Aalborg Universitet

AALBORG UNIVERSITY
DENMARK

Mobility Challenges in the Region of Northern Jutland, Denmark

Vestergaard, Maria Quvang Lund; Laursen, Lea Louise Holst; Jensen, Ole B.; Lassen, Claus

[Link to publication from Aalborg University](#)

MOBILITY CHALLENGES IN THE REGION OF NORTHERN JUTLAND, DENMARK

Paper for the ESRS 2011, "*XXIV European Congress for Rural Sociology*", 22-25 August 2011, Chania, Crete, Greece

Maria Quvang Lund Vestergaard – Dept. of Development and Planning – Mariav@plan.aau.dk
Lea Louise Holst Laursen - Dept. for Architecture Design and Media Technology - llhl@create.aau.dk
Ole B. Jensen - Dept. for Architecture Design and Media Technology - obje@create.aau.dk
Claus Lassen - Dept. of Development and Planning - claus@plan.aau.dk

1. Introduction

This paper seeks to investigate the mobility challenges in the Danish region of Northern Jutland in the tension field between physical and virtual mobility and global and local perspectives. The Region of Northern Jutland is placed in the periphery of the national territory, and on top of that, large parts of the region can be denoted outskirt rural areas placed within the periphery of the region. This gives the region a number of challenges concerning mobility e.g. the regions large sparsely populated territory makes it difficult to provide sufficient public transport to the residents, who also have large distances between home and work, and the opportunities for job changes are declining. In this respect, the paper inscribes itself in the ongoing debate during the last decades within social science on development opportunities in so-call peripheral areas (Rowlands 1998).

In this paper, the starting point for the analysis is a think-tank cooperation titled 'Mobility Challenge North Jutland' (MUN) established by the regional mobility stakeholders in Region of Northern Jutland and the new Center for Mobility and Urban Studies(C-MUS) at Aalborg University (see www.c-mus.aau.dk). The think tank, which was started in 2010, has served as a platform for knowledge and experience exchange in the area of mobility between industry, government departments, private individuals and the university, and it has included a strategic selection of mobility players in physical mobility (airport, public transport company, local railway) virtual mobility (IT and telecommunication companies) and imagined mobility (tourism organizers, national park, wellness hotel, local municipalities) (see Urry 2007 for further elaboration on this notion). The analyses and perspectives presented in this paper are the results of this work.

The theoretical starting point of the work is the emerging interdisciplinary field of mobility research within social science - often termed as the new 'paradigm of mobility' (Aday 2010, Kaufmann 2003, Creswell 2006; Urry 2000, 2007, Lassen and Jensen 2006, Jensen and Lassen forthcoming). The essence of 'the mobility turn' is to understand the production and reproduction of society through mobility optics (Urry 2000). Here, mobility is not understood in a singular form, but instead in a plural form as mobilities, which imply that the new mobility research field particularly focuses on how various forms of physical, virtual and experienced mobilities interact and affect the development of societies (Urry 2007). Such an approach means that mobility is not only material, as a number of conventional mobility approaches within various disciplines often seem to claim, but

also, and just as much, is about 'production of meaning and culture' (Jensen 2010). A key question in such an approach is therefore 'how mobilities produce and re-produce norms, meanings and cultures' (Jensen 2010, see også Vinnini 2009). Overall, it is such a fundamental understanding of contemporary mobilities, which constitutes the theoretical foundation of the paper in order to interpret the regional mobility challenges.

In line with such a theoretical understanding, the paper therefore argues that, as opposed to many conventional regional geography approaches or tourism studies, we need to put focus on the challenges to a peripheral region from the vantage point of an explicit mobilities perspective. Thus in accordance with the mobilities perspective we see that, what might be thought of as lack of tourism infrastructures, also relate in a very detailed manner to the internal mobility potentials of the residents in the region. But more interestingly, the "regional mobility assemblage" is wedded to social practices and everyday life ways of being mobile in the region (see Vannini 2009, Jensen 2010).

Moreover, the paper argues that in order to understand and ultimately face the challenges facing this region, it is necessary to understand the culture of mobilities as a profound regional feature, including hardware such as airports, road systems and utility provisions, and software such as local customs, preferred choices of mode of transport, patterns of social interactions across the region etc. Our claim is thus that at one level of abstraction we need to theorize and think the challenges and potentials of the region in the light of a regional mobility assemblage. At the more empirical level we furthermore argue that we need to understand this in the light of the analytical framing model we term the 'Mobility Challenge'.

In the following the paper is divided into three sections. *First*, the theoretical foundation for the empirical analysis is presented. This section focuses theoretically on the various forms of mobilities that exist at a regional level and the specific challenges and potentials related to such mobilities. Based on this, an analytical model of understanding of the mobility challenges of the Region of Northern Jutland is presented. *Second*, the mobility challenges of the Region of Northern Jutland will be analyzed empirically. This is done in two steps. First, the region and its mobility challenges will be analyzed. Then two selected regional examples, Thisted Municipality and National Park Thy, will be analyzed in depth. *Finally*, the conclusion is made, and perspectives in relation to future mobility challenges in peripheral areas will be outlined and discussed.

2. Regional Mobility Assemblage

In this section we shall present the key theoretical framing of this paper by laying out ideas for the notion of a 'regional mobility assemblage'. This is very much work-in-progress and the concept will therefore be rather incoherent and not necessarily completely sharp. Having said this, we are interested in merging ideas and theories from the field of mobility studies, human geopgraphy, socio-technical systems analysis, and network city theories (Amin & Thrift 2002; DeLanda 2006; Deleuze & Guattari 2003; Farias & Bender 2010; Graham & Marvin 2001; Hommels 2006; Jensen, Lauritsen & Olesen 2007; Latour 2005, 2009; Thrift 2008; Cresswell, 2006; Massey, 2005; Latour,

2005; Farias & Bender, 2010; Castells, 1996; Graham & Marvin, 2001; Adey, 2010; Elliott & Urry, 2010; Jensen, 2009; Sheller & Urry, 2006; and Urry, 2000, 2007). These all converge towards a 'relational and mobility-oriented sense of place' that merge assemblages and mobilities as an analytical perspective. The key insight from applying the notion of assemblages to urban studies in general (and to mobilities studies in particular) is to stress the decentered nature of the objects of study:

> 'The notion of urban assemblages in the plural form offers a powerful foundation to grasp the city anew, as an object which is relentlessly being assembled at concrete sites of urban practices or, to put it differently, as a multiplicity of processes of becoming, affixing sociotechnical networks, hybrid collectives and alternative topologies. From this perspective, the city becomes a difficult and decentered object, which cannot any more be taken for granted as a bounded object, specific context or delimited site. The city is rather an improbable ontological achievement that necessitates an elucidation' (Farias, 2010:2)

Likewise in an earlier analysis of urban Metros Jensen point to the perspective of 'assemblages' for understanding metro mobility. Jensen found that:

> '…. trains, trails, stations, platforms, escalators, metro staff, travellers, signs, commercials, musicians, homeless, police force, tickets, ticket machines, power supplies, news paper stands, coffee shops, customers etc. are assembled into socio-technical systems producing the lived mobility of metro travellers in London, Paris and Copenhagen. The specific assemblage within the socio-technical system is 'what makes metro mobility' by means of sorting, filtering, circulating, and orchestrating mobilities' (Jensen, 2008:19)

The basic foundation of such an analytical perspective is related to a particular notion of 'networked ecologies' as:

> 'a series of co-dependent systems of environmental mitigation, land-use organization, communication and service delivery … [being] networked, hyper-complex systems produced by technology, laws, political pressures, disciplinary desires, environmental constraints and a myriad of other pressures, tied together with feedback mechanisms' (Varnelis, 2008:15)

From this perspective grows an understanding of infrastructures and technical systems as not only hardware and material structures:

> 'While infrastructure typically conjures associations with physical networks for transportation, communication, or utilities, it also includes the countless shared protocols that format everything from technical objects to management styles of the spaces of urbanism – defining the world as it is clasped and engaged in the space of everyday life. Infrastructural space is, as the word suggests, customarily regarded as a hidden substrate – the binding medium or current between objects of positive

consequence, shape, and law – yet it is also the point of contact and access, the spatial outcropping of underlying laws and logics' (Easterling, 2011, 10)

Such a broad notion of infrastructural spaces seems to fit with the key concept of 'assemblage'. Delanda argues that 'assemblages' are noticeable by their external relations (DeLanda 2006:10). This means that the elements of the 'assemblage' must be understood as relatively autonomous and in principle being able to be substituted with other elements of a network. According to Elliott & Urry assemblages are relational and instable complexes of objects and human agents (2010:14), or in the words of McFarlane:

> '… assemblage does not separate out the cultural, material, political, economic, and ecological, but seeks to attend to why and how multiple bits-and-pieces accrete and align over time to enable particular forms of urbanism over others in ways that cut across these domains, and which can be subject to disassembly and reassembly through unequal relations of power an resource' (McFarlane, 2011:4)

From an analysis where the notion of assemblage was applied to cycling Mikkelsen et. Al. argued very closely to the way we conceive of assemblages in this paper:

> So we would claim that there exists such a thing as a 'biking assemblage' comprised by multiple social interactions, bodily sensations, material systems, solid objects, and infrastructural networks. It is important to understand that 'scale' is not an inherent and fixed dimension to a network, but a socially variable construction enforced by the various engagements that social agents afforded by the system. This furthermore means that a 'biking assemblage' also includes cultures, values, and norms. This stretches from the way routing and rights of way negotiation engages with the political context of the given case, to the underpinning rationalities of what biking is all about, regardless of whether biking is seen as a mundane social practice, a recreational activity or a political manifestation ... Here it is important for the point of defining 'biking assemblages' that it is not solely a material or physical entity. The values inscribed into the design and the materiality of the assemblage is as important as bike paths, curbs and wheels. The power issues and the attempts to enforce certain decisions and marginalize others also becomes part of the 'biking assemblage' as the making of cycling (as most other human practice) became a contested field from the very beginning. Most importantly perhaps is the understanding of how objects and subjects, society and technology, nature and culture cannot be kept separate in this perspective. If you take away my bike I cease to be a cyclist but I equally changes as a cyclist if I have a predominantly recreational understanding of my practice as opposed to an everyday life mobility perspective or a political agenda (Mikkelsen et al 2011:6)

In a parallel way we aim to point at the notion of 'regional mobility assemblage' as a perspective on the challenges that the region of North Jutland faces in relation to mobilities. Two key points are made in this quote as well. First of all; obviously that the notion of 'assemblage' opens up an analytical perspective leading us to re-think the whole collection of subjectivities and materialities

that goes together in configuring the particular 'mobility make up' of North Jutland. But just as importantly we see that applying the notion of 'assemblage' will problematize the idea of 'scale' (and here the region) as something bounded, fixed and sedentary. In the words of McFarlane: '*As a general currency, assemblage is increasingly used to connote, expansively, indeterminacy, emergence, becoming, processuality, turbulence, and the sociomateriality of phenomenon*' (McFarlane 2011:5).

Urry (2000) argued that social analysis needed to look 'beyond societies' and in particular beyond the nation state and rather focus on the networks and flows de facto constituting relational webs of social interaction across time and space. Likewise we aim to present a perspective on 'the region' that dispenses with it as something fixed and nested into a sedentary scale. Allen et. Al. reasoned likewise in their 1990's analysis of the South East of England in which they argue that: '*... regions only exist in relation to particular criteria. They are not 'out there' waiting to be discovered; they are our (and others') constructions*' (Allen et al. 1998:2). However, we should like to take one step further away from a sedentary and fixed notion of the region and understand it in the light of 'mobilities' as well as in the light of the notion of 'assemblage'. Like Sheller argue in her analysis of the 'Caribbean' as a constructed region we also aims to see North Jutland as wedded to multiple flows of material and symbolic elements: '*... the Caribbean region is an assemblage of parts that are not only physical, but also imagined, symbolic, social, and communicative*' (Sheller, forthcoming).

From their analysis of space and scale using assemblage theory Latham & McCormack present not only an idea of countering the nested and fixed sense of scale. They also point at the fact that assemblage theory opens up to understanding how a sense of scale is related to affects and bodies in motion:

> '… a sense of scale is not simply about reach: it is also about how resonant affects move and circulate between closely packed bodies moving together and differently. And the intensity of scale is also a matter if duration: not just a matter of how long an event lasts, but of how the temporality of an event registers differently in moving bodies' (Latham & McCormack 2010:67)

Thinking about North Jutland in the light of this we may start to see how the specific assemblage of 'nature' and mobile subjects may be understood very differently depending on if one is a factory worker commuting from the villages into bigger cities, if one is a life-long resident and native inhabitants of one of the smaller seaside communities, or one is the visiting tourist driving through the spectacular countryside. Either way the region is an assembly of mobilities that relates to different bodily experiences and affects. Smith in his analysis of Singapore and globally practicing lawyers carry the assemblage perspective even further when proclaiming: '*Forget scale, follow the networks*' (Smith, 2010: 82).

In this paper we shall not present a fixed definition of the regional mobility assemblage with a generic reach since this would not be in accordance with the underpinning philosophies of the theories presented here. Rather we argue for an empirical and case-based understanding of how

North Jutland makes a complex assembly of roads, infrastructures, villages, cities, commuters, inhabitants, tourists, vehicles that problematises a simple notion of the region as fixed in a scalar hierarchy on the periphery of the Danish state territory. This may clearly be the case but one has to move into much more empirical detail to understand how the regional identities and the perceptions of the places are made up by human and non-human elements that at times are confined by fixed boundaries and at other times flows in what for the lack of a better term may be thought of as in 'global space'. The mobility challenges of North Jutland must therefore be understood beyond simple dichotomies such as local/global, nature/culture, society/technology and rather be seen as an assemblage transgressing these notions. To become more operational we propose the following model (fig. 1) that captures the 'mobility challenges' to the region of North Jutland based on the mentioned deliberations in the regional think tank.
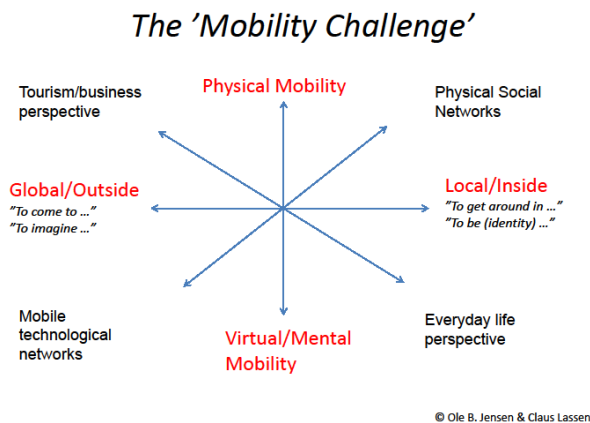
Figure 1 The 'Mobility Challenge' (Jensen & Lassen, forthcoming)

The model tries to capture the 'tension field' rather than 'either or' logic between the virtual and the physical, and between the global and the local. Seeing the mobility challenges through the eyes of this model means realizing that mobilities are assembled on multiple scales and within networks of multiple modes of movement as well as it contains human and non-human elements, and both physical and virtual dimensions.

3. The mobility challenges in North Jutland

In this section the mobility patterns of the region of Northern Jutland are explored including the challenges that the region is facing. In the recent years the region has addressed a number of challenges and has as the rest of the national territory overcome some structural changes. Thus, in January 2007 an important local government reform was put into effect where the former 271 municipalities were merged to 98, the counties abolished and five new regions established. One of the regions established was the region of North Jutland. The region of North Jutland is the smallest

population-wise of the five Danish regions with 0.6 million people living in the region of North Jutland (www.rn.dk). The region consists of 11 municipalities and covers a geographical area of 7.910 square kilometers (ww.rn.dk). The capital of the region is the city of Aalborg and with its 103.545 inhabitants in 2011 (statistics Denmark) it is the natural center of the region.

It is a region mainly characterized by smaller towns and villages placed in scenic landscapes and agricultural fields. The water/sea is a characteristic element; where the region has the harsh and windy west coast; the softer and more children friendly east coast and then finally the Limfjord; the fjord that runs through the region. This gives the region a long and divers coastline that is very attractive for tourists but in the same time the placement with the natural borders of oceans and fjords create some natural mobility challenges for the region. (Region Nordjylland, 2008)

The region is facing a number of challenges that can be summed up in the ongoing debate in Denmark about shrinking outskirt areas. The region of north Jutland is suffering from decline in population and economy where many of the regions territories are situated far away from the dynamic growth centers around Copenhagen and Aarhus. These outskirt areas have difficulties in maintaining the level of service and are facing challenges with school closure, closure of workplaces, migration of the young and the skilled etc.

3.1 Demography

During the last year the region has experienced a large increase in net immigration. Especially the cities with 2,000-5,000 inhabitants have experienced the net settlement. On the other hand the rural districts have experienced massive net out-migration. (Region Nordjylland, 2009). Today around 0.6 million people live in the region of Northern Jutland and it is expected that this number will stagnate with only an increase of 6,000 people from 2010-2025. However this stagnation covers some internal development in the region. Aalborg and the surrounding municipalities is expecting increase while the periphery areas will experience decreasing population. (Regional Udvikling, 2010). Present approximately 1/3 of the population in Northern Jutland or 200.000 people lives in rural districts, which is defined as rural areas or villages with less than 1000 inhabitants. (Region Nordjylland, 2009). These areas will be challenged in the future where the larger cities in general experience population growth while smaller cities, villages and rural districts experience population decrease. Some of the problems in these areas can be stagnation, deterioration and depopulation. (Region Nordjylland, 2008).

3.2 Business

Compared with the other regions there are in Northern Jutland a majority of people employed with primary industries like farming and tourism that in general employ less highly educated people (Regional Udvikling, 2010). Beside this there is a tendency for an education and competence gap between the region's center and sparsely populated areas in the region which moderate the development possibilities in the rural and remote areas. (Region Nordjylland, 2008).

In totality the region have had a positive development in the labor force, this have mainly been concentrated in Aalborg Municipality while Frederikshavn and Thisted Municipality have experienced decrease (Region Nordjylland, 2008). The region of Northern Jutland considers access

to new technology and not least new information technology to have great importance for the region's development opportunities. (Region Nordjylland, 2008).

With the location on top of Denmark some areas are debarred from access to labor market catchment areas in all directions e.g. if they are located near the ocean while other areas which are located near large transport corridors can access several labur markets (see Figure 1). (Regional Udvikling, 2010)
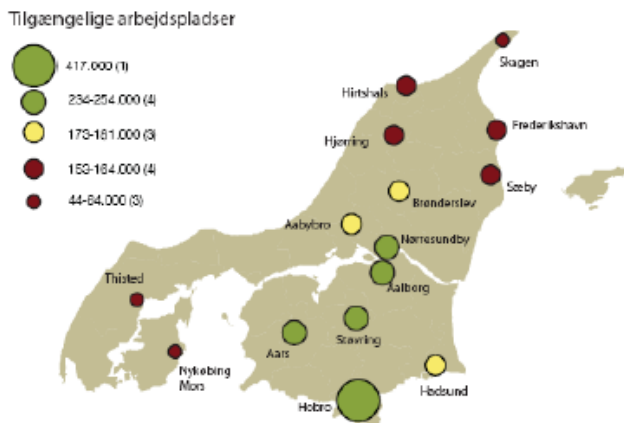

Figure 2 Reachable jobs within 1 hour of driving (Regional Udvikling, 2010, p. 6)

The amount of jobs reachable with public transport is in general much fewer than by car. People without access to cars have significant less access to jobs in the region than people with a car. Actually an investigation shows that train and bus only reach between half and 1/6 of the workplaces accessible by car within an hour of driving. (Region Nordjylland, 2011). According to the region of Northern Jutland the possibility for use of IKT e.g. for distance learning and distance meetings and teleworking can be a great advantage for these challenged and sparsely populated areas (Region Nordjylland, 2008).

3.3 Transport

To come to Northern Jutland several modes of transport is possible. The harbor in Frederikshavn, and Hirtshals form the North Jutlandic gateway to Scandinavia of goods and passengers. (Region Nordjylland, 2008). Aalborg Airport is a valuable asset for the region with several daily departures to Copenhagen and other destinations previous there wasn't much international traffic to and from the region (Region Nordjylland, 2008) but the resent years the airport have expanded with charter routes to southern Europe and a connecting KLM route to Amsterdam. There is also plans for expansion in the future with e.g. a route to Stockholm and maybe Eastern Europe / Russia (Svendsen, 2011).

When traveling North-South to and from the region and inside the region there is a good motorway system, however there is a capacity problem at the crossing of the Limfjord at Aalborg with the bridge and the tunnel (Region Nordjylland, 2008). A third Limfjord connection at Aalborg has been

discussed for several years but nothing final has yet been decided (Region Nordjylland, 2011). Is also possible to use public transport, train and bus, to get to and from and around in Northern Jutland. However statistics shows an increasing use of cars and a decreasing use of public transport in Northern Jutland (Region Nordjylland, 2008). And people without a car spend 1/5 of all their trips as passenger in cars (car-pooling) (Nordjyllands Trafikselskab, 2009). "Public transport" in the rural and remote areas in Northern Jutland is being redefined these years where some of the bus routes is being replaced with e.g. tele taxis and private driving (Region Nordjylland, 2008) and in general the resources for public transport are being move up from the smaller and less used routes to the mostly wanted routes (Nordjyllands Trafikselskab, 2009).

3.4 The mobility challenges

Northern Jutland is in the middle of a transition from farming and industry society to knowledge and experiencing society. However the primary industries still play an important role and an education and competence gap seem to appear between the region's center and the sparsely populated areas which can warp the development in the region even more. In order to secure development in all areas in the region new ways of thinking as well as new technologies can be the solution e.g. more use of IKT that makes distance learning and distance working possible.

As written the periphery areas in Northern Jutland experience decreasing numbers of habitants and the same is in evidence in the rural districts (villages and rural areas). This gives especially the rural districts in the periphery areas a huge challenge to maintain the number of inhabitants and when e.g. the resources from public transport is being allocated away from these areas and people therefor have trouble getting to work or education a vicious circle is indeed present . One of the municipalities placed in the periphery and with many rural districts is Thisted Municipality and further Thisted Municipality is an outskirt area in all the above definitions this municipality is therefore expected to face several challenges in the future. Below the mobility challenges in Thisted Municipality will be elaborated.

4. The mobility challenges in Thisted Municipality

Thisted Municipality is situated in the uttermost north-western part of Denmark, right on the fringe of the country in the southern and western part of the region of Northern Jutland with the North Sea to the west and the Limfjord to the south-east (See Figure 3). The municipality is situated far away from the dynamic centers of Aarhus and Copenhagen.
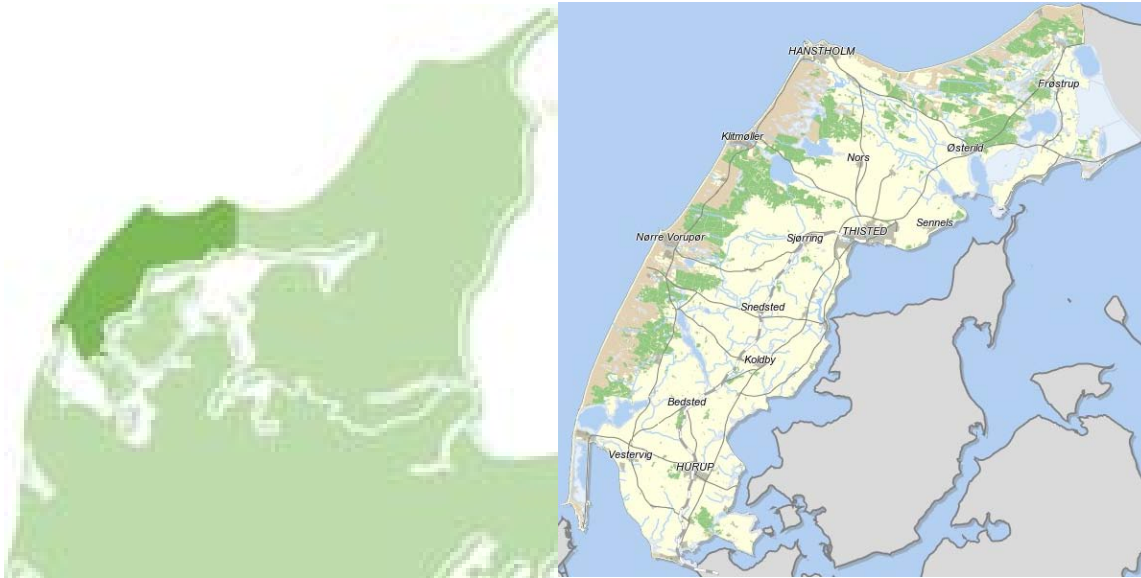
Thisted Municipality which covers the provinces Thy and Hannæs, is one of Denmark's biggest in physical size with an area of 1068.6 square kilometer but it is certainly not the biggest regarding the number of inhabitants it only has around 45.000 inhabitants and besides, the municipality has general difficulties maintaining its inhabitants.(Thisted Kommune, 2011).

One of the main assets in the Municipality is the scenic nature with its costal - and meadow landscape which has been appointed Denmark's first national park (see chapter 5 for a deeper introduction of the national park). Driving through the municipality of Thisted from Agger Tange in the south to Hanstholm in the north, one is struck by the conspicuous characteristics of the territory: harsh and scenic nature with coastal landscapes and green areas of woodland and agricultural fields. What shapes these unique landscapes and the people living there is the prevailing western wind coming from the North Sea. The coastline stretching from north to south is approximately 226 km long, and the area is famous for its wind - and shore conditions which among others are very good for wind surfing and which have given the area the nick name of cold Hawaii - it is like Hawaii just much colder.

4.1 Demography

Today Thisted Municipality has around 45,000 inhabitants but already now they have a negative moving growth that is highest among young people (Thisted Kommune, 2011). Figure 4 shows population development from 1992-2006 and it is visible that most of Thisted Municipality suffers from great decrease whereas a few cities experience increase including the area around the city of Thisted and the surf-area Klitmøller. Particularly the southern parts of the municipality (the former Sydthy municipality) are suffering from decline, as the number of inhabitants has decreased with almost 1000 people in the period 1990-2005, corresponding to a population decline of 8% (Ny Thisted&Realdania 2006). The large area combined with a small number of inhabitants gives a

sparsely populated territory, with the low density of only 42 inhabitant's pr. km2 (municipality of Thisted 2008). Besides this decline in number of inhabitants, a reshuffling of the inhabitants inside the municipality is taken place as well, with people moving away from some places within the municipality to other places within the municipality, indicating that there is a dynamic interplay between an overall declining area and well-functioning enclaves. (Laursen 2009)
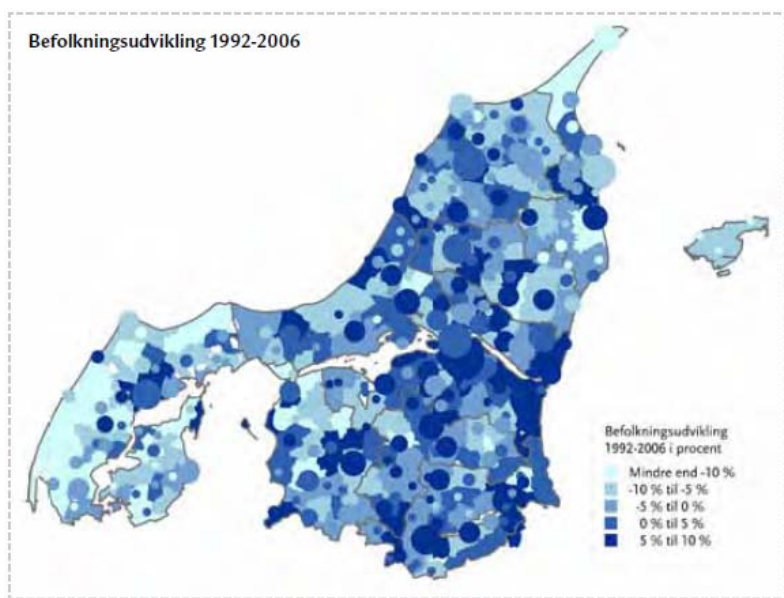

Figure 4 Population development from 1992-2006. The three lightest colors shows a decrease whereas the two darkest colors show increase. (Region Nordjylland, 2009, p. 7)

It seems as if the decreasing population in Thisted Municipality will continue in the following years at least the City council is expecting a decrease in inhabitants of 5.6 pct. or from 45,298-42,766 in the periode 2010-2023. (Thisted Kommune, 2011).

4.2 Business

Thisted Municipality stands out from other North Jutlandic Municipalities since they have a large number of jobs compared with the number of inhabitants (Region Nordjylland, 2011). However from 2010-2025 a decrease in employment of 14 pct. or 4700 people is expected in Thisted and the neighboring municipality Morsø (Regional Udvikling, 2010).

As figure 2 showed Thisted is one of the areas with a small amount of jobs reachable within 1 hour of driving, and as figure 5 shows 8 commuting catchment areas are visible in Northern Jutland one with Thisted as the commuting center and almost the municipality boarder as the commuting catchment area, this commuting catchment area is one of the most distinct and interdependent in the region. (Regional Udvikling, 2010)
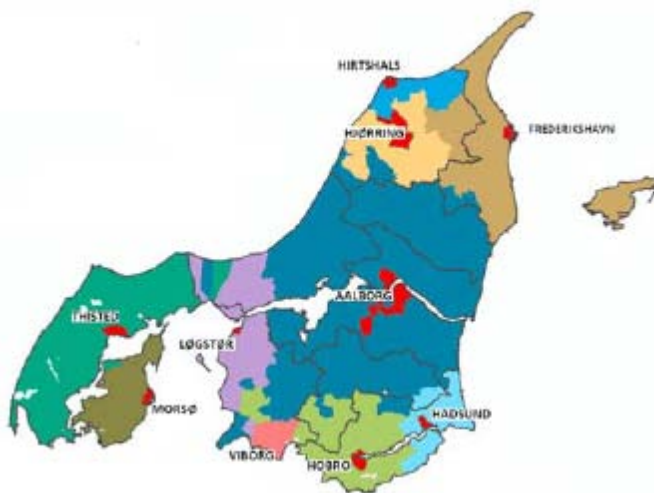
Farming and farming related industries is still an important factor in the business community in Thisted Municipality as well as fishing where the Hanstholm habor land the largest amount of consumption fish in Denmark. The metal industry has grown and the tree industry is still strong in Thisted Municipality. But also the tourism industry is employing a lot of people. (Thisted Kommune, 2011). This last thing is one of the things that Thisted Municipality wants to expand in the future, they want to be known as a great and easily accessible tourist destination all year around and they think that the Nationalpark Thy among other things can contribute to this by giving the surrounding villages growth potential as attractive settlement areas and attract more visitors to the area. (Thisted Kommune, 2011). This can especially be possible if the access from e.g. Aalborg airport and from Copenhagen by train is made more feasible. (Andersen, 2011).

4.3 Transport

To get to Thisted Municipality you can fly to Aalborg, and from Aalborg take an express bus to Thisted, there is a railway in the municipality with several stops which connect the municipality to the south and three main roads run to and through the area. Because of the location Thisted Municipality realizes that the car is the most important mode of transport for both passengers and goods in the area. Therefor there is large focus on the infrastructure supporting this mode but also to make alternatives for the none-car users. (Thisted Kommune, 2011). However the geography of the municipality makes it difficult to cover the entire area with public transport and more than 50 pct. of the young people in the municipality is not able to reach a youth education program within a half an hour of driving by public transport (Region Nordjylland, 2011).

Figure 6 Shows the main transport possibilities in the municipality. The boat symbolizes harbours, the flight the airport, the black line is the railway and the colored lines is the main roads in the municipality. (Thisted Kommune, N.D.)

 There are no motorways in Thisted Municipality but just main roads, and the trip from one of the nearest bigger cities like Aalborg, Holstebro or Viborg takes at least 1½ hour. There is, however, a small airport in Thisted or maybe more adequately just a landing strip. Previously, there were direct flights two times daily between Thisted and Copenhagen, but this connection has unfortunately closed down.

4.4 Mobilty Challenges

As written geographically Thisted Municipality is one of the largest in Denmark and including other things this means quite large expenses on maintaining a well-functioning road network for securing the infrastructure etc. but it also makes it difficult to cover all places in the region with public transport. The forecast for the future says that there is going to be less people living in Thisted Municipality as well as less employees. This means less people to pay for the expenses which can make it difficult to maintain the infrastructure in the area.

One of the things that distinguish Thisted Municipality from the other municipalities in the region is the large amount of jobs compared to inhabitants and Figure 5 showed how Thisted is its own Commuting catchment area and most of the people living in the municipality also work there. This can be because of the natural boundaries of fjord and ocean that makes it difficult to commute to and from the area and it was also visible in figure 1 that the people living in Thisted Municipality do not have access to a large number of jobs. So the question is whether there is so many jobs per inhabitant because people choose to work close to their homes or if it is because that is so difficult

to commute to a job outside the area that they would have to move away if there wasn't enough jobs in the municipality? If the last thing is the case it is even more important to secure sufficient jobs in the future, and as written the Nationalpark can play an important role here if the possibilities is used.

5. The mobility challenges in National park Thy

Within the Municipality of Thisted the first Danish National Park– the Thy National Park- is situated. The Thy National Park was selected the first national park of five in Denmark and opened in August 2008 (the other four is: Mols Bjerge opened in 2009 and the Wadden Sea opened in 2010 and Skjern Å and Kongernes Nordsjælland open in the coming years). The Danish national parks varies in size and content and they can cover both land and sea; as well as they apart from valuable landscapes can contain small villages and urban communities (Naturstyrelsen, N.D.). Thy National Park contains small villages whereas the larger villages and towns in the area are not part of the national park territory. The land in Thy National Park is not own by the national park and the national park has no legal effects for the plot owners, the municipality, the region or the state and the national park foundation have no competences of authority; this means that plans that need realization have to be done through volunteer agreements with the plot owners and in co-operation with the public. (Nationalpark Thy - Sekretariatet, 2010)

The Thy National Park has an area of 244 km^2 and forms a 12 km broad belt stretching along the west coast from Agger Tange in the south to Hanstholm in the north. Thy National Park holds a broad variety of nature and landscape types, ranging from coastal to agricultural areas, woodlands and meadows, and especially the dune-meadows are a unique type of nature in the park. (Nationalpark Thy - Sekretariatet, 2010).

Thy National Park is as all the Danish national parks under the law of national parks from 2007 which defines the purpose and the overall rules for the development of national parks in Denmark (Velfærdsministeriet & Fødevareministeriet, 2009). Within the national park law the structural organization is defined and this means that all national parks have a decentralized management, consisting of a board, a national park council and a secretariat (Naturstyrelsen, N.D.). In the Thy National Park the board consists of 14 members mainly local representatives representing a broad range of societies relevant to the national park and each member is elected for a period of eight years.

The main goal of establishing national parks in Denmark is to strengthen and develop the nature and landscape in areas of national and international importance (Velfærdsministeriet & Fødevareministeriet, 2009). The Danish national parks contain some of Denmark's most unique and valuable landscapes and are areas which have already been nominated as international nature protection areas (NATURA 2000 areas) (Naturstyrelsen, N.D.) and the establishment of national parks in Denmark happens in accordance with European policy for the protection and development of valuable cultural and natural landscapes. Further, the goal of the national parks is to promote nature experiences and outdoor life; strengthen the cultural heritage and support a development useful for the local community (Velfærdsministeriet & Fødevareministeriet, 2009). Thus, the purpose of establishing National parks in Denmark and specifically Thy National Park is first of all to preserve, secure and develop unique nature, landscapes and cultural heritage. Secondly, it is to create better opportunities to move around in nature and experience it fully. And finally, Thy National Park is thought of as a contributor to regional economic development.

The manager of the Thy National Park Else Østergaard Andersen describes Thy National Park as a network-organization where everything is developed through voluntary agreements. She point out that people in the beginning had difficulties in capturing what the national park was – because yes it is a specific area on a map but no it is not demarcated by a fence or similar, because the wildlife shall be able to walk around freely. So what are then new – for manager Else Østergaard Andersen the appointment of the area to national park have given the area an opportunity to benefit from the landscape potentials and look at the territory in new ways – now it is the landscape that are in focus whereas before it was more the towns and villages of the area. Before the appointment of national park the area was for many just an in between space you should go through in order to come from one town to another, but now the focus is much more on that in between space and the towns and villages are beginning to relate to it exploiting its potentials both as an experience in itself and a brand but also in addition to developing products that relates to the national park. Thus, Else Østergaard Andersen perceives the national park as a frame – a field of possibilities- through which the territory can benefit (Andersen, 2011). And by shifting the focus from built-up to open space, existing localized potential could be activated for territorial development where the national park could become the conceptual framework for the development of innovative multifunctional landscapes (Laursen 2009, Tietjen and Laursen 2008).

5.1 Business

As mentioned above the development of accompanied businesses has been one of the goals for the Danish Ministry of the Environment in appointing the Danish National Parks where they hope that through a focus on landscape and nature, more visitors will be attracted to an area which are facing a number of challenges with demographic and economic decline (Danish Forest and Nature Agency 2008). In addition, the Danish Forest and Nature Agency envisions the establishment of the national park as an incentive for local business activity, e.g. the possibility to launch special "national park articles" like food, tourism, and trade (Danish Forest and Nature Agency 2008). This has been investigated in pilot-projects and they point in the direction that a national park can strengthen local business primarily as a consequence of increased tourism, just as a national park can promote settlement (Velfærdsministeriet & Fødevareministeriet, 2009). But how does this look like in Thy National Park – does the park have an effect? Manager Else Østergaard Andersen states that at the beginning the local people were skeptical about the possible follow output; but with time there are beginning to come a follow effect with different businesses pupping up with relation to the national park. As an example of the disappearing skepticism the grocer in Agger previously have been in doubt about what should attract tourists should it be "fun" activities like funparks or go-kart but now she is not in doubt – it is the nature in the national park that shall attract people (Andersen, 2011). And all in all there is a positive feeling that there are more tourists in the area than previous even though the area have lost many tourists due to the closure of the ferries from Norway, Island and the Faeroe Islands.

Of businesses that use the national park in their products, there is the story of the butcher in Vorupør which have begun to sell products from the national park and which could do even more if he also branded his meet as meat from cattle grassing in Thy National Park. The story continues to the farmer which breed the cattle that the butcher sells – he also delivers milk to a specific Thy cheese made at the Thiese dairy and sells his meat at the IRMA supermarket in Copenhagen. (Andersen, 2011).

There is also the story of a farmer that has a small production of ice-cream – Thy øko-is. In their production they have ice-cream flavors which is made with ingredients from the national park; Sea-thorn, blue berries, raspberries etc. Further, there is the story of Thylandia distillery that create snaps where the herbs used for flavoring the snapse's are picked in Thy National Park. And finally there is the story of Stenbjerg Inn that brand them-selves of being situated in the national park and which uses ingredients' from the national park in their menu - among others in their Thy National Park cold collation. This has given more business to the Inn and the owner have employed to more employees. (Andersen, 2011).

As an overall initiative to promote specialties from the area and brand local products the initiative Smag på Thy (taste Thy) have been launched by the national park council. Here they arrange different events like a gourmet dinner made with ingredients from the national park and cooked by famous Danish chefs and a web shop where you can buy different products made in Thy (http://smagpaathy.dk/).

Possibilities and challenges

Thus, even though it was a slow start and people were skeptical there are now coming new food and products from Thy National Park and the tourism industry in Thy are beginning to brand themselves as part of the Thy National Park; using the national park as a tourist attraction. And even though it is in the small scale there seem to be an effect of the Thy National Park as a way of creating new businesses in an outskirt region by using the potentials of landscape and the local place-based in the development.

In the future there is a new plan to make the Thy National Park more visit worthy by establishing a Thy National Park Center which shall give visitors a possibility to look into the nature, culture and activity possibilities in the national park (Nationalpark Thy - Sekretariatet, 2010). Further, there is planes of making the Thy region a "national Centrum for Outdoor Activities" a collaboration between Thy National Park, the foundation Realdania and LAG Thy-Mors (LAG = local action group) (Pedersen & Ibsen, 2011). These new plans and the already existing offers hopefully increases the number of visitors in the area and in the Thy National Park plan from 2010 they hope to increase the amount of number of visitors by 10-40% (Nationalpark Thy - Sekretariatet, 2010) in the area with respect to the nature.

This means that the Thy region has to be geared to this expected increase of tourists and here the Municipality of Thisted is aware that they have to optimize the accessibility to the area and improve and develop possibilities for service, overnight accommodation and the provision of meals. (Thisted Kommune, 2011). The municipality finds the existing overnight accommodations to cover the actual demand; but with time an increase in demand seem to carried out new initiatives both in the activities level and in supply of overnight accommodation.

5.2 Mobility challenges

One of the goals of the Thy National Park is to create better opportunities to move around in nature and experience it fully. This is, therefore, supported by a wish to increase the trails throughout the national park and create a number of trails which make it possible to move using different types of transportation, such as walking, riding on a bike or a horse and also going by car. One of the things that are under construction is the development of a combined bike and horse road from north to south in the national park. This has been the wish for a long time in the Thy region but have previously been refused due to too few users; but now with the national park this is something that has been made possible and the possibilities for the soft road users are upgraded. The national park hopes that visitors will move around in the park in a slow pace; biking, hiking or roller-skating, which with the new trails becomes more possible. In order to make the condition even better the manager Else Østergaard Andersen wishes that with time it become possible to rent a bike in the north of the national park and then bike throughout the national park and then hand it over in the south of the national park. There are also established trails for hiking and biking from the towns in the area to specific spots within the national park among others a handicap-trail by the Hanstholm Light house. In addition to the establishment of trails within the national park it is also the goal of

the national park that these are connected to already existing trail outside the national park, so that visitors can travel across longer distances. (Nationalpark Thy - Sekretariatet, 2010).

Whereas, getting around in the area is as mentioned in the process of being upgraded there is, however, some barriers in order to come to the national park from the outside. Most people come by car and for them there is no problem; but for those without a car it is much more difficult to come to the national park using public transportation. From Copenhagen to Thisted it takes about 7 to 8 hours by train; there are a through train twice a day but they are very slow and apart from that there are train connections where one has to change minimum to times. Further there are a busservice from Copenhagen to Thisted driving a couple of times a day. The more quick solution is by plane from Copenhagen to Aalborg, however, the connection from the airport to Thisted is not optimal; because one has to take one bus from the airport to Aalborg city-center in order to take the bus to Thisted. Optimal would according to manager Else Østergaard Andersen be if it was possible to take the bus to Thisted from the airport and this could be possible because the bus to Thisted drives directly pass the airport it is just not allowed to stop there. And then when coming to Thisted it should be possible to take rent a bike. If one wishes to go by public transportation from Thisted and to different destinations within the national park then there are public bus-service. This busservice are driving mainly in the morning and the afternoon when school children shall to and from school and due to the long distances the level of traveling times and destinations are sparse.

Possiblities and challenges

With the establishment of Thy National Park the internal mobility within the park is being optimized and the accessibility for the soft road users both visitors and locals is being improved. In this matter the establishment of a national park have been the main cause for construction of the trails which is something that are going to benefit the entire Thy region and not only the users of the national park. However, the getting to the national park is more difficult and can for people without a car be seen as a barrier.

6. Conclusion and Perspectives

In the following, the conclusion is made and the most important perspectives in relation to the findings are discussed. The paper has investigated the mobility challenges in the Danish region of Northern Jutland in the tension field between physical and virtual mobility and global and local perspectives. Theoretically the paper has taken a point of departure in the new 'paradigm of mobility'. This theoretical way of working implies that mobility is understood in a broad sense with a focus on how various forms of physical, virtual and experienced mobilities interact and affect the regional mobility challenges. It has therefore been theoretically argued that in order to understand the challenges facing this region, it is necessary to understand the culture of mobilities as a profound regional feature, including hardware such as airports, road systems and utility provisions, and software such as local customs, preferred choices of mode of transport, patterns of social interactions across the region etc.

Accordingly, this paper has pointed at the notion of 'regional mobility assemblage' as a theoretical perspective on the challenges that the region of North Jutland faces in relation to mobilities. Rather than a fixed definition of the regional mobility assemblage with a generic reach, the paper has argued for a much more empirical and case-based understanding of how North Jutland makes a complex assembly of roads, infrastructures, villages, cities, commuters, inhabitants, tourists, vehicles. Especially, a simple notion of the region as fixed in a scalar hierarchy on the periphery of the Danish state territory has been problematized. This means that the mobility challenges of North Jutland have been understood beyond simple dichotomies such as local/global, nature/culture, society/technology rather an assemblage transgressing these notions. Thus, the overall theoretical approach has been operationalized into a model which particularly focuses on the 'tension field' rather than the 'either or' logic between the virtual and the physical, and between the global and the local. Seeing the mobility challenges through the eyes of this model means realizing that mobilities are assembled on multiple scales and within networks of multiple modes of movement as well as it contains human and non-human elements, and both physical and virtual dimensions.

Based on the above theoretical starting point, the empirical study of the North Jutland Region, Thisted Municipality, and Thy National Park shows a great range of mobility challenges for the region. As shown in the paper, the Region of North Jutland is suffering from a decline in population and economic activity where many of the regions territories are situated far away from the dynamic growth centers around Copenhagen and Aarhus. Northern Jutland is in the middle of a transition from a farming and industry society to a knowledge and experience society. The primary industries are still playing an important role and an education and competence gap seems to appear between the region's center and the sparsely populated areas which can warp the development in the region even more. In relation to the locally orientated mobility inside the region and the opportunities for the local citizens '*to get around*', the analysis shows that access to a car is a very stratifying factor in the region. The number of jobs reachable with public transport is in general much fewer than those reachable by car; i.e. people without access to cars have significantly less access to jobs in the region than people with a car.

However, the region also seems to contain a series of potentials in terms of mobilities. In many ways, the region functions as a node of transregional physical mobility. The harbors in Frederikshavn, and Hirtshals form the North Jutlandic gateway to the Scandinavia Peninsula for goods and passengers. Moreover, Aalborg Airport is a valuable asset for the region with several daily departures; not only domestic flights, but also an increasing number of international flights. At the moment, the airport is in a transition process moving from a purely regional airport to a more internationally orientated airport. Furthermore, as described above the region also host two national motorways. So in many ways, the connection to what we describe as global mobility and the opportunities of accessing the region for tourist, commuters, settlers and goods are, as shown in the paper, at a relative high level.

The analysis also shows that some areas in the region are much better connected to global mobility flows than others. The article shows that Thisted Municipality with areas like Thy National Park and Cold Hawaii has created a great potential for the whole region in relation to attracting more

regional and international tourists to the region via cars, airplanes and ferries. But the mentioned areas have some of the weakest infrastructure links to and from the region. As showed in the paper, Thisted Municipality realized that the car is the most important mode of transport for both passengers and goods in the area. Therefore there is a big focus on the infrastructure supporting this mode, but also a focus on creating alternatives for the none-car users. The forecast for the future says that there is going to be less people living in Thisted Municipality as well as less employees. This means less people to pay for the expenses which can make it difficult to maintain the infrastructure in the area.

Especially the Thy National Park seems to be a field of opportunities through which the whole region can benefit. The goal is that through a focus on landscape and nature, more visitors will be attracted to an area which is facing a number of challenges with demographic and economic decline. To reach this, a number of new initiatives are on drawing board as for example Thy National Park Center. By shifting the focus from built-up to open space, the existing localized potential could be activated for territorial development where the national park could become the conceptual framework for the development of innovative multifunctional landscapes. Another goal of the Thy National Park is to create better opportunities for moving slowly through the nature and experience it fully. This is supported by a wish to increase the trails through the national park and create a number of trails which make it possible to move more slowly around using different types of transportation, such as walking, riding on a bike or a horse and also going by car. However, the weak link between the airport and the area of Thisted also illustrates that mobilities are assembled on multiple scales and within networks of multiple modes of movement as pointed out above, and that there exist a number of complex relations between local and global movement. Relations that need to be explored much more in the discussion of further regional development opportunities.

We will end this paper by emphasizing that this is only the first step to analyzing regional development opportunities and problems from a mobility perspective. There is a need for developing both the theoretical approach and the empirical analysis in our further research of the field.

7. References

Adey, P. (2010) *Mobility*. Routledge: London.

Allen, J., D. Massey & A. Cochrane (1998) *Rethinking the Region*, London: Routledge

Amin, A. & N. Thrift (2002) *Cities. Reimagining the urban* (Cambridge: Polity).

Andersen, E. Ø. (2011, August 3). Nationalpark Thy. (L. H. Laursen, Interviewer)

Castells, M. (1996) *The Information Age. Economy, Society and Culture, vol. 1, The Rise of the Network Society*, Oxford: Blackwell

Cresswell, T. (2006) *On The Move: Mobility in the Modern Western World*. London: Routledge.

Danish Forest and Nature Agency, www.skovognatur.dk, 2008

DeLanda, M. (2006) *A New Philosophy of Society. Assemblage Theory and Social Complexity*, New York: Continuum

Deleuze, G. & F. Guattari (2003) *A Thousand Plateaus. Capitalism and Schizophrenia*, London: Continuum

Easterling, K. (2011) *Fresh Field*, in N. Bhatia, M. Przybylski, L. Sheppeard & M. White (2011) *Coupling. Strategies for Infrastructural Opportunism*, New York: Princeton Architectural Press, pp. 10-13

Elliott, A. & J. Urry (2010) *Mobile Lives*, London: Routledge

Farias, I. (2010) *Introduction. Decentering the object of urban studies*, in Farias, I. & T. Bender (eds.) (2010) *Urban Assemblages. How Actor Network Theory changes urban studies*, London: Routledge, pp. 1-24

Farias, I. & T. Bender (eds.) (2010) *Urban Assemblages. How Actor Network Theory changes urban studies*, London: Routledge

Graham, S. & S. Marvin (2001) *Splintering Urbanism. Networked infrastructures, technological mobilities and the urban condition*, London: Routledge

Hommels, A. (2006) *Unbuilding Cities. Obduracy in Urban Socio-Technical Change*, Cambridge Mass.: MIT Press

Indenrigs og sundhedsministeriet (2011) *Regionalpolitisk redegørelse 2011- analyser og baggrund*, København April 2011, www.im.dk

Jensen, C. B., P. Lauritzen & F. Olesen (red.) (2007) *Introduktion til STS. Science, Technology, Society*, København: Hans Reitzels Forlag

Jensen, O. B. (2010) *Negotiation in Motion: Unpacking a Geography of Mobility*. Space and Culture, vol. 13 (4), pp. 389-402

Jensen, O. B. (2009) *Flows of Meaning, cultures of Movement – urban mobility as meaningful everyday life practice*, *Mobilities*, Vol. 4, No. 1, March 2009, pp. 139-158

Jensen, O. B. (2009) *Mobilities as Culture*, foreword in P. Vannini (eds.) *The Cultures of Alternative Mobilities*: Routes Less Traveled. Farnham: Ashgate, pp. xv-xix.

Jensen, O. B. (2008) *European Metroscapes - the production of lived mobilities within the socio-technical Metro systems in Copenhagen, London and Paris*, paper for the 'Mobility, the City and STS' conference, The Technical University of Denmark (DTU), Copenhagen, November 20-22, 2008

Jensen, O. B. and C. Lassen (forthcoming) *Mobility challenges*. Journal of Geoinformatics and Land Managament.

Kaufmann, V. (2002) *Re-thinking Mobility*. Contemporary Sociology. Hampshire: Ashgate Publishing Limited.

Lassen, C. and O. B. Jensen (2006) *Mobilitetsforskningen på arbejde!*. Nordisk Samhällsgeografisk Tidsskrift, No. 41/42, 2006, pp. 11-34

Latham, A. & D. P. McCormack (2010) *Globalization big and small. Notes on urban studies, Actor-Network Theory, and geographical scale*, in Farias, I. & T. Bender (eds.) (2010) *Urban Assemblages. How Actor Network Theory changes urban studies*, London: Routledge, pp. 53-72

Latour, B. (2005) *Reassembling the Social*, Cambridge: Cambridge University Press

Latour, B. (2009) *En ny sociologi for et nyt samfund. Introduktion til Aktør-Netværk-Teori*, København: Akademisk Forlag

Laursen, L. Holst (2009) *Shrinking Cities or Urban Transformation!* PhD-thesis from the Department of Architecture and Design, Doctoral School of Planning and Development, Faculties of Engineering, Science and Medicine, Aalborg University

Laursen, L. Holst & Tietjen, A. (2008) *Urbanity without growth - Re-thinking urban design and planning principles in shrinking Danish territories* (working paper)

Massey, D. (2005) *For Space*, London: Sage

McFarlane, C. (2011) *The City as assemblage: dwelling and urban space*, Environment and Planning D: Society and Space, doi:10.1068/d4710

Mikkelsen, J. B., S. Smith & O. B. Jensen (2011) *Challenging the 'King of the Road' – exploring mobility battles between cars and bikes in the USA*, Paper for the 4th Nordic Geographers Meeting, Roskilde, May 24-27, 2011

Nationalpark Thy - Sekretariatet. (2010). *Nationalparkplan 2010-2016.* Thisted: Nationalpark Thy.

Naturstyrelsen. (N.D.). *Tourist in a Danish National Park*. Hentede 8. August 2011 fra Nationalparker: http://nationalparker.naturstyrelsen.dk/English/

Nordjyllands Trafikselskab. (2009). *Trafikplan for Nordjylland 2009-12.* Aalborg: Nordjyllands Trafikselskab.

Ny Thisted & Realdania (2006) *Ny Dynamik i Danmarks yderområder,* conference report Landdistrikter og Landsbyer, Hanstholm, 1.-2. June 2006.

Pedersen, U. K., & Ibsen, A. B. (2011). *Surfing i Klitmøller - en case på de forandrede diskursive processer i en governance kontekst i Thisted Kommune.* Aalborg.

Region Nordjylland. (2008). *Mulighedernes Nordjylland - Fra udkant til forkant med kreativitet og kompetencer - Regional Udviklingsplan 2007.* Aalborg: Region Nordjylland.

Region Nordjylland. (2009). *Landdistrikter i Nordjylland - tal, tendenser og eksemler.* Aalborg: Region Nordjylland.

Region Nordjylland. (2009). *Landdistrikter i Nordjylland - tal, tendenser og eksemler.* Aalborg: Region Nordjylland.

Region Nordjylland. (2011). *Mobilitet i Nordjylland.* Aalborg: Region Nordjylland & KKR Nordjylland.

Region Nordjylland. (2011). *RUP' 11 - Baggrundsrapport - Bosætningspræferencer og udviklingsaktiviteter.* Aalborg: Region Nordjylland.

Region Nordjylland (2011) www.rn.dk, accessed August 8th 2011

Regional Udvikling. (2010). *Regional Vækstredegørelse 2010.* Aalborg: Region nordjylland.

Rowlands, M. (1998): *Centre and periphery. A review of a concept*, in Kristiansen, S. and M. Rowlands *Social transformations in archaeology: global and local perspectives*. London: Routledge.

Sheller, M. (forthcoming) *Virtual Caribbeans: Edens, Economies, Elsewheres*, in P. Vannini, L. Budd, O. B. Jensen, C. Fisker & P. Jorin (Eds.) *Mobility and Communication Technologies in the Americas,* New York: Peter Lang (in press)

Sheller, M. & J. Urry (Eds.) (2006) *Mobile Technologies of the City*, London: Routledge

Smag på Thy (2011) www.smagpaathy.dk, accessed August 8th 2011

Smith, R. G. (2010) Urban Studies without 'scale. Localizing the global through Singapore, in Farias, I. & T. Bender (eds.) (2010) *Urban Assemblages. How Actor Network Theory changes urban studies*, London: Routledge, pp. 73-90

Svendsen, S. (Performer). (2011, March 4). *Nye muligheder for rejsende til Aalborg Lufthavn.* Mobilitetsudfordring Nordjylland, Skallerup Klit.

Thisted Kommune. (2011). *Kommuneplan 2010-2022.* Thisted: Thisted Kommune.

Thisted Kommune. (N.D.). *Kommuneplan 2010-2022: kort*. Retrieved August 8, 2011, from Thisted kommuneplan: http://kommuneplan.thisted.dk/dkplan/dkplan.aspx

Thrift, N. (2008) *Non-Representational Theory. Space. Politics. Affect*, London: Routledge

Thy360. (N.D.). *Flyt-til-thy*. Hentede 5. August 2011 fra thy360.dk: http://www.thy360.dk/dk/Flyt-til-Thy

Urry, J. (2000) Sociology beyond Societies. Mobilities for the twenty-first century. London: Routledge.

Urry, J. (2007) *Mobilities*. Cambridge: Polity.

Vannini (2009) *The Cultures of Alternative Mobilities*: Routes Less Traveled. Farnham: Ashgate.

Varnelis, K. (ed.) (2008) *The Infrastructural City. Networked Ecologies in Los Angeles*, Barcelona: Actar.

Velfærdsministeriet & Fødevareministeriet. (2009). *Landdistriktredegørelse 2009 - Regeringens redegørelse til folketinget.* Copenhagen: Velfærdsministeriet & Ministeriet for Fødevarer, Landbrug og Fiskeri.