Compact city development: High ideals and emerging practices

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Compact city development: High ideals and emerging practices

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Abstract
Compact city development has, over the last 20 years or so, emerged as the preferred response to the goal of sustainable development. As such, it is pertinent to examine planning practices to see whether the traditional economic bias in planning is now balanced by aims and practices in support of environmental and social sustainability. In this light the social, environmental, and economic goals linked to densification and mixed use development will be the main focus of this article. In addition, the article assesses whether distinct institutional practices support the balancing of these goals. The empirical basis is formed by urban plans in four Scandinavian cities in combination with qualitative interview data. The article concludes that on a discursive level, social, environmental and economic goals are represented in compact city strategies. Institutionalised practices, however, show that economic goals remain at the core of planning. Environmental and social aims still play second fiddle, but new measures are in development that may gradually strengthen their influence over urban development practices.

Keywords: compact city, sustainability, urban planning, discourse theory, urban development
1. Introduction

From the outset, the main purpose of planning was place development in a stricter, economic sense, and to create jobs, secure housing, and deliver infrastructure (Tewdwr-Jones, 2008, Kleven, 2010). Complex goals, such as sustainable development and public health, have gradually been added to the planning agenda in the past 20 years (Rydin, 2010; Crawford et al., 2010; Hofstad, 2011; Kleven, 2010; Owens & Cowell, 2002). Thus, it is pertinent to examine whether the traditional economic bias in planning has gradually been balanced by aims and practices in support of environmental and social sustainability.

During the 1990s, the discourse on sustainable development and planning produced the notion of compact city development that became a hegemonic response to the challenges of sustainable development (Jenks & Dempsey, 2005). Ideally, a compact city secures socially beneficial, economically viable, and environmentally sound development through dense and mixed use patterns that rely on sustainable transportation (Jenks & Jones, 2010; Dempsey 2010; Jenks & Dempsey, 2005; Burton, 2002). Recent research has investigated the presumed outcome of the compact city model. More specifically, scholars have discussed to what extent it produces the expected social, environmental and economic benefits (Jenks & Jones, 2010; Lin & Yang, 2006; Burton, 2002). This line of research directs attention to the tripartite composition of sustainable development – economic, environmental and social sustainability - and opens the way for cross-domain analyses (Krueger & Gibbs, 2007). This article follows this path by showing how the compact city ideal and especially its three sustainability dimensions is justified and practiced in urban planning. The main research question driving this article is: How is the compact city ideal interpreted within urban planning, and what is the position of economic, environmental and social sustainability in compact city strategies? This main question is further explored by asking: What are the main social, environmental, and economic goals and ideas linked to densification and mixed use development? To what extent is the balancing of these goals supported by distinct institutional practices?

The article identifies the sustainability goals clearly linked to the preferred measures of compact city development, namely densification and mixed use development (Jenks & Jones, 2010). Attention is also given to concrete institutionalised practices and to what extent they are developed to support sustainability goals so that they may be balanced against each other on an equal footing. Together, the article highlights environmental, economic and social sustainability’s position within compact city development. This is illuminated through a study of plans and practices in four Scandinavian cities. According to several rankings, Finland, Germany, Japan, the Netherlands, Norway, and Sweden have the highest level of sustainable development practices (Dryzek, 2005, p. 166). The article demonstrates how four cities in two of these countries, Norway and Sweden, handle and give meaning to sustainable urban development by planning for compact cities. The four cities have all been receptive to the compact city ideal. Hence, these cities may be seen as critical cases in sustainable urban development due to the national focus on sustainability, the wide authorisation given to local authorities, their long planning traditions and the existence of relatively solid economic resources on the
local level (Baldersheim & Ståhlberg, 2002, p. 75; Rose & Ståhlberg, 2005; Kalbro et al., 2010, p. 32).

The local government systems in Norway and Sweden share many features including their range of functions and the size of the welfare state (Baldersheim & Ståhlberg, 2002, p. 78). Planning reforms have aimed to widen the participatory base of planning, but also to streamline the planning process in order to meet private actors’ complaints that the system is time consuming, unpredictable, and resource draining (Mäntysalo et al., 2011). Together, these changes have made the purpose of and activities within planning more uncertain, complex, and manifold. Hence, the changes have created a contentious planning rationality that creates a need for practices supporting the inevitable balancing of divergent planning goals.

The article unfolds as follows. The next section presents the theoretical framework used to analyse plans and planning practices, discourse theory and discursive institutionalism. The third section introduces the perceived linkage between compact city and core sustainability dimensions. The fourth section elaborates the methods used and the empirical material collected. Section five identifies and discusses the linkages between densification/mixed use development and environmental, social, and economic sustainability in the selected cities; while also assessing the institutionalised practices aiming to support and balance social, environmental and economic aims. Section six discusses the three sustainability dimensions’ position in respect of compact city development. Finally, the article concludes by summarising the main results and reflecting upon possible paths for future research.

2. Analytical framework: discourse and discourse institutionalism

Because of its complexity, social, economic, and political systems always contain more conditions and possibilities than actors and organisations are capable of responding or adapting to (Brans & Rossbach, 1997, p. 422).

1 Building on Luhmann, 1968, p. 5

2 Building on Habermas & Luhmann, 1971, pp. 11, 15-16, 19
how we act upon it. Thus, discourse consists not only of ideas but also of the interactive processes by which ideas are conveyed (Schmidt, 2008).

A discursive approach is especially suitable in studies of contested, vague and dynamic concepts like sustainable development, because such an approach draws attention to the creation, interpretation and reinterpretation of meaning (Hajer, 1995; Torfing, 2004). This article aims to capture the linkages between compact city discourse and sustainability by identifying concrete environmental, economic and social aims and ideas in plans (structuration) and the planning practices—procedures, routines and instruments—supporting them (institutionalisation). Hence, the analytical starting point of the article is a combination of ideational or discursive theories focusing on meaning formation and the institutional preoccupation with rules and norms structuring practices. This stance is in line with recent developments in political science seeking to move beyond the traditional division between structure and agency by focusing on the decisive role of discursive elements in institutional development and change (Schmidt, 2010, 2008; Hay, 2011). Schmidt (2008) argues that institutions are simultaneously structure and construct. On the one side, institutions constitute ‘background ideational abilities’ contributing with the ideational rules or rationality of a specific setting internalised by the agents (Schmidt, 2008, p. 315). On the other side, institutions consist of ‘foreground ideational abilities’ which enable institutional change as the deliberative nature of discourse allows agents to ‘conceive of and talk about institutions as objects at a distance, and to dissociate themselves from them even as they continue to use them’ (Schmidt, 2008, p. 316). Thus, a communicative logic governs the foreground ideational abilities. Inspired by discourse theory and discourse institutionalism, this article identifies the position of social, environmental and economic sustainability goals within the compact city framework and thus the ability to balance these goals as seen in four Scandinavian cities.

3. The compact city ideal

In 1990, the European Commission highlighted a number of negative trends in urban development in their Green Paper on the Urban Environment (CEC, 1990). Due to the near clinical separation of land uses seen particularly in the development of suburban residential areas, the mobility need had risen, creating an upsurge in car use, which caused high levels of air and noise pollution, as well as decaying city centres. Therefore, the commission argued for mixed land use, denser development, and the transformation of former brownfield sites rather than development in open green areas. Together, these measures were designed to preserve recreational and open space, revitalise existing city areas, and enhance the use of public transportation as well as increase walking and cycling; hence, they would give a series of environmental, social, and economic benefits (Jenks & Jones, 2010, p.2). The implicit image of a compact city has proved to be a highly influential translation of what a sustainable city should be, carried, not least, by the significance of an urban form with relatively higher residential densities and mixed land uses (Jenks & Jones, 2010, p. 1; Jenks & Dempsey, 2005, p. 287). We will now take a closer look at the anticipated linkages between urban form (densification and mixed use development) and the three sustainability dimensions.
Social sustainability rests on the assumption that if urban forms are considered unacceptable to people, they cannot be sustainable; social justice, social inclusion, social capital, and social cohesion are at the core of this concept (Jones et al., 2010a, p. 244, Bramley et al., 2010). Compact cities that are densely built and have mixed land use are anticipated to create a better quality of life by creating more social interaction, community spirit, and cultural vitality; this is due, in part, to the proximity to services, work, shops, public transportation, and the opportunity for walking and cycling that compact cities provide (Jenks & Jones, 2010, p. 9). Moreover, the positive impacts of compact cities are also thought to reduce crime and to lower levels of social segregation (Burton, 2000).

Environmental sustainability combines the status of the physical environment with the effects of the use of natural resources. Arguably, densification and mixed land use enable sustainable mobility, such as public transportation, walking, and cycling, which reduces car travel and emissions from vehicles (Jenks & Jones, 2010, p. 6). Moreover, the combination of heat and power provisions, made possible by higher densities, is supposed to save energy (ibid). Compact forms, it is argued, may also reduce the pressure on green areas as well as the ecosystem services and biodiversity provided by them (CEC, 1990).

When it comes to the economic dimension of sustainability, the compact city model anticipates a revitalisation of city areas (CEC, 1990). A city’s economy is determined by the operation of commercial property and housing markets, its transport infrastructure, and the distribution of incomes and age structures (Jones et al., 2010b, p. 160). The economic benefits anticipated by compact urban forms are based on the positive effects of concentrating people and activities, claiming that ‘the larger the city the greater is the viability of specialist shops and, hence, the wider the choice to the consumer’ (Jones et al., 2010b, p. 148). Moreover, larger labour markets lead to greater diversity among employers, which creates a greater diversity of job possibilities, and increases the likelihood that workers will find jobs that match their skills, which results in higher productivity (ibid).

Ideally, a well-designed compact city should be able to achieve all of the above-mentioned forms of sustainability benefits; as a result, the compact city becomes an all-encompassing concept for urban planning practices (Dempsey & Jenks, 2010, p. 119). However, the model does contain some potential conflicts: compact cities in general produce higher emission and noise levels due to the close proximity between dwellings, transport lines and business activities (De Roo, 2000, p. 153). Moreover, natural areas within cities constitute easily accessible development ground, but at the same time, these areas serve as hosts for biodiversity and ecosystem services as well as being valuable recreation facilities. Therefore, the idealistic presentation of the compact city as the final solution to former tensions is a fallacy. According to Dempsey and Jenks (2010, p. 119), policy makers have been ‘cherry-picking those aspects of the compact city as a sustainable urban model most attractive to their needs, such as increasing densities and containing urban sprawl [...] which largely reflect dominant economic or environmental interests’. This may well be the case; still it may also be that creating robust alternatives able to confront the hegemony of economic development within planning takes time to develop. The compact city model has been an ideal for
sustainable urban development since the 1990s. It makes sense, therefore, to re-examine planning aims and practices discussing whether these have been broadened to also include social and environmental dimensions.

4. Data and methods

On the basis of two criteria, four Scandinavian cities have been selected. The cities: 1) express sustainability ambitions in their master plans; 2) experience developmental pressure on their landscapes due to urban development. The first selection criterion secures cases where sustainability discourses and measures are present. The second selection criterion provides cases in which it is important to find a balance among competing goals due to developmental pressure. These four cases illustrate how ambitious cities interpret and handle the sustainability challenge, and how diverging values and interests are weighted and secured through urban planning.

To identify the perceived linkages between urban form (densification and mixed use development) and social, environmental, and economic sustainability, the concepts ‘densification’ (fortetting/förtätning), ‘dense’ (tett/tät), ‘mixed’ (blandet/blandat) and ‘variation’ (variasjon/variation) were searched for in the four cities’ master plans. The economic, environmental and social sustainability goals linked to the broad concepts represented by these terms were then mapped. This procedure enabled us to focus on goals directly linked to the compact city model. Furthermore, the results of the document analysis were then triangulated with local thematic plans relevant to social, environmental, and economic sustainability, and to information from the four cities’ internet pages, newspaper articles and interviewees.

The interviewees included representatives of the regional planning authority, in addition to several local actors such as planners, politicians, developers, organised interest groups and local administrative personnel responsible for sustainability goals. The interviews were particularly important in assessing the position of sustainability goals in planning practice while also providing important contextual knowledge. They were semi-structured, starting with the same interview guide but adapting it to the interviewees’ interests and roles in planning. Each interview was conducted by two researchers and recorded to enable the content to be double checked. Where necessary, additional information was obtained through telephone interviews and questions posed in e-mail correspondence. Table 1 summarises the empirical basis of the study.

Table 1. The empirical basis

<table>
<thead>
<tr>
<th></th>
<th>Face-to-face interviews</th>
<th>Telephone interviews/ e-mail</th>
<th>Planning documents</th>
<th>Hearing suggestions</th>
<th>Newspaper articles/ internet discussion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moss</td>
<td>19</td>
<td>2</td>
<td>39</td>
<td>37</td>
<td>2</td>
</tr>
<tr>
<td>Kungsbacka</td>
<td>12</td>
<td>1</td>
<td>35</td>
<td>36</td>
<td>1</td>
</tr>
<tr>
<td>Helsingborg</td>
<td>6</td>
<td>4</td>
<td>29</td>
<td>25</td>
<td>10</td>
</tr>
<tr>
<td>Asker</td>
<td>10</td>
<td>1</td>
<td>35</td>
<td>35</td>
<td>1</td>
</tr>
<tr>
<td>Sum</td>
<td>47</td>
<td>8</td>
<td>138</td>
<td>133</td>
<td>14</td>
</tr>
</tbody>
</table>
As we can see from table 1, the number of interviews in each case varies. Moss, as the first pilot case community, has the largest number of interviews. However, the rich written material in all the cases balances this difference in the number of interviews. In particular the hearing suggestions delivered to the plan proposals outweigh the imbalance in the number of interviews.

Moss (Norway) and Helsingborg (Sweden) are regional centres situated within the larger metropolitan regions of Oslo and Malmö respectively (see Figure 1). They are both former industrial cities in need of enhanced economic growth and each has made an effort to regenerate old industrial sites in order to create new urban residential areas and contribute to new commercial and cultural activities though their industrial heritage remains intact. Helsingborg has segregated residential areas, where some city districts are dominated by people with low socio-economic status while others are inhabited by people with higher income and status (Helsingborg, 2009a). Inhabitants in Moss have a lower socio-economic status than the average Norwegian municipality (Moss Region, 2009).

Asker (Norway) and Kungsbacka (Sweden) are privileged municipalities with well-educated populations. Both cities face less socioeconomic challenges than Helsingborg and Moss; they are typical suburban cities lying a short commuter distance from Oslo and Gothenburg. Their development is to a large extent influenced by their location within a larger metropolitan area, and this limits the level of manoeuvrability these cities have over their own development. Their location in a metropolitan area creates intense pressure on land resources because of the need for housing, infrastructure, and public service development in these areas. Thus, whereas both Asker and Kungsbackas’ main challenge is to handle this growth pressure, Moss and Helsingborg focus is on trying to attract the necessary investment and well educated inhabitants to enhance their economic growth and attractiveness. However, in both instances the spatial response to these challenges is compact city development. Table 2 summarises some of the key numbers in relation to the case study cities.

Table 2. Some key figures about the case study cities

<table>
<thead>
<tr>
<th></th>
<th>Helsingborg (S)</th>
<th>Moss (N)</th>
<th>Asker (N)</th>
<th>Kungsbacka (S)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Land area</td>
<td>346 km²</td>
<td>58 km²</td>
<td>100 km²</td>
<td>611 km²</td>
</tr>
<tr>
<td>Population</td>
<td>127 000 (2008)</td>
<td>29 000</td>
<td>53 000</td>
<td>73 000</td>
</tr>
<tr>
<td>Percentage with higher education</td>
<td>34%</td>
<td>24.5%</td>
<td>43.7%</td>
<td>39%</td>
</tr>
</tbody>
</table>


The pressure is intense in a Scandinavian context. But seen from an international perspective it would probably be judged as medium or low.
Although the four cities each face different challenges, they all aim to promote sustainable development in their communities and have responded to this challenge by integrating densification and mixed land use as a guideline for urban development. Figure 1 places the cities geographically.

5. Core elements in the four cities’ compact city strategies

The four cities’ version of compact city development is the creation of densely developed nodes with a mixture of functions. These nodes are named differently: ‘junction point’, ‘compact development’, ‘node and station societies’, ‘development areas’, and ‘service villages’, but they are built on the same principles: the nodes are development areas with dense settlement patterns; accessible public transportation; and a plethora of dwellings, business development, and public services. Consequently, their strategies generally correspond to the compact city ideal of densification and mixed land use (Asker, 2007a; Asker, 2007b; Moss, 2007; Moss Region, 2010a; Helsingborg, 2010a; Kungsbacka, 2006). Communication lines, and especially railway stations, constitute the backbone of the four cities’ node development as they decide where expansion should take place. We will now take a closer look at the four cities’ master plans in order to identify the linkage between densification and mixed land use, and environmental, social, and economic goals. Furthermore, focus here is on the institutionalisation of these aims as seen in planning practices. We begin with economic sustainability.

5.1 Economic sustainability and urban form

Economic sustainability is at the core of the four cities’ strategies. First, the four cities argue that densification creates effective land use that renders possible the establishment
of a wider variety of dwellings, services and businesses in the nodes (Helsingborg, 2010a, p. 14; Moss, Region, 2010a; Asker, 2007a; Kungsbacka, 2006). Second, a mixture of functions is thought to a) revitalise city centres (Moss, Helsingborg, and Kungsbacka), b) provide a larger customer basis for commercial activities (Helsingborg and Kungsbacka) and c) enhance transportation facilities (Moss, Asker, Kungsbacka, and Helsingborg). Finally, Kungsbacka and Helsingborg argue that the financing of place regeneration is a positive side effect of the decision to embrace compact development in transformation areas. Development in relation to new dwellings and the establishment of businesses or services is warmly welcomed especially when they are placed in one of the nodes. Such development opportunities may also however be placed outside nodes, businesses requiring commodity and freight transport can, for instance, be placed in the vicinity of the main highway exits.

An attractiveness discourse prevails in the four cities, but its intensity varies. Kungsbacka has tried to revitalise its city centre by adding urban qualities such as high-rise housing and cultural facilities to make it more ‘city-like’ (Kungsbacka, 2009). The aim here is also to enhance the city’s attractiveness through the project ‘Attractive Kungsbacka’ which focuses on the city as a place for adventure, tourism and visits. Asker, on the other hand, lacks a corresponding grand vision, but does aim to continue its positive development (Asker, 2006a). Helsingborg aims to be ‘Sweden’s most attractive city for people and enterprises’ (Helsingborg, 2007, p. 2; see also Helsingborg, 2011a) while Moss has started an image campaign to strengthen its chances in the race for a share of the expected economic and population growth in the Oslo region. By 2013, the Moss region aims to be viewed as one of the three most attractive relocation areas for people living in the central part of Eastern Norway (Moss, 2007). Helsingborg and Moss have also made an effort to consolidate their positions in the regional race to attract young, highly educated people to produce what Moss calls ‘a better balance between nourishing and corrosive age groups’ (Moss Region, 2010a, p. 7). Their hope is that young highly educated people will create new businesses and provide higher tax revenues. It is assumed that this group wants to be part of an urban environment with a plethora of shops, dwellings, and businesses with ties to education institutions4. Hence, the notion of compact city development frames and sustains the four cities’ attractiveness ambitions. There also seems to be little tension between the compact city ideal and economic goals. Rather, economic development seems to be an intrinsic part of the model.

**Institutional practices**

Based on interviews and document studies, nine institutional practices have been identified in one or more of the four cities (Asker, 2006a; Asker, 2007c; Asker, 2008; Asker, 2009; Asker, 2010; Kungsbacka, 2010a; Kungsbacka, 2010b; Helsingborg, 2009b; Helsingborg, 2011a; Helsingborg, 2011b; Moss, 2010a):

- Regional collaboration as a measure to enhance business development (Helsingborg, Asker, Kungsbacka, Moss).
- Strategic business development plans to guide business, destination and tourist development (Asker, Helsingborg, Kungsbacka).

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4 This is uttered in interviews with politicians and civil servants engaged in urban planning.
• Detailed, yearly plans for business development where goals are coupled with targeted measures (balanced scorecard) (Asker, Kungsholm, Kungsholmbacka).
• Physical planning is used to adapt nodes to business development (Asker, Helsingborg, Kungsholmbacka).
• Arenas where politicians, business actors and public servants meet to discuss topical questions (Asker, Helsingborg, Kungsholmbacka).
• Collaboration and contact with business actors to enhance knowledge and information sharing (Asker, Helsingborg, Kungsholmbacka).
• Inspire local entrepreneurship (Asker and Kungsholmbacka). Kungsholmbacka gives economic support and counselling on this topic while Asker has an annual founder prize.
• Development of higher education institutions doing education and research integrated into business development (Campus Helsingborg).
• Collaborative projects with other cities in the region and across Scandinavia more generally (Helsingborg).

Interestingly, Asker and Kungsholmbacka, which experience the strongest development pressure in terms of people and businesses, distinguish themselves with a broad set of institutional practices to enhance business development and attract new businesses. Helsingborg also strives quite proactively to meet the challenge of attracting new businesses and keeping hold of existing ones. The institutional practices used to support economic sustainability are however rather less developed in Moss although it is perhaps the city that would benefit most from such changes. Moss has decided not to make a specific plan for business development. Rather, they have decided to include business development in the urban plans’ chapter on economic growth and competence building (Public actor involved in planning; Moss, 2010a, pp. 11-13). However, structural changes in the traditional industry sector have led to a loss of jobs thus stimulating a discussion about how to support the establishment of new businesses.

5.2 Environmental sustainability and urban form
All four municipalities aim to enhance sustainable transport through node development. The nodes are to be situated close to railway stations and include a mixture of housing and jobs that enable travel by public transport, cycle or by foot. In addition, the protection of large agricultural, natural, and cultural areas is a perceived output of the compact city model in Helsingborg, Moss, and Asker. This ideal is expressed in the following manner:

By building new houses in densely populated areas one avoids the fragmentation of the large nature-, agricultural- and recreational areas (Asker, 2007a, p. 16).

We are going to […] protect agricultural areas, nature- and cultural landscapes by setting long-term limits for the densely populated areas, and by densification and transformation instead of using cultivated land or intact natural areas (Moss Region, 2010a, p. 17).

To use land resources effectively means […] that we have more space left; space for more houses, more green space, businesses and services that create
added value for the areas in question. By prioritising development in station-nodes the remaining parts of the countryside with high-class agricultural land or important natural- or cultural values can be left unexploited (Helsingborg, 2010a, p. 14).

These quotes demonstrate that the cities perceive densification in nodes and the transformation of already developed areas as a means to secure the protection of valuable natural, agricultural, and recreational land beyond these nodes. The cities are, however, less specific in relation to green urban areas within nodes. Helsingborg envision that it will ‘increase the efficiency of green area usage’ (Helsingborg, 2010a, p. 30), but also to create ‘more green areas’ (Helsingborg, 2010a, p.14). Asker aims to save ‘green qualities with gardens’ (Asker, 2007a, p. 18). Nevertheless, these plans do not address what the practical implications of such a strategy will be. Moss, however, is more explicit; the city envisions creating dense nodes so that ‘existing place qualities, including cultural environments [and] valuable green structure [...] are not reduced’ (Moss Region, 2010a, p. 17). Kungsbacka is less explicit about the relationship between green areas and densification than the other cities. Still, they are clear on the fact that there remains a restriction on development outside the nodes, which creates the same rationality as in Helsingborg and Asker: Importance is placed on safeguarding large green and cultural areas outside the nodes, while the future of green areas within, or in relation to, nodes is more uncertain: these areas risk being used as building ground particularly if they are located in the vicinity of a railway node (Helsingborg, 2010b; Kungsbacka, 2006; Asker, 2007a; Moss, 2007). This then raises the question to what extent practices capable of relieving the tension between node developments and the safeguarding of urban green areas are detectable in the four cities.

Institutional practices
All four municipalities operate with the concept of ‘green structure’ in their plans. This concept constitutes waterways and streams, shorelines, local parks, city parks, cemeteries, agricultural land, larger green areas, and forests as one common structure (Asker, 1999, 2006b; Helsingborg, 1995; Helsingborg, 2010a, pp. 28, 53; Kungsbacka, 2007a; Moss, 2006). Hence, green structure falls into the same category as other basic structures in planning such as ‘infrastructure’ and ‘built structure’.

To this discursive construction of green structure as a common entity comes the specific mapping of its qualities. Green structure plans map the cities’ green resources by assessing their recreational and natural qualities (Helsingborg, 1995; Helsingborg, 2010c; Kungsbacka, 2007a; Asker, 1999, 2006b; Moss Region, 2010b). Local actors argue that green structure plans serve to enhance and integrate the available knowledge of the green structure and create the opportunity to gain a coherent view of its totality. Furthermore, they argue that green structure plans contribute by helping to focus attention on the cities’ merits and shortcomings in regards to green structure preservation. Kungsbacka and Helsingborg have each introduced an additional practice called the ‘balancing principle’, which involves a compensation for loss of green areas. In Kungsbacka, the balancing principle means that the exploited area is ‘compensated for by enhancing the quality of the area that is left’ (Kungsbacka, 2007a, p. 23). What this principle means in practice, however, is to be decided through an in-depth analysis of the area. Helsingborg has a similar norm that involves not only the area in question,
but also the city in general. The basic notion is that the value assessment will enhance the cost of altering the area’s status and, thereby, slow the dismantling of natural areas. Nevertheless, specific guidelines for when damage to natural and ecological values is acceptable and what functions in terms of suitable compensation are not given. The value of the area will be decided through negotiations among stakeholders in each specific case. One of Helsingborg’s administrative servants involved in planning worries that: ‘The balancing principle may function as a clause that ransoms developmental interests’. This person fears that such an alteration of the logic that guides the governing of these areas may make it possible for developmental interests to effectively buy themselves out of this general aim to secure accessible green areas in the city centre.

Asker does not use the balancing principle concept. However, in the impact assessment of their current plan, they simply state that 22 hectares of natural and agricultural land that was developed in the current municipal plan are to be compensated for by altering the status of 13 hectares of forest from developmental land to recreational land. Consequently, Asker’s reasoning is, in effect, the same as is found in Kungsbacka and Helsingborg (Asker, 2007b, p. 3). Similar principles and measures are not however found in Moss.

5.3 Social sustainability and urban form
Turning to the social sustainability goals of compact city development it becomes clear that compact city development is perceived as catering for lifelong living in an area. Helsingborg and Kungsbacka argue that a mixture of housing forms make it possible to live in one area throughout life’s different stages (Helsingborg, 2010a, p. 27; Kungsbacka, 2006, p. 26). Asker and Moss have a particular focus on elderly people. For instance, Asker’s master plan states: ‘The master plan prioritises the building of flats around several towns and villages in Asker. Such developments will somewhat ease elderly people’s ability to manage on their own or have adjusted home-based service/care’ (Asker, 2007a, p. 7). Hence, nodes with their concentrated supply of services and leisure activities enable elderly people to manage their lives more independently.

Other social sustainability factors are also visible in the cities’ master plans. In Moss, Kungsbacka, and Helsingborg, compact city development is seen as a means of creating identity as well as social environments marked by reduced segregation, enhanced diversity, and integration (Moss Region, 2010a, p. 9; Kungsbacka, 2006, pp. 25-26, 82, 84,116-117; Helsingborg, 2010a, pp. 30, 46, 49, 83). Helsingborg takes this goal a step further by focusing on eliminating what they call ‘outsider-ness’ (utanforskap); aims are formulated to lift communities with low socioeconomic status and decrease the number of individuals who are unemployed or who exit the education system without the necessary qualifications (Helsingborg, 2009a). Moreover, Kungsbacka and Helsingborg emphasise that nodes with a mixture of housing and workplaces allow for a constant flow of people in the city centres that enhances the vitality and safety of the environment, and creates human encounters (Helsingborg, 2010a, pp. 21-22, 48,58; Kungsbacka 2006, pp. 28, 82, 114, 117). Helsingborg conceptualises this claim by referring to the creation of a ‘mixed city’ (blandstad) (Helsingborg, 2010a; Helsingborg, 2010d).
In sum, the cities seem to consider compact city development to have a positive impact on social sustainability factors. However, negative side effects are also mentioned. Helsingborg’s plan (2010a, pp. 82) clearly states that densification and the building of larger entities visited by many people can ‘impact the noise level and air quality negatively’. Moss and Asker’s plans do not make such a clear linkage between densification and these problems, but they do take noise levels into consideration when setting restrictions on where densification can occur (Asker, 2007a, p. 35, Moss Region, 2010a, p. 18).

**Institutional practices**

The cities of Moss, Asker, Kungsbacka and Helsingborg pursue social sustainability goals through public health plans/social sustainability plans (Asker, 2006c; Helsingborg, 2010d; Kungsbacka, 2007b; Moss, 2009). In addition, these cities have – to varying degrees – developed procedures that secure a linkage between public health goals and urban planning. Public health is one of the four overriding principles for Moss’ new master plan. Moreover, the municipal public health coordinator is part of the administrative team formulating master plan proposals. In Asker, the links between public health and urban form are mainly secured through arrangements to enhance bicycling and walking and through initiatives to provide access to green areas thereby enhancing citizen’s opportunities to engage in physical activity. Kungsbacka ties its strategic planning to development in each specific node. The city administration makes plans and undertakes analyses of various social aspects. Furthermore, representatives from social departments in the municipal administration are invited to participate in zoning processes where relevant (Kungsbacka, 2007b; urban planner in Kungsbacka).

However, Helsingborg is the only city where social sustainability has developed into a significant discourse. The city’s sustainability plan plays a more prominent role in local policy-making (Helsingborg, 2010d). This plan is discussed and revised annually together with the municipal budget, and according to a local politician it becomes ‘part of a development and the basis for political debate where solutions to challenges addressed in the plan are sought’. As such, the plan has gradually enhanced focus and attention on social sustainability among civil servants and politicians. The plan rests on statistics, indicators, and qualitative data which function as the basis of knowledge for political decisions. Seven areas of improvement have been identified and these areas are monitored and discussed by the local council on an annual basis (Helsingborg, 2010d). Living and place development and environmental quality are the aims that are particularly relevant to urban planning due to the monitoring employed: the number of newly built dwellings, the assortment of dwellings, and the ability to enhance quality of life in the city’s socioeconomically weak areas, air quality, noise level, and the protection of green areas (ibid). Among these issues, however, only that of air quality can be seen to be keeping pace with the goals formulated. Far fewer dwellings have been built than was initially anticipated and the composition of dwellings is more homogeneous than what was originally envisaged. In particular, far too few apartments are available for rent. Noise levels rise and green areas are being used as building ground (ibid). Thus far then the vaunted social sustainability aims outlined above seem to have had a low level of impact on real planning outcomes.
6. Balancing environmental, social and economic goals

The goals and perceived output of densification and mixed land use found in the four cities’ urban plans broadly resemble the economic, environmental and social sustainability advantages that the compact city model anticipates. This observation does not, however, imply that the ambitions and goals identified have an equal position within the compact city model.

Comparing the position of the three sustainability dimensions, it becomes apparent that economic considerations enjoy a favourable position. Through densification and mixed land use within nodes the cities aim to secure effective land use, a varied composition of functions, and revitalised city centres with enhanced customer basis and better transport facilities. Altogether, it is anticipated that these elements increase the cities’ attractiveness to citizens and enterprises. In a study of Manchester’s compact city strategy, Mace, Gallent and Madeddu (2010) argue that compact city development is a powerful signifier of city renewal. This argument is in line with the empirical material presented in this article. As we have seen, an attractiveness discourse has been structured in planning documents and solidified into specific institutionalised practices in Kungsbacka, Helsingborg and Moss. The densification of Kungsbacka city centre is undertaken to make it more ‘city like’ - thereby developing an urban identity of its own independently of Gothenburg. Helsingborg makes the effort to develop its position as a regional node through the regeneration of former industrial sites. Likewise, Moss has also regenerated former industrial ground and uses this compact development strategy to enhance its image and, thus, to attract new, young citizens. These cities’ success seems to be linked to densification and mixed use development as these measures contribute to alter the urban environment and thereby to serve as a re-imaging tool.

Hence, for local authorities compact city is synonymous with a city’s viability and a number of institutional practices to support business development have been put in place. In a political sense, such progress ensures that the conditions for continued positive development – in terms of working and thriving - exist in the city. From the property owners’ point of view, compact city strategies serve to enhance the value of property as it can be exploited more intensively (Mace et al., 2010). Thus, there is a clear concurrence of political and economic goals here which helps to explain the success of the compact city model.

Environmental and social goals are also present within the compact city model identified in the four cities; however, they are not as intrinsically central to the model as the economic goals. Starting with the identified environmental goals, we have found that enhanced sustainable travel (especially public transport, but also walking and cycling) together with the safeguarding of large, valuable green areas outside the nodes provide the backbone of the compact city model. These ideals not only structure goals and priorities in plans but govern the physical allocation of land in the four cities. Hence, the ideas of sustainable travel and the protection of larger green areas have been institutionalised through the materialisation of concrete measures. Nevertheless, it is clear that the position of urban green areas inside the nodes is less clearly defined. On the one hand, urban green areas are often viewed as potentially attractive in terms of construction and development sites - especially when located in close proximity to
railway stations. On the other hand, urban green qualities have received more attention given the practice of green structure plans and the introduction of the balancing principle. This emerging institutionalisation may, in time, manage to balance the densification pressure. Thus far, social goals lack a corresponding institutionalisation that makes them applicable for urban planning. It is clear from Helsingborg’s sustainability plan that social sustainability has not yet gained full recognition in terms of urban development processes. This situation corresponds with that reported by the other three cities.

Thus, the compact city model, as identified in the four cities studied in this article, is based on a mixture of economic and environmental goals and practices. The provision of sustainable transport, services, businesses and dwellings in densely built nodes that enable land economisation to safeguard large green areas serves as a planning ideal with a clear practical outcome. This ideal influences land allocation and thus decides where development can take place. As such, these economic/environmental elements are part of the cities ‘background ideational abilities’ because their positive (sustainability) impact are taken for granted and have become part of planning practice. Other environmental and social goals aiming to ensure a varied composition of dwellers and to protect urban green land are also articulated in the four cities’ plans. However these goals challenge the core economic and environmental ideas in two ways. Firstly, creating a more varied composition of dwellers depends on the provision of a range of dwelling types targeted at different income groups. But more composite housing areas can reduce yields from housing projects because they place restrictions on the project that limit the developer’s ability to develop the project such that it generates the highest market price. Secondly, the safeguarding of urban green areas challenges the aim of creating dense nodes. This article has demonstrated that these goals are less articulated and have to a lesser extent solidified into planning practices. However, the remaining social and environmental goals identified in the plans can be seen as examples of foreground ideational abilities signifying that new meanings and practices are about to develop.

In a sense this development may signal an emerging phase of critical reflection upon the strategy of compact cities opening it up for modification and change. Thus, foreground discursive abilities may be said to be at play illuminating in-built tensions within the compact city model between environmental and social goals on the one hand and economic goals on the other. The balancing principle may serve as an example. Here, natural values are in a sense ‘commodified’ and made tradable; loss of a green lung may be compensated for by adding a new walking lane in another part of the city or by enhancing the quality of the remaining green area. However, this value setting is not value free; it involves negotiations between relevant public and private stakeholders where environmental, social, and economic values are balanced. Such processes raise difficult questions, such as: What is a strong developmental interest? How much of the green area needs to be secured in order to safeguard natural and recreational qualities? These are core questions, not only in connection with the balancing principle, but also in relation to compact city development in general. Furthermore, these questions also illustrate that assigning value and performing governance is a politicised activity. The selection of the elements that will be measured, and how the measurement should be conducted, and finally, interpreted is based on political judgement (Rose, 1999, p. 198;
By trading green qualities, one can try to ensure that decisions are made within the prevailing planning rationality. The spatial allocation of land resources is enforced by alternating its land use status and making it accessible for market exchange. The question then is whether the balancing principle serves to slow or ease the transformation of green areas into development plots.

Traces do however exist of an increase in the attention given to social sustainability concerns indicating that social sustainability is an emerging discourse within planning as these topics have been structured in the four cities’ plans. However, social sustainability concerns lack concrete guidelines and recipes that can assist in converting social aims into institutionalised planning practices. Helsingborg’s annual assessment and successive political discussions is a start, placing it ahead of the other three cities and probably also most other European cities (Hofstad, 2011; Crawford et al., 2010; Barton et al., 2009). Nevertheless, it is important to note that some social aims, for example creating more diverse and integrated neighbourhoods, are ambitious and will most certainly create resistance in established residential areas. Such mechanisms are clearly visible when, for example, politicians try to place institutions for drug addicts, asylum seekers or the mentally ill in a community setting. Indeed, it is clearly the case that such measures remain unpopular and thus difficult to accomplish. In practice then social sustainability goals function more as political and moral justifications for densification and mixed land use than as actual guides for planning decisions. For the time being, awareness of the social effects of compact city development remains low as core social sustainability goals continue to be poorly developed in planning practice.

In sum, the empirical data show the contours of a goal hierarchy in compact city development. Economic and some environmental concerns are at the top of the goal hierarchy supporting compact city strategies. This is visible by the clear structuration of these goals in plans and the corresponding institutionalisation of practices supporting these goals. Green area conservation within nodes and the integration of social sustainability goals into planning, however, are the primary blind spots of compact city development. Nevertheless, the basis of environmental and social knowledge in planning is expanded through institutionalised mapping and registration procedures. This implies that the discourses identified in the cities’ master plans are, step by step, turned into solidified institutionalised practices through the formulation of green structure plans (plus Helsingborg’s sustainability plan) and principles of governing. A common platform for the protection of green spaces is built into urban planning; this platform serves as a knowledge basis upon which planning prioritisations are based. Together with the social sustainability agenda, this platform portrays a more holistic kind of planning in which the entangled nature of urban development is acknowledged. For the cities themselves attractiveness does not depend on economic prosperity alone. To attract and maintain inhabitants the city needs to develop a broader agenda including a mixture of social, environmental and economic concerns.

7. Conclusion
The four cities’ goals correspond with the economic ideals of compact city development by aiming to revitalise city centres through the promotion of densely built dwellings,
shops, businesses and accessible infrastructure. The compact city ideal is also expected
to create proximity between employers and employees, not only making sustainable
travel possible, but according to Moss, Helsingborg and Kungsbacka, creating living,
revitalised centres that form a customer basis for services and businesses. Economic
sustainability is clearly therefore at the core of the compact city ideal.

When it comes to environmental sustainability, the planning discourse in the four cities
 corresponds to the compact city ideal in relation to sustainable travel. Since transport
junction points are a decisive factor in node development, sustainable travel is at the
core of densification strategies in all four cities. However, the notion that the compact
city will reduce the pressure on biodiversity provided by green areas and the ecosystem
services is less certain. The goal to protect large green and cultural areas outside nodes
through densification finds support in the cities. This logic is, nonetheless, more
uncertain when it comes to urban, green areas. Urban green areas within developmental
nodes have nevertheless enhanced the presence of compact city ideas in local discourse
through the notion of green structure seen through the institutionalisation of green
structure plans and the balancing principle used in the two Swedish cases.

The cases utilised here have tied social sustainability aims to densification and mixed
use through goals highlighting the creation of a composite offer of dwellings, services,
and shops that makes life-long living possible, and creates diverse populations and vital
city centres. These elements may be seen as first order social factors and as the
inevitable consequences of dense and mixed urban form. Broader, second order themes
– such as social cohesion, social capital, community spirit, safety, and reduced crime -
are present in the plans of three of four cities, and thereby, overlap with the social goals
woven into the compact city ideal. The four cities nevertheless struggle in the
institutionalisation of planning practices capable of advancing social goals. On the basis
of these results however it can be argued that there is a clear goal hierarchy between the
three sustainability dimensions in compact city development.

To what extent do these conclusions correspond to the results obtained from other
studies? The starting point, namely the centrality of the compact city ideal in urban
planning strategies, is found throughout the western world (Raman, 2009; Vallance et
al., 2005; Healey, 2002; Easthope & Randolph, 2009; Jenks & Jones, 2010). Even in the
US where urban sprawl has been a strong trend, attention to sustainable urban
development has increased (Portney, 2002; EPA, 2010). Similar patterns are also found
in other studies when it comes to the more detailed conclusions drawn in this article.

Firstly, research undertaken in the UK, Denmark and Norway finds economic
development to be a significant force in bringing about densification (Mace et al., 2010;
Næss et al., 2011). Additionally, the core environmental aspects identified in the four
cases – sustainable travel and land economisation – is at the core of urban policies and
practices in both Copenhagen and Oslo (Næss et al., 2011). Second, the inability to
grant social sustainability the necessary status in urban development is mirrored across
European research. In an evaluation of the progress made by the 52 participants in
WHO-Europe’s healthy urban planning initiative, Barton et al (2009) found that 40% of
the participants had structured the objectives of the programme into their planning. The
institutionalisation of planning practices was far harder to accomplish, 67% of the cities
had failed to deliver satisfactory measures (ibid). The tension between densification and
the protection of larger green areas on the one hand, and the safeguarding of urban green space on the other has not been widely researched. The focus is directed rather at the problems of urban sprawl (Frumkin, 2002; EEA, 2010) and the health advantages of urban green space (De Vries et al., 2002; Maas et al., 2006). As such, this is a line of research that should be further developed.

The article illuminates how new practices to enforce the environmental and social sustainability dimensions create tensions and dilemmas within the compact city model. These tensions may however contribute to the further development of the model. In order to capture such developments more in-depth knowledge on planning practices is needed. The core questions that would potentially widen our knowledge on how cities balance the different sustainability dimensions in their compact development include: At what stage of the planning process are economic, social and environmental concerns introduced? What measures are developed to integrate such concerns? To what extent are different interests included in the planning process? And, is there a correspondence between aims and results in densification processes? This article has demonstrated that common aims, strategies and practices already exist across selected Swedish and Norwegian cities. In a future research effort it would be interesting to pursue a wider comparison with a view to revealing more general trends in urban development.

References

Asker (2006b). Fortetting i eksisterende boligområder i Asker [Densification in existing residential areas in Asker].


Helsingborg (2010c). Grönplan för Helsingborgs stad – utkast inför bemanning och förankring [Green structure plan draft on manning and anchorage].


Kungsbacka (2009). Fördjupad översiktsplan för Kungsbacka stad [Deepened plan for Kungsbacka city centre].

Kungsbacka (2010a). Kungsbacka i siffror [Kungsbacka in numbers].


Moss (2006). Strategiplan for kultur, miljø og byutvikling [Strategic plan for culture, environment and urban development].


Moss Region (2009). Mosseregnens ”Prosjekt felles rullering av kommuneplanen” plangrunnlag [Plan basis].

Moss Region (2010a) Kommuneplanens samfunnsdel – første utkast [Comprehensive plan first draft].

Moss Region (2010b). Overordnet grønnstruktur i Mosseregnen [Green structure plan for the Moss region].


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