding the BID	Phase one: 1995 – 1997, Redefining the Barracks Phase two: 1998, Plans for redevelopment Phase three: 1999 – 2000, Establishing governance arrangements between main actors Phase four: 2001 – 2010, The Community Trust in action
Legislation	Business Improvement District (Statutory Instrument 2004: 2443)	Section 106 Agreement between private developer, local authority and Community Trust
Size	Approximately 100 acres and over 300 businesses	57 acres divided in three parcels, Approximately 400 new houses.
Budget	Approximately £ 400,000 p.a.	Initial investment of £ 2,000,000 by private developer for community benefits

IV Dissipative and autopoietic characteristics of the Caterham Barracks regeneration process

In this paragraph the urban regeneration of Caterham Barracks is analyzed by the concepts of dissipative and autopoietic behaviour. In Table 4 the results are summarized. The indicators of table 1 are marked to explicate the autopoietic and dissipative elements.

Table 4: dissipative and autopoietic characteristics of Caterham Barracks

Time frame	Dissipative characteristics	Autopoietic characteristics
Phase 1 (1995-1997): Redefining the Barracks	Exploration of what the former Barracks (and the area) could mean for the local community; Open process in which a large number of actors are connected	Development of some clear guidelines and protection of the area: explication of what should be maintained Stabilization of the involvement of a certain group of individuals: the Local Group
Phase 2 (1998): Plans for redevelopment	Explorative planning process in which a large numbers of actors are involved Connection between ideas and interests Local Group, private developer, local community and local authority	' Selection ' of ideas for community facilities and future management organized by Local Group
Phase 3 (1999-2000): Establishing governance arrangements between main actors	Exploration of effective cooperation structure between Local Group, private developer and local authority; Intensive interactions between Local Group, private developer and local authority	Refinement of plans towards implementation Formalization of arrangements between main actors: dividing responsibilities Establishment of Community Trust
Phase 4 (2001-2011, still running): The Community Trust in action	Community Trust is looking for exposure : it seeks for sustainable user groups for running community facilities.	Decreasing interactions between main actors Internal orientation : Community Trust is increasingly focused on internal management and running business

Phase 1 (1995-1997)

Dissipative characteristics

After the closing of the Barracks, two local councillors take the lead in starting a process in which the meaning of the site for the wider community is explored. What does the site mean for the local community and what could it mean in the near future (Interviews)? This process is characterised by a lot of interaction between different kinds of actors, motivated by the desire to preserve the site for community benefits and to involve the local people in developing the site. A Local Group was formed to act as a forum for discussion on future uses for the Barracks' site. "The local group was set up specifically with local people to look at specifically this site and what their views could be. And they were reporting to [...] the district council" (Interview Greenwood, 2009). Different governmental and political bodies were represented in that Group: District and County Officers, District and County Councillors and members of the Caterham and District Residents' Association (Tandridge District Council, 1998: 4). The local community was involved by taking local residents into the area and showing them around.

"Every two hours a bus went from there and we were like tour operators, me and a couple of colleagues drove on the buses with loudspeakers and microphones. [...] We threw the question out basically; shall we make a conservation area? [...] Now we got our views about where the conservation area should go, what do you think?" (Interview Greenwood, 2009).

Furthermore, local residents were invited to vote for different development scenarios which were produced by the local authority and the Local Group. This consultation attracted a high response and provided a clear statement of what local people wanted with the site (Interviews).³

Autopoietic characteristics

An important focal point was the protection of the area from housing. Although it was not yet clear what the site could mean for the local community, there was relatively high consensus about what the site should at least not become: an area in which (just) new houses are built and in which newcomers settle. Such an area would not be connected to the community (Interviews). This idea created focus and led to the transformation of the area into a Conservation Area.

"We started using planning legislation to our advantage. We said we could turn this into what's called 'a Conservation Area'. In the UK we have conservation areas, which are designated, which have certain characteristics and you replicate those characteristics throughout the area. You protect and you preserve, you restrict development in those areas, if that's done for good historic reasons, then that's fine. In practice it was the only way we could think of at that time, to stop the developers from simply knocking the buildings down" (Interview Dick Moran, 2009).

³ About 1300 people voted, which is a higher response than in regular local elections (Interview Moran, 2008). One of the scenarios attracted 66% of the votes (Tandridge District Council, 1998: 4).

As a result, the Council – in consultation with the local community – produced a development Brief for the bidding process in which community benefits are ensured.⁴ This formed a clear boundary with regard to the content and the goal of the regeneration project (Tandridge District Council, 1998: 5):

“Through redevelopment and refurbishment the Council will seek a mix of uses which may include employment uses, community facilities, recreational and sport uses, and residential in the form of refurbishing existing suitable buildings. New residential development will only be permitted if it does not compromise the other aims of this Policy.”

Another autopoietic characteristic was the already stable involvement of certain individuals. The two local councillors took the lead in the sensemaking process and linked the local community with the policy process of the local government concerning the creation of scenarios for development of the site. Hence, they became important contact points and figures for local residents. In this way they were part of the identity formation of the Caterham Barracks regeneration process.

Phase 2 (1998)

Dissipative characteristics

The site was sold in 1998 to a private developer (Linden Homes). The private developer started an interactive planning process with the local community to explore the possibilities regarding the combination of providing community facilities and building houses. With the help of a consultant, a planning weekend was organized which attracted contributions from over 1000 people. It began with two days of Topic Workshops and Hands-on Planning sessions, which were open to everyone. Over the following three days the Community Planning Team analyzed and evaluated all the results and reported back to local people on the final evening. It was agreed that both more facilities and more houses could be developed than initially thought and noted in the development Brief (Interviews). “The Council’s draft development brief was consequently modified significantly before the final version was adopted in March 1998.” (TCPA, 2007: 32).

The Local Group (mentioned above) tried to connect their ideas with the evolving plans during the Planning weekend. It was trying to identify what the need was for the buildings that were reserved for community use. The Local Group organized seven working groups to further concretise the direction and future management of the community facilities: a land use group, a young people’s group, a heritage group, an environment group, an arts and recreation group, an employment and enterprise group and, finally, a ‘community management organisation’ group (Website CBCT, 2002).

Autopoietic characteristics

⁴ The Urban Design Brief, which included four different scenarios for future development, was published for public consultation in July 1996 and summary leaflets inviting people to state a preferred option were distributed to local households (Interviews Moran, Greenwood, Ball, 2009; Tandridge District Council, 1998). About 1300 people responded. 66% voted for ‘Option Four’, the scenario with the minimum amount of housing, an emphasis on retaining the best buildings and convert them for employment, and providing a lot of community facilities.

Although this working group had an explorative character, there were some clear directions and boundaries regarding the scope of the projects and the type of actors. The Local Group worked on a 'local view' of the way in which the site should be developed, eliminating unreal or unreasonable aspirations as part of the process (Website CBCT, 2002). Only local residents were involved, because the idea was to give them responsibility for the management of community facilities (Interview Moran, 2009).

Phase 3 (1999-2000)

This phase is concentrated on establishing the results from the planning days and making concrete arrangements regarding the responsibilities and future management of the site. There is intensive interaction between the Local Group, the private developer and the local authority. In these interactions an effective cooperation structure is explored. At the same time the identity of the Local group evolves and it turns into a formal juridical entity: the Caterham Barracks Community Trust.

Dissipative characteristics

After the Planning weekend and the further development of the site, the interaction process between private developer, local authority and the Local Group intensifies. During this process an effective cooperation structure is explored about the future ownership of specific community buildings and land and about the role of the Local Group in this (Interviews Caterham Barracks, 2009). The governance arrangements are formalized in what is called a 'Section 106 Agreement'.⁵ The developer is contributing in excess of £2 million pounds in buildings and money to this project. The assets for community facilities were transferred to the Local Group, which is – at least for the involved individuals – a new way of working (Interviews).

Autopoietic characteristics

In this phase the identity of The Local Group evolves and gets a more formal character. It turns into the Caterham Barracks Community Trust.⁶ The objectives of the Trust are simply to facilitate and manage the development of a range of sustainable and high quality community facilities and activities, which maximise the benefit to the local community (Interview Moran, 2009). The interactions between the private developer, the local authority and the Local Group is also formalized and stabilized by the development of a responsibility structure with regard to the Trust: representatives from the local authority and the developer sit also on the Trust's Board and oversee the management of the community facilities (TCPA, 2007: 37).

Phase 4 (2001-2011 and still running)

⁵ "S106 agreements are used nationally to secure benefits for the community from planning approvals that cannot be secured in other ways. They have been part of the planning legislation since 1949. They are generally used by planning authorities to secure extras that benefit the planned environment. They are legally binding and enforceable by law. Developers often have to lodge bonds with the planning authority to the value of the amount they have to invest back into the community. The bond is only returned when the authority is satisfied that the developer has complied with the agreement" (NLGN, 2002: 12).

⁶ The CBCT controls the cricket green, the pavilion, the Officers Mess, the NAAFI, the Old Gymnasiums and the football fields.

In this phase we observe further evolution of the Caterham Barracks Community Trust. Interactions between the main actors (private developer, Trust and local authority) are decreasing. The Trust establishes and becomes a strong identity with regard to the urban regeneration of Caterham Barracks.

Dissipative characteristics

After the establishment of the Trust, different self-organizing user groups were set up. The Trust functioned as a platform or ‘springboard’ for user groups to run certain community facilities. It holds an open attitude towards potential user groups. User groups have the possibility to run a community facility if they are able to sustain themselves and to provide community benefits.⁷ Hence, if there is enough demand. “We are funding the Community from running business here” (Interview Moran, 2009). The Trust becomes owner of the different community buildings (bought by Linden Homes). Before transferring the assets to the different user groups, the different user groups have to be self-sustaining. The ultimate goal is to make all the community facilities self-sustainable. When that happens the CBCT might become redundant according to the chief executive (Interview Moran, 2009).

The Trust has used its funds to establish a range of economic, social, educational, cultural and sports facilities: an indoor skate park, an Arts and Recreation Centre, facilities for cricket, a children's play area, community farm (Downlands Management Project) and nature reserve, an Enterprise Centre and a football club (Caterham Pumas) was formed.

Autopoietic characteristics

After the establishment of the Trust and the handing over of the community assets the interaction between the private developer and the local authority on the one hand and the Trust on the other hand, decreased. The Trust concentrated on its own task and is defending its own interest against that of the private developer. At the same time the communication with the local community is less frequent than in the previous phases of the process.

V Dissipative and autopoietic characteristics of the Broad Street Birmingham regeneration process

In this paragraph the process of establishing an organisational framework to target urban regeneration issues in the Broad Street area of Birmingham City Centre is analyzed by the concepts of dissipative and autopoietic behaviour. In Table 5 the results are summarized.

⁷ Skaterham is an example of a self-sustaining community facility. It is an indoor skate park. To skate in the park one needs to be a member, which is free, skating costs a £1 per hour. The fees and sponsorships finance the skate park. The park is also available for group rental for parties and gatherings at which they offer party snacks at small charges. In 2005 about 400 to 500 youngsters between the age of 5 and 25 visit the skate park every week and they currently count more than 10.000 members of which 4000 participate actively. The park employs one person full time and 2 people part time, the rest of the people involved work on a voluntary basis. Skaterham has a turnover of £100.000 p.a..

Table 5: *dissipative and autopoietic characteristics Broad Street Birmingham*

Timeframe	Dissipative characteristics	Autopoietic characteristics
Phase 1 (1991 – 2003): Growing controversies	No organizational cohesion, internal identity is weakened . After the fight, exploration of possibilities to dealing with the controversy.	More and more specialization in business activities: Convention Quarter. External identity is strengthened . Businesses do not look further than their regular business boundaries .
Phase 2 (2003 – 2004): Establishing the BID	Open, explorative and informal explorations for solutions for Broad Street. Connection made to BID legislation, translation to local circumstances. Attempts to involve more businesses and get them to vote ‘yes’ for the BID. Exposure through newsletters, website.	Shared responsibility and interest among the different users and stakeholders of Broad Street is emphasized. Defining the BID: content, boundaries and involved actors are defined. BID is formalized when most businesses vote in favour of the BID.
Phase 3 (2004 – 2009): Proving the BID	Exposure to the BID through newsletter and website, in order to attract new investments and to establish a positive reputation for the area.	Interaction within a stabilized and defined group of actors. Responsibilities are divided . Executing projects, strengthening internal organisation and incorporating new ideas into the BID organisation.
Phase 4 (2009 – 2010): Expanding the network	New content for the BID2 is explored, new actors get involved.	In the BID2 proposal, the same structure is carried on.

Phase one (1991 – 2003): Growing controversies

In the early 1990s, Birmingham faced a declining economy and deteriorating city centre. New impulses for both economy and city centre were considered as needed, and efforts were made by the local authority to attract new investment. This resulted in the development of a “Convention Quarter”: a mixed neighborhood of hotels, bars, shops, restaurants, convention facilities and offices. A night time economy emerged (one of the few places in the UK), and Broad Street started to attract more and more youngsters from the region during the weekends. Despite the economic importance of this night time economy, this increasingly led to nuisances, due to excessive and anti-social behaviour. As Broad Street’s reputation worsens, real estate owners started

to fear the devaluation of their investments, local businessmen were split between contradictory interests. This leads to growing controversies between “bankers and drunks”. This situation of growing controversies cumulated when, during a fight in 2003, a person gets killed. Then it became explicit that the situation had gotten out of hand. A sense of urgency and demand for action was suddenly there, and the police got together with the business, the hotels, the clubs, bars and the city council to deliberate on actions to re-establish order (Interviews Olley and Moss).

Autopoietic characteristics

Individual actors behave autopoietic since they are not focussing on coordinated action or organizational cohesion, actors act on their own account and within their regular business activities. On the level of the Broad Street area, autopoietic elements are the emergence of a specialized business area with a clear identity (and reputation!). The autopoietic element of the 2003 fight is that mutual dependencies become visual, and the need for collective action is pronounced.

Dissipative characteristics

Although the outward identity of the area is strengthened, the internal identity is weakened. On the level of the Broad Street area, conflicts arise between specialised functions arise, but this is not met with organisational cohesion among the users of Broad Street. The dissipative element of the 2003 fight is that from that moment on, actors start to explore the various possibilities for dealing with the Broad Street controversies.

Phase two (2003 – 2004): Establishing the BID

Dissipative characteristics

Since 2001 already, the City Centre Partnership (CCP) had been established in Birmingham. The goal of this public organization was to maintain and improve relationships between the city council and the Birmingham business community. The CCP represented the city council in the deliberations with the businesses of Broad Street and the West Midland police. These deliberations first take place in an informal partnership, which emphasizes the shared responsibility and interest among the different users and stakeholders of Broad Street, and seeks for ways to solve the controversy. Being a form of Town Centre Management, the City Centre Partnership is connected to the national Association of Town Centre Management (ATCM) which is at that time promoted the concept of Business Improvement Districts (BID) throughout the UK, for which the legislation had just been passed by the British government (statutory instrument). During the year of 2004 three summits were organised in order to address the local problems of “bankers and drunks”. In between the summits, businesses involved in the deliberations go around the area to talk to all the other businesses. On one of these summits, the BID concept and the possibility to become one was brought up and met with great enthusiasm (interview Olley). The City Centre Partnership invests the people, money and time to develop a BID within the local parameters, and the procedures from the BID legislation were to be followed⁸. First encounters with the BID legislation can be characterised as

⁸ The BID legislation is a statutory instrument presented in 2004 by the Labour Government, in order to promote partnership working between local authorities and local businesses. These Regulations prescribe those matters that must be included and taken into account when developing and implementing a BID. It was decided not to be too prescriptive, but only to set out certain requirements

dissipative, since it is an external element that is bringing in a new content and new actors. Once the legislation if the BID is adopted, outward exposure is given to this idea through newsletters and a website. The motives to choose for this specific institutional form are mostly opportunistic and pragmatic, since the controversy of “drunks and bankers” became urgent in exact the same period as the introduction of the BID legislation. *“Broad Street shows how timely things can be. The BID legislation came in, as a sort of vehicle to take things forward.”* (Interview Moss) Decisive in choosing the BID legislation is also the fact that a BID is mainly business-led.

Autopoietic characteristics

However, soon as the BID legislation is adopted and translated towards the local parameters, it is exactly this legislation that causes strong autopoietic behaviour. The BID legislation plays an important structuring role in the further deliberations among the involved actors. Businesses are being convinced of the promises the BID could deliver for the amount of money that the levy would be. The boundaries, both in content, geographically and concerning the actors are set up, the binding identity of the businesses involved is explicated and the organisational structure and the BID levy are agreed upon. The original controversy between “bankers and drunks” is still structuring in this process, as is represented by three levels of levy, the premises closest to Broad Street paying the highest amount (interview Olley, Broad Street BID proposal 2005). The establishment phase ends with autopoietic behaviour in the ballot to approve of the BID proposal, which took place in 2005. 65% of the non-domestic ratepayers of the BID area turned up for the vote, and 92% of them voted in favour of the BID (BID update No.4 May 2005).

Phase three (2004 – 2009): Proving the BID

After the ballot the BID is officially started in 2004 as the Broad Street Partnership Ltd. Local interactions are predominantly focussed on executing the plans of the BID proposal and establishing the organizational infrastructure to do so. A BID manager is instated, who handles both the internal as the external matters of the BID, on behalf of the BID board, which is private-sector led comprising representatives of the business community and key stakeholders organizations (Bid proposal 2005, interview Olley).

for what needs to be contained within a BID proposal, so the particular needs and problems of the local area can be met effectively for the benefit of that area (Deputy Prime Minister 2004, Statutory Instrument 2004: 2443). The Regulations make detailed provision in relation to the ballot, including: who is entitled to vote; payment of the ballot costs; and the application of the post-ballot veto by a billing authority and appeal against any veto. A BID can be initiated by non-domestic ratepayers in a certain geographical area, parties with an interest in land (landowners or landlords), bodies with a purpose to develop BID proposals, or the relevant billing authority (district, county or city council). The BID proposal is put forward in a ballot, and should include the following details: works or services provided; type of body the provider is; existing baseline services by billing or other public authorities; geographical area; who and how much BID levy and reliefs; arrangements able to be changed without a ballot; duration and commencement date. Further the legislation prescribes: rules and time tables for ballots, the yearly BID revenue account by the relevant billing authority, and the imposition, administration, collection, recovery and application of the BID levy. Arrangements that cannot be altered without a ballot are the geographical area and increases in levy. For the ballot, the turn over has to be at least 30%, of which half should be voting in favour of the BID, representing a minimum 50% of all rateable value in the BID area (Statutory Instrument 2004: 2443).

Autopoietic characteristics

The organizational structure set out in the BID proposal is followed. There is an annual assembly on which the levy payers (businesses) come together to vote on various issues. Annual reports are given on the progress the BID has made happen on Broad Street (monitoring and surveying), for instance giving numbers on crime and safety, and on the financial situation. The businesses also participate in working groups, or raise issues of concern with the BID manager. The BID manager leads both a day and a night team. The day team concerns about communication, strategic delivery, promotion of the area. The night team consists of wardens patrolling the BID area at night, and occasionally managing events. Most of the time of the BID manager is put in maintaining the relationships between the local businesses and all other parties involved in the Broad Street controversies (local authority, police etc.) (interview Olley). The interactions are very much structured along the organization set out in the BID proposal, and the interactions aim at executing projects. Streets are refurbished and greened, events are organised, empty buildings are nicely covered with promotional banners, the safety is improved. New ideas that come up during this phase are adopted and executed by the BID, but only if they fit the clearly demarcated lines of the BID proposal. The themes are chosen because they address the main concerns that came forward from the initial controversy between “bankers and drunks”: marketing to fight the negative attention paid to the neighborhood so far, safety to address the anti-social behaviour and cleanliness to prevent littered streets after the weekends.

Dissipative characteristics

The exposure the BID makes and the efforts to establish a positive reputation for the neighborhood again, through a website, marketing campaign and close contact with press agencies. However, this dissipative behaviour is done through and because of the BID, and not beyond the BID legislation. The BID also makes that the businesses of Broad Street have an influential voice on the plans and policies for Broad Street coming from the City Council.

Phase four (2009 – 2010, and still running): Expanding the BID

Not only on Broad Street is the BID seen as a success, also other businesses areas in town recognize the ability of the Broad Street BID to address local issues. In Birmingham three more BIDs are developed, following the example of the BID in Broad Street, however with a focus on different localities and matters. The City Centre Partnership transformed its structure in 2009, from a regular town centre management organization to a more specific coordinating and overarching arrangement between the BIDs and between the BIDs and City Council. They now provide the baseline services, making sure the BIDs complement each other and link together like sharing work, contracts, and campaigns. Within the Broad Street BID itself, preparation are made for a re-ballot, which has to be held every five years due to BID legislation (interview Moss).

Autopoietic characteristics

In the preparation of the re-ballot, major attention was given to re-assure the earlier benefits of the BID and its network. In the proposal BID2, prepared to put forward in re-ballot, the key achievements and the new areas of work are mentioned. “*The BID has consistently delivered on its promises to improve the environment for business.*”

The BID2 proposal still puts forward the initial controversy of “bankers and drunks” as the major concern of the BID, and warns for a return of that situation if the BID is not to be continued (BID2 proposal). Existing structures are reassured and maintained.

Dissipative characteristics

Apart from continuing with the current work, two new themes are introduced. These are ‘developing’ (targeted are the many vacant buildings, regeneration in partnership with West Midlands Advantage) and ‘connecting’ (aim at lobbying for a rapid transport solution system and better connections). On effort is made to make the BID more heard on for instance planning, economic development, and transportation strategies made by other actors outside the BID. The BID had earlier also proven to be instrumental in establishing the Westside project in 2008 (a regeneration partnership of stakeholders in Birmingham-west), and the advantages of this partnership are emphasised in the BID2 proposal as well (BID2 proposal, interview Olley). Thus, although the process of re-ballot is structured along the prescribed BID legislation, and the people and structure are the same in the BID2 proposal, again, the Broad Street BID translates local, specific and new issues into the framework of the BID. What is remarking is that the BID tries to reach further than the initial controversy, and thus expands its network, not only in organizational or geographical terms, but also strategically trying to expand its legitimacy as well, while keeping close to the local conditions at the same time.

VI Case comparison and preliminary conclusions

Vigorous urban regeneration processes?

Looking at the indicators of a vigorous urban regeneration process described in section II, both urban regeneration processes could in general be typified as vigorous.

In Caterham especially in the first three phases there are ongoing interactions between the main actors (Local Group, local authority and private developer) and between the main actors and the local community. In this period there is joint problem-definition and joint solution finding. This was organized by meetings between the local authority and the Local Group, and by extensive consultation of and communication with the local community in the development of the site. This vitality of the regeneration process is maintained and enhanced by the private developer, who decided to cooperate with the Local Group and local authority and organized a community planning weekend to find out how to meet the expectations of the local community. In the next phase there are a lot of interactions between the three main actors, who jointly develop a governance arrangement concerning the future management of the site. In the last phase the process becomes less vigorous however. The Trust evolves and is more internal oriented. It is able to generate spin-off: different user groups become self-sustaining and are managing the community facilities. However, the interactions with the other actors are decreasing and there arises some conflicts between the private developer and the Trust. Furthermore, the communication between the Trust and the local community decreases.

On Broad Street Birmingham especially in the second phase there are ongoing interactions between the various local stakeholders, the police and the City Centre Partnership. While the joint problem is already defined at the start of this process (the

death of a person, expressing the controversy between “bankers and drunks”), in this phase co-production takes place to find joint solutions. These are found and formalized by using the BID legislation. When this legislation is introduced, the local businesses become leading and decisive in the process and the deliberations on Broad Street are furthered among a fixed group of actors represented in the BID Board, during the third phase. In the fourth phase, the BID needs to renew its legitimacy again by a re-ballot prescribed by BID legislation. This demands new interactions among businesses and local stakeholders to reassure and renew the BID strategy. Also in this fourth period, communication and understanding are not only sought among the already stable BID-group, but also among stakeholders that are not part of the BID organization. While the deliberations on Broad Street started due to a high level of conflict, the process that followed and the incorporation of BID legislation caused a low level of conflict and high mutual understanding, that still endures, as is proven by a positive re-ballot in 2010.

By comparing these two cases, we found four explanatory conditions that – in our view – have been decisive in establishing these vigorous urban regeneration processes.

1) Strong initiating conditions

In both cases the self-organization of local stakeholders was triggered by developments which were undermining the identity of the system (which refers to the two areas): the barracks were losing their function for the community and the controversies between drunks and bankers were harming the reputation of Broad Street. Both developments harmed expectations of local stakeholders with regard to what the area is and what kind of functions it delivers. Hence, the identity of the area was threatened and led to interactions between stakeholders in order to re-establish this identity. Thus, both cases concerned a problem recognized by the local stakeholders which was in their interest and scope to solve.

2) Connecting actors

In both cases we observed that key individuals were able to make connections between the different spheres (public, private and/or civic). They not only made connections between actors operating in these spheres, but also between institutionalized processes and the regeneration process. During the process connections are made with existing governmental legislations, but at the same time these regulations are adapted to local circumstances. In Caterham this role was played by the two Town Council members, on Broad Street by the City Centre Partnership.

3) Mutual adaptation of identities

The emergence of new structure forms pressure on already established systems. In both cases we observed a process of mutual adaptation of identities. In the Caterham case, the role of the local authority changed into facilitating instead of initiating or determining. In this way room is created for the self-organizing local stakeholders to take responsibility of the community facilities. Also the private developer in the case of Caterham Barracks developed a new way of working, by organizing a community planning weekend and by developing a S106 contract with the local stakeholders. On Broad Street a leading role for local businesses was accepted by the other local stakeholders by approving of the BID organization, and businesses were willing to transcend from their regular business activities to shared responsibility for the area.

The City Centre Partnership changed into facilitating after the BID was proven successful. The way in which these connected systems on their balancing autopoietic and dissipative behavior influences the vitality of the overall urban regeneration process. When effective connections are made, evolution of identities could occur: mutual development and coordination of each other's expectations regarding each other's roles and functions in the regeneration process.

4) Using general legislation to meet local needs

In both cases there was a strong focus on conditioning the process in such a way that regeneration initiatives would be tuned with the expectations of the local community regarding the functions and meaning of the area. General legislation was used to enforce this local embeddedness. In Caterham, the fit with the identity of the area for the local community was emphasized in the guidelines for the bidding process, using the regulations concerning the designation of a Conservation Area and the S106 Agreement. The result was that the private developer had room for developing ideas concerning the area, but was highly dependent on the local community regarding such scenarios. On Broad Street the BID legislation was used especially because it is prescriptive in procedures, but not on local conditions or themes that need to be taken on by the BID. Thus, this legislation enabled businesses to find, and take forward the issues they regarded as important with their own means and responsibility.

Conclusion: interplay between autopoietic and dissipative behaviour

Regarding the two case studies we could conclude that there was a strong interplay between autopoietic and dissipative behaviour. The autopoietic and dissipative behaviour in the self-organizations were not distinct, but highly intertwined. We argue that this balance was highly important for the realization of a vigorous urban regeneration process. The dissipative behaviour led to connections between multiple spheres and levels. Both initiatives are developed in interaction processes between private, public and societal actors.

At the same time new structures emerged. The interactions between local stakeholders led to the development of new governance identities (the Community Trust and the BID). These new governance identities are systems by themselves and situated at a higher system level than the initial systems (the different actors which are part of the governance identity, e.g. by representation in the Board). They provided stability and sustainment of local stakeholder involvement. These emerging structures were both a result of previous interactions as stimulating and stabilizing further interactions. Both structures stimulated autopoietic behaviour. This could endanger the vitality of regeneration processes. In the Caterham case, the Trust is partly losing its connections with the local community, the developer and the local authority. In the Birmingham case, the BID shuts out other non-business actors such as residents. However, these actors are also influencing the identity of the area.

Finding a balance between the two forms of self-organization is important for vigorous urban regeneration processes. We found four explanatory conditions for this process: 1) problematic initial conditions which are recognized by local stakeholders, 2) actors able and willing to connect different levels and spheres, 3) flexibility of already existing systems to adapt to the new circumstances and 4) legislation that is flexible and non-prescriptive enough to enhance local conditions. These conditions provide at one hand the needed stability and identity development, but at the same

time also the needed connections with established processes of urban regeneration and the needed flexibility to adjust to evolving demands during the process of regeneration. The moments in which this interplay is out of balance, the vitality of the regeneration process is threatened.

References

- Boonstra and Boelens (2011), "Selforganisation in Urban Development – towards a new perspective on spatial planning. In: Urban Research and Practice, 2011(2), forthcoming
- Byrne, D. (1998). *Complexity theory and the social sciences: an introduction*. London: Routledge.
- Cilliers, P. (1998) *Complexity and Postmodernism: Understanding Complex Systems*, Routledge, London.
- Comfort, L. (1994). *Self-Organization in Complex Systems*. Journal of Public Administration Research and Theory, 4 (3), 393–410.
- Edelenbos, J. (2005). *Institutional Implications of Interactive Governance: Insights from Dutch Practice*. Governance, 18(1): 111-134.
- Edelenbos, J. (2010) Water as connective current, inaugural speech. Den Haag: Boom/Lemma.
- Edelenbos, J., B. Steijn and E.H. Klijn (2010). *Does Democratic Anchorage Matter? An Inquiry Into the Relation Between Democratic Anchorage and Outcome of Dutch Environmental Projects*. The American Review of Public Administration 2010, 40: 46-63.
- Flood, R.L. (1999). *Rethinking the fifth discipline: Learning within the unknowable*. London: Routledge.
- Griffin, D.; Shaw, P.; Stacey, R.D. (1999) Knowing and acting in conditions of uncertainty: a complexity perspective. In: *Systemic Practice and Action Research*, vol. 12 no. 3, p. 295-309.
- Heylighen, F. (2001). *The science of self-organization and adaptivity*. In: L.D. Kiel (Ed.). Knowledge management, organizational intelligence and learning, and complexity. The Encyclopedia of Life Support Systems.
- Jantsch, E. (1980) *The self-organizing universe: Scientific and human implications of the emerging paradigm of evolution*. Pergamon Press, Oxford.
- Kauffman, S. (1993). *The origins of order: self-organization and selection in evolution*. New York: Oxford University Press.
- Koppenjan, J., & Klijn, E. H. (2004). *Managing uncertainties in networks*. London: Routledge.
- Luhmann, N. (1995). *Social systems*. Stanford: Stanford University Press.
- Marion, R. (1999). *The Edge of organization: Chaos and Complexity Theories of Formal Social Systems*. California: Sage Publications.

Maturana, H. and F. Varela (1980). *Autopoiesis and Cognition. The Realization of the Living*. D. Reidel, Dordrecht, Holland.

McElroy, M.W. (2003) *The New Knowledge Management. Complexity, learning, and sustainable innovation*. Knowledge Management Consortium International Press, London.

Merry, U. (1999) Organizational strategy on different landscapes: a new science approach. In: *Systemic Practice and Action Research*, vol. 12, no. 3, p. 257-278.

Mingers, J. (1995). *Self-Producing Systems. Implications and Applications of Autopoiesis*. Plenum Press, New York.

Morçöl, G. (2005). *A new systems thinking : implications of the science of complexity for public policy and administration*. Public Administration Quarterly 29 (3) : 297-320.

Plowman, D., Baker, L. T., Beck, T., Kulkarni, M., Solansky, S., & Travis, D. (2007). *The role of leadership in emergent, self-organization*. The Leadership Quarterly, 18: 341–356.

Prigogine, I., and I. Stengers (1984). *Order Out of Chaos: Man's New Dialogue with Nature*. New York: Bantam Books.

Roo, Gert de and Silva, Elisabete A. (2010) *A Planner's Encounter With Complexity*. Ashgate, Farnham, England

Stacey, R.D. (2003) *Strategic Management en Organizational Dynamics. The challenge of complexity*. Prentice Hall.

Stake, R.E. (1998). 'Case Studies', in N.K. Denzin and Y.S. Lincoln (eds.) *Strategies of Qualitative Inquiry*, Thousand Oaks: Sage: 86–109.

Sullivan, H., and C. Skelcher (2002). *Working across boundaries: Collaboration in public services*. New York: Palgrave/Macmillan.

Teisman, G.R., M.W. van Buuren and L.G. Gerrits (2009) *Managing Complex Governance Systems*. London: Routledge.

Van Buuren, M.W. and J. Edelenbos (2008). Innovations in the Dutch Polder. Communities of Practice and the challenge of co-evolution. *Emergence*:

Wagenaar, H. (2007). *Governance, Complexity, and Democratic Participation: How Citizens and Public Officials Harness the Complexities of Neighbourhood Decline*. American Review of Public Administration, 37(1): 17–50.

Appendix A Overview data case studies

Documents and resources BID Birmingham

Broad Street Business Improvement District (2005), A brighter, safer, cleaner Broad Street. BID proposal for ballot on 26th May 2005. Published by the Broad Street Association and the Birmingham City Centre Partnership.

Broad Street Business Improvement District (2005), BID update No.4, May 2005

Broad Street Business Improvement District (2009), Annual Report 2008.

Broad Street Business Improvement District (2009), Enhancing – connecting – developing – BID2 Renewal. BID proposal for re-ballot on Thursday 12th November 2009.

Lloyd, M.G., John McCarthy, Stanley McGreal and Jim Berry (2003), Business Improvement Districts, Planning and Urban Regeneration. In: International Planning Studies, Vol. 8, No. 4, 295–321, November 2003

Office of the Deputy Prime Minister (2004), “Explanatory Memorandum to the Business Improvement Districts (England) Regulations 2004”. Laid before Parliament by Command of Her Majesty.

Peel, Deborah, Greg Lloyd and Alex Lord (2009), Business Improvement Districts and the Discourse of Contractualism. In: European Planning Studies Vol. 17, No. 3, March 2009 p. 401-422

Statutory Instrument 2004 No. 2443 “The Business Improvement Districts (England) Regulations 2004”. Crown Copyright 2004.

Documents and resources Caterham Barracks

Adams, M., and Y.Y. Tian. *Understanding Place-shaping: Experience from Creating Sustainable Communities*. Working Group Presentation at the University College of London. March 2008.

Bovaird, T. (2006). *Developing new forms of partnership with the ‘market’ in the procurement of public services*. Public Administration, Volume 84 (1), pp. 81-102.

Bovaird, T. (2007) Beyond Engagement and Participation: User and Community Coproduction of Public Services. Public Administration Review 67 (5), pp. 846–860

Caterham Barracks Community Trust. *Annual Report 2007*.

Findlay, L., C. Wade, M. Elson, D. Moran en R. Elliot (2002). *How communities can be involved in negotiating and managing benefits secured from development via planning obligations. A report for the Countryside Agency*. Development Trusts Association.

New Local Government Network (2002). *Starting to modernize; managing strategic service delivery partnerships. From governance to delivery*. By Enid Allen. NLGN, London.

Town and Country Planning Association (TCPA) (2007). *Best Practice in Urban Extensions and New Settlements. A report on emerging good practice*.

Website Caterham Barracks Community Trust. (2002). Link:
<http://www.caterhambarracks.org.uk/page14.html>

Interviews BID Birmingham

Interview with Mike Olley (Broad Street BID manager) by Beitske Boonstra on 04-03-2010 at 11:00

Interview with Julie Moss (City Centre Partnership) by Beitske Boonstra on 16-3-2010 at 10.00

Interviews Caterham Barracks

Interview with Dick Moran (chief executive Caterham Barracks Community Trust). March 2009.

Interview with Ivan Ball (Linden Homes, project director Caterham Barracks). March 2009.

Interview with Adrienne Greenwood (Tandridge District Council, Planning Officer). March 2009.

Interview with Marcus Adams (John Thompson & Partners, organizer of community planning weekend). March 2009.

Interview with Marilyn Pain (Caterham Barrack Community Trust, founder/manager of Skaterham). March 2009.

Appendix B Impressions case studies

Impression Caterham Barracks



Picture 1: Caterham Barracks and the surrounding village



2



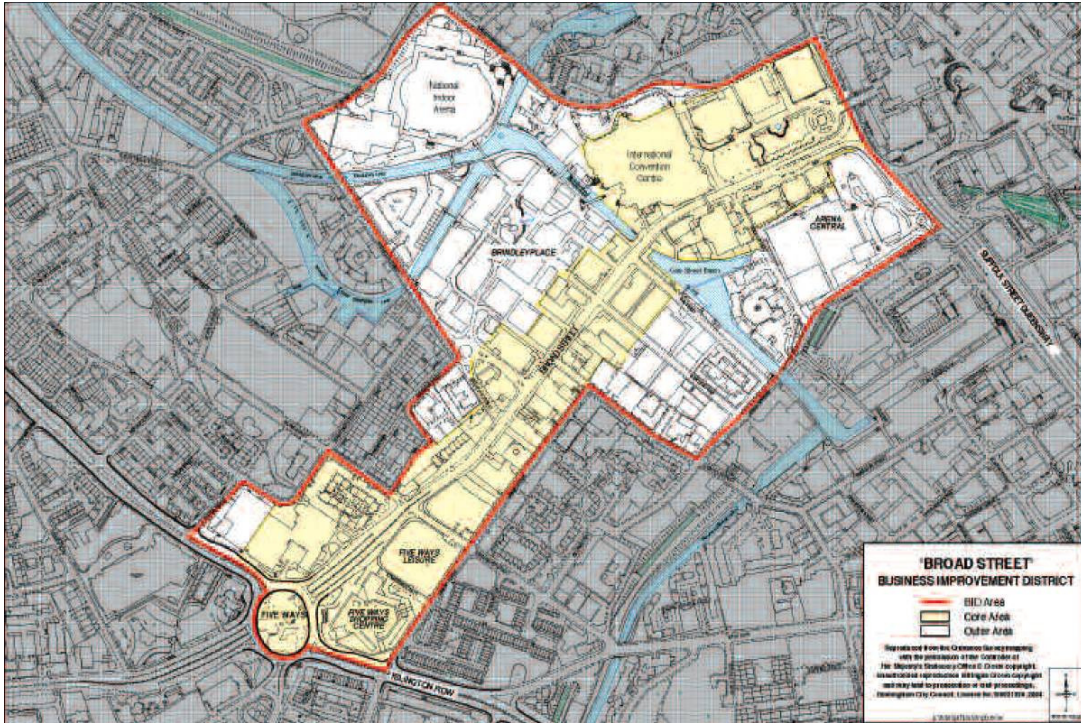
3



4

Picture 2: The community planning weekend (1) (Source: Adams & Tian, 2008); Picture 3: The community planning weekend (2) (Source: Adams & Tian, 2008); Picture 4: Skaterham: a skate centre in the old chapel of Caterham (Source: Adams & Tian, 2008).

Impression Broad Street Birmingham



Picture 5: The area of Broad Street Business Improvement District. Source: A Brighter, Safer, Cleaner Broad Street – Business Improvement District (2004). BID proposal printed by the City Centre Partnership and Broad Street Association.



6



7



8



9

Picture 6-9: Impressions from Broad Street. 6: Covering vacant buildings with promotion material; 7: Street furniture designed and financed by the BID; 8: Promotion material for re-balloting BID2; 9: Street Wardens, the night team of the BID. Pictures by Beitske Boonstra.

