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# *A spatial approach on tourists' travel routes in Sweden*

*Malin Zillinger*



**WORKING PAPER**

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**Mittuniversitetet**  
MID SWEDEN UNIVERSITY

**ETOUR**

European Tourism Research Institute

Mittuniversitetet

831 25 Östersund

Tel 063-19 58 00

Fax 063-19 58 10

[www.etour.se](http://www.etour.se)

E-mail [info@etour.se](mailto:info@etour.se)

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# 1 Introductory considerations

There is an elemental knowledge on international tourist flows from the country of origin to the destination country. The number of guest nights is registered, thus making it possible to analyse the development and, possibly, the success in attracting tourists to the destination. However, many tourists are not stationary on the destination. This becomes clear when they travel along a travel route through a region or, as in many cases, through a country. In these cases, multideestination trips are a usual way for tourists to travel. Little is known about tourists' links between different tourist sights on a tour. Additionally, the mobility on the tourist destination itself is, hitherto, only scarcely notified.

Focus has for the most part been on one element of the holiday, even if a voyage consists of more components than staying at one place. As most tourists like to travel, the travel behaviour along the itinerary should also be considered an incorporated element of their entire travel experience. The different stages of a trip have been described by different researchers. Clawson and Knetsch (1966) were the first to point out the different stages. These phases consist of anticipation, the travel to the tourist site, the on-site experience, the travel back home and the recollection afterwards. Flognfeldt (2005) has classified six stages, which are the pre-decision stage, the pre travel stage, the trip to the main destination stage, the touring at the destination, the returning home and the memories after returning home. These questions can be put in relation to the tourist spending. Visitors spend money not only on the tourist sights themselves, but also before and afterwards, along the tour and at home. This situation makes the requirement to know more about the whole travel route obvious.

One would think that tourism, which is seen as *the* new branch of industry and as one of the few solutions for problems in troubled areas, is a subject area where both time and money is provided to establish a stable knowledge basis. However, this is not the case. Still, research in tourism has to deal with very basic questions at issue, and this situation is also mirrored in the investigation of German tourists in Sweden.

The travel itinerary is in many cases an important part of the holiday, especially when round tours are concerned. Largely, there are two questions which are of interest in the relation between tourism and itineraries: (a) What do tourists' travel routes look like? They can be assumed to be largely influenced by the single tourist sight. But still, it could be argued that there are certain regularities, what tourists' travels are concerned and that these regularities exist apart from these attractions. (b) Which influences direct tourists on their journey? Is it predominantly the attractions themselves, exerting a gravity force on the tourists? Of course, some tourist destinations are so popular and assumed to be of great importance, that they attract a huge number of tourists, no matter how far people have to travel. For example, people come to see the Eiffel Tower in France, or the Chinese Wall, from essentially all countries in the world. But what about the places that are visited en route – between other attractions?

Inevitably, there must be other factors as well, which influence tourists in their choice of destination. One factor is the tourists' knowledge on the destination, another is accessibility. In addition, distance decay, the tourists' time and budget availability, as well as demographic characteristics are of importance. In this report, it is argued that the geographical location of the attraction, both according its distance to tourists' home regions, and its location in relation to other attractions, is of importance. This implies that not only the tourist attraction itself, but

its relative location in space plays a role in how many visitors will come here. A location close to a heavily operated travel route is of course a benefit.

During the last years, specially designed tourist routes have been developed and marketed to tourists. An example for this is “Romantische Strasse” (“Romantic road”) in Germany. Also guidebooks partially use travel routes when presenting a destination to the reader. By travelling to different places along a route, tourists are able to get a more diversified picture of the visited region or country, at the same time as planners of travel routes and writers of guidebooks are able to tell a tale along the itinerary.

In order to examine these assumptions, international tourists’ travel routes in Sweden were studied in 2004. The aim of this survey was to study how travellers move through time and space. One question was if a certain **travel rhythm** exists, which influences the travel behaviour. A travel rhythm can be defined as recurring, individual travel patterns that tourists relate to, independent from the tourist sites that are visited. The target group in this study consisted of German tourists who travelled to and through Sweden by car. The reason for choosing this group is that the Germans constitute the biggest foreign visitor group, when multi-day visitors are concerned (Swedish Tourist Authority 2005).

More knowledge on travel itineraries is of importance both for tourist researchers and the tourism industry. It has already been mentioned that research on travel routes has not been intensive during the last decades. A reason for this might be that more and more subjects are doing research on tourism. From the beginning, it was primarily geographers who studied tourism related questions, naturally taking a spatial point of view. It is logic that sociologists, economists and psychologists, who are deeply involved in tourism research today, do not focus as much on mobility as geographers would do. Another reason is that it is fairly difficult to gain information about tourists’ travel routes.

By knowing more on spatial mobility, new attractions and facilities can be located where travellers can be supposed to pass by and stop. By knowing how tourists move through time and space, restaurants, attractions and other tourist sites can be positioned at an adequate distance to and from other destinations. A better knowledge base also allows for an improved demand forecasting. In addition, if knowing which places and attractions are frequently linked together, strategic partners can be identified. This is the case both when attractions and activities are elaborated, and when marketing efforts are concerned. Last, existing key nodes can be detected, while travellers can be rerouted, when threshold limits are reached.

If more knowledge is gained on tourists’ travel routes and patterns, one will be able to see connections between different destinations. By looking at the linkage between places, one would be able to see which places are often visited one after the other. This means that cooperation in marketing between certain places could be improved. Moreover, the elaboration of packaged travel routes will probably be more successful, when the planners have more knowledge on which linkages are enjoyed by travellers.

Tourists do not only spend their time and money on places where they stay for the night, but also in between these sites, when they travel from one place to another on a multidestination trip. This is one more reason why the study of tourists’ travel routes is of importance. Another important issue is that with today’s way of measuring tourism intensity by counting guest nights and length of stay, important destinations are neglected simply because tourists do not stay there overnight – even if they might be visited by many tourists.

In relation to knowledge on tourists' travel behaviour, entrepreneurs and municipalities have a better ground for planning the development of new and the extension of already existing tourist destinations and attractions. Today, different municipalities to a great degree tend to market themselves individually, often without cooperation with neighbouring municipalities. The development of an attraction should be elaborated within a certain range from tourists' starting points. In tendency, people like driving some distance before stopping or taking a break again. This means that people would hardly stop at a smaller attraction, if this is located too close to their starting point. As has been discovered in the study, the comfortable maximum daily travel distance is 400 kilometres. This means that accommodation facilities have good premises to succeed if they have the right quality and in addition are located in a circle of a maximum of 400 kilometres around tourists' starting points.

The purpose of this explorative study is to find out which route decisions tourists make on their holiday – in this case in Sweden. The following research questions are analysed:

- A) Is the travel route dependent on the tourist's number of visits to the country?
- B) Is the travel route dependent on the total distance travelled?
- C) Do tourists drive their travel routes independently from the time that stands at the tourists' disposal?
- D) Does a certain travel rhythm exist, independent from attractions?

## **2 Tourism and mobility**

The tourism system consists of a home region, a tourist destination and the space in between these two regions, in which the tourists travel from their home to a destination and vice versa. By going on holiday and then returning home again, the tourists are closing a spatial circle. In this way, spatial mobility can be said to be a constructive element of tourism. A great part of tourism research has been focussed on the destination and, to a less degree, the home region, where for example the tourist's decision making process has been popular to study. However, the totality of tourism impact in both time and space should not be overseen. Mobility in tourism, meaning the tourists' travels to, from and on the destination, has been of less interest in research. Therefore, it is important to include the whole tourism consumption and production system, rather than merely focusing the destination, as important as it might be (Lew et al. 2004, Hall 2005a).

Peoples' choices and restrictions are important components. However, tourist behaviour is difficult to predict. At the same time, the actual touristic behaviour in terms of time and space is difficult to analyse. It is not easy to obtain information on tourists' daily movements on the destination. This is probably the reason why so little research has been conducted on this topic. If answers to the posed questions shall be found, one also needs to understand which motives the tourists have and which attractions there are on the destination.

Attractions constitute an important part of tourists' journeys. Nonetheless, success or failure can often not be explained solely by looking at the attraction itself, but by analysing it in relation to other attractions. Thus, the development of an accommodation site or a place that is visited during the day can be completely different, depending on which places are visited before or afterwards. Consequently, a definition of the concept of a tourist attraction should also include its relation to other attractions, as not all tourist places attract visitors only by themselves, but as a part of an attraction cluster. Another important factor is the distance of the attraction to the travellers' homes. Hall (2005a) has studied the relation between space and time on the one hand and the number of trips on the other. He points at a decline of the total number of trips, as both time and distance from the traveller's home increase.

### ***2.1 Research on spatial mobility***

As can be seen in chapter 3, a number of different models and theories on spatial mobility exist. However, only few of them have been used in tourism studies. This does not mean that they are poorly developed. Rather, the interest in spatial aspects of travel has not been of great interest during the last decades. Instead, single tourist destinations, which have mostly been seen as only one single point have been focussed. The number of tourists arriving at such a point, and the infrastructure that is used when travelling here, has – among many other touristic themes - been of interest for both consultants and researchers.

The spatial question, that is how tourists move through time and space, has been fairly left aside. Another reason for the relative ignorance of spatial movements in tourism is the difficulty to study this field empirically. The time period for such an empirical study is usually long, and respondents have to write down their spatial movements at least once every day. It is not easy to find respondents who are willing to take part in such a survey, and in

addition, the dropout rate can be supposed to be relatively high. Thus, in a diary-study, there are usually only a limited number of respondents. The result is that it is difficult to draw general conclusions from the empirical data. Another difficulty is to evaluate the responses, as of course travel itineraries are individual. Thus, a demand for the entire tourism production and consumption system exists.

It is first during the last years that the need for more knowledge on this question has become obvious. Still, while Boyle et al. (1998: 33) note that “the importance of temporary movement [...] cannot be underestimated”, the lack of research on tourists’ spatial mobility is remarkable. The improvement of knowledge in the field of tourism mobility would certainly make a great contribution not only to human geography, but also to tourism as a discipline, as it is emerging at several universities in various countries.

## ***2.2 Multidestination tourist travel***

In recent years, the perception that many tourists do not only travel to a single place on their holiday, but combine several places and form a multidestination trip, led to a number of studies in this field. Multidestination travel has been studied and described i.a. by Lue et al. (1993), Flognfeldt (1995a, 2005) Jeng et al. (1997, 1998), Tideswell et al. (2002, 2003) and Hwang et al. (2003). In fact, this kind of travel has become rather popular. Tourists combine several attractions, usually on an en-route tour. Multidestination travels can be influenced both by the tourists and their individual estimation of the attractions, and by the spatial distribution of attractions on the destinations. The term multidestination can involve a variety of geographical locations and levels. It occurs both regionally, nationally and internationally.

There are several reasons for tourists to perform a multidestination trip. Travellers tend to choose such a trip in order to satisfy several advantages, which would not be satisfied on a single destination. This is of course of special importance in regions where *attractions are spatially diffused*, as they often are in the countryside and sparsely populated areas. In contrast, it could be argued that cities tend to minimise tourists’ spatial mobility, as many attractions are concentrated geographically.

Another factor that supports multidestination travel is the *variety* that can be offered if several places are combined. Tourists may look for more than one attraction. They might also have different motives for their travel. It can be supposed that tourists who come to Sweden search for both nature and culture attractions. In most cases, these attractions cannot be found at the same destinations. This makes multidestination travel necessary.

A different explanation for multidestination travel is that travels are usually undertaken by travel groups, consisting of two or more individuals. Assumably, the individual persons have *particular wishes* what the visit of attractions is concerned. The result is that the travel group visits different activities, which are probably located at different locations. As travels are often structured in a way that enables the obtainable time to be used as effectively and efficiently as possible, attention is usually paid to all group members’ wishes, unless package travellers are concerned.

The *risk and uncertainty reduction* is another reason for multidestination travel. This includes both financial, psychological, satisfaction and time threats. As the number of accessible

tourist destinations has increased due to i.a. improved transport possibilities in recent years, it is no surprise that the tourists' feeling of jeopardy has increased, too, in case they are going to places rather unfamiliar and unknown. Also, more tourists travel to destinations, which are located at a greater distance from home. One could argue that curiosity and interest are factors which induce tourists' travel rhythms at the destination. Tideswell et al. (2002) noticed this in their study on multidestination travel of foreign tourists in Australia. In order to reduce the risk of dissatisfaction, there seem to be two alternatives: either, tourists can travel to places that they already know, or they can widen the geographic scope at the destination, thereby also extending the range of different attractions.

*Information* is another factor that can contribute to the tourists' feeling of risk reduction. The more tourists know about the destination they are going to visit, the more secure they feel. Of course, there are many different information sources that can be used. According to Tideswell et al. (2002), the higher the number of information sources, the higher the probability that tourists travel to more than one tourist site during their tour.

For a long time, the tourists' *nationality* on a destination has been studied as a factor for the number of places and attractions that are visited (Morrison et al. 1994; Pizam et al. 1995). Mansfeld (1990) states that socioeconomic and demographic factors play a key role for tourist behaviour. As mentioned above, an increased distance from the visitors' homes is a reason for choosing more than place. Flognfeldt (2000) has shown for Norway that travel rhythms differ according to their number of visits. This is evident for German tourists in particular. During their first visit, many Germans spend three to five weeks in Norway, travelling rather long distances, which often cover big parts of the country. The next visit often comprises a vacation in only one region of Norway, meaning that the level of mobility decreases. Subsequently, one or a few sites are chosen as an accommodation base, further reducing the level of mobility. This research result hints at the fact that the nationality of the traveller is not always as influencing for the way of travelling as it is often presented. Factors, which have shown to be more important, are a) the distance from home and b) the size of the tourist's hometown (Flognfeldt 1999).

Flognfeldt's (2000) results on the relation between mobility and the number of visits regards that different demands and requirements are invoked, which planners and tourist managers should respond to, when developing marketing activities. In addition, it could be assumed that these visitors take part in a range of activities, all aiming at getting to know the country or region they are visiting. As their experience increases, the visitors are able to choose, which activities they like best and which they want to concentrate on. This is a development where the tourist develops from a generalist to a specialist.

In this connection, it should be noticed that the destination itself is the same, but that the tourists' experiences are not. The destination cannot be compared to other goods or services, where the repeat consumer expects exactly the same. In their study on the effect of prior experience on vacation behaviour, Lehto et al. (2004) found that destination activity patterns change as a result of gathered experiences.

Destinations attract both main visitors and through travellers. Main visitors are those who choose the destination as either the only or the main site of the vacation. Through travellers stop at the place on their way to another destination. Especially when on an en-route tour, many travellers decide to stop by relatively spontaneously (Tideswell et al. 2002). As en-route tourism is increasing in importance, so is the number of visitors who stay at a place on their

way to or from another destination. It could be argued that this visitor group does not choose to stop at the destination because of its range of attractions, but primarily because of its location in relation to other destinations. However, although they have stopped mainly because of geographical reasons, this does not mean that they have stopped accidentally.

It seems as if managers are not enough aware of the importance of the through-traveller market. Although studies have shown that main visitors spend more money on the destination, the importance of through travellers should not be underestimated (McKercher 2001). The reason for the higher expenditures of main visitors is that they stay longer. Knowledge on the kind of visitor is important for marketing activities and the dissemination of information to the consumers.

Intensive marketing in main-destination visitor markets is beneficial, but through travellers stop at the destination not primarily because of the attractions here, but because of its spatial relation to other places that are visited. Promoting oneself as a main destination would hardly be successful. As an alternative, it could be marketed as a place that is attractive as a stop over. Furthermore, cooperation with other destinations, in order to develop an attractive travel route, would be favourable. The attraction of more through travellers might then lead to a decrease in the average length of stay. However, this has to be seen as a statistical problem, as the share of through travellers increases, which is a group that shows shorter lengths of stay.

### ***2.3 Factors influencing spatial mobility***

One could argue that tourists' spatial mobility depends on how far one is willing to move every day, and how many different activities one wants to join. However, what is possible in theory might not be the most amusing thing to do during the holidays. Although tourists in principle can travel most part of the day, they also have to stop in order to take a break or to sleep. Often, travel is interrupted at an attraction. An interesting question is if there is a relationship between how long people travel and how long and when they take a break or visit an attraction along the way.

One advantage of car tourism is that the travellers are relatively independent. They can choose freely and spontaneously where they want to go and which attractions they want to visit. From the beginning, car holidays are often roughly planned. This means that many tourists know that they are going to a certain place via certain other destinations, which seem to be interesting at the time the holiday is planned. But while on tour, the travellers are able to make shorter or longer detours from the planned itinerary, depending on what they see and which information they get. This ability to be spontaneous is in fact one important advantage of the car holiday.

For marketers, it is important to know when travellers are deciding which attractions to visit. A general belief is that tourists decide exactly where to travel and which activities to take part in already at home, before they actually travel to the destination. However, Flognfeldt (1999) shows that many decisions are made while travelling on the destination. One could argue that tourists who are going on a round tour in another country decide roughly where to travel, but that many decisions are made spontaneously on the trip. This behaviour indicates that not only information at the visitors' homes are of importance, but that certain attractions would have

great advantages in being marketed to tourists who are geographically relatively close and who will either pass by or take a detour from their roughly planned travel route.

The study of mobility is of interest especially when it is combined with studying objects that stand still (Hall 2005a). One phenomenon is of special interest here; that is the border between the tourists' home country and the country of the destination. Firstly, it is of importance for the differentiation between national and international tourism. Such political borders have been used as a basis for tourism statistics. But secondly, and that is even more important here, it could be argued that the border – this line between what is known and what is less known, between the tourists' homeland and the foreign destination – is of utmost importance what the search for otherness, exoticness, and in this way the things and feelings that are combined with holiday, being free, not having to work, is concerned. This static border is expected to influence tourists' mobility.

Generally, it is assumed that tourists will travel a relatively long distance in order to get away from home and to pass the border as fast as possible. This means that they will probably drive longer distances without stops and/or overnight stays until they reach the border. It could be argued that there is an accumulation of accommodations in a relatively narrow area behind the Swedish border, because it is important for the travellers to feel that they have arrived in the destination country.

A similar situation will most likely be the case on the tourists' way home. Here, the supposition is that the travellers will to a great degree stay as long as they can within the borders of the country of destination, meaning that they can enjoy the Swedish language, culture, and way of life as long as possible before returning to the culture and language of their home country. Giddens (1984) once stated that time-space fixity also means social fixity. It could be argued that also feelings and impressions can be added, and here, state borders play a crucial role.

## ***2.4 The importance of the relative geographical location***

There is a close connection between time-space prisms in time geography (see chapter 4) and spatial interaction. With time geography, it is tried to understand individuals' travel behaviour and on the (potential) interaction between destinations and tourism generating areas. Together, focus can be laid on the competitiveness of certain tourist destinations according to their relative distance from the tourists' places of origin (Hall 2005b).

Often, travellers are in search for rather general attributes. An example for this is the search for sun and bath, or the participation in cultural activities like theatres or concerts. As these attractions are located geographically (at different places), tourists travel to very particular places in order to being able to take part in these general activities. People might for example travel to Mallorca to enjoy the sun and the beaches, although they actually could travel somewhere else to enjoy these features. In this way, many destinations are mutually replaceable. The question is what makes the travellers decide and choose just the place they do. One assumption is that distance from home (counted in both time and space) is a major factor, additionally influenced by economic reasons and the information that is available on the destination.

Many factors influence tourists' choices of travel routes. The cost for travel and stay is of importance, as well as knowledge on the place or the infrastructure. In this report, attention is given to another factor which is of utmost importance: the geographical location of the destination in relation to the tourists' home regions. Tourism does not occur randomly in space. Rather, the distance between destination and place of origin leads to particular spatial patterns. Being on the move is an important part of the whole holiday experience. It can be supposed that travellers want to cover a certain distance every day, as this contributes to the feeling of experiencing the host country. In this pattern, a certain day rhythm is of importance and with this also a travel rhythm. Does this rhythm lead to the travellers choosing those attractions that fit into their comfortable day rhythm?

Focus is on the accessibility of accommodation facilities and attractions on round trips. The assumption is that some tourist destinations are of great popularity not only because of their (well known) attractions, but also because of their geographical location in relation both to the tourists' places of origin and to other attractions. On a round trip, tourists are travelling some distance either every single day or after a few days of stay at a certain place. When they move on, the next stop has to be located within a certain distance from the last stay over, as people cannot drive continuously without sleep.

It is the same situation when stops during the day are concerned. Here, it can be supposed, that most travellers want to take a break after travelling a certain period of time – either to eat, to take a break or to visit an attraction along the way. It can be assumed that these places are located within a certain distance from their point of departure in the morning. Thus, it could be argued that those attractions are popular, which are located at the end of the time frame that seems comfortable for tourists who travel. The average distance for a day tour is of course longer than a segment of the day, which is covered before or after the travellers take a break. Arguably, the distances are a result of (a) the tourists' time budget and the wish to take part in tourist-related activities, and (b) the restraints which arise due to the need for a break or relaxation on the tour.

One of the researchers to think of accessibility in this way is Butler (1980). He is of the opinion that a tourist destination should not only be considered as a place or region with one or several attractions and the appending infrastructure, but also as a place that is located in space, where the distance to the tourists' places of origin is of utmost importance. Also Stansfield (1972, 1978) is aware of the importance of the geographical location, stating that accessibility is essential for the perception of the relative competitiveness of a tourist destination. Furthermore, Hall (2005b) takes up the question of ease of access and geographical position.

It can be assumed that the geography of tourist destinations in relation to both the tourists' home regions and other tourist destinations is of importance. Miller (1991) examined this relation and introduced the concept of Potential Path Space (PPS), which is characterised by tourists' time-space prisms that restrict the reachable locations spatially. The restriction is based on (a) location and time period of obligatory activities at home (like work) and (b) the transportation system, giving possibility of different travel speeds.

To the PPS-concept could be added other attractions in relation to the first attraction (or tourist destination) that is visited, as tourists do not only stop in order to stay at an accommodation place for the night, but also stop during the day. Thinking in these

preliminary terms, one can imagine a spatial zone around (a) the tourists' place of origin, (b) the place where they stay overnight, and (c) an attraction visited during the day. Additionally, the location of the zone is dependent on the infrastructural facilities, which are strongly influencing the possibility to travel.

However, it would be difficult to see these zones on a map, as the spread of daily distances between the individual travellers is big. Surely, the width of the zones, as well as the distance from the starting point, is not static in time. They are affected by improvements in transport technology and transport infrastructure, and in the widest meaning also by population growth and urbanisation processes, as there are connections between accessibility, transport technology, infrastructure and urban structure.

It can be concluded that tourism can be of great importance also at places where the original way of estimating tourism, namely the counting of guest nights, does not point at this fact. In this case, the importance of knowledge on peoples' travel routes becomes obvious. The Norwegian town Røros can be taken as an example, where the number of guest nights is not high (Flognfeldt, personal communication). However, an important part of the income in this municipality is derived from tourism. Many tourists travel from Trondheim, where they have their accommodation. Or, in the other case, they travel from one place to another. The fact that Røros does not have many overnight stays can be explained by the fact that the distance to other attractions is not big enough. Tourists travel here for the day or visit Røros on their way to another tourist site, and the town of Røros seems to have an excellent distance from these places to make it an important tourist site during the day. Thus, it can be stated that the combination of attraction and distance is an important factor that contributes to the success of this destination.

Another example is the Swedish town Uppsala, located 70 kilometres north of Stockholm. The same pattern as in Røros can be seen here: tourism plays an important role in the economy of the city, but it is difficult to increase the number of guest nights. The most important reason for this is the proximity to the capital of Sweden, where the number of attractions is of course much higher than in the smaller town of Uppsala. As a result, many tourists decide to visit Uppsala during the day and to return to Stockholm again in the evening. Or, when round trips are concerned, many tourists start in Stockholm in the morning, visit Uppsala on their way northwards, and then continue to another destination located further away from their starting point that day.

Another concept, which affects tourists' travels is the notion of distance decay, implying that the number of travels to a place is inversely related to the distance (calculated in time, space or cost). Distance decay has been widely used in tourism and has in many cases been a helpful way to explain tourists' travel rhythms. As can be seen from the explanation above, the distance decay curve broken down into days or hours is influenced by the travellers' ability and willingness to drive a certain distance, and also by the relative location of attractions either to the tourists' starting points or other attractions. Factors like decision concerning overnight stays or the time spent for visiting attractions influence the travel behaviour. In extension, they also influence the distance decay curve, as they generate both peaks and troughs.

The next chapter presents different models on spatial mobility.

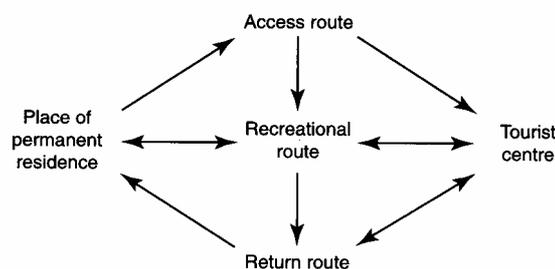
### 3 Models on spatial mobility in tourism

For half a century, it has been tried to construct models on travel patterns in time and space. Generally, they can be divided into four groups. Firstly, there are those models, which give emphasis to the linkage between different places. Others focus on origin and destination. The third group concentrates on the structure of the tour, and last, there are evolutionary models. Structural models have mostly been developed and used to analyse the impact of international tourism on Third World Countries. Evolutionary models focus mainly on the development of international tourist movements or comprehensive tourism structures. An example for this is the development of a tourist destination, where it is first discovered by rich tourists, then by the (upper) middle class and finally is visited by a large number of tourists (mass tourism). Plog (1973) is one of the researchers who contributed to this group of models, and also Butler (1980) should be mentioned with his hypothetical evolution of a tourist area. As neither structural nor evolutionary models can be used to describe individual tourist flows in this study, focus is lying on the linkage and origin-destination models in this article.

Most of the models, which evolved until the 1990s stand independently from each other. Only in a few cases, it can be seen that one model has led to the development of another. Yet, three topics are taken up in most of the models. These are the concept of distance decay, indicating that the number of travels to a destination is reduced as distance increases. Further, many models include reciprocity: most areas both generate and receive tourists. This is especially the case with bigger towns and agglomerations. Spatial hierarchy is a third concept that is taken up in many models. This includes tourist flows, supply and demand at different levels - from local to international.

The models in the first mentioned group were common during the 1960s and 1970s. **Marriot** created a model in 1969, where three different routes link the tourist's home with the destination. The access and return route may occasionally be the same, but do not necessarily have to be. By using these routes, the traveller is given a direct connection between two places. There is also a third route called recreational route, providing the traveller with a range of services.

Figure 1: Marriot's model of tourist flows between two locations

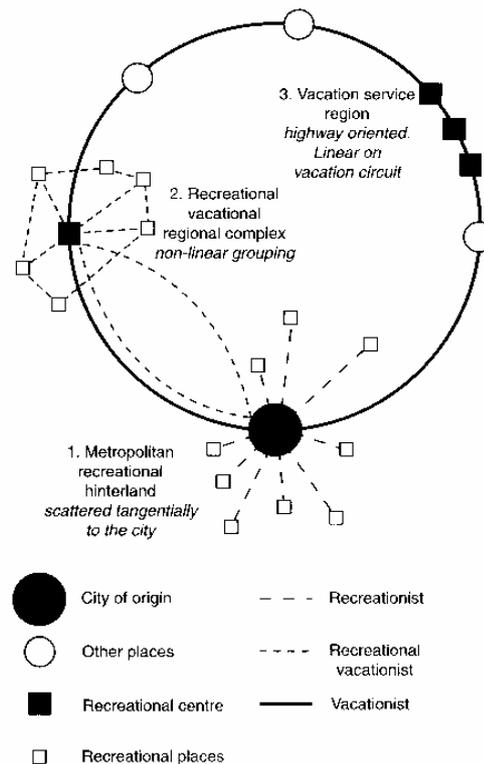


Source: Pearce 1995, p. 3

By taking up this third option, Marriot already alludes to the idea that travelling in some cases might mean more than mere transport. This idea is further developed by **Campbell** (1967), who takes up different forms of travel in his model. According to who is travelling, the different segments of the tour are given various degrees of importance. In his model, there are

two different groups of journeys. While *recreational* journeys are spread in a radius around the traveller's home, *vacational* journeys are linearly oriented along the main roads. In figure 2, one can see that three types of travels exist. Firstly, one can go to a recreational place and back on the same route (metropolitan recreational hinterland). Secondly, one can travel within a region to a place from where smaller trips are performed (recreational vacation regional complex). Thirdly, one can travel on a round trip to recreational centres and visit other places on the way. This time, as it is a round trip, the route to and from the destination is not the same. From today's point of view, the distinction between the terms recreational and vacational is surely worth discussing.

Figure 2: Campbell's model of recreational and vacational travel



Source: Pearce 1995, p. 4

**Flognfeldt** (1995a) has modified Campbell's model and generated five different modes of travel. These are day-trip, resort trip, base holiday trip, roundtrip and the passing through. *Day trips* begin and finish at the tourists' homes. As is indicated by the name, the trip takes place within one day. Due to time-space restrictions, the different recreational sites cannot be located too far from home. Many excursions take place to sights that are already known to the traveller. Therefore, these places have a low discovery- and a high recognising value.

*Resort trips* are journeys to a place on which the tourists spend most of their time. The resort itself is the main attraction and the intensity of spatial mobility from here is low. Resort trips are often made by car or aeroplane, if the destination is located far away from the tourists' home regions.

The third alternative is the *base holiday trip*. The main trip goes from home to a single accommodation. Flognfeldt sets a time limit of a minimum of three nights. From here, shorter trips are made to attraction sights in the surrounding. Trips often undertaken are day trips,

shopping trips and trips to activities. These kinds of trips have become popular since the wide use of private cars, which makes individually planned tours easier to conduct. Tourists who stay at such a base abroad – which can for example be a second home or a rented cottage – drive a long distance to get here from home. Compared to this journey, the trips undertaken from the base are in most part relatively short.

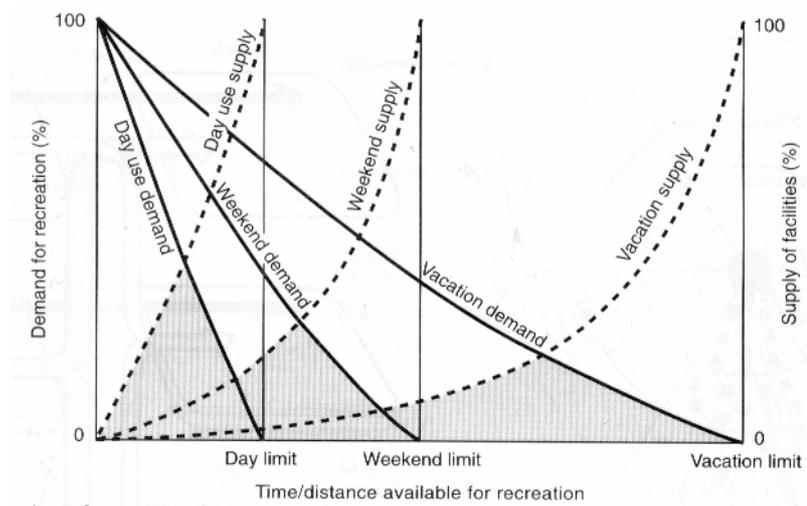
The last model is the *round trip*, which can be divided into two groups. Some trips are operated by coaches, others by private cars or recreation vehicles. Those tourists going on a private tour have a much bigger freedom and are more independent than those travelling on an organised coach trip. The visited places can be recreation centres, recreational sites or other service sites.

The last trip type, which is mentioned here, is the *passing through*. Here, travellers are staying at a recreational sight or other place on their way to their main destination (Flognfeldt 2005, Flognfeldt 1995b).

The thoughts on the effect of distance decay also fit into this unit. Basically, this theory declares that the greater the distance is between the tourists' homes and their potential tourist destinations, the less tourism interchange will occur. Factors, which have an effect on this distance decay, are distance, time and cost. In addition, factors can also be political. In the western world, political boundaries like borders have during the past decades to a great degree lost their function of a hindrance for the travellers. Still it should be remembered that restrictions like visas or a maximum residence permit of three month in another country influence at least some of our travels. Greer and Wall (1979) and Hall (2005a) are three researchers who have studied these factors. In distance decay, the decrease of interchange can be seen in concentric circles around the tourists' homes. These rings are constituted by certain time limits. The researchers place the rings differently, but principally, they range from hours via days, weekend, weeks to months (and occasionally years).

Figure 3 shows **Greer's and Wall's** (1979) distribution of recreational uses. There are two contrary lines, one showing the demand, the other explaining supply. While day, weekend and vacation demand a decrease from the tourists' homes to the respective limits, the supply increases. The reason for this is not only that distance decay influences the tourists in their spatial movements, but that the number of tourist attractions (the supply) increases, the more space is comprised. As a result, within each limit, a cone exists at some distance from the tourists' homes. This cone has also been acknowledged by McKercher (2004). The mentioned lines are of course not strictly concentric in reality. Instead, they are influenced by positive bends, like low-priced transport possibilities to certain destinations, low costs of living at certain places or sufficient information about a destination, and negative bends, like political barriers or low accessibility.

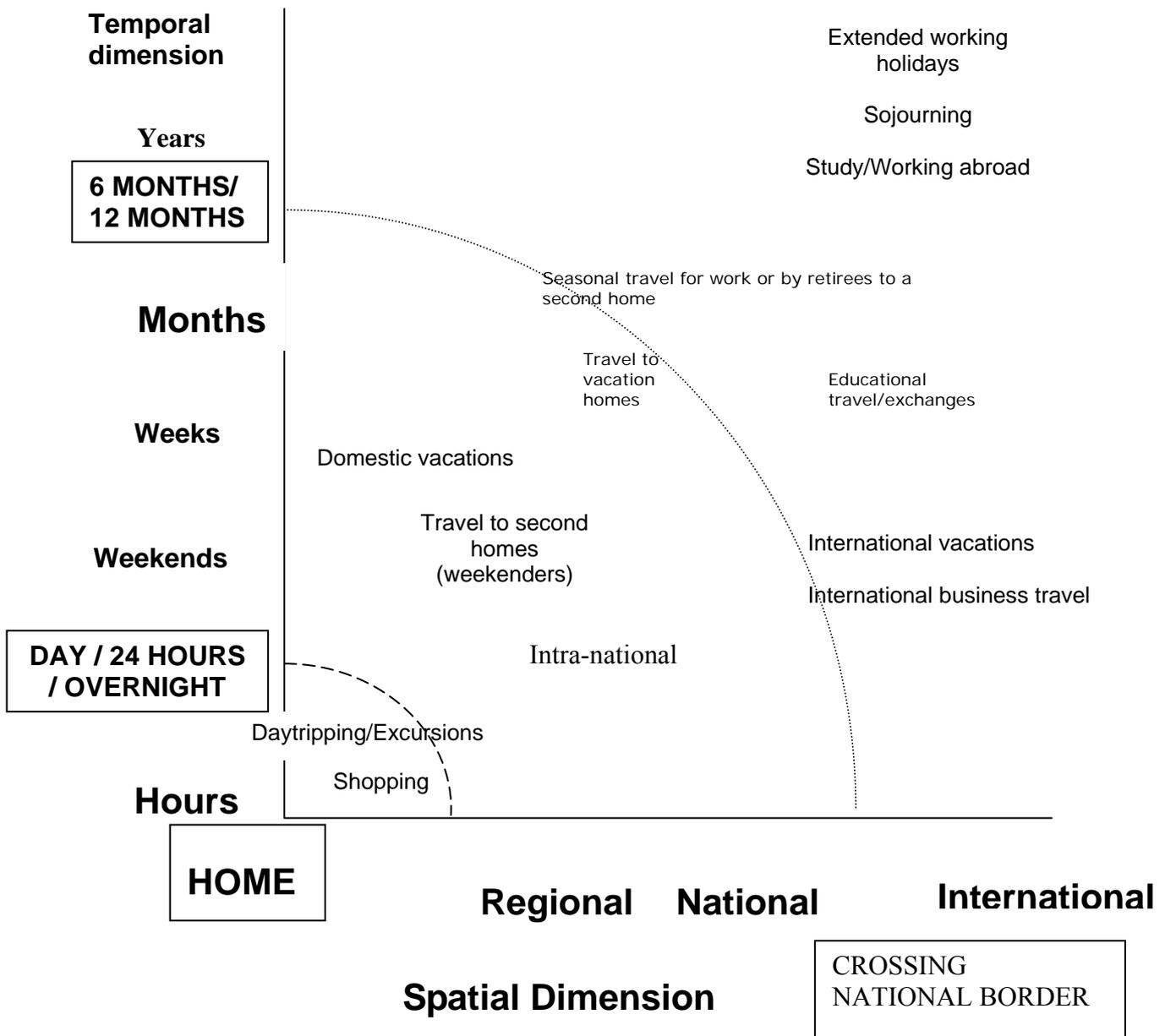
Figure 3: Distribution of recreational uses



Source: Pearce 1995, p.5

**Hall** (2005a) has created a model on the extent of mobility in time and space. The model presents different structures of mobility in the three dimensions time, distance and number of trips. It includes both permanent and temporary migration. As can be seen in figure 4, the number of trips away from the tourists' homes declines with time and increased distance. This model can be used both when studying individuals' journeys and when looking at the travels of a whole population.

Figure 4: Temporary mobility in space and time (after Hall 2005, personal communication)

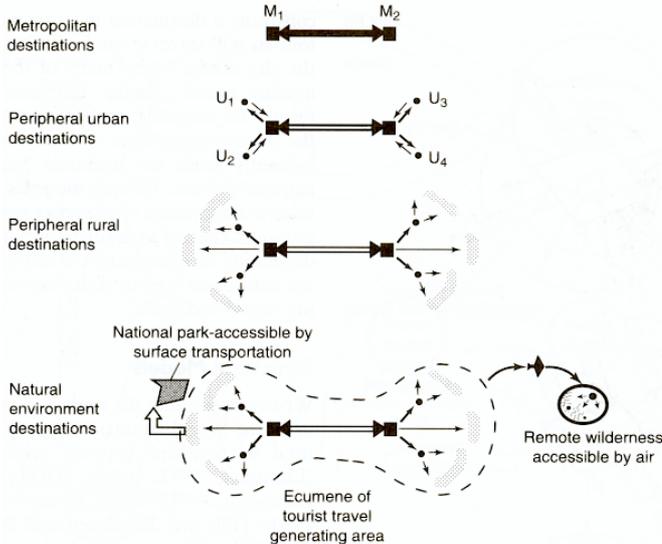


Origin-destination models originate from the consideration that many tourist sights act as both origin and destination for visitors. This means that those places from where people travel to other tourist attractions, also receive tourists who travel here. Thurot (1980), Lundgren (1982) and Pearce (1981) studied this phenomenon. Here, only Lundgren’s model of spatial hierarchy of tourist flows is presented, as it in this study is the most adjacent.

**Lundgren** (1982) focuses on tourist places. His model can be used to make out certain functions of individual places and their tourist flows (figure 5). The degree of generation versus inflow of tourists in a region is the first classifying attribute in his model. Other characteristics are relative geographical centrality, attractions and supply within the local or regional economy of the place. Beginning from these elements, Lundgren identifies four types

of tourist destinations. The first one consists of two metropolitan destinations, with a strong flow of tourists in both directions. Also major traffic nodes belong to this group of destinations. The second unit consists of peripheral urban destinations, which usually have a greater inflow than outflow of tourists. The third group, the peripheral rural destinations, has an even stronger bias in reciprocity. This is not surprising, as only few people live in these rather dispersed destinations, but can have a great attraction value. The last group involves natural environment destinations. These are the most sparsely populated areas and are often located far away from the tourist generating regions. Seen from an economic point of view, these natural environment destinations are most often dependent on financial input from outside. Thus, tourism is often one of the most important sources of income.

Figure 5: The spatial hierarchy of tourist flows



Source: Pearce 1995, p.7

Several researchers have focussed on tourist flows (Mings et al. 1992; Lue et al. 1993; Oppermann 1995; Flognfeldt 1999; Lew et al. 2002) and have established 26 different models (McKercher 2004). However, after a closer look, these models can be categorised into four types. The single-destination includes a trip to a tourist site and back again. Detours from this trip can be included. The second type includes a direct journey to the destination area and, once there, a round trip where several tourist sites are visited. The circle tour is a round tour, where several places are visited. The difference to the second type is that the actual round tour starts at home, meaning that there is no route to and from another point, from which the round tour begins. The fourth type includes a trip to a place, from which different excursions are made.

## 4 Time geography in tourism

All travelling involves the elements time and space. This implies a time-geographical approach in studies on mobility in tourism. Both elements consist of two aspects. Thinking about *time*, the holiday period on the whole is without doubt important for the choice (and option!) of the holiday. The higher the number of days of holidays for the employees of a country, the more people can travel in theory. This is one of the theoretical bases for tourism. But there is also another question involving time: the length of the individual holiday. This element gravely influences both the way of travelling and the distance to the traveller's home town. Reasonably, one can in theory travel farther the longer the time period. The question is if this is the case in practice.

Automatically, this leads to the question of *space* in tourism. Two principles concerning space are presented here. The first aspect concerns the distance of the destination to the tourist's home town - it is rather presumable that tourists choose a destination abroad/in another continent if they have plenty of time. The contrary is the case if the time is reduced: then, tourists would hardly travel such a long distance, as it includes a longer travel time. The second aspect involves the size of the destination itself and thus the length of the covered distance within the destination: One could assume that the longer tourists stay on a certain destination, the more they travel in this region. However, if this really is the case remains to be seen, as one could also argue that not time is the primer influence on mobility, but rather the tourists' knowledge of the destination, the number of visits, the density of attractions, and also the availability of information. This will be studied in this project. In addition, it can be assumed that both socioeconomic and demographic elements affect tourism mobility.

Thus, it can be stated that all travel is limited in time and space. The basic ideas were developed by Hägerstrand (1973) and his Lund associates. He developed a time/space model, in which he describes these restrictions on human beings' activities. Pred (1981, 1990), Gregory (2000) and Hall (2005b) have later used this concept.

Time geography highlights both continuity and connectedness of daily events ("projects"), which are bounded to time and space. It is a useful instrument to chart and study an individual's travel behaviour in time and space. It is the single person's mobility that is central for this field of research. In time geography, there are three principles. The first one is that human life is directed both in time and space. The second proposes that human life has both physical and social aspects, and the third principle deals with the consideration that activities in human life are limited by a number of constraints, being both spatial and temporal.

In time geography, there are four propositions (Hägerstrand 1973, Gregory 2000, Hall 2005b).

- (1) Time and space are resources, which individuals need when they want to realise their projects.
- (2) There are three groups of constraints. The first one is the *capability constraint*, which characterises a person's time-space prism, in which the person is moving. Here, the ability to travel is affected by the individual's physical capability. The *coupling constraints* comprise social rules, where individuals have to be situated at certain places in certain times. An example for this is work, where most people have to be

five days a week from morning to afternoon. Here is a strong difference between everyday and holiday. On a vacation, the tourists are usually not restricted in their choice of spatial mobility. Principally, they can go wherever they like, unless the time of getting to the desired destination or the economic effort that is needed to get there exceed their limits. Thus, they are usually not affected by any coupling constraints. The third group, *authority or 'steering' constraints*, contain restrictions pointing at an exclusion from certain places at certain times. An example for this is a situation when a tourist does not get a visa for a certain country. These large constraints can be broken down into small ones. A selection of those constraints is the indivisibility of human beings; the finite nature of human life; the impossibility to engage in more than one activity at once; the temporal duration of every activity; the fact that a movement in space always consumes a movement in time. Additional constraints, which affect travel behaviour can be age, gender, income, race, the cultural and economic context and the consumer culture.

(3) These constraints are interactive rather than additive.

(4) Usually, there is a competition between the different projects for free paths and open space-times.

Together with different transport possibilities, it is clear that the time-space prism, in which individuals are placed, can look very different. As a matter of fact, peoples' travel time budgets have not changed considerably during the last decades, whereas the ability for most people in the western world looks very different now from what it did in the past. As technological inventions in transport – and, by the way, also in communication, like telephone and the Internet – have been accessible for a bigger group of people, the ability to travel faster, further and also cheaper has influenced many individuals' time-space prisms. Compared to the situation a few hundred years ago, when most people travelled by foot or horse and cart, the car has become a normal part of everyday movements, and also, along with both train and aeroplane, of tourism and travelling (Hall 2005a, Hall 2005b).

As has already been mentioned, time-geography was first developed to describe and explain everyday situations. Hitherto, it has been astonishingly little used in tourism research (Frändberg 1998, Hall 2005a). However, in this context it is assumed that not only daily activities are constrained by time and space, but also holiday journeys. Holiday is often described as not being everyday mobility, but rather an escape from everyday routine. A precondition for mobility in tourism is the availability of free time and the absence of routine. This opposition of holiday and everyday could be an explanation for the relative neglect of time geography to explain questions arising in the field of tourism. Tourism is said to reverse the situatedness which is characteristic of the inbuilt routine in everyday life. However, it remains to be questioned if there really are such huge differences in time-space prisms what the daily mobility of individuals in their holiday is concerned.

A person who is going on a two weeks holiday must decide whether he/she wants to travel to a place far away and thus spend more time on travelling and less time at the destination, or if he/she prefers to travel a shorter distance, but with more time on the tourist destination. A factor, which can affect this decision, is the mode of transport used. As faster means of transport have become available for more people, the way of travelling and thus also peoples' choices of travel destinations have changed. Tourists have the possibility to travel to the same destination in a shorter time span. Or, differently spoken: In the same time span, people are

able to travel much farther. It is not difficult to see that this is the case today. The number of international travellers and long-distance travels has increased tremendously during the last decades. The introduction of express trains and aeroplanes on a broad basis has of course contributed massively to this development.

But there is no even distribution of possibilities when tourism is concerned. The reason for this is both economic and geographic. It is geographic in so far, as tourist amenities are not evenly spread over the earth. In addition to the space-time constraint, there is also an economic time restriction that is unevenly spread, meaning that it can be more or less difficult for people to travel, depending on their incomes. What is possible in theory is in most cases impossible in practice, as certain modes of travel and spatial movements are unaffordable for many people. So while flights to all thinkable tourist destinations in the world exist, most people do not utilise them, as they are not able to pay for the journey. Another important issue is that travels to different destinations differ widely in cost. Due to deregulation, the discrepancy between travel prices to and from different places is huge. This, of course, also influences where tourists decide to travel and thus also influence tourists' activities in time and space.

Jansson (1994) analysed the attraction value and the economic time restriction on tourist travels. The individual travellers' choices are restricted, as the cost of travel influences the rest of the journey (in case the tourists' financial possibilities are restricted, which is almost always is the case). In case travel costs are relatively high, the tourists can compensate this by staying a shorter period of time at the travel destination. A second possibility is that they travel a shorter distance, thus reducing the travel costs in order to being able to spend the same period of time at the tourist destination.

## 5 Methodology

A study on travel routes lasting for a longer period of time puts certain demands on the choice of methodology. In order to get sufficient information on tourists' itineraries, the respondents have to write down information at least one time a day – otherwise, too much information would be lost. A questionnaire at the end of tourists' holidays, on their way back home could have been used. Hereby, the number of respondents would have been larger, but at the same time, the level of information would have been lower. This is the reason why this method was not chosen. Other surveys have been conducted in this way (e.g. the "Ibis-study" by the Swedish Tourist Authority), aiming at getting an overall information on where the tourists have been during their holiday. In order to receive data on the micro level, where information is offered on every day's travel routes, this method is not suitable.

To answer questions on tourists' travel routes, a quantitative approach is required. By using a quantitative method like the travel diary, information is received on travellers' travel habits. However, the data on mobility and spatial differentiation needs to be interpreted in a qualitative way. This indicates that the results cannot be statistically secured. Rather, it is an explorative way of interpreting the results, trying to discover if travel patterns and –rhythms exist and what different travel routes and habits can look like.

In the travel diary study, respondents register their travel habits in the travel diary every day. The length of the diary depends on the duration of the holiday in Sweden. One lack with this method is that the respondents give their own appreciation of their daily travels, which cannot be controlled. In order to avoid loss of information or even failures when writing the diary, the questions in the diary have to be clear and structured. Another risk is that the respondents become tired of writing the diary every day. Other travel studies, like The Swedish Travel Pattern by Statistics Sweden (SCB), comprise only one day. This is a possible solution if the aim is to receive information on everyday activities, but when holiday travels are concerned, the whole voyage has to be recorded in order to see if there are any differences what the beginning, the middle or the end of the holiday are concerned. However, travel diaries give a relatively complete reporting, if compared to other methods. This is especially the case for spontaneous and incidental travel decisions, which could otherwise be difficult to capture. A disadvantage when using travel diaries is that shorter trips, and also trips for purposes that are experienced as unimportant, are sometimes forgotten (Stopher 1992, Tillberg Mattson 2001, <https://doi.org/10.1080/09653250120000000000>).

This study was carried out in the summer of 2004. In order to get access to people who travelled to Sweden by car that summer, and who would possibly be interested in participating, cooperation with the Swedish Travel and Tourism Council was launched. This organisation sends a newsletter with information about Scandinavia to 23.200 German speaking people every month. This includes Germany, Switzerland and Austria.

This procedure means that those people received information about this study that already are interested in Sweden and Scandinavia. This might lead to a slight bias in the selection of respondents. However, the pool of more than 23.000 people is big, and this means that the assortment is not too narrow. The reason why this method was chosen is that no other line of approach would have been possible. By choosing other methods of contact, it is supposed that the number of respondents would have been much smaller, hereby affecting the credibility of the results.

In April, this newsletter contained a promotion on the study. The readers were asked if they were going to Sweden by car between June and August 2004 and if they wanted to take part in the study. Via a link to the homepage of the tourism research institute ETOUR, the readers could enrol themselves. 114 registration forms were sent in via email. The diaries were sent to the respondents two weeks before they went on holiday. Additionally, an email was sent to them as an aide-mémoire four days before they left home. From 114 diaries, 73 were returned after the respondents' holidays in Sweden. All respondents were Germans.

Table 1: Response rate

Number of people who received the newsletter	Number of people who registered for the study	Returned travel diaries	Response rate (%)
23.200	114	73	64

The response rate based on those people who registered for the study and was 64 %. Acknowledging the extensive and time-consuming effort, this result can be supposed to be good. The response rate in similar studies ranges from 39 % to 69 % (Tillberg Mattson 2001).

The diary consists of four parts. In the *introductory part*, there were eleven general questions, which had to be answered before the journey. The questions were about name and address, number of co-travellers in the car, length of the journey, countries to be visited during the journey, number of previous visits in Sweden, source of information before the tour to Sweden and exactness of preparation of the journey in advance. The diary ended with five questions, which were to be answered *after the trip* to Sweden. Three of them dealt with how exactly the respondents had planned the travel route in advance, how tightly this route was actually followed and what had made them not follow their plans. Two other questions were about modes of overnight stays and sources of information during the tour through Sweden. The middle part consisted of the *crucial diary*. Each day, the same nine questions were asked according to stopping places, length of trip, usage of roads and personal comments. The fourth part consisted of a *map* of Sweden, in which the respondents charted their daily itinerary. The diary was produced in spring 2004. It was tested and revised two times.

The geographical data were analysed with SPSS and Arc View. In SPSS, all information were coded and inserted as careful and at an as low geographical level as possible. Every day was interpreted as one unit. This means that the amount of data was big.

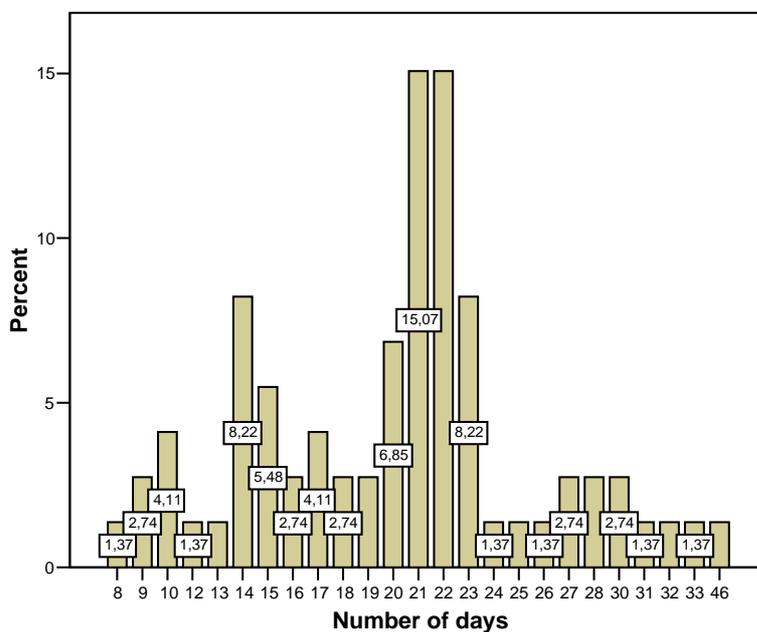
## 6 Empirical results

### 6.1 General results: The journey to and through Sweden

#### Travel time

Many respondents travelled for around 3 weeks (21 and 22 days), as can be seen in figure 6. A secondary maximum can be seen at 14 days, indicating that people travel for 2 weeks. This result points at the fact that tourists who travel to Scandinavia decide to do so on a relatively long journey. Of course, there are also shorter trips, but both distance and the fact that the respondents are travelling to another country seem to influence the length of travel time.

Figure 6: Number of days on holiday



The time spent in Sweden is slightly shorter in average, which is understandable, as it takes time to travel to Sweden from the respondents' home regions. The time spent in Sweden and the length of travel to and from Sweden can be seen in figures 7 and 8. A comparison between figure 6 and 7 offers an interesting relation. The time spent in Sweden is almost exactly 2 days shorter than the time spent for the whole holiday trip. Instead of peaks at day 14, 21 and 22, there are peaks at day 12, 19 and 20. Accordingly, figure 8, demonstrating the time spent for the travel to and from Sweden, shows a massive peak at 2 days.

Figure 7:  
Number of days in Sweden during the holiday

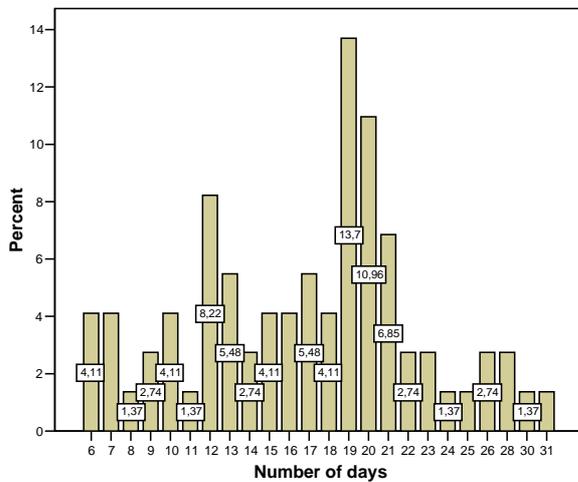
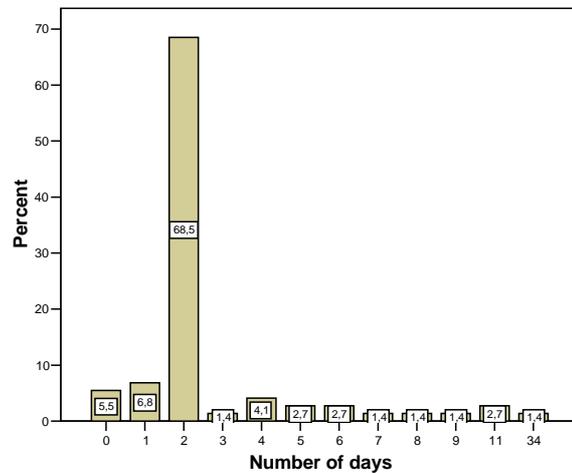


Figure 8:  
Time spent travelling to and from Sweden



### Travel distance

In average, the tourists travelled 3770 km during their tour (5% trimmed mean). One quarter of all respondents drove between 3.000 and 4.000 km. The shortest tour was 1077 km, the longest 8742 km. 50 % of the respondents are travelling between 2794 and 4323 km (percentile 25 and 75). The journey between the home town in Germany and the Swedish border is included here, and depending on where the tourists come from, the distance for the travel to and from Sweden can be rather long. But these results also suggest that the respondents travel a lot at the destination itself, if Sweden is defined as one destination.

One common travel rhythm is that tourists travel a very long way the first – and in some cases also the second – day. With every additional week of holiday, the tourists travel 500 additional km. An explanation for this result is that the distance that has to be surpassed before the tourists arrive at the destination in Sweden already occupies a great deal of the overall travel distance during the holiday.

If the tourists' single travel days are studied, this pattern is clearly affirmed. As can be seen in table 2, the average travel distance for the first day is 684 km. Accordingly, the range of driven kilometres is much higher on Day 1 than on the other days. But still, the range on day 2 and 3 is higher than on the following days. A reason for this is that some respondents are still travelling quite long distances, while others are staying at one place without driving at all. The distance then decreases to 296 km (day 2), 148 km (day 3) and 155 km (day 4 and 5).

It is the journey from home to Sweden that creates this pattern. Obviously, a great part of the respondents do not split the total travel length into equal, daily distances, but drive longer distances on especially day 1 and 2 in order to spend more time at a specific destination on other days. This supports the previous assumption that it is important to get away from the home region at the beginning of the tour. A reason for this may be that geographical distance is also associated with a mental distance from the matters of everyday. Being on holiday is associated with geographical distance.

Table 2: Statistics on travel distance, day 1 to 5 (km)

	Day 1	Day 2	Day 3	Day 4	Day 5
<b>Mean</b>	683	296	147	154	154
<b>Median</b>	620	289	76	116	100
<b>Range</b>	2040	1240	1350	654	733
<b>Minimum</b>	60	0	0	0	0
<b>Maximum</b>	2100	1240	1350	654	733
<b>Percentiles</b>					
<b>25</b>	445	72	0	40	50
<b>50</b>	620	289	76	116	100
<b>75</b>	910	424	241	245	241

The daily distance on the tours does not only decrease during the first days, but varies considerably during the holiday. This can well be seen in a comparison of day 11 to day 15. The average distance skips from 104 km to 175, back to 120 and then on to 180 km. This pattern hints at the fact that mobility tends to be concentrated in time. On their tour, the respondents move rather long distances the one day and stay relatively immobile the next. This does not mean that activities are rejected, but travel in order to reach another place on the tour is avoided. One can see that the range between the minimum and the maximum of driven kilometres varies in accordance to the average distance. This pattern supports the above argumentation.

Table 3: Statistics on travel distance, day 11 to 15 (km)

	Day 11	Day 12	Day 13	Day 14	Day 15
<b>Mean</b>	103	175	120	180	181
<b>Median</b>	70	120	66	95	94
<b>Range</b>	486	750	600	1250	1140
<b>Minimum</b>	0	0	0	0	0
<b>Maximum</b>	486	750	600	1250	1140
<b>Percentiles</b>					
<b>25</b>	14	18	0	8	7
<b>50</b>	70	120	66	95	94
<b>75</b>	138	247	196	247	255

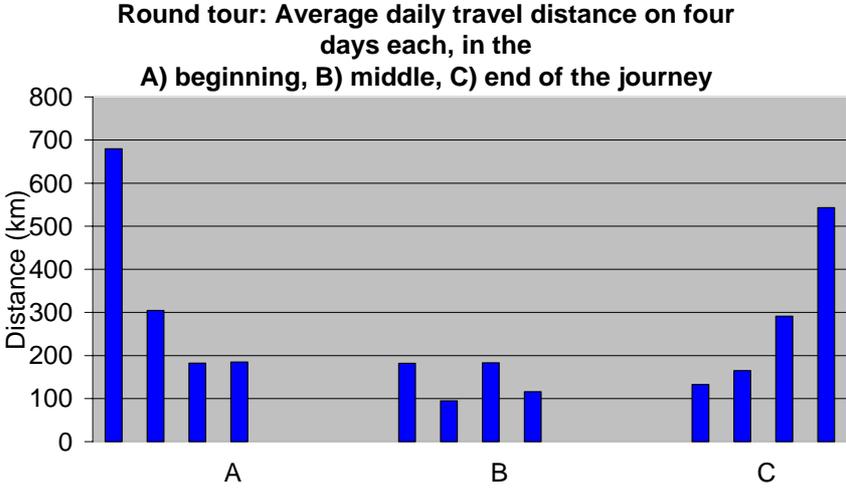
The respondents can be divided into three groups. Members of the first group are performing a *round tour* and do not stay at one place for a longer period of time (group A, figure 9). This means that they are relatively mobile during the whole holiday. Members of the second group stay at one place for the most part of their stay in Sweden (either with friends or relatives, or in a cottage). Their kind of holiday is called *base-holiday* here. The length of stay at one place must be more than 10 days in this calculation (group B, figures 10 and 11). Staying at one place for a longer period of time does not mean that the respondents are immobile, but the fact that they return to the starting point every day is of importance here. Group C consists of those who perform a *mix* of group A and B, and who stay at different places for a longer period of time (base holiday), but travel to several places along a travel route.

### **Group A – round tour**

Figure 9 presents the average daily distance driven by car driven by those tourists that go on a round tour in Sweden. Tourists sites in the whole country were visited by tourists going on a round tour. As can be seen there are three blocks, the first representing the first four days, the second showing the four days in the middle of the round tour, and the last demonstrating the

last days. As can be seen, the tourists drove long distances the first and last days. The daily travel distance in the middle of the holiday alternated between 100 and 200 kilometres. The pattern of travelling longer one day and shorter the next constitutes a clear travel rhythm.

Figure 9: Average daily distance on a round tour

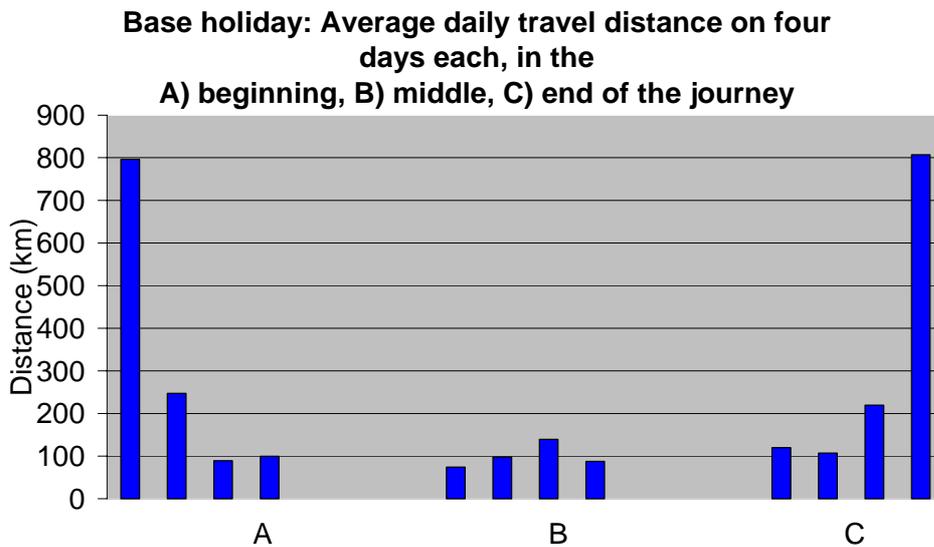


A common and very obvious pattern is that the length of the daily tour is longest at the beginning and at the end of the journey. The reason for this is that the tourists are driving to the destination from their home town. If it is possible, many respondents drive to Sweden on one day (day 1). Many respondents pass the Swedish border as fast as possible. On the way home, many tourists stay close to the border in Sweden before they travel home. This travel behaviour constitutes the travel distance on the last day, which is still long, but shorter than on the first day.

**Group B – Base holiday**

One third of the respondents spent their time in Sweden in a cottage (their own or rented) or visited friends and family. The respondents belong to the base holiday group as they spend most of their time at one place. The travel rhythm is similar to the pattern in a round tour in some aspects. The first and last days of the holiday comprise long distances, which is hardly astonishing, as the respondents still have to travel to their destination from their home. But in comparison to the round tour pattern, some outlines in the base holiday travel seem more apparent and obvious.

Figure 10: Average distance per day on base holidays



The difference between mobility and immobility is in many cases clearer than with those going on a round tour. More trips are related to the closest surroundings and do not necessarily have to be done by car. In fact, it is not surprising that the mobility is to a degree minor. Rather, it is astonishing that so many respondents travel as much as they do when they live in a cottage or with friends/family. One could have imagined that this sort of holiday invites tourists to be rather geographically immobile once at the destination, but this is not the case.

When looking at the individual travel rhythms, one clear pattern is a mobility peak in the middle (as can be seen in figure 11), or in the second half of the holiday. While mobility is relatively limited directly after and before the journey from/to home, many respondents go on at least one longer trip (up to 400 km/day) in between. They travel either for just one day, where they return “home” again, or during for a trip lasting for some days, where they stay for the night at other lodging places. This result can have a great impact for destinations in a certain radius around the tourists’ cottages, as it in fact seems to be possible to attract tourists to travel and also to stay overnight at another place than their cottage. This is primarily of importance for regions in Sweden where there is intensive cottage tourism, like in Småland or Bohuslän.

Figure 11: Example on daily travel distance during a base holiday trip (respondent 34)

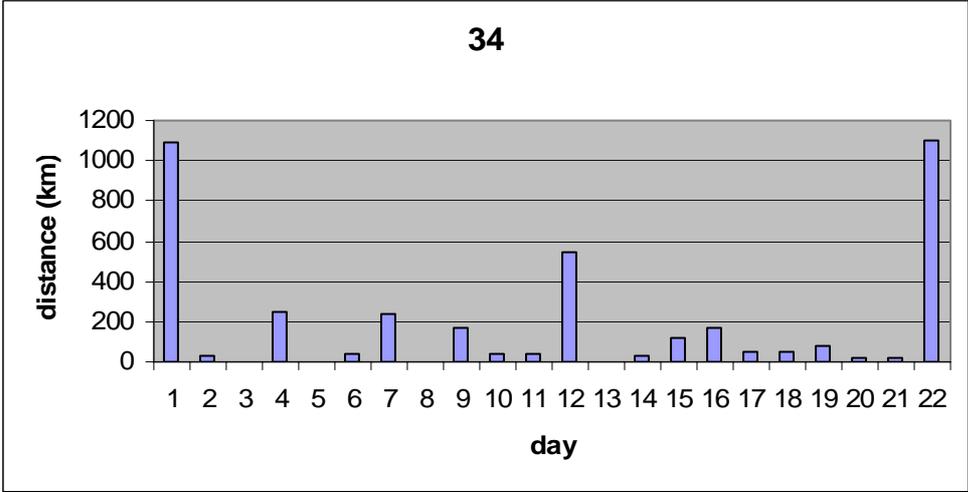
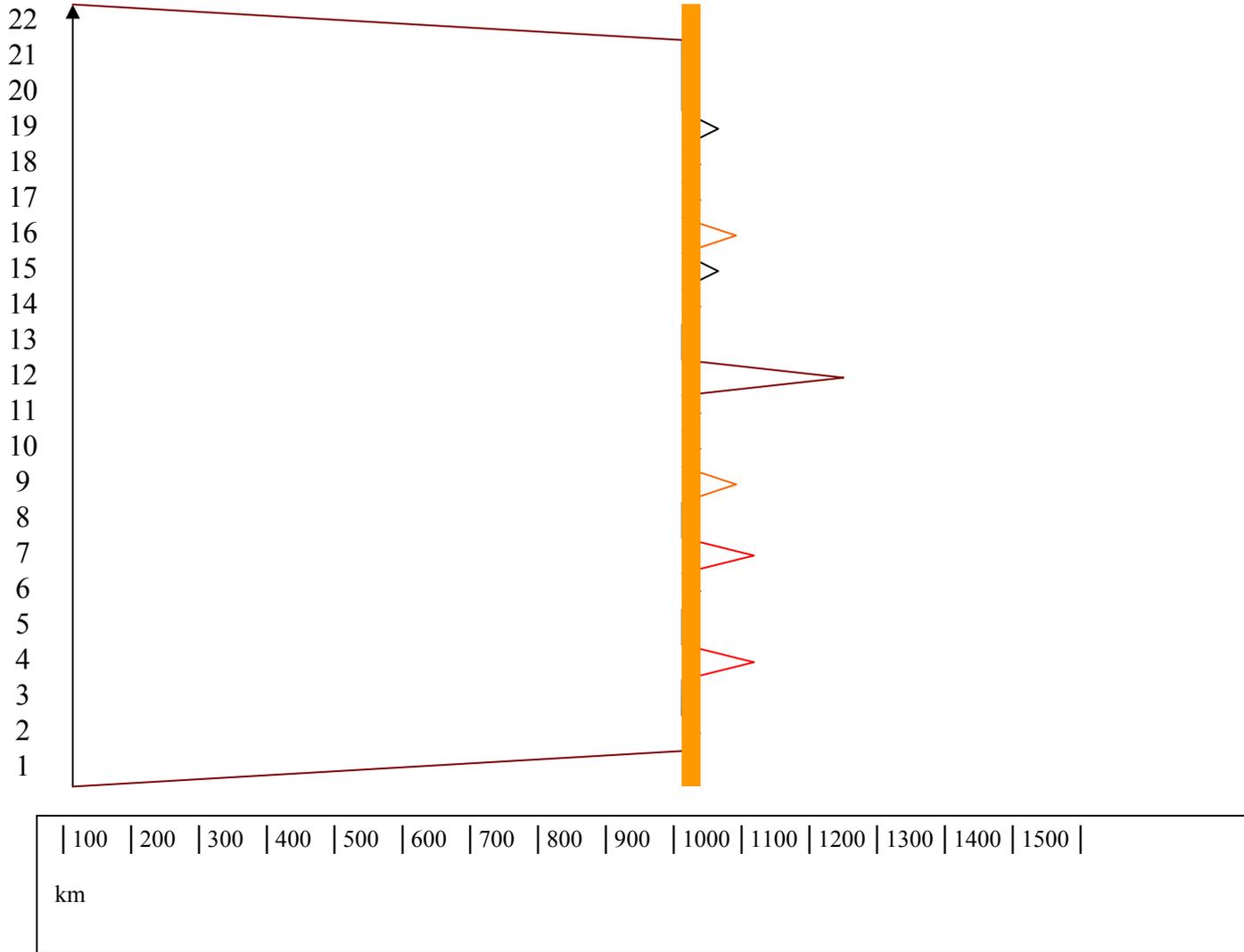


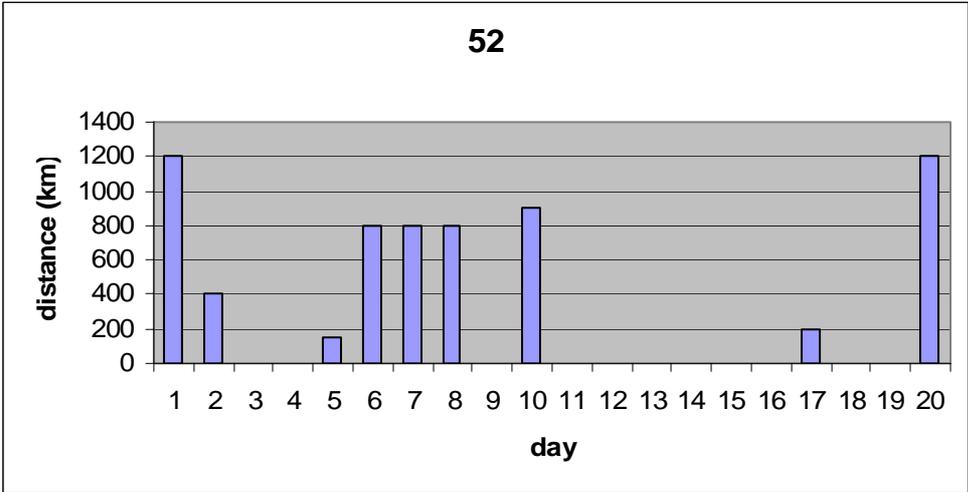
Figure 12: Time-geographical presentation of mobility (respondent 34, compare figure 11)



There is a clear difference between the groups A (people going on a round tour) and B (people staying at one base only), what the average length of the tour is concerned. In average, the distance of those who stay at one place for the holiday and do not go on a round tour, is 478 km shorter. The difference is bigger with those respondents, who are in Sweden for their third time. Here, the tourists on a round tour drive almost the double distance compared to the stationary group. For those, who have been in Sweden four and more times, the stationary group is actually more mobile than those going on a round tour. In general, it can be stated that the stationary tourists are touring a lot in their closer surroundings. These results support the above outcome.

**Group C: Combination of base holiday and round tour**

Figure 13: Example on the daily distance (respondent 52)



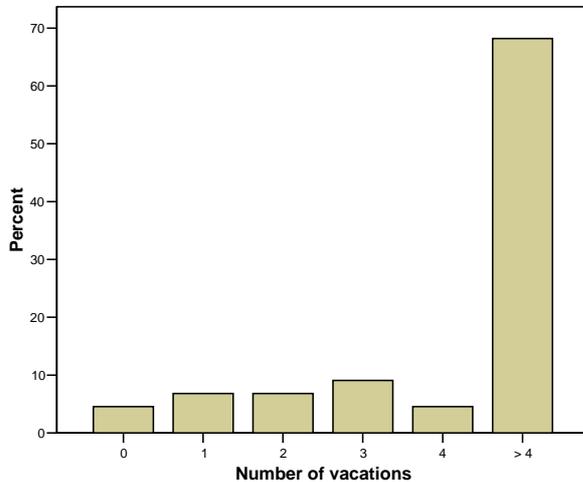
The tour of the above respondent lasts for 20 days and it is obvious that this travel group alternates mobile with immobile days. On some days, the tourist group travels from one destination to the other, on other days, the group stays at the destination to perform other activities than travelling. In many cases, a secondary peak concerning distance can be noticed in the middle of the holiday. Even in the above case, such a peak is apparent (from day 6 to day 10). Such a peak can be interpreted in the way that most people reduce their daily distance after the relatively long journey from home to Sweden. After a few days of relaxing and/or limited travelling, they head for another region, where they stay fairly immobile again, awaiting the return home. The last peak is then their journey back to Germany.

**6.2 Research question A: The impact of primer number of visits in Sweden on the tour**

One could imagine that the travel distance is dependent on the tourists’ number of visits in Sweden (see research question B). This thought is based on the assumption that a first time visitor presumably wants to get to know as much of the country as he/she can, while tourists who have been at a destination several times might want to restrict the travel to a certain region or the area around an even more geographically restricted place.

In the study group, 90 % of the respondents had been in Sweden before. More than every second respondent had been in Sweden more than 4 times before this visit. As can be seen in figure 14, the rest allocates quite equally from first time visit to 4 visits.

Figure 14: Number of previous vacations in Sweden



Research question B was tested in a comparison between travel distance and number of previous visits in Sweden. In general, this factor was found not to have a significant influence on the length of the tour. In order to analyse exclusively the travel in Sweden and not the travel between the tourists' homes in Germany and the Swedish border, each respondent's travel to and from the Swedish border was subtracted from the total tour trip. The total average length of the travel tour in Sweden for all respondents was 2472 km. Those who were in Sweden for the third time and more than four times averagely drove longer distances – 2700 km and 2600 km, respectively. Those who were in Sweden for the first, second, fourth and fifth time averagely drove shorter distances.

For those who went on a round trip, the distance of the tour increases from the first to the third visit in Sweden. There is a second peak for those who have been there more than four times before this vacation. The pattern is similar for those who stay on one place only. Here, there is a first peak for those who are in Sweden for the second time and a second peak for those who have been there more than four times before this vacation.

While there was only a little effect of the number of visits on the mere travel distance, the number of visits was found to have a slight effect on the *spatial mobility* and the choice of travel region during the holiday. The more often a person has been in Sweden, the further northwards he/she usually travels. It seems as if tourists want to get to know the country step by step, whereby the southern parts of Sweden are better known to the Germans than the northern parts. Most people who travel to the most northern parts of Sweden have been in the country more at least 4 times before. So it can be argued that personal knowledge and travel experience in Sweden influence the mobility in the country.

For those who travel to Sweden for the first or second time, the bigger cities are often included in the round tour. On a standard itinerary, people travel to Gothenburg, around the lake Vänern, and then to Stockholm. From here, they travel south again. Both Stockholm and Gothenburg are well known abroad. In addition, for many tourists capitals give a kind of

representation for the whole country, so that the tourists' experience factor can be supposed to be high when they visit the capital.

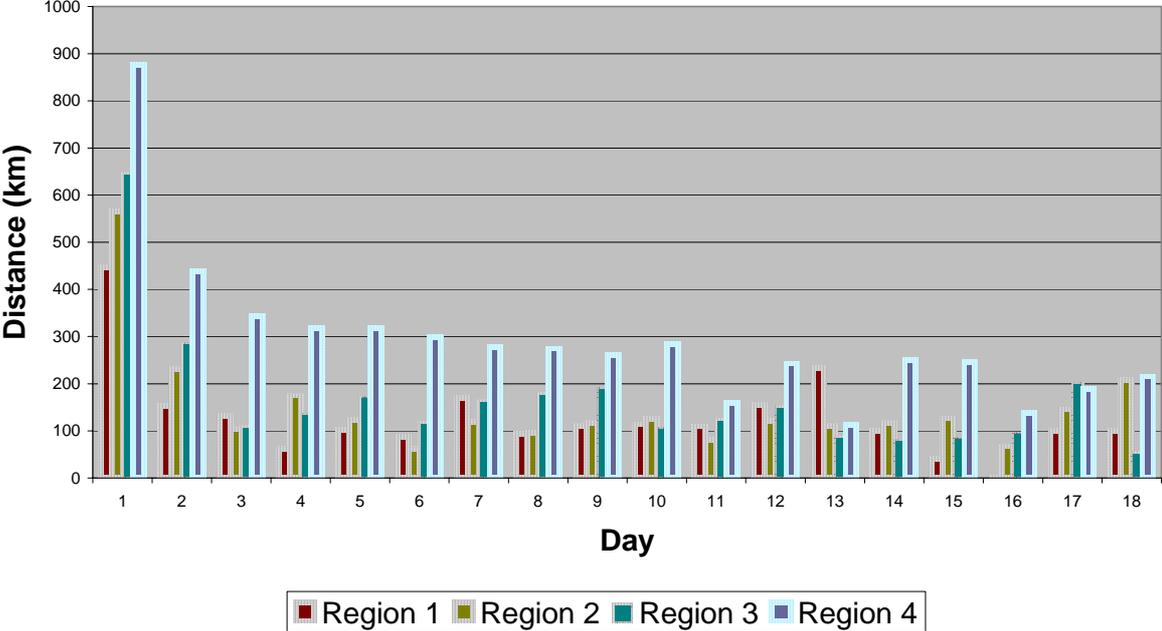
Those who rent a cottage have usually been to Sweden several times before. In the case that tourists who are in Sweden for the first time stay in a cottage during their stay (meaning that they stay at one place), they are usually very active. They do a lot of excursions and thus get to know the surrounding of the base holiday home.

**6.3 Research question B: Travel behaviour in different Swedish tourist regions**

The respondents going on a round tour travelled to tourist sites in the whole country of Sweden. As Sweden is an oval country and thus the distance travelled can vary considerably, the travel behaviour might be influenced by the different travel distances. Four regions could be distinguished. The first region is located in the utmost south in Sweden (to the latitude of Jönköping), the second lies between Jönköping and Gävle. The third reaches northwards to Umeå, whereas the fourth region is located north of here. Figure 15 shows the average distance that is travelled to and within the four regions.

Figure 15:

**Average daily distances to the four Swedish regions (round tour)**



In figure 15, one can see the average travel distance of the first 18 days of holiday. At first sight, the four curves are fairly similar. On days 1 to 3, the average travel length is high, compared to the rest of the holiday. This is no surprise, as the respondents are travelling to Sweden here. The only difference is the distance that is travelled. A respondent who intends to travel to the north of Sweden travels around the double distance, compared to respondents heading to region 1 and 2.

Another pattern that is similar in all four groups is that the distance curve dwindles after the first two days. This can be interpreted in the way that once the respondents are in Sweden, they do not feel the need to travel such far distances anymore. Generally, the four curves approach each other, the more days the respondent has stayed in Sweden. At the end of this 18 day-period, respondents in all four group travel between 100 and 200 kilometres a day, averagely.

A reason for the relatively long daily travel distances in group 4 is not only the distance from the tourists' points of departure in Germany, but also the distance between different attractions in this part of the country. To travel from one tourist site to another in northern Sweden, one usually has to travel much farther than in the southern part of the country. Still, it is astonishing that the difference between the daily travel distances is not bigger than could actually be shown. Concluding, the travel rhythms are rather similar, no matter if the respondents are travelling to the south, the middle or the north of Sweden.

**6.4 Research question C: Travel behaviour according to the total time dedicated to the journey**

Does the total travel time affect our daily travel rhythms? Again, the respondents were divided into four groups, this time according to the time spent in Sweden. Only tourists going on a round tour were studied. The first group consists of respondents being travelling for a maximum of 8 days, group 2 respondents travelling for 9 to 15 days, group 3 consists of tourists who toured 16 to 22 days, and group 4 of people travelling for more than 22 days.

Figure 16:

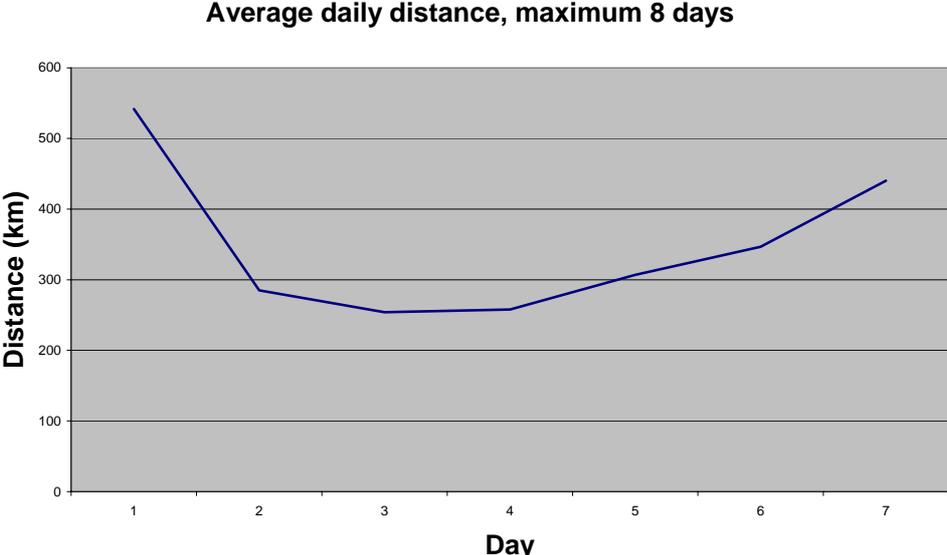


Figure 16 shows the travel rhythm of those respondents who travelled for a maximum of 8 days. It can clearly be seen that the travel distance is highest on the first and last day, but averagely, the travel distance, lying between daily 250 and 300 kilometres, is considerably high in comparison to those travelling for a longer time period. Thus, it can be shown that the short stay on the destination influences the daily travel rhythm.

Figure 17:

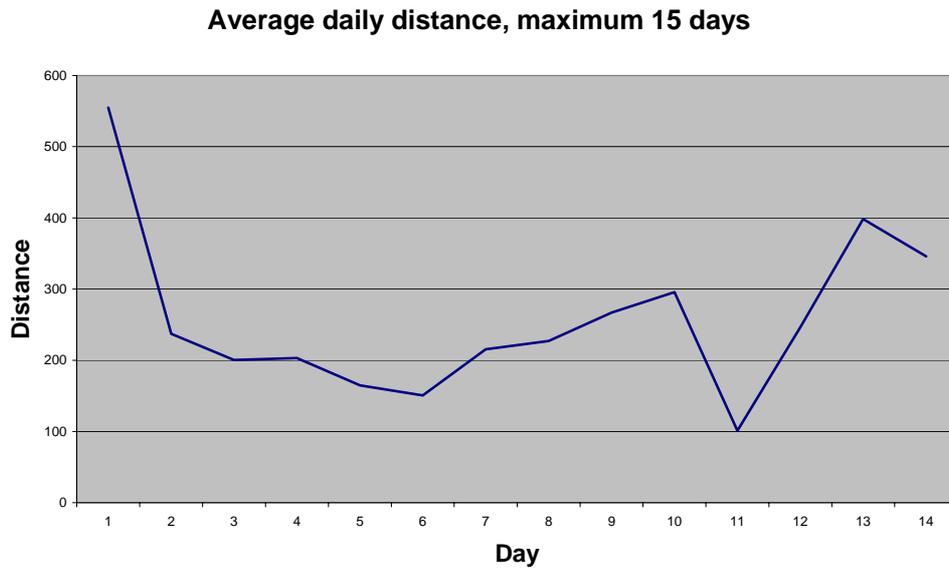
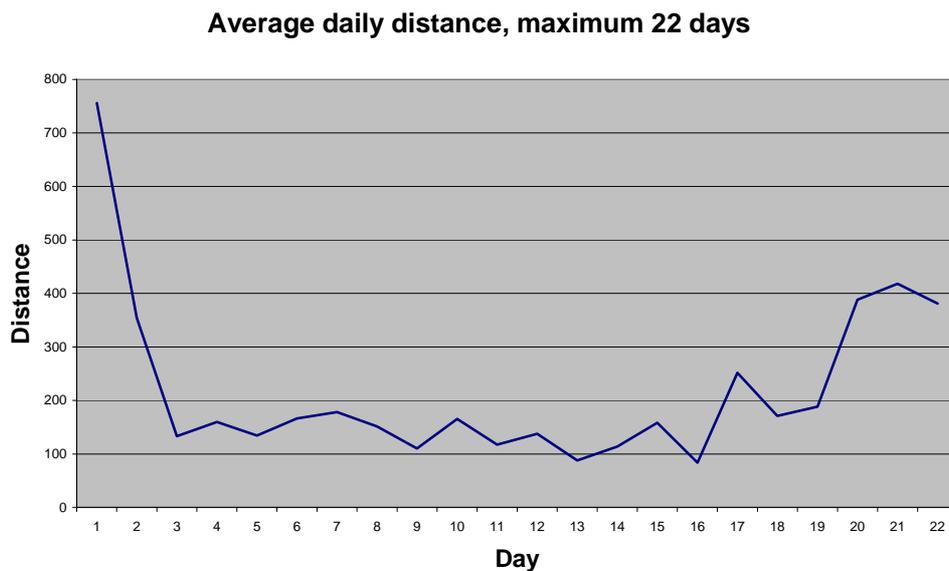


Figure 17 shows the travel rhythm for those who go on a round tour through Sweden between 9 and 15 days. Also here, there is a maximum of travel length at the beginning and the end of the holiday, but there is also a secondary maximum slightly after half of the time. A reason for this might be that travelling becomes more attractive again after some days of resting. Also before they return home, most respondents have a rather limited travel inclination, which mirrors the wish to be rather immobile before travelling the long way home. After all, a round tour consists not only of mere travel, but also includes time spent at tourist sites. This can also be seen at the travel distances during the stay: The respondents usually travel between 100 and 300 kilometres per day, so there is enough room for visiting attractions and relaxing.

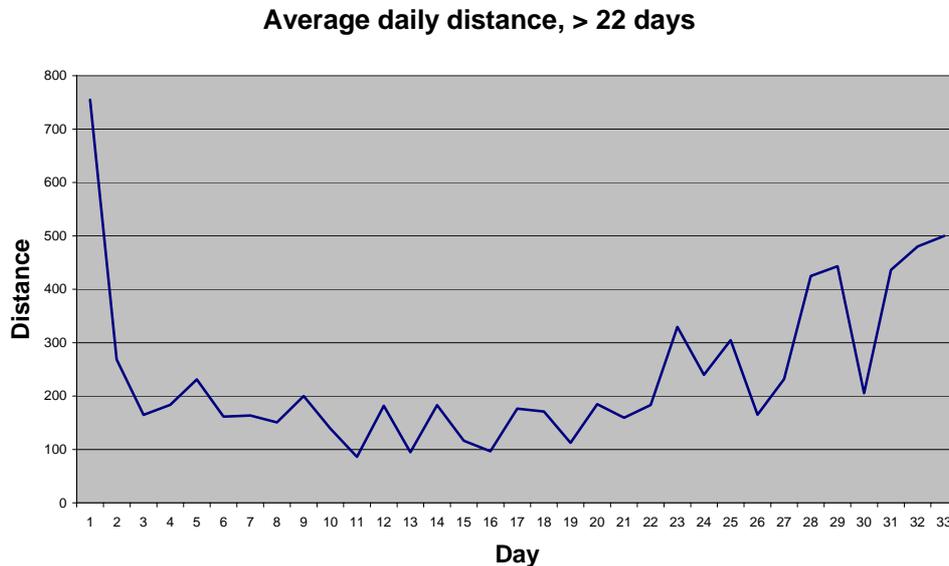
Figure 18:



As can be seen in figure 18, the respondents in this group travel slightly further during the first two days compared to group 1 and 2. During the first two weeks, the daily travel distance

is lower than within the above two groups, alternating between 100 and 200 kilometres. Again, there is a peak in the last third of the travel period, which is also followed by a decrease in travel distance before travelling home again.

Figure 19:



The travel rhythms that were stated for groups 1 – 3 can also be seen for those respondents who are on a round tour for more than 29 days: A long journey on the first day with a following oscillation between 100 and 200 kilometres per day. Also, relatively low travel distances before and after travel distance peaks can be stated. The alteration between longer and shorter distances increases from group 1 to group 4. While there are almost no daily alterations for those respondents travelling for a maximum of 8 days, the variation is slightly perceivable in group 2, even more so in group 3, and obvious in group 4, especially between day 9 and day 20. So a day of relative mobility is often followed by one day of much reduced mobility.

It has turned out that time has a noticeable effect on tourists' spatial mobility. Spending less time in Sweden does not mean that also fewer places are visited. Independent from the time spent in Sweden, the number of stay overs remains about the same. Instead of visiting fewer places because of a shorter period of time, the length of stay at the different places decreases. As the respondents drive longer distances every day, less time seems to be compensated with more mobility.

## **6.5 Research question D: Spatial mobility and travel rhythms**

### **Round tour**

The respondents travelled through Sweden in a very different way, but there are also similar patterns that appear. One factor that influenced the spatial mobility was which region in Sweden the respondent was travelling to. In chapter 6.3, the daily travel distances were analysed in the four regions. Here, the spatial mobility is studied.

## **Region 1: Southern Sweden**

Those who are going on a round tour through the most southern part of Sweden usually do so for two weeks. The average number of destinations where the travellers are spending one or more nights is six, and the length of the holiday does not seem to influence this number – rather, the location of the destination region does. The number of nights that is spent at the different destinations reaches from one to four. This information can be combined with the tourists' spatial mobility: when travelling to Sweden, the time spent at the first destination is never more than one night, independent from if the first night is spent in Sweden or on the way to the country.

A stay over in Denmark is not uncommon, (usually on the way to Sweden, not on the way back), and this supports the idea that the whole trip is seen as being part of the round tour, and not just the trip in Sweden. Also, the distances of the different sub trips of the whole round trip are fairly similar. In this pattern, there is a difference to those itineraries that are conducted to the north of Sweden. The study material also supports the fact that those respondents who have travelled from southern Germany (which means that they have already travelled a longer distance) are more eager to stay in Denmark than those from the northern parts of the country. This has to do with the daily travel distance that is comfortable for the respondents to travel.

The border between Sweden and Denmark is of importance, as many travellers seem to want to surpass this boundary before they lodge for the first time on their tour. A great part of the respondents choose to spend the first night in Sweden either directly behind the border (in Malmö or Trelleborg), or within a small distance from here. It is those who stay in Denmark during the first night that drive longer distances in Sweden the following day. It can be argued that to be in Sweden and to have reached the destination country influences travellers' mobility in time and space. Also their spatial limitation on the most southern part of the country hints at the fact that it is important to travel through another country, but that it is less important to voyage through the whole nation with its different regions and attractions.

It is first from the second night on that the respondents stay at one place for several days (usually two or three). The distance between the different destinations is relatively even, but there is a slight tendency that people travel a longer distance after they have stayed some days at the same place. On the other hand, people who travel to a new site every day drive shorter distances, respectively. So while some choose to experience the surroundings more in detail, others prefer to get an overall picture of the south of Sweden. It could also be argued that being immobile for some days affects the wish to be more mobile again.

The geographical spread in this region is relatively even, although it can be stated that the coast is favoured. Apart from Malmö and Trelleborg, located close to the border/ferry berth, the towns are not favoured. Many respondents combine places at the coast with sites in the inland. Also, ferry or bridge routes to and from Sweden constitute attractive combinations. There are four itineraries over the Baltic Sea to southern Sweden: the ferries to the cities of Trelleborg, Helsingborg and Varberg, and the Öresund Bridge to Malmö. Some respondents choose one crossing of the Baltic Sea on the way to Sweden, and another on the way home. This behaviour indicates that the ferry trip or the passing of the Öresund Bridge is seen as an attraction that is part of the whole tour.

## **Region 2: Middle Sweden, southern part**

The respondents travelling to the region south of Gävle usually travel between ten and twenty days. During this time, they averagely stay over at 8 different destinations. Although there are some respondents who stay longer at one destination, one to three days is a typical time span spent at one place. As with visitors in region 1, the respondents never lodge at the first site for more than one night. The location of the first stay over close to the entrance point in Sweden is still obvious, but a stay over in Denmark is not as usual as for those travelling to Region 1.

The distance between the different lodging sites varies considerably. An obvious pattern is that the shorter the distances between the different sites, the shorter the stay. This indicates that a tour to a place has to “repay” in terms of time. This pattern can be compared with longer, international tours: the longer distances people travel, the longer they usually want to stay on the destination. Another pattern that is obvious (and that is even more apparent in Regions 3 and 4) is that the time spent at a destination is longest at the place that has the greatest distance to the travellers’ homes.

While the coast was favoured by those limiting their tour to Region 1, many respondents travel through the inland of Region 2. The cities are visited by many respondents, but they do not constitute a self-evident part of the travel route. Instead, some people travel to places really close to for example Stockholm, without staying here. However, compared to those people who travel further to the north, the towns in general and Stockholm in particular are relatively famous sites – 50 % of those travelling through Region 2 visit Stockholm. It could also be argued that some indeed visit Stockholm without staying here for the night. Nonetheless, it is obvious that the rural parts of Sweden attract far more travellers than the urban.

The island of Gotland is visited by some respondents, and this itinerary is often combined with a tour to Stockholm and its surroundings. The island of Öland is visited far more often, and the reason for this is that the access to this island is much easier due to the Öland Bridge. The accessibility of Gotland is limited since a traveller needs to take a ferry to get there. For those travelling to the north of Sweden, going to Gotland is no alternative. In relation to the routes to the north, the location of the island is remote and isolated. For those who travel here, a combination of different ferry routes is attractive, just like some combine different ferry routes on their way to and from Sweden. However, they are not as many as those travelling to Region 1.

## **Region 3 Middle Sweden, northern part**

Most people who travel to Region 3 are on the move for 3 weeks. Averagely, 9 places are visited for a stay over, but the range is relatively wide (6-16). The time spent on the round tour does not influence the number of places where the respondents stay over the night. Like in the other regions, it is unusual that people stay longer than one night at their first destination. In contrast, however, the first stay over is generally not located close to the border anymore, but northwards from the entrance point in Sweden. One pattern becomes clear when comparing the lodging locations: The closer the location of the first lodging site, the smaller is the distance between the first and the second one.

There is also another pattern that appears and is related to the length of the total travel route. In general, many people drive relatively long distances the first one or two days of the trip.

Thus, in some cases this first stay over can be seen as a means to get to the target region. This is probably the reason why so few respondents stay at this site longer than one day – they are heading for another region, farther from their homes. In Region 3 and, as will be seen, also in Region 4, the daily distances are longer on the route away from the home region and towards the point that is located at the farthest point from home, and shorter on the way back.

This pattern stands in contrast to the outline of shorter travel routes. In Regions 1 and 2, there is the tendency that the respondents travel slightly shorter distances to the place with the greatest distance from home. On the way back, the distances are greater. In this relation it is important to mention that the respondents are able to travel home from this point within one day. As soon as this is not possible anymore, the travel rhythm turns around, as can be seen with Regions 3 and 4. With tourist sights being located so far away, the travel itself partly becomes more a means of transport during the first day(s). Travelling through one region is necessary in order to get to another. This also explains that ferry and bridge routes are not combined for those respondents travelling to Regions 3 and 4. It could be argued that this part of the tour is indeed seen as a means of transport, whereas it constitutes a part of the whole travel attraction for those who do not travel so far.

This does not mean that the southern parts of Sweden are to be seen as through transport regions for those tourists who travel farther to the north. Still, many different places are visited and of course, this region constitutes a part of the travel itinerary. But undeniably, the length of stay is short compared to those people who only travel through this region. South of Stockholm, stays for more than one night are relatively rare for those respondents who are travelling to region 3. This goes in line with the observation that the respondents stay longer at one place from the second and third night on.

As has already been alluded to, the length of stay is longest in the region that is located at the greatest distance from home. Either, the respondents stay at only one place for several days and do daily excursions from here, or they stay shorter periods of time at different sites, but these sites are located quite close to each other. Usually, this takes place in rather rural areas. In general, the geographic spread of the respondents is big. None of the respondents travels to a smaller region in order only to visit different places here. But in the mentioned region, the spread becomes slightly denser. Rural regions are normally favoured by those respondents who travel on a round tour through Sweden. Of those people travelling to Region 3, only few visit Stockholm, and stopovers in other cities are also rare.

#### **Region 4: Northern Sweden**

Almost all people who travel to Region 4 stay on holiday for a longer period of time – usually three weeks or longer. The number of lodging places varies, but is normally high above 10. In comparison to Regions 1 to 3, one can see that the number of lodging places increases, as both distance from home and length of holiday do. This situation was expected. All respondents passed the direct surrounding of the entrance point in Sweden and most travelled for at least one or two more hours before staying at a place for the night.

Few people stay over in Denmark on their way to Sweden - those who do all come from the southern parts of Germany. It is almost impossible to drive from southern Germany to Region 3 in one day, so Denmark seems to be a region that is suited for a stop over at the middle of the tour northwards. It is possible to see that most of those respondents who come from the northern parts of Germany drive a longer distance in Sweden than those who have a longer

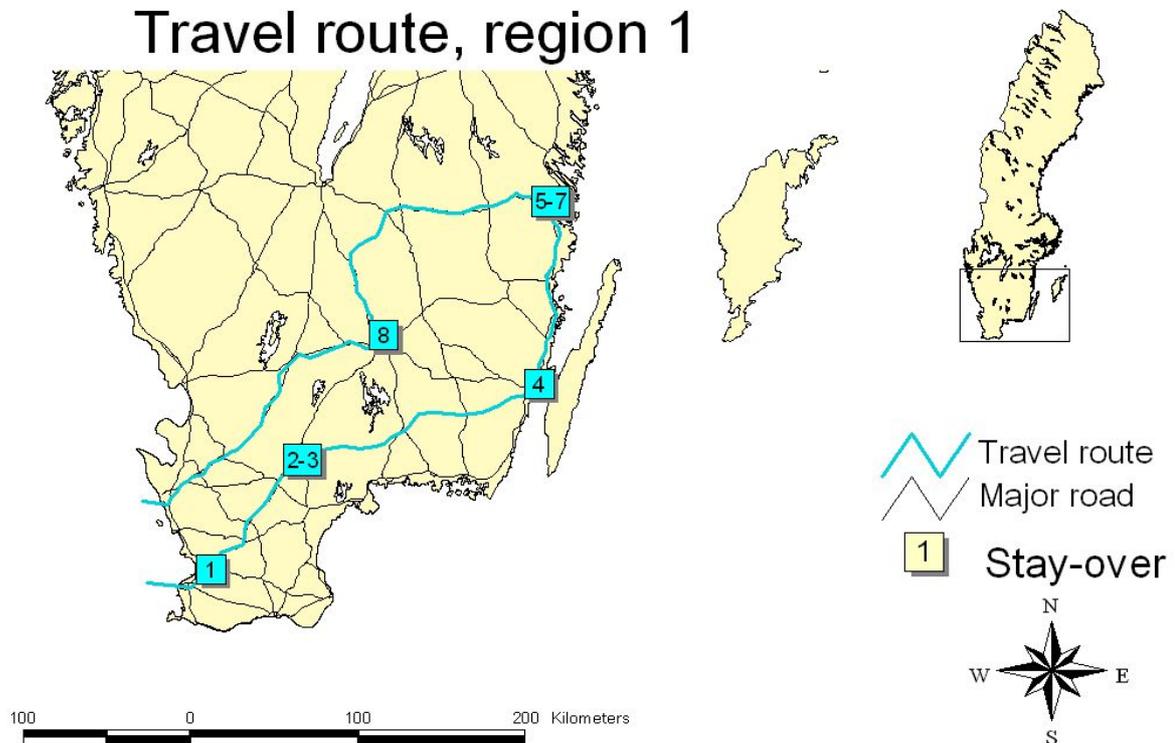
travel to even reach the Swedish border. This situation indicates that the border itself has lost some of its importance compared to those respondents touring through southern Sweden. It is the destination region in northern Sweden that is of interest for the traveller. That this region is located in Sweden is of minor importance. It is the travel distance that determines the travel pattern and that constitutes a certain rhythm.

As in Region 3, the distances that are travelled on the way north are rather large. Many respondents travel from home to the north of Sweden in five days – although they are touring for three weeks or more. So actually, there should be no lack of time. But there seems to be a psychological strain and a wish to overcome as great distance as possible on the way to the most distant region of the tour. According to the length of stay at the different places, it is rather short south of Stockholm. The respondents do stay here, and the geographical spread is also big, but the length of stay is short compared to the northern region. The bigger cities are usually avoided. Similarly is the south eastern part of Sweden eluded – this region seems to be located too far off the travel route northwards.

In Region 4 itself, the coast with the E4 is a relatively important area. However, people seem to use it as a means of transport route in order to get to another destination in a relatively fast way. The respondents do not stay at one place for more than one night along the E4. Also the cities do not attract many people on their itinerary. The inland, however, is a popular region for the respondents. Many people travel along the mountains and do smaller tours every day, or they leave their vehicle at one place in order to hike for several days in the mountains. A typical travel pattern is that people travel relatively fast on the E4 in one direction, and then more slowly on the “Inlandsvägen” in the other direction.

The presented travel rhythms to the four regions will be further elucidated in two examples.

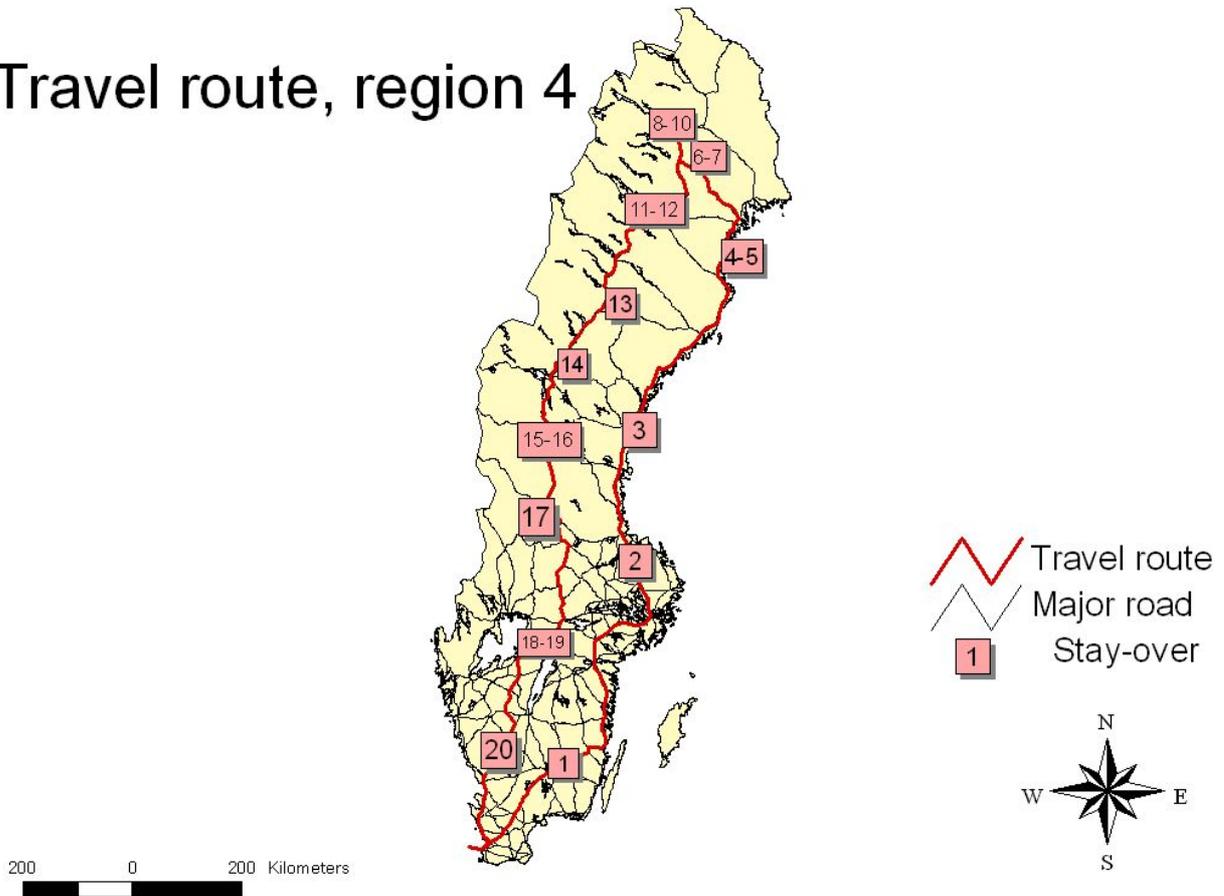
Map 1: Example on the most typical travel rhythms in southern Sweden (combination of several travel routes)



Maps 1 and 2 show examples on what round tours can look like. It can easily be seen that the distances are longer for those tourists travelling to northern Sweden than for those who stay in the south. The example on **map 1** shows a voyage that lasts for 8 days. The first night is spent very close to the entrance point in Sweden. On the *first* stay-over, the tourist in this example only stays for one night, which is typical for the first night on the round tour. As soon, as the tourist has travelled for two days, also the duration at the stay-over can be longer – in this example, *night 2 and 3* are spent at the same place. There is also a correlation between length of stay and distance travelled: the longer tourists stay at one place, the longer is also the distance travelled before or after they reach this place. It is often the case that tourists spend a relatively long time in the region that has the longest distance to the tourists' homes. This is indicated by the *nights 5-7*. If it is possible to drive home within one day, the travel rhythm often looks as follows: the travel distances are relatively short on the way away from home, and longer on the way back (compare the distances between the stay-overs during the first five days with the distances during the last two days). This travel rhythm is predominant as long as it is possible to travel home from the selected tourism region within one day. As soon as this is not possible, the situation turns around (see map 2). Tourists travelling through southern Sweden often combine two different ferry/bridge routes on the way to and from Sweden. This preference is also indicated in map 1.

Map 2: Example on the most typical travel rhythms in northern Sweden (combination of several travel routes)

## Travel route, region 4



The example on map 2 shows a round tour lasting for 20 days. For tourists travelling to the north of Sweden, a fast covering of the distance northwards is obvious. As it is not possible to drive to Germany from northern Sweden within one day, the travel rhythm looks as follows: the distances are larger on the way from home (which means to northern Sweden), and shorter on the way back. The *first night* is often spent after having passed the border at least one or two hours ago. The border loses some of its attractiveness for those who travel such a long distance in Sweden. Rather, the destination region gains importance, and not Sweden as a country. Two major roads are combined, the European Highway and the Inlandsvägen. Along the Inlandsvägen, the daily distances are relatively short (see *nights 11-20*). The time that is spent in the region with the largest distance from home is long (see *nights 6-12*). The use of only one ferry/bridge route is also typical for those travelling to the north of the country.

### Base holiday

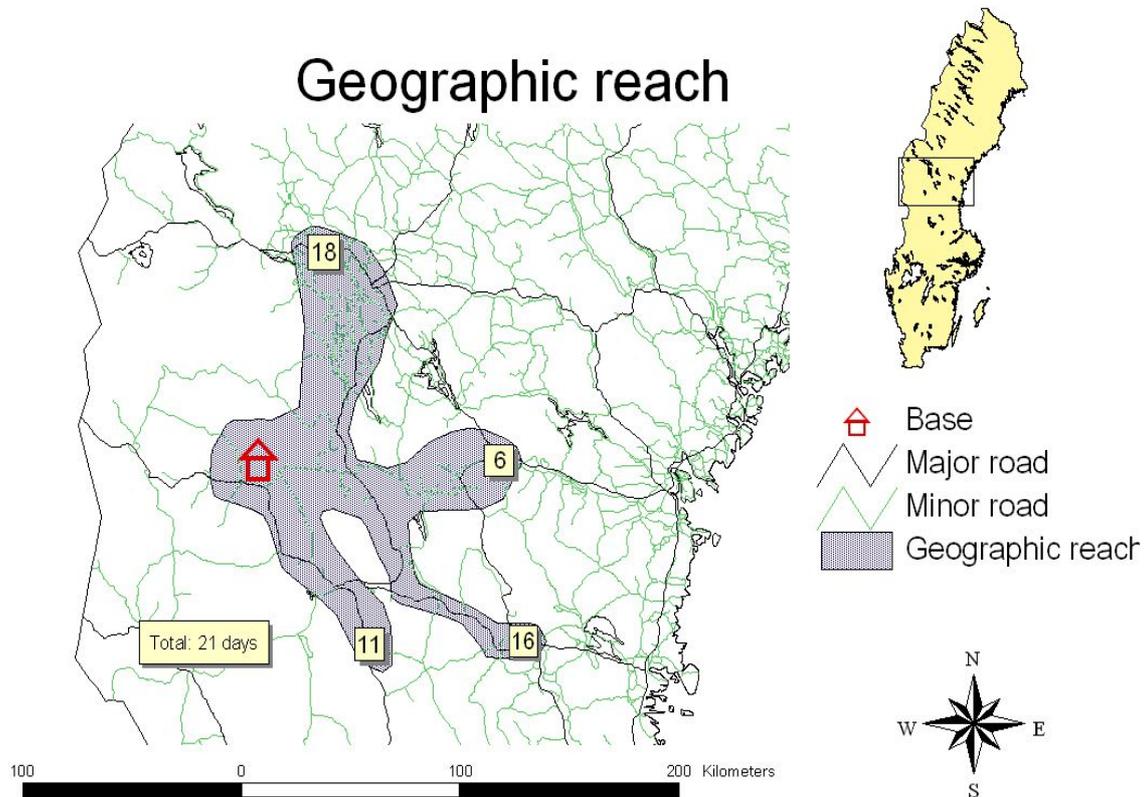
One part of the respondents stayed in a cottage during their time in Sweden. Most of them stayed in a rented cottage, while three travel groups lodged in their own house. It was usual to stay at only one place during the holiday in Sweden, but it also occurred that a travel group rented two different cottages, or stayed at a cottage for one part of the time, and then visited friends or relatives at another place.

The extent of the geographical mobility varied, but no respondents stayed only in the closest region around the house during their stay, not driving with their car at all. In some cases, the excursions were only carried out in the direct surrounding, but all the others enjoyed visiting attractions in the wider neighbourhoods. Most journeys were up to 100 kilometres per tour (50 km to a place, and 50 km back again), and these tours were carried out regularly. Most respondents were relatively immobile during the first and the last day at the cottage, so the mobility was more intensive in between these two days. The maximum distance for many respondents was 400 kilometres per tour (200 km to a place, and 200 back again), and usually, there were one or two of these longer excursions per vacation. These longer excursions are usually carried out during the second half of the holiday. No respondent stayed at the place of the excursion for the night – they all returned to their cottage again in the evening.

The mobility was not influenced by the time of stay. Those who rented a cottage for a longer period of time were just as mobile as those who stayed shorter. Neither did the distance of the cottage from the respondents' home influence their mobility. However, it must be said that most respondents came from the northern parts of Germany, and that no cottages were rented in northern Sweden, where the distance to Germany would have been bigger. This might lead to the assumption that there is no interrelation between distance and spatial mobility. In tendency, excursions are slightly longer the longer northward the respondents stay in their cottage in Sweden.

Normally, attractions with a high accessibility are chosen for the excursions. Often, the visited sites are located along well established roads. Many of the cottages are located offside bigger roads, and this might lead to the respondents' decisions that they can get nature experiences like fishing, bathing or taking a walk in the direct surroundings. When they travel to another place with their car, they usually do so either to shop or to visit attractions or towns. As has already been said, the visited attractions are most often located where the accessibility is high. They also display a geographical similarity. Usually, the respondents do not do excursions in the direction where they came from. If they travel eastwards from the entrance point in Sweden to get to the cottage, they will most probably do excursions north-, east- and southwards. Attractions which are located in the west will most likely be visited either on the way to, or on the way from the cottage. Tourists avoid travelling on the same roads if that is possible.

Map 3: Example on base tourists' spatial mobility (region 3)



In map 3, another example is given on spatial mobility of a base tourist. As can be seen, the geographic, and thus also the economic reach, is relatively big. The pattern that longer tours from the base are usually undertaken during the second half of the holiday is noticeable. Also, the attractions that are visited are generally located along the major roads. This confirms the empiric result, that the accessibility of the base itself is often rather low, but that the accessibility of visited attractions has to be high.

The presented travel rhythms are explained by an example (map 3). This tourist group stays in a rented cottage for 21 days. Tours to the closer surroundings (up to 50 km from the cottage) take place quite often. Apart from the shorter trips, four longer tours are carried out to, reaching into the surroundings like fingers along major roads. The longer tours are headed to attractions which are located at a maximum of 200 km away from the cottage. One excursion takes place on day 6, but otherwise, the longer tours take place during the second part of the time that is spent in the cottage (on days 11, 16 and 18). The accessibility of the chosen attractions that are visited on these longer excursions is high (except for day 6).

## 7 Discussion

This study has focussed on tourists' mobility in time and space. In accordance to the results, it can be said that tourists indeed relate to evident patterns in their movement through time and space. Not only tourist amenities influence these patterns, but also their relative location to other sites, the distance to the tourists' homes and the time the tourists stayed in Sweden. Thus, a rather complex connection between time, space and tourist mobility can be affirmed.

What Germans' spatial mobility during their holiday in Sweden are concerned, the travel rhythm is only slightly dependent on the total travel distance. Independent from if the respondents travelled to the south or to the north of Sweden, the pattern itself was fairly the same. This pattern includes the longest travel distance the first day, shorter distances in the destination country and a slightly shorter distance the on last day than on the first. Surely, those who travelled to the north also travelled longer daily distances. Still, this daily distance only seldom exceeds a total travel time of five hours.

Another result is that mobility and immobility are concentrated in time. Being on the move is surely an important part of the holiday experience for round tour travellers, but of course, being static at one place is the other important part of the journey. Driving to the different places would not make sense, if tourists were not able to make their personal experiences at these places. This can include sightseeing, visiting museums, shopping and the like, or just relaxing.

This study is of an exploratory kind and needs to be compared to other surveys, both with national and international tourists. Additionally, as this study only included 73 respondents, the presented results cannot be said to be representative for all German travellers. However, as the comparison of travel rhythms to different regions in Sweden (from south to north) has confirmed, there are certain patterns and rhythms what tourists' travels are concerned. This analysis is first of all a study on mobility in time and space. The theoretical background has been transferred to German visitors in Sweden. As many results are neither linked to definite tourist attractions in Sweden, nor to national preferences, it can be assumed that the results can be set in a bigger context. As it is not considered probable that the discovered travel patterns are bound only to German visitors, the results can to a great degree be transferred to car tourists in general, and also to countries which have similar preconditions for tourism.

Travel in space does not take place randomly. Neither do tourists choose and combine different attractions accidentally. Rather, it could be argued that the various possibilities are mixed according to their location in space and the visitors' knowledge, preferences and concrete opportunities. Contrary to the proposers' attitude, different tourist amenities seem to be interrelated to the tourist. This fact contributes to some attractions being combined on a travel route, and others are not. So the location in space is truly of importance for the demand side in tourism. Like in a cluster, the completeness is more attractive than the total of different attractions. Knowledge on tourists' behaviour in time and space strongly contributes to the awareness of mutual connections between different tourist sites. In this way, studies on the behaviour in time and space can also improve the awareness of strengths and limitations of a destination.

More studies are needed to shed more light on mobility in tourism. To gain more knowledge on this mobility, it would be advantageous to use an interdisciplinary approach. This approach would include geographers, economists and psychologists.

## 8 References

- Boyle, P., Halfacree, K. and Robinson, V. (1998) *Exploring Contemporary Migration*. Addison Wesley Longman, Harlow.
- Butler, R.W. (1980) The Concept of a Tourist Area Cycle of Evolution: Implications for Management of Resources. *Canadian Geographer* 24(1), 5-12.
- Campbell, C.K. (1967) *An Approach to Research in Recreational Geography*. B.C. Occasional Papers no. 7, Department of Geography, University of British Columbia, Vancouver, 85-90.
- Clawson, M. and Knetsch, J.L. (1966) *Economics of Outdoor Recreation*. John Hopkins Press, Baltimore.
- Flognfeldt, T. (1995) Areal sted og reiserute. Fagbokforl., Oslo.
- Flognfeldt, T. (1999) Traveler Geographic Origin and Market segmentation: The Multi Trips Destination Case. *Journal of Travel and Tourism Marketing* 8(1), 111-124.
- Flognfeldt, T. (2000) *Reisendes Oppholdstid på et Sted*. Research Report no. 55, Lillehammer College.
- Flognfeldt, T. (2005) The Tourist Route System – Models of Travelling Patterns. *BELGEO* 1-2, 35-58.
- Frändberg, L. (1998) *Distance Matters. An Inquiry into the Relation between Transport and Environmental Sustainability in Tourism*. Humanekologiska Skrifter 15. Göteborg.
- Giddens, A. (1984) *The Constitution of Society: Outline of the Theory of Structuration*. University of California Press, Berkeley.
- Greer, T. and Wall, G. (1979) Recreational Hinterlands: a Theoretical and Empirical Analysis. In: Wall, G. (ed.). *Recreational Land Use in Southern Ontario*. Department of Geography Publication Series no. 14, University of Waterloo, pp. 227-245.
- Gregory, D. (1985) Suspended Animation: The Status of Diffusion Theory. In: Gregory, D. and Urry, J. (eds) *Social Relations and Spatial Structures*. Macmillan, London, pp. 296-336.
- Gregory, D. (2000) Time-geography. In: Johnston, R.J., Gregory, D., Pratt, G. and Watts, M. (eds) *The Dictionary of Human Geography*. Blackwell, London, pp. 830-833.
- Gunn, C.A. (1972) *Vacationscape. Designing Tourist Regions*. Van Nostrand Reinhold, New York.
- Hägerstrand, T. (1973) The Domain of Human Geography. In Chorley, R.J. (ed.) *Directions in Geography*. Methuen, London, pp. 67-87.
- Hall, C.M. (2005a) *Reconsidering the Geography of Tourism and Contemporary Mobility*. Unpublished paper. The University of Otago, Dunedin, New Zealand.
- Hall, C.M. (2005b) *Tourism. Rethinking the Social Science of Mobility*. Pearson/ Prentice Hall, Harlow.
- Hoppe, G. and Langton, J. (1994) *Peasantry to Capitalism: Western Östergötland in the Nineteenth Century*. Cambridge University Press, Cambridge.

- Hwang, Y. and Fesenmaier, D.R. (2003) Multidestination Pleasure Travel Patterns: Empirical Evidence from the American Travel Survey. *Journal of Travel Research* 42, 166-171.
- Jansson, B. (1994) *Borta Bra men Hemma Bäst. Svenskars Turistresor i Sverige under Sommaren*. Gerum 22. Department of Social and Economic Geography, Umeå.
- Jeng, J.M. and Fesenmaier, D.R. (1997) *Evaluating Destination Compatibility in Multi-destination Pleasure Travel*. 28<sup>th</sup> TTRA Annual Conference Proceedings, 438-443.
- Jeng, J.M. and Fesenmaier, D.R. (1998) Destination Compatibility in Multidestination Pleasure Travel. *Tourism Analysis* 3, 77-87.
- Lehto, X.Y., O'Leary, J.T. and Morrison, A.M. (2004) The Effect of Prior Experience on Vacation Behaviour. *Annals of Tourism Research* 31(4), 801-818.
- Lew, A.A. and McKercher, B. (2002) Trip Destinations, Gateways and Itineraries: The Example of Hong Kong. *Tourism Management* 23(6), 609-621.
- Lue, C.C., Crompton, J.L. and Fesenmaier, D.R. (1993) Conceptualization of Multidestination Pleasure Trips. *Annals of Tourism Research* 20, 289-301.
- Lundgren, J.O.J. (1982) The Tourist Frontier of Nouveau Quebec: Functions and Regional Linkages. *Tourist Review* 37(2), 10-16.
- Mansfeld, Y. (1990) Spatial Patterns of International Tourist Flows: Towards a Theoretical Framework. *Progress in Human Geography* 14(3), 372-390.
- Mariot, P. (1969) Priestorové aspekty cestovného ruchu a okázky gravitného zázemia návštevných miest. *Geografick'ý Casopis* 21(4), 287-312.
- McKercher, B. (2001) A Comparison of Main-Destination Visitors and Through Travelers at a Dual-Purpose Destination. *Journal of Travel Research* 39, 433-441.
- McKercher, B. and Lew, A.A. (2004) Tourist Flows and the Spatial Distribution of Tourists. In: Lew, A.A., Hall, C.M. and Williams, A.M. (eds) *A Companion to Tourism*. Blackwell, Oxford.
- Miller, H.J. (1991) Modelling Accessibility Using Time-space Prism Concepts within Geographical Information Systems. *International Journal of Geographical Information Systems* 5, 287-301.
- Mings, R.C. and McHugh, K.E. (1992) The Spatial Configuration of Travel to Yellowstone National Park. *Journal of Travel Research* 30 (Spring), 38-46.
- Morrison, A.M., Hsieh, S. and O'Leary, J. (1994) A Comparison of the Travel Arrangements of International Travelers from France, Germany and the UK. *Tourism Management* 15(6), 451-463.
- Oppermann, M. (1995) A Model of Travel Itineraries. *Journal of Travel Research* 1, 57-61.
- Pearce, D.G. (1981) L'espace Touristique de la Grande Ville: Éléments de Synthèse et Application à Christchurch, *L'Espace Géographique* 10(3), 207-213.
- Pearce, D. (1995) *Tourism Today. A Geographical Analysis*. Longman, London.
- Pizam, A. and Sussmann, S. (1995) Does Nationality Affect Tourist Behavior? *Annals of Tourism Research* 22(4), 901-917.

Plog, S.C. (1973) Why Destination Areas Rise and Fall in Popularity. *Cornell Hotel and Restaurant Administration Quarterly*, November, 13-16.

Pred, A. (1981) Social Reproduction and the Time-geography of Everyday Life. *Geografiska Annaler* 63B, 5-22.

Pred, A. (1990) *Lost Words and Lost Worlds: Modernity and the Language of Everyday Life in the Late Nineteenth-century Stockholm*. Cambridge University Press, Cambridge.

Stansfield, C.A. (1972) The Development of Modern Seaside Resorts. *Parks and Recreation* 5(10), 14-46.

Stansfield, C.A. (1978) Atlantic City and the Resort Cycle: Background to the Legalization of Gambling. *Annals of Tourism Research* 5(2), 238-251.

Stopher, P.R. (1992) Use of Activity-based Diary to Collect Household Travel Data. *Transportation* 19, 159-176.

Swedish Tourist Authority (2005) *Fakta om Svensk Turism 2005*. Stockholm.

Thurot, J.M. (1980) Capacité de Charge et Production Touristique. *Etudes et Mémoires* no. 43, Centre de Etudes Touristiques, Aix-en-Provence.

Tideswell, C. and Faulkner, B. (2002) Multi-destination Tourist Travel: Some Preliminary Findings on International Visitors' Exploration of Australia. *Tourism* 50(2), 115-130.

Tideswell, C. and Faulkner, B. (2003) Identifying Antecedent Factors to the Traveler's Pursuit of a Multidestination Travel Itinerary. *Tourism Analysis* 7, 170-190.

Tillberg Mattson, K. (2001) *Barnfamiljers Dagliga Fritidsresor i Bilsamhället: Ett Tidspussel med Geografiska och Könsmässiga Variationer*. Geografiska Regionstudier, Uppsala.

Internet:

https1: (Nationwide Personal Transportation Survey)

[http://npts.ornl.gov/npts/1995/courseware/DataCollection\\_Nav3\\_6\\_20.html](http://npts.ornl.gov/npts/1995/courseware/DataCollection_Nav3_6_20.html)

(assessed 1 July 2005)