SEASONAL LANDSCAPES

Landscape Series

Volume 7

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Springer's innovative Landscape Series is committed to publishing high quality manuscripts that approach the concept of landscape from a broad range of perspectives. Encouraging contributions on theory development, as well as more applied studies, the series attracts outstanding research from the natural and social sciences, and from the humanities and the arts. It also provides a leading forum for publications from interdisciplinary and transdisciplinary teams.

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As interested in identifying best practice as it is in progressing landscape theory, the Landscape Series particularly welcomes problem-solving approaches and contributions to landscape management and planning. The ultimate goal is to facilitate both the application of landscape research to practice, and the feed back from practice into research.

SEASONAL LANDSCAPES

Edited by

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Helen Sooväli
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Springer

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Foreword by the Series editors

With the Springer Landscape Series we want to provide a much-needed forum for dealing with the complexity of landscape types that occur, and are studied, globally. It is crucial that the series highlights the richness of this diversity – both in the landscapes themselves and in the approaches used in their study. Moreover, while the multiplicity of relevant academic disciplines and approaches is characteristic of landscape research, we also aim to provide a forum where the synthesis and integration of different knowledge cultures is common practice.

Seasonal Landscapes is the seventh volume of the series. The volume presents an interesting collection of papers all dealing with the aspect of seasonality. The volume editors, Hannes Palang, Helen Sooväli and Anu Printsmann, have successfully assembled a group of authors from various parts of the world working on the aspect of seasonality in landscapes from various backgrounds. The subject of the book is well-known and unique at the same time. Many people experience the changes that seasonality causes and for many people seasonality in landscapes creates great pleasure. In landscape research, such a seasonal view on landscapes has not been considered frequently, which makes this volume a truly unique collection. Seasonality is discussed in relation to landscapes around the world, reaching from Brazil to Northern Europe, from Japan to Greece. Seasonality has its impact on landscape perception, farming and tourism activities. It can facilitate lifestyles, attitudes, experiments, and perception of time and seasons can even become a national symbol. The book and its ten chapters are highly recommended to all those researchers and readers who want to get

a broad overview on landscape seasonality. Each chapter presents a different context of seasonality and makes reading a rewarding pleasure, like seasonal landscapes themselves.

Toulouse and Aberdeen, August 2006

Henri Décamps
Bärbel Tress
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Preface

Seasonality is perhaps one of the most taken-for-granted issues in geography. That landscape changes with seasons is clear for kids in kindergarten – Internet search engines produce hits at drawing contests, seasonal landscaping, hikes, and photographs amongst others. Most of us have admired landscape paintings by the impressionists, Claude Monet's *Poplars on the Epte* and the haystacks series in particular. But seasons influence more in the landscape than just scenery. Tourism and vegetation dynamics are the next obvious topics, but curiously, there is not that much research into these fields. Finally, there are economical and legal geographies in seasonal landscapes – in which ways are seasons and seasonality expressed and embedded in our everyday activities.

This book succeeds a Nordic Grant Scheme project on seasonal landscapes that previously has resulted in a seminar in Roosta, Estonia, in 2003 and a special issue on seasonal landscapes of the journal *Landscape Research* in April 2005.

We wish to thank Simon Swaffield, Jakob van der Vaart, Karl Martin Born, Katarina Saltzmann, Peter Howard, Simon Bell, Marie Stenseke, Franz Höchtl, Anders Lundberg, Maunu Häyrynen and Marc Antrop who discussed the ideas and helped commenting the chapters. We are also grateful to the Institute of Ecology, Tallinn University, and the research grant SF0282120s02 for support and tolerance.

Tallinn
May 2006

Chapter 1

SEASONALITY AND LANDSCAPES

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Figure 1-1. Controversy. Winter and summer in the same landscape. Lähte, near Tartu, Estonia. Photo: Helen Sooväli.

H. Palang, H. Sooväli and A. Printsmann (eds.), Seasonal Landscapes, 1–16.

1. INTRODUCTION

> It is very interesting to notice that Estonian landscapes, or Nordic landscapes in general, seem to comprise two totally different worlds, two totally different landscapes at the same time, these being the wintry one and that of the summer. This particular discord and bifurcation should also become obvious in the language and nature of the people who have grown out of these landscapes.
> Luik 2005: 27.

In the first book of the Landscape Series, we noted that in landscape studies researchers deal with either time or space, but very seldom with both of them simultaneously: "Often we focus on just one of these two fundamental variables treating the other as fixed, such that we study spatial processes via a snapshot in time, and temporal processes at just one point in space as if this was not connected to other similar points" (Palang & Fry 2003: 7). While it has been commonly agreed that change is part of the landscape, the nature of this change is becoming more and more interesting for landscape scholars. Issachenko & Shlyapnikov (1989) for instance distinguish between permanent and cyclic changes in the landscape; the latter do not change the structure of the landscape itself. As an example of these cyclic transformations he gives the alteration of seasons.

Seasonality seems too obvious to take it seriously, was one of the main critique we heard while starting this book. Indeed, we take seasons for granted in our Western, urbanised perception. There have been calls for taking a closer look at taken-for-granted aspects of life in geography (Ley 1977; Laurier & Philo 2004). Furthermore, Cosgrove (1989: 133) pinpoints that "taken-for-granted landscapes of our daily lives are full of meaning. Much of the most interesting geography lies in decoding them". No doubt, seasonality influences our daily activities in different hidden ways more than we imagine. Expressions of seasonality surround us everywhere we look: on streets, in shops, art galleries, newspapers, tourism brochures, poetry and songs, in goods we buy. Moreover, alienation from the farming activities, largely dependent on the course of the seasons, makes us underestimate not only the farmer's perception of seasonality, but, again, the impact of seasonality on our perception (see the example of the Japanese farmers by Lindström in this book). Studying seasonality and its impact on daily lives from social and cultural viewpoints offers a wide range of new perspectives that open up new possibilities to understand the world. In other words, the approaches to studying seasonality and landscapes must not rely on abstract theorist or elitist thinking alone, but in addition on finding an often marginalised or specialised group for whom what has become taken-for-granted and unproblematic by most of 'us' cannot be so for them.

Are we dealing with seasonal or just ephemeral, short-lived features in our landscapes? Brassley (1998) has been among the pioneers pointing to the unrecognised significance of ephemeral landscapes. Under landscape ephemera he understands short-time phenomena, such as role of weather conditions, seasonal changes and annual variations. Boyd & Gardiner (2005) give an example of one such landscape in Queensland, Australia: the peanut stooking landscape. Qviström & Saltzman (2006) have used the concept of ephemerality to bring forward the everyday aspect of the landscapes. As both Brassley and Qviström & Saltzman argue, the distinguishing between ephemeral and permanent in the landscape is crucial, but the division line seems to be cartographic praxis rather than landscape theory (Qviström & Saltzman 2006). Moreover, they argue that carrying out a critical analysis on the dividing line between ephemeral, transient and permanent landscape features is one way of challenging the conventional cartographic understanding of landscapes.

Somewhat differently, Jones (2004 and this book) asks for distinguishing between ephemeral and seasonal landscapes. Ephemeral landscapes consist of features such as clouds, weather, floods, passing vehicles that are experienced in the landscape as short-lived and come and go irregularly. Seasonal landscapes consist of phenomena that have a regular repeating rhythm (see also Palang et al. 2005). Thus, rhythm, repetition of variable patterns becomes important while studying seasonal landscapes. Understanding time, shifting different practices – such as herding – at the right time to the right place, celebrating boundaries – limens – between seasons with a ritual (see Olwig 2005; Pungas et al. 2005), repeatingly changing tourist activities, flowering seasons in Holland or Japan – all these indicate some sort of seasonal landscape. And all these have rhythms (see Lefebvre 2004 and Mels 2004).

Swedish geographer Mats Widgren (2004) has argued that three possible concepts of landscape are distinguishable in the contemporary landscape research. Firstly, mostly used in the Anglophone realm, landscape is understood as scenery and research focuses on representations and ideas, or ways of seeing. Secondly, landscape often indicates land and the ways in which this land has been transformed through labour and serves as a basis for biological production and economic wealth. The keywords here are land use, production and capital. Finally, the Germanic concept has the appearance of landscape united with people of that land and social institutions that govern it. In this approach, study topics include customary law, social order, land rights – landscape is rather a way of communicating, a way of acting. Widgren calls for combining these three approaches for a cross-cultural comparative understanding and it is our hope that this book makes a step or two in that direction.

Seasonality is a concept that could be traced through all these three approaches to landscape. Seasonality can be explored by artistic imageries, by phenological data, through its impact on tourism, using remotely sensed data, but also through everyday practices of people dwelling the landscape, along with customary law.

2. LANDSCAPE AND SEASONALITY AS REPRESENTATION

Geographical representations – in the form of maps, texts and pictorial images of various kinds, and above all the look of landscapes – are active, constitutive elements in shaping social and spatial practices and the environments we occupy (Cosgrove 1996). As landscape representation is a cultural expression (Mitchell 1994), it is tightly connected with seasonality. The existence and absence of particular time of the year on the representations might give hints what is valued and what is not in the society. Appreciation of certain periods of time is definitely connected with aesthetics and, our attitudes towards different seasons have changed through time.

In many parts of the world, the European tradition observes a seasonal calendar of four seasons: summer, autumn, winter and spring, reflecting the culture and environment of European more closely than the local environment. Parallel to European tradition, the indigenous people of Australia, the Wurundjeri, have a seven season calendar, which at the same time recognises two larger seasonal cycles which relates to infrequent fire and flood events. This Wurundjeri calendar represents a more detailed and local appreciation of the environment and reflects the cultural values of the people (Jones 2002). Furthermore, the perception of seasons is in some parts of the world still a fight for survival. For the Maasai people of East Africa each 12 month span contains two years: a year of plenty, *olaari*, coinciding with rainy season on the Serengeti Plain and Crater Highlands of Tanzania, followed by the year of hunger, *olameny*, commencing when the rains cease, the streams run dry, and the great wildebeest migrate in search for food and water. The Masai boys and warriors take on long wandering to find sustenance for their cattle (Pode 2006). At the same time, the flocks of tourists congregate to photo shooting safaris and enjoy the beauty of the nature in its wildest form through the photo lens. The tourists do not recognise the difference between *olaari* and *olameny* during their short visit to the Maasai country. These two practices – that for the survival and adventure illustrate how diverse groups using the same landscape make it out differently. The landscape look and its representations in the form of photo

and video camera shots are what matter to the tourists; without acknowledging the hardships of everyday sustenance of the local people.

According to Bunkše (2004) in contemporary, technologically advanced societies only a small minority of people is directly dependent on the seasons for their lively hood. Still everyone is aware of seasons and each season is associated with a cluster activities. People are perfectly capable of discerning the obvious changes in seasons, but in consumer oriented society mass marketing and mass media exploit seasonal changes to introduce products and to spur on their consumption. Bunkše argues how finely attuned to seasonal ailments is the pharmaceuticals industry. In north-eastern US the different hay fever cycles are preceded by hay fever medicine advertisements, the cold and flu season with the same. "In the fall one may be perfectly healthy, however, the sudden appearance of advertisements for cold medicines makes you brace for the inevitable with a certain sense of dread of what is to come" (Bunkše 2004: 75). Seasonality has become a label in itself guiding people how to dress and act, what to drink and eat according to one or another season. Often, the shifting seasons may not be visible in urban space, but there are artefacts that constantly remind us of (approaching) seasons with recorded jolly birdsong in April or Christmas carols and decorations during Christmas time playing on the stereos in the streets and shopping malls. Furthermore, when the actual climate conditions do not allow enjoying the spirit of the season, a simulacrum, can be easily created. The people and tourists of Los Angeles can feel the closeness of North Pole, the Santa Clause land, in December when the Santa Monica mall is decorated with huge icebergs and icicles in the midst of tropical 25˚C among the palm trees (Fig. 1-2). We represent the seasons in the urban spaces by creating the atmosphere, the feeling of the season since the feeling is so embedded in our Western cultural tradition. "The seasons may be a natural cycle, but they are defined largely through artificial cultural activities and artefacts" (Bunkše 2004: 75).

Seasonality is always present in artistic landscape representations, mediating the narrative that the author of the photo, painting or text wants us to experience. In this chapter we specifically focus on the issue of landscape representation and seasonality as a visual phenomenon. Light is equally important in landscape painting and artistic photography. The landscape artist is always in search for good light conditions in order to capture the variety of effects of light to in describing landscape. We dispute that in arts the seasons do not play as much importance as capturing the effect of light.

Dubbini (2002) points out that the influence of English painter J.M.W. Turner's on view painting is undisputed, and it was felt in all landscape genres. However, the importance of his thorough investigation of "character" and atmospheric conditions has been less fully appreciated. Turner took

notes on a wide array of subjects, viewpoints climatic conditions, hours of the day, and even his own moods – variables that he considered highly important to the construction of an image.

Figure 1-2. Santa Monica Place, Los Angeles, California, at Christmas. Photo: Helen Sooväli.

From Turner's pioneering work onwards, the early 19th century painters problematised how to represent a landscape involving technical and heuristic procedures determined by a desire to dominate perceptible space. The atmosphere's effect on visibility became a matter of great importance, because meteorological conditions to a great extent determine the accuracy of the description of objects and the perception of relative positions. The way in which life filters through the clouds, causing colours to vary and making changing patterns of light and shadow, might bring out the object in the landscape or conceal it (Dubbini 2002). Mitchell (1994) argues that from the second half of the 19th century onwards landscape painting developed multiple "effects" that artists regarded as challenging to paint. Effect was the term by which the artist signified the intention to capture a naturalistic

atmosphere and to render it a painting technically consistent – to render it consistent in capturing atmosphere, or to capture an atmosphere in rendering it consistent. In other words it was not clear whether priority was to be accorded to conditions to the world or to the painting. In the 1870s two landscape painters – Camille Pissarro and Claude Monet used frequently "effects" in the titles of their paintings as in *effect de neige* (snow effect), *effect de brouillard* (mist effect), *effect de soleil* (sunlight effect) etc. For these painters the successful painting was a harmonious composition that produced or reproduced in the spectator the specific effects that the natural world had had on their own sensibilities.

3. LANDSCAPE AND SEASONALITY AS RESOURCE

The two most common topics while speaking about landscape and seasonality are phenology and tourism. There are numerous studies around the globe which explain the seasonal differences in weather patterns, of plant growth etc (see Ahas et al. 2005 for more references). Phenology is a branch of study which tries to track down the limits of seasons, with using different biological indicators, such as the date when the first leaves appear on birch trees or when pikes spawn. By selecting proper indicators, it is possible for example to follow the spread of "spring wave" in Europe. This also relates to climatic seasons, such as different phases of winter, and their length.

In tourism studies, much attention has been paid to the distribution of tourists around the year, definition of peak, shoulder and low seasons (see Terkenli 2005; Kizos and Bender et al. in this book). Since much of the mass tourism is still about the 3S – sun, sand and sea – and they could be enjoyed only during a limited time period of the year, people working in the field of tourism must make their living most of their yearly income during a relatively short time, and the rest of the year is left for other activities. These days the influence of a too warm winter at a ski resort could be compared to that of a lean year in an agrarian society. Work and leisure places have become separated, in older times dwelling also meant working and leisure in the same place. So places considered as dwelling places for some are leisure places for the others, but this happens at the same very time, as Kizos discusses in his chapter.

In the Nordic countries, second homes or summer houses are widely popular. People like to move away from towns, closer to nature in order to enjoy warmth and light in a more intimate atmosphere. Tress (in this book) explores the issues concerning summer houses in Denmark. His study shows that about one per cent of Denmark's total area is used for summer houses'

areas, almost all of the 215,000 summer houses being located in the 3km wide coastal zone. Tress concludes that there are two major underlying forces for summer house seasonality – *search for something* and *escape from something*. The "search for something" can be explained with *Leitbilder*, Romantic ideals and otherness (Bunce 1994) that "charges the batteries". Modern people need to escape from busy city life and everyday routine. But this escapism has a direct link to legal geographies. In some places seaside lands now often belong to (foreign) summer house owners. This results in these areas staying empty for most of the year, limiting access to the shore for passers-by, cancelling traditional practices.

However, there are voices calling that seasonality might be a chance rather than problem. Duval (2004) for example states that although the majority of the academic literature makes a convincing economic case when suggesting that seasonality is problematic, it is, arguably, equally important to consider whether businesses themselves perceive seasonality as a distinct problem. His results suggest that although seasonality is perceived as a salient issue for the sector itself, it is not universally perceived to be inherently problematic from the perspective of the individual business/operator.

However, phenology and tourism are not the only topics that study seasonal landscapes as resources. Let us point to the words of Finnish/Estonian geographer J.G. Granö who wrote:

> "It should be kept in mind when planning fieldwork that one would obtain a more complete picture of the site if one had the opportunity to make observations not only in as many parts of it as possible, but also *as frequently as possible*, at all seasons and in the course of a number of years" (Granö, 1929/1997: 22-23).

However, as Jones remarks in this book, not too much has been done since Granö wrote these lines. Granö himself illustrated the temporal features of the landscape, such as seasonal colours, smells and sounds, in some pioneering cartography (1929/1997). A number of studies look closely at how people perceive the changes in landscape (such as Higuchi 1983; Porteous 1990), or seasonal land cover using remote sensing and GIS techniques in different parts of the world (such as Loveland et al. 1995 for USA; Gill et al. 2000 about Australia; Ferreira et al. 2003 on Brazil).

In the Russian language realm, much research has been done to investigate the daily and seasonal rhythms in nature (Krauklis 1979; Beroutchachvili 1986; Issachenko 1990; see also Pedroli 1983). Although Krauklis (1979: 21) states that the main focus of the Soviet landscape science has been "studying the lithogenetic foundation of landscapes and the morphology of landscape defined by this foundation", he goes on to study

the temporal dynamics of these (natural) landscapes in Siberian taiga. Based on air temperature, light conditions and biota he defines eight seasons and characterises these seasons one by one. He further explains the interrelations between temperature and light and studies the "deviations" of neighbouring facies from this "annual dynamics standard" (Fig. 1-3).

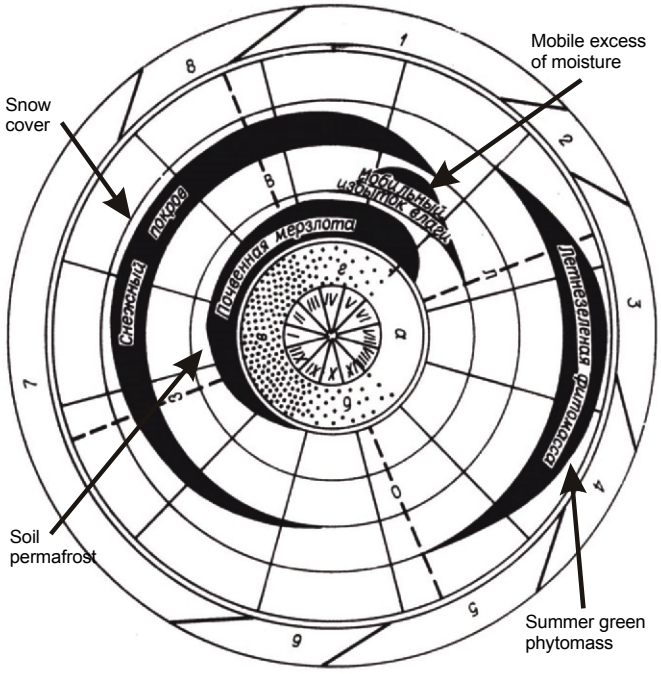

Figure 1-3. Seasonal states of facies in the Angara taiga (after Krauklis 1979). Phases: 1. early spring; 2. late spring; 3. summer; 4. late summer; 5. autumn; 6. forewinter; 7. winter; 8. late winter. Thermal periods: а – without negative temperatures; б – positive temperatures interchanging with negative; в – without positive temperatures; г – negative temperatures interchanging with positive. Л – summer solstice; О – autumn equinox; З – winter solstice; В – spring equinox. Months: I-XII.

Beroutchachvili (1986) takes a step further and defines the state of the natural territorial complex as the main focus of study, understanding this as a relation between different parameters of structure and functioning during a certain period of time. Aiming at being able to create a spatio-temporal model of a physical geographical region, he uses *steks* as the main unit – steks being defined as a nocturnal state of a facies. This approach has led to the first attempts to create "seasonal landscape maps" (see Issachenko 1991).

4. LANDSCAPE AND SEASONALITY AS COMMUNICATION

One intriguing aspect of seasonality in landscapes is accessibility. During different seasons landscape could act as an obstacle or, on the contrary, supporter for the movement of people or animals. The knowledge accumulated while wind power was still the main driving force in world maritime transport is largely lost; these days the feature people might remember first is mountain passes that are closed in winter time. In the Alps, Scandinavian mountains, the Rockies, Sierra Nevada many roads close in October or November and stay so till mid-June, until the snow melts. Jones in this book gives a more thorough overview of what winter means for Northern Europe.

Another feature that is different in winter is visibility. The rotation of seasons causes the appearance and disappearance of visible barriers (shades, curtains) with tree canopy. Temperate zone has usually mixed type of forests. Visibility (as one form of accessibility) often increases during wintertime when deciduous trees have dropped their leaves.

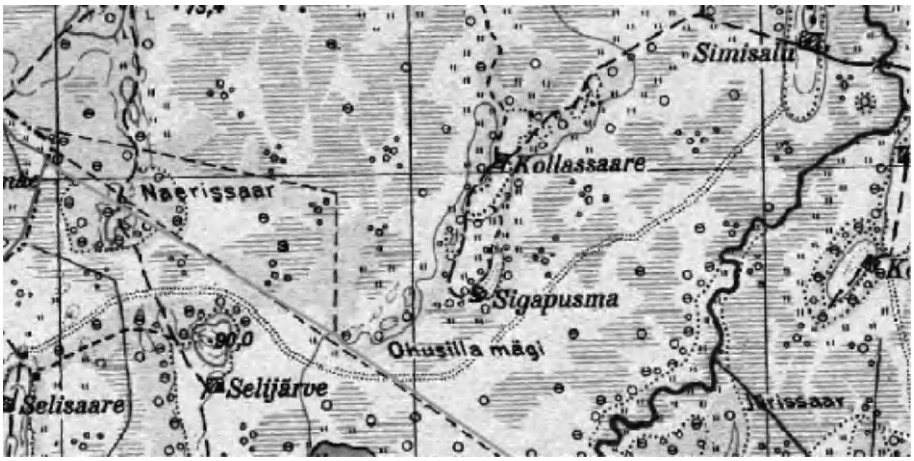

Figure 1-4. Different communication routes were used in summer and winter. An excerpt with a winter road from the Estonian topographic map of 1935 showing a winterway from Simisalu (in the NE corner of the map) to Selisaare (SW).

At the same time, freezing of the ground and waters may provide access to places that cannot be reached during some other time. The *Heinrici Chronicon Livoniae* (1224-1228) describes how most of the war activities in the 13th century Baltics were carried out during winter, when fieldwork was done, people had more free time and strongholds otherwise hidden behind

bogs or lakes could be approached. These frozen wetlands also meant that distances measured in travel time in winter differed quite much from those in summer – winter could bring places closer. Of course, with the development of technology, many winter roads were turned into ones that could be used all year round. However, the traces about old roads over bogs or lakes could still be seen on the maps (Fig. 1-4) and in local lore.

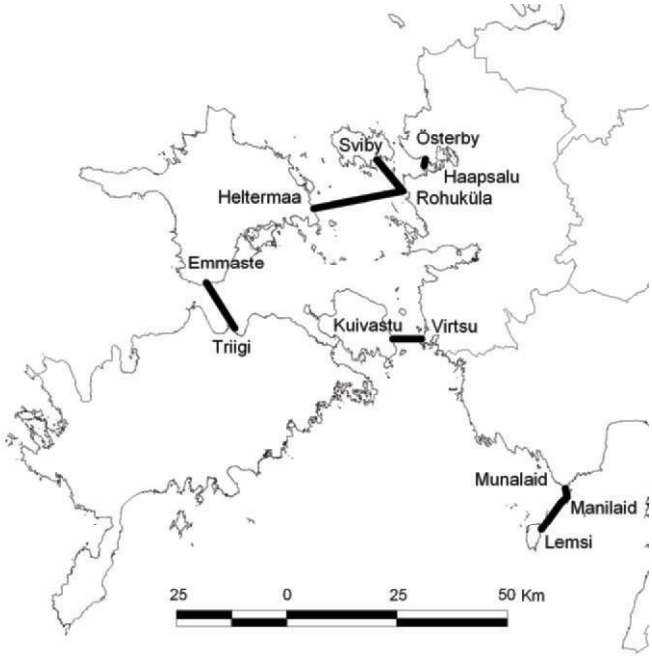

Figure 1-5. Ice roads between West Estonian Islands in March 2006.

One of the last remnants of that winter road system is the car traffic that occurs during colder winters between the islands in the Baltic Sea, off the west Estonian coast. In 2006, the first ice road was opened in late January and the last one closed in last week of March (Fig. 1-5). During this time one could take a car from mainland to Hiiumaa (25 km) in less than half an hour – compare that with a 1.5 hours regular ferry trip that could last even 24 hours when the ice conditions are extreme. With smaller islands in shallower waters winter ways might be the only possibility to get heavier goods to the islands.

These temporary communications could cause other sorts of problems. Sometimes ferries deviate from their regular route and cause cracks in the ice that stop ice road traffic.

In 1926, an Estonian farmer asks in an agricultural journal (Einer 1988: 115): "Can anyone make a road over my land in wintertime, when there is snow, in order to bring gravel?" And the answer follows: "Nobody has right to act on your land, and consequently has no right to cross the snow on your land also in wintertime. … When your property is damaged, you can sue the harm-doers. But as gravel is probably transported by horses which fertilise your land, you are not harmed. But one must not show wrong-headedness."

In these ways, seasonality has direct links to landscape, law and justice.

5. SEASONAL LANDSCAPES IN THIS BOOK

This book tries to explore seasonality in landscapes across the disciplinary and traditional contexts. As one would see, the theoretical foundations, approaches and also methods to study seasonality, landscapes and seasonal landscapes vary to a great extent.

For departure, Michael Jones gives a thorough investigation on how seasonality is expressed in Northern Europe and how it has been studied in Nordic scientific discourse. He presents five possible approaches to the study of seasonality in the landscape. These are seasonality as a natural-geographical phenomenon; human-geographical responses to seasonality; seasonal landscapes as an expression of identity; seasonal landscapes of different types of livelihood; and finally the legal geography of seasonal landscapes. Jones concludes that "seasonal landscapes are not simply the result of a natural phenomenon, but reflect the complexity of human relationships with their surroundings. … Equally they are socially constructed through preferences and expectations influenced by the visual arts, literature, place-naming and the ways in which geographical spaces and landscapes are represented in legal discourse".

Paul Claval and Inès Aguiar de Freitas describe the seasonal landscapes in another extreme, tropical Brazil. Also in this approach seasonality is a combination of natural and human features that intertwine into the "the narrative of the drought in the North-East", where nature has been made the scapegoat of people's poverty: no water, no development. But the authors conclude that "what is mainly lacking in the semi-arid *Nordeste* is not water, but a cultural model which would improve the efficiency of the organizations involved in the treatment of water problems".

Robert Dodgshon and Gunilla Olsson study the seasonality in European mountain areas from a human ecological viewpoint, as a resource. They argue that mountainous areas experience seasonality differently than lowlands, because climatic and topographic variability means that large areas of the land and potential resources available to mountain communities

are set at a distance, are not easily accessible, and have a foreshortened season of output. Dodgshon and Olsson explore how seasonal climatic variations affect biological output; how mountain communities have traditionally exploited the range of resources; and how this pattern of resource exploitation has long involved seasonally structured patterns of time-space adjustment.

Derk Jan Stobbelaar and Karina Hendriks combine different approaches from landscape ecology to ecological agriculture searching for colours and shapes in the landscape. They argue that colours and shapes can also be expressions of seasonality, and that modern industrial agriculture erases seasonal dynamics. They conclude by proposing that as seasonal dynamics is also a part of place identity it should therefore be taken more seriously in landscape planning.

Thanasis Kizos has made an effort to analyse the effects of seasonality in economic geography, specifically on the Aegean islands. As islands themselves have had manifold functions during different times, Kizos has distinguished between many seasonal geographies connected with the island lifestyles. These include seasonal geographies of public servants, tourists, ferry transportation, summer workers, students, pensioners, and of course islanders themselves. All these groups have different attitudes towards seasonality and island lifestyles, and the discussion whether an island is a heaven in summer with all the connections and tourists or in winter solitude is still on-going.

Gunther Tress focuses on second-home tourism in Denmark and its seasonality. The second homes are built to provide a place to stay for the summer months to experience an alternative surrounding to the main residence. And the consequences of this are similar to other tourism seasonalities – fluctuation of inhabitants and services. However, since these fluctuations are predictable, compensatory measures, both ecological and economical, can be taken. However, the author doubts whether a more equal distribution of landscape use might better satisfy those who enjoy the quietness of the low season.

Oliver Bender, Kim Philip Schumacher and David Stein continue the tourism and seasonality topic, focusing on Central European mountains. Departing from the German regional geography, they study the reasons for travel and the role of landscape attractiveness in making people move. They have found at least for ways in which landscapes have inspired tourists. Landscapes could serve as a major attraction; as a setting for a journey or a stopover; as a geographical backdrop; or as an event. But, from the mostly economic viewpoint, consequences of seasonality seem to have more negative effects and therefore should be overcome, they argue.

Kati Lindström discusses the symbolism of Japanese landscape seasonality. She argues that the inclusion of seasonality in public representations could be considered one of the most crucial aspects of the public-private interface of landscape. This symbolism is perhaps most evident in *hanami*, alpinism and environmental idealism. She also states that "throughout the process of Modernisation, the seasonal perception in Japan has become more and more governed by the public discourse that is distanced from firsthand seasonal experiences and encounters the landscape elements with preconceived definitions of seasonality and time".

Finally, Jussi S. Jauhiainen studies the non-representational and representational geographical rhythms of seasonality. One could argue that urban dwellers are much less dependent on seasonality than ruralites. In conditions of artificial light and temperature regimes we hardly notice the rhythm of change. Through three personal examples he discusses the empirical-contextual and methodological-political aftermaths of seasonality, bodily rhythm and post-postmodern urban space. But there is more …

To sum it up, the book aims at demonstrating diverse geographical perspectives and bringing together the scholarly knowledge about seasonality from various parts of the world. The range of contributions in the book have in a variety of ways dealt with seasons in the context of landscape ecology, regional geography, historical geography, economic geography, tourism studies and cultural geography. This multidisciplinarity of contemporary landscape research is of vital importance in combining the cross-cultural perspectives on landscape and seasons as it opens up new ways of investigating landscape, that has been underestimated until today.

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Chapter 2

SEASONALITY AND LANDSCAPE IN NORTHERN EUROPE: AN INTRODUCTORY EXPLORATION

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Figure 2-1. Kick-sledges in the centre of Røros, Norway, in February 2002. Photo: Helen Sooväli.

H. Palang, H. Sooväli and A. Printsmann (eds.), Seasonal Landscapes, 17–60.

1. INTRODUCTION

The intention of this chapter is to provide an introductory exploration of various ways in which seasonality and landscape are linked and to present some preliminary ideas on the notion of seasonal landscapes. The focus is on Northern Europe, with examples particularly from Finland and Norway. Although the phenomenon of seasonal landscapes is by no means exclusive to Northern Europe, this is a region of highly marked, even extreme seasonality – something that visitors are very aware of and fascinated by, yet which the inhabitants of the region often seem, through familiarity, to take for granted. In my preliminary literature search, I was surprised to find relatively few systematic studies of the significance of seasonality for landscape in the Nordic countries. This chapter is hence a pilot study aiming to chart differing ways in which humans relate to the seasonal changes in their physical surroundings. Seasonal landscapes have both material and representational dimensions. They can be examined as natural phenomena and in relation to human responses to seasonality. The seasons are depicted in landscape painting as well as other art forms. The economic exploitation of seasonal change leaves its impression on the physical landscape, and is reflected in legal institutions that provide frameworks for access to and control of seasonally differentiated resources. Taking its point of departure in existing literature, the purpose of this introductory exploration is to provide an overview of these varying links between seasonality and landscape and to examine some alternative approaches to examining seasonality in a landscape context.

This presentation outlines five possible approaches to the study of seasonality in the landscape. The first approach describes seasonality in Northern Europe as a natural-geographical phenomenon. The second approach presents human-geographical responses to seasonality. The third approach examines seasonal landscapes as an expression of identity, using examples from the visual arts. The fourth approach looks at the seasonal landscapes of different types of livelihood over time, with examples primarily from Norway. The fifth approach presents some tentative ideas concerning the legal geography of seasonal landscapes.

Initially, the etymology and some meanings of the word “season” can be briefly examined. *Merriam-Webster’s Collegiate Dictionary* (1993) indicates that the term has its origin in agriculture. The English word “season” is derived from the French word *saison*, coming in turn from Latin *satio*, meaning “sowing”. The verb “to sow” is related to Old English *sawan*, Old High German *sawen*, Latin *serere* and Lithuanian *seti*, while “seed” comes from Old English *sæd*, related to Old High German *sat*. In the Scandinavian

languages "seed" is similarly found as *sæd* (Danish and Norwegian) and *säd* (Swedish) (Falk & Torp 1903-6).

However, the term "season" has come to have a wide variety of metaphorical usages concerned with the periodisation of time, particularly (but not exclusively) for periods of less than a year. Among the meanings listed in *Merriam-Webster* (1993) are found:

> 1 a : a time characterized by a particular circumstance or feature …
> 1 b : a suitable or natural time or occasion …
> 1 c : an indefinite period of time …
>
> 2 a : a period of the year associated with a particular activity or phenomenon …, as
> (1) : a period associated with some phase or activity of agriculture (as growth or harvesting)
> (2) : a period in which an animal engages in some activity (as migrating or mating) …
> (3) : the period normally characterized by a particular type of weather (a long rainy season)
> (4) : a period marked by special activity esp. in some field (the theatrical season) (tourist season)
> (5) : a period in which a place is most frequented
>
> 2 b : one of the four quarters into which the year is commonly divided
> 2 c : the time of a major holiday …
>
> 5 : the schedule of official games played or to be played by a sports team during a playing season …

It is worth remarking that nearly all these meanings relate to various cultural activities, and only to a certain extent to periodicity in nature. The seasonal activities of both wild and domesticated animals are biologically conditioned; however, grazing seasons, calving seasons, lambing seasons etc. are manipulated in pastoral economies to serve human needs. Agricultural seasons are closely tied to the seasonal rhythms of the climate, such as the rainy season, dry season, growing season and winter snow, but relate primarily to the different farm operations that are particular to the various seasons; at the same time different agricultural seasons are frequently marked by festivities. Recreation and tourism are otherwise the fields of activity one most commonly thinks of today as particularly affected by seasonality (Baum & Lundtorp 2001), with certain places being frequented at certain times of year depending on the weather (e.g. bathing season, skiing season). Another activity, important historically and still

common, is that of seasonal markets. Religious activity, too, has its seasons, related to astronomical phenomena and to sowing and harvesting; religious holidays and festivals are frequently associated with the eating of certain types of food, but also periods of fasting and abstinence (Lent, Ramadan), as well as pilgrimages. The number of seasons in a year is culturally influenced. The division of the year into four seasons – spring, summer, autumn and winter – is common in Indo-European cultures, but other cultures may have a different number of seasons: examples from the Finno-Ugric sphere are the eight seasons often referred to in Saami culture (Manker 1963; 1965) and the three winter seasons in the terminology of Finland (Mead 1953: 25; Mead & Smeds 1967: 24) (Tables 1, 2).

Table 2-1. The eight Saami seasons in Finnmark, North Norway (based on Eggset 1991: 71).

North Saami	Norwegian	English	Duration
dálvi	*vinter*	winter	January–February
giđđadálvi	*vårvinter*	spring-winter	March
giđđa	*vår*	spring	April–May
giđđageassi	*vårsommer*	spring-summer	June–July
geassi	*sommer*	summer	July–August
čakčageassi	*høstsommer*	autumn-summer	August–September
čakča	*høst*	autumn	September–October
čakčadálvi or skábma	*høstvinter or skumringstid*	autumn-winter or twilight period	November–December

Table 2-2. The three winter seasons in Finland (Mead & Smeds 1967: 24).

Finnish	Swedish	English	Duration
syystalvi	*höstvinter*	autumn-winter	November–December
sydäntalvi or keskitalvi	*Högvinter or midvinter*	high winter or midwinter	January–February
kevättalvi	*vårvinter*	spring-winter	March–April

All these different dimensions of seasonality are reflected in landscape. This applies to landscape in its various meanings, including landscape in the sense of our physical surroundings (both natural and human), landscape in the sense of representations of our physical surroundings, and landscape in the sense of an area, region or territory with particular characteristics incorporating people, land, law and custom.[1] It is this diversity of interaction that I want to explore further in the following.

Seasonal landscapes can be defined as landscapes showing marked seasonal contrasts in their physical appearance or in activities occurring in

[1] Recent discussions of the concept of landscape include: Palka 1995; Olwig 1996; 2002; Rowntree 1996; Jones & Daugstad 1997; Blomley 1998; Cosgrove 1998; 2000; 2003; Muir 1999; Duncan 2000; Mitchell 2000: 91-144; 2005; Jones 2003; 2006; Winchester et al. 2003; Peil & Jones 2005.

them, as well as artistic and other representations of this. The term "ephemeral landscape" has sometimes been used to describe components of the landscape that "change with the weather, the seasons, the growth and decay of plants, the choice of farm crop, and so on" (Brassley 1998: 119). However, ephemeral changes in landscapes, whether irregular, occasional or periodic, last only briefly, whereas seasonal changes in landscapes are regular and occur at predictable intervals, for example seasonal changes in deciduous woodland, wet and dry seasons, crop harvests, and annual wildlife migrations (Hull & McCarthy 1988). I would therefore argue for a distinction to be made between "ephemeral landscapes" and "seasonal landscapes". "Ephemeral landscapes" may suitably describe phenomena such as colours, clouds, weather, floods, passing vehicles, etc. that are experienced in the landscape as short-lived and come and go on an irregular basis, while "seasonal landscapes" may be used to describe phenomena that, although they may be transitory, are recurring and rhythmical on a regular annual basis.

Seasonality in the context of landscape refers to phenomena and activities that occur, take place or are available at certain times of the year, or to properties of the physical surroundings that change with the seasons and are hence visible in the landscape only at certain times of the year. It also refers to changing human perceptions of the physical surroundings due to the changing seasons. The European Landscape Convention, in force from 2004, defines landscape as an area, as perceived by people, the character of which is the result of the action and interaction of both natural and human factors. According to these criteria, marked seasonal variations would be expected to be a defining factor of landscape in Northern Europe, and hence warrant systematic investigation.

2. SEASONALITY IN NORTHERN EUROPE – THE NATURAL-GEOGRAPHICAL PHENOMENON

Sometimes it needs the outsider to describe what is obvious for the inhabitants of a region. One who has given seasonality systematic attention in the North European context is the British geographer W.R. Mead.

In Mead's book *Farming in Finland* (1953), seasonality is inherent to the climatic limitations on agriculture, described in the section on the physical background for farming. Finland's location in high latitudes (60˚–70˚N) means that "Finland is a winter land"; snow and frost are features of six months of the year. Snow covers the ground for an average of 100 days of the year in the south and 200 or more in the north. The depth of frost penetration in the soil depends on the intensity of the cold, the degree of

snow cover, and nature of the soil. Expansion and contraction of soil water due to freezing lead to the phenomenon of "frost-lifting" of vegetation. The thawing of snow and frost in spring leads to widespread flooding, aggravated often by still-frozen sub-soil. Even in the frost-free period, the growing season when the temperature is above 5˚C is limited to an average of 170 days in the south and 110 days in the north. Frost may also occur in the summer. Summer frost is associated with factors such the distribution of bogland, the local occurrence of temperature inversions, and indraughts of cold air resulting from changing pressure conditions. There are seasonal contrasts of daylight and darkness. The prolonged winter darkness in the north led these areas to be termed "the Midnight Lands". This is offset by the prolonged summer daylight, with the long days compensating for the lack of summer warmth associated with southerly climes. Seasonal contrasts in Finland are made greater by the prevalence of continental climatic conditions over oceanic influences. The weakening of the North Atlantic cyclones as they move eastwards results in lower rainfall in Finland than further west. The summer precipitation maximum is in part due to the continental influence of convectional thunderstorms. In winter the continental cold is increased by the freezing of the surrounding seas (Mead 1953).

While high latitudes account for the north-south gradient of the seasons, the interplay of continental and oceanic forces account for east-west seasonal patterns in Northern Europe. In addition to the north-south rhythms of light and dark and of heat and cold, Mead contrasts the Atlantic and Baltic slopes of Fennoscandia when he describes the climatic setting in his work *An Economic Geography of Scandinavia and Finland* (1958). Apart from local climatic variations, the Atlantic slope, most exposed to the cyclonic westerlies, receives generous precipitation all year, whereas the more sheltered Baltic slope has a summer maximum. Exposure to the Atlantic results in higher humidity, greater cloud cover, and more wind. In particular, less cloud in the Baltic region leads to greater radiation loss and hence to intensification of the winter cold, exaggerated by the freezing of the inner bays of the Baltic (Mead 1958).

In his book *An Historical Geography of Scandinavia* (1981), Mead notes the marked seasonal contrasts in his introductory characterization of the Nordic countries. The division of the year on climatic grounds has repercussion for plant and animal life, and not least for human life in the region. Although seasonality is emphasized by the extremes of high latitude, the climate of the Nordic countries is less extreme than that of other comparable latitudes, as the maritime cyclonic systems from the west produce a positive temperature anomaly in winter. Over the year as a whole there is nonetheless a negative annual radiation balance; winter prevails over

summer, with ice and snow during a large part of the year. Frozen lakes and winter ice in the Baltic Sea result in a relatively motionless winter seascape, compared with the summer movement of the water masses; ice facilitated winter communication in earlier times. The marked seasonal contrasts of cold and warmth are emphasized by the contrast in the relative length of light and dark between summer and winter. North of the Arctic Circle (and in practice extending somewhat further south), the nightless days of summer in the season of the midnight sun contrast with the dayless nights of mid-winter when the sun does not rise above the horizon. Relief from the winter darkness is provided by the aurora borealis and the reflection of moonlight in the snow. The annual rhythm of daylight and darkness is reflected in the colours of the landscape: the whites of winter, the greens of summer, and the browns of spring and autumn. The vegetation of the north is adapted to the stress of strong seasonal variations. Extensive areas of Norway, Sweden and Finland are covered by boreal forests, swamps and peat, and, in the far north, bare rock and tundra, with plant life that can cope with winter snow and frost and with excess humidity throughout most of the year. Animals living in the northern vegetation belts are also adapted to the seasons; fur-bearing mammals were historically one of the most valuable resources of the region. The gradient from north to south of tundra, mountain birch, coniferous forest and deciduous forest is repeated in the vertical gradient of the mountains of Norway and Sweden (Sjörs 1976). The strongest visual changes in the landscape from season to season are associated with the tundra and high mountain ecosystems rather than the boreal, and with the deciduous trees found both within the boreal zone as well as to the south of it. Although the growing season in the Nordic countries is longer than in other comparable latitudes, it is short compared with most of Europe; however, the shortness is compensated by the long, light days of summer. Yet the risk of frost in summer meant for Finland the consequent risk of famine until the 1860s.[2] For humans, adaptation to the harsh conditions of extreme seasonality has meant that settlement in the thinly populated areas of the north has historically been typically dispersed, although population densities are higher in the Nordic countries than in other comparable latitudes (Mead 1981).

Surprisingly, seasonality is given little systematic attention in other handbooks on the geography of the Nordic countries, such as those edited by Axel Sømme (1960) and Uuno Varjo & Wolf Tietze (1987). As a natural phenomenon, seasonality is most apparent in the chapters on climate, especially that in the first-mentioned book, which provides a scientific

[2] The symbolic representation of summer frost in the painting *Halla* by the Finnish artist Hugo Simberg (1873–1917) is illustrated by Mead & Smeds (1967, plate 5).

description of atmospheric circulation patterns, particularly in winter, as well as seasonal variations in temperatures and their indication in the length of the vegetative season, here defined as the period of daily mean temperature above 3˚C. Seasonal variations in snow cover, sunshine duration, sea ice, climatic fluctuations and hydrology are also described (Wallén 1960).

However, biologists have studied the effects of the natural rhythm of seasons on different species of animal, human biologists and psychologists their influence on human rhythms. Phenology, the study of the effects of climatic seasonality on living organisms, has been a feature of biogeography, biology and related disciplines since the early 20th century in Finland (Brotherus 1905-8) and later in neighbouring Scandinavian and Baltic countries.[3]

3. SEASONALITY IN NORTHERN EUROPE – HUMAN-GEOGRAPHICAL RESPONSES

A pioneer in the cartographic representation of seasonal landscapes was the Finnish geographer J.G. Granö (1882–1956) in his book *Pure Geography* (published in German in 1929, Finnish in 1930 and English in 1997). For Granö, the object of geographical research was the perceived environment, i.e. the environment as perceived by human beings through their senses (Granö 1997). Noting that the observable properties of objects vary according to the time of day or the season, Granö presented some striking maps, including maps of the colours of winter and summer landscapes. While "landscape" according to Granö was primarily a visual phenomenon, experienced through sight and at a distance, he used the term "proximity" for the part of the environment situated "between the observer and the landscape" and experienced with all the senses (Granö 1997: 108). The proximity could thus be experienced through sounds and smells, as well as visually. He mapped auditory phenomena, such as the sounds of summer – what might in other words be termed a summer "soundscape". Similarly, he mapped olfactory phenomena, for example the seasonal smells of summer.

Another pioneer work in human geography is the unique, comprehensive study of a single season in *Winter in Finland* by W.R. Mead and Helmer

[3] Recent studies of plant phenology in the Nordic countries include for Finland that of Lappalainen (1994) and for Norway Wiegolaski & Klaveness (1997). For recent general works on phenology and for Estonian studies, see references in Ahas & Aasa (2003). See also the discussion by Ahas et al. (2005) of the seasonal variability of Estonian landscapes using both natural and social indicators. I am grateful to Rein Ahas at the Institute of Geography, University of Tartu, Estonia, for drawing my attention to recent literature in this field.

Smeds (1908–1967), which was published in 1967. This work describes the human struggle against winter conditions, but notes also that summer activities partly aim to help survival through the winter. The collection of fodder for farm animals kept indoors in winter would serve as an example of the latter. The book presents the problem of winter, its causes and effects, and then examines solutions to the problem. The authors trace how the image of the wintery north took shape in the descriptions of Olaus Magnus in his history of the northern peoples, first published in 1555, and his earlier depiction of winter features on his *Carta Marina* of 1539. Travellers to Finland have subsequently been fascinated and awed by the hardships of winter. Military campaigns in winter have been constitutive events in Finnish history and identity, from the skiing battalions of the 16th century to those of the Winter War of 1939–40. Sea ice has facilitated both the retreat and advance of armies, as in the winter of 1808–9, when withdrawing Swedish-Finnish troops crossed the Åland Sea to mainland Sweden, while advancing Russian troops were able to cross the Gulf of Bothnia further north to harry Umeå. Winter has its own language: Mead & Smeds refer to the wide vocabulary describing winter conditions in Finnish and Swedish; they might have added Saami. The systematic recording of phenological indicators allows the mapping of the annual advance and retreat of snow and frost on land and of ice on waterways and seas. Solutions to the problems of winter are presented under four main headings – one a military metaphor, one an ecological metaphor, and two economic metaphors.

The military metaphor is "The Assault on Winter", examining how difficulties faced by winter transport are tackled. Icebreakers facilitate winter shipping. The obstruction of snow is dealt with by snowploughs, snow fences and the spreading of gravel to ease transport by road and rail. Unhindered urban transport requires efficient clearing of snow from the streets, made more urgent by the replacement, by and large, of the runner by the wheel. In the winter of 1961–2, for example, 458,000 lorry loads of snow had to be removed from the streets of Helsinki. The spring thaw leads to a recurring demand for road maintenance. Light in the darkness is another dimension of "the assault on winter". Indoor lighting used successively wood, seal or train oil, and from the 1880s electricity as fuel. Outdoor lighting in the form of street lamps led to new landscapes of light at night (one is reminded of the consequence that many children are no longer familiar with the night sky and stars). The ecological metaphor is "Refuge from the Winter", concerned with designs for winter living, heating, building for winter, and winter clothing. The first of the two economic metaphors, "The Exploitation of Winter", examines the historical importance of the runner for winter transport: skis, sledges and sleighs (including the modern chair-sled, or kick-sledge). Skis facilitated winter hunting among the Saami

of the north (illustrated by D. Dighton's drawing "A Laplander descending a mountain on his snow skates" in Arthur de Capell Brooke's account of winter in Lapland in 1827). Similarly, skis facilitated seal hunting on the ice of the Gulf of Bothnia among the coastal population further south. Sledges can be pulled by reindeer, dogs, horses, humans, and motorized vehicles (such as the snow scooter). Skiing led to the development of winter sports in the latter part of the 19th century, inspired in part by the exploits of two polar explorers – Finland-Swedish Adolf Erik Nordenskiöld (1832–1901), and Norwegian Fritjof Nansen (1861–1930) – who demonstrated the effectiveness of skis on expeditions in Greenland in 1883 and 1888 respectively, in both cases together with Saami. New winter sports landscapes arose: competition arenas and ski jumps, and skiing centres with tourist hotels and cabins for winter skiing holidays; while skiing generated a ski-manufacturing industry (it might be added that winter sports equipment and clothing of all types have become significant consumer articles). Transformed means of mobility meant that winter became a "season of sociability", ranging from winter fairs and markets to church festivals, particularly Christmas and Easter, but also Shrovetide, associated in Finland with tobogganing. In the economic sphere, lumbering used to be a winter activity, but new technology has led to all-year logging; while timber floating, which used to be a summer activity, has been replaced by all-year road transport. "The Balance Sheet of Winter" sums up the costs and benefits. Irregular annual variations and climatic cycles in winter's intensity and duration mean that the costs of winter are variable, depending on whether the winter is hard or mild. Attitudes to winter have changed through time, as changing technology for dealing with winter has led to changing expectations. The seasonal rhythm of activities remains most marked in primary production, especially agriculture, whereas in manufacturing the main seasonal disturbance is the annual summer holiday. Unemployment has tended to be higher in winter, however. Conversely, the long summer days once meant long days of labour in agriculture, but now provide ample opportunities for relaxation during the summer exodus from the town to second homes in the countryside. Finally, Mead & Smeds sum up the costs of winter in three main points: protection against winter (heating, food, clothing, medicines); the assault on winter (ice-breaking, snow-clearing, lighting); and damage caused by winter (damage to roads and buildings, frost damage). The total cost is difficult to calculate, but one estimate made for the winter of 1962–3 amounted to four per cent of Finland's gross domestic product. The costs are offset by the benefits of winter (sports, lumbering, and the manufacture of winter products) (Mead & Smeds 1967).

The scientific study of seasonality in human geography has been a long-standing interest of Mead (1939; 1952). A speciality has been illustrating

seasonal work rhythms in diagrams and maps (Mead 1983: 54). In *An Economic Geography of the Scandinavian States and Finland* (1958), he provides a wealth of cartographic and diagrammatic information on seasonality: themes illustrated include the annual rhythm of daylight and darkness at different latitudes in Scandinavia; winter accessibility of Baltic coasts in sailing-ship days; length of growing-period at different places in Norway and Denmark; agricultural calendars for different places in Sweden; monthly rhythm of activity in different occupations in Finland; seasonal rhythms of work on selected farms in Norway and Finland, based on farm diaries; seasonal rhythms of fishing; and the annual round of activity and movement of a Swedish Saami community. He describes the climatic seasons; gives an account of the geography of winter in the Nordic countries, including a table presenting Sweden's bill for winter (presaging the later detailed study of winter in Finland); examines the seasonal use of the outfield, especially seters; and describes the seasonal migration of reindeer herds, including a plate of a print entitled "The manner of the Laplanders living in summer and winter" from an atlas published in 1701 by the Dutch cartographer Herman Moll (1680–1752).[4]

In *An Historical Geography of Scandinavia* (1981), Mead returns repeatedly to the seasonality of human life at different times and places: the seasonal round of farm activities in 16th-century Sweden; the seasonal exodus from 18th-century Stockholm; seasonal variations in traffic in 18th-century Sweden and Finland; seasonal labour migration in 19th-century Sweden; and seasonal patterns of activity in fishing and forestry. Diagrams illustrate phenological observations in 18th- and 19th-century Finland; the annual round of activity on colonial settlements in Finnish Lapland in the 18th century; the seasonal distribution of tar production in northern Sweden in the 19th century; seasonal activities in Åland in the 18th century and in the Faeroes in the 19th century; and there is a map of seasonal markets in Finland in 1850.

Mead also notes the distinctiveness of the northern seasons in his personal accounts. In *An Experience of Finland* (1993), he describes "the round of the year" in the Finnish landscape: "Landscape is inseparable from climate, for it changes visually with the swing of the seasons" (p. 45). He introduces *A Celebration of Norway* (2002) with an example of the remarkable maps of the Norwegian geographer Tore Sund (1914–1965), showing the seasonal rhythm of daylight and darkness (Sund 1960: 239). Mead refers to the way in which the special nuances of summer and winter

[4] The print in Moll's *Atlas* was earlier published by Moses Pitt (1654–1696) in his *English Atlas*, Volume 1, *World & Northern Regions*, in 1680 (reproduced in van Ermen & van Mingroot 1987: 88-89).

light in the north, as well as the winter snow, were experienced by writers and artists, including travellers from abroad, among them Arthur Capell de Brooke, whose *Winter Sketches from Lapland* (1826) recorded a reindeer journey from Alta to Torneå. Mead's own personal experience of varying seasonal flora is also related.

Particular human responses to seasonality in the North European context have otherwise been taken up in studies by anthropologists, ethnologists, geographers, archaeologists and others. Some examples can be mentioned here. There exists a large literature on seasonal movements in the hunting, gathering and reindeer-herding economies of the Saami (e.g. Turi 1910; 1931; Kokko 1947; 1949; 1954; Vorren & Manker 1957; 1962; Vorren 1962; 1980; Manker 1963; 1965; Ruong 1969; Arell 1977; Ingold 1980; Odner 1992; Olsen 1994; Paine 1994; 1998; Fjellheim 1995; Andersen 2002). Studies have been made of seasonal patterns of resource use and seasonal place-names among the Coast Saami of Norway (e.g. Kolsrud 1961; Hauglid & Minde 1980; Bratrein 2000). Comprehensive studies have been made in the Nordic countries of mountain summer farming, as well as farms used in other seasons, including winter farms (e.g. Erixon 1919; 1955-56; Frödin 1925; Smeds 1929; 1944; Isachsen 1938; 1940-41; Solheim 1952; Reinton 1955; 1957; 1961; 1969; Cabouret 1980; Westrheim 1980; Nyman 1993; Olsson et al. 1995; Olsson et al. 1998; Olsson et al. 2000; Daugstad & Sæter 2001; Potthoff & Eiter 2004; Potthoff 2004; 2005). For Norway the documentation of this in art and literature has been discussed by the geographer Karoline Daugstad (2000). Annual work rhythms in the coastal fisher-farmer communities of Norway have been depicted (Bratrein 1976; Gjertsen 1977; Jones 1985b). The Nordic countries have a long history of second homes, used for winter recreational activities such as skiing as well as for summer vacations (Bielckus 1977; Jansson & Müller 2004). There is an extensive literature on seasonal cabins and seasonal tourism in Norway, especially the mountains, much of it concerned with planning questions (e.g. Sømme et al. 1965; Ouren 1969; Langdalen 1980; 1992; Kaltenborn 1997a; 1997b; 1998; Flognfeldt 1996; 2001; 2002; 2004; Williams & Kaltenborn 1999). Ethnologists in Norway have investigated the vacation cottage as a place of recreation and symbol (Rosander 1988; 1990; 1992), with studies ranging from Finnmark (Eggset 1991) to the landscape of summer cabins on the shores of Oslofjorden (Grimstad & Lyngø 1989a; 1989b; 1992; 1993; Grimstad 1991; Hald 1992b). Studies have also been made of the historical appropriation by the urban bourgeoisie of areas of common land surrounding Norwegian towns for summer homes, becoming later in many cases permanent dwellings (Hald 1992a; Otnes 2002, 5-33). Seasonal holiday life and second homes have been examined in Sweden (Pihl Atmer 1987; 1998; Nordin 1993; Jarlöv 1999; Löfgren 1999; Müller 1999; 2002a; 2002b; 2004;

2005; Aronsson 2004). Summer house tourism and the summer house landscape have been studied in Denmark (Tress 2000). The problem of tourism's off-season has been discussed for the Danish island of Bornholm (Lundtorp et al. 2001). A study of summer villas before the Second World War in the Viipuri area, then in Finland, has been made (Jaatinen 1997). In the Finnish archipelago, summer cottages and the landscape perceptions of summer guests have been topics of interest (Aschan 1974; Eklund 1989), while the present author has examined the legal problems arising for owners of summer cottage from shore displacement due to the land uplift of the Baltic Shield (Jones 1971; 1974; 1977: 212-227). The Finnish ethnologist Nils Storå has studied ice as a resource and the cognitive world of ice among the archipelago inhabitants of the Finnish coast (Storå 1991; 1992) – the term "icescapes" would be appropriate here. Another Finnish study has examined human preferences regarding the seasons in the town of Oulunsalo, in northern Finland, and remarked on the relative lack of attention paid to seasonality in town planning (Jauhiainen & Mönkkönen 2005). All these are studies of particular aspects of seasonality. However, there are few comprehensive, systematic studies for the Nordic countries of seasonality in the landscape as such.

4. SEASONAL LANDSCAPES AS AN EXPRESSION OF IDENTITY IN THE VISUAL ARTS

Although the role of visual arts in expressing and reproducing feelings of national or regional identity has long been recognized, few systematic studies have been made of seasonal landscapes as one of the distinguishing features of the Nordic countries in this respect.[5]

Among the earliest pictorial representations of winter features is Olaus Magnus' *Carta Marina*, published together with a description in Venice in 1539. This map depicts among other features an ice bridge between Finland and Sweden, reindeer drawing sledges, skiers crossing sea ice and hunting in the north, and seals on ice flows. This is one of the first expressions of Nordic identity in a visual representation. Olaus Magnus was brother of the last Catholic archbishop in Sweden (and succeeded him as titular archbishop), and, unable to return to his country, desired to show the Pope the large northern area that was lost to the Roman Catholic Church through the Reformation (Olaus Magnus Gothus 1965).

[5] However, Christensen (2002) includes examples from Norwegian artists in his brief examination of summer and winter, and ice as a cultural landscape, in his book on the Norwegian landscape in cultural-historical perspective.

The Norwegian national romantic artists of the 19th century painted seasonal landscapes that became icons of Norwegian national identity. Many of the paintings described in the following[6] are found in the National Gallery in Oslo. A founding figure of Norwegian national painting was Johan Christian Dahl (1788–1857). Born in Bergen and educated in Copenhagen, he worked in Dresden, and introduced Norwegian landscapes to European art. The interpretations of northern nature by Dahl and his pupils were influential for the assertion of a Norwegian national identity related to the character of the Norwegian landscape. The national romantic artists focused on the national distinctiveness of the Nordic countries, with mountains and fjords, peasant culture and the Viking past as central elements. Dahl maintained that landscape painting should suggest the character of a whole country with its nature and history, sometimes in an idyllic, sometimes in a historic-melancholic manner. Climate was part of the scenery of a given region, and winter snow was one of Dahl's pictorial motifs. He used snow to create an atmosphere rather than concentrating on its light-reflecting ability as the later naturalist painters did. In his painting of a standing stone in Sognefjorden (*Bauta i Sognefjord*), from 1827, he spread snow on a landscape he had sketched on his travels in Norway the previous summer. Snow emphasized the historical melancholy of the ancient monument as an expression of the past (Bang 1992).

Daugstad (2000) has examined the relationship between landscape, art and national identity in relation to Norwegian mountain summer farms, as well as analyzing how the mountain summer farm has been described in various types of literature. Mountain summer farms were among favoured motifs of painters in the 19th and early 20th centuries. Grazing cattle, dairymaids, and the seasonal mobility to and from the summer farms were depicted, often surrounded by majestic mountain scenery considered distinctive for Norway. Mountain summer farms became popular national romantic themes from the 1820s onwards. In I.C. Dahl's paintings, they were frequently overshadowed by the dramatic nature in which they were located. His contemporary, Johannes Flintoe (1787–1870), focused by contrast on the folk life of the mountain summer farm, emphasizing dances and social occasions and the relations between the dairy maids and their male suitors. Another early painter of mountain summer farms was Wilhelm Carpelan (1787–1830), on whom the difficult access by steep paths made a strong impression. From the 1840s on, Hans Gude (1825–1903) was painting

[6] Many of the paintings referred to in the section on Norwegian landscape painting are discussed and illustrated in Varnedoe (1988); Bjerke (1991); Moe (1994); Simonnæs (1996); Farcos (1998); Bischoff (2000); Lange & Ljøgodt (2002); Høydalsnes (2003). For paintings of North Norway, see also the University Library of Tromsø's project "The Northern Lights Route" http://www.uib.uit.no/northernlights.

idyllic, sunny pictures of mountain summer farms, showing them in their surrounding natural beauty, while Adolph Tidemand (1814–1876) emphasized the folk life in this dramatic landscape, idealizing the Norwegian peasant as the bearer of national values and identity. From the 1850s on, Lars Hertervig (1830–1902) continued the emphasis on the dramatic and ecstatic, while, from the 1860s on, Anders Askevold (1834–1900) specialized in paintings of animals, showing the interaction between the livestock and the surroundings, both on the mountain summer farm and going to and from it. Christian Skredsvig (1854–1924), in many paintings of mountain summer farms from the 1870s on, combined idyllic scenes with realistic expression of the hardships and loneliness of the life of the dairy maids. Winter motifs appeared in the naturalistic work of Gerhard Munthe (1849–1929), who painted in 1874 a snow-covered seasonal farm. Paintings by Nikolai Astrup (1880–1928) at the beginning of the 20th century included moonlit scenes from winter farms. The seasonal mountain farm had particular resonance for Norwegian artists. It represented the meeting place between sublime nature and the culture of the proud, independent peasant farmer, struggling to make a living in a harsh climate and rugged mountain topography, and thus encapsulated two central themes of Norwegian national identity. As liminal landscapes, they contained elements of myth, superstition and ritual. The paintings reinforced gender stereotypes, with the dairy maids presented as hard-working and dedicated, shyly serving visitors or meeting their wooers. Through pictures of Sunday dances and flirting, the mountain summer farm had erotic undertones as symbols of fertility, and as places where other norms than the everyday applied (Daugstad 2000).

An early painting showing the snowy landscape of winter was Tidemand's depiction from 1846 of Norwegian Christmas customs (*Norsk juleskikk*) in a farmyard. The painting of winter landscapes had a breakthrough with naturalism at the end of the 1870s. Skredsvig's painting of a woman in a winter forest landscape (*Kvinne i vinterskog*) is from 1879, while Munthe painted winter scenes from Lake Mjøsa (*Vinter ved Mjøsa*) in 1879 and the coastal town of Sandefjord (*Vinteraften i en kystby*) in 1880. Frits Thaulow (1847–1906) painted winter scenes showing everyday life. His painting of the Parliament Square (*Stortingsplass*) from 1881 depicted horses and sleighs in the urban landscape of Oslo on a cold winter day. A motif from 1882 shows children tobogganing in a street in Kragerø (*Gate i Kragerø*), and in 1889 he painted a procession of people on their way to church using winter transport.

Other seasons were also painted in Norwegian art. Hertervig depicted the spring herring fishery (*Vårsildefiske*) in the 1860s. Munthe painted all the seasons: among his works is a birch forest in the autumn (*Bjerkeskog om høsten*) from 1880, showing cattle grazing in the forest and women picking

berries; a hay harvest (*Høyonn*) from 1884 showing a summer day in Stange; and spring (*Vår*) from 1889. Autumn (*Høst*) from 1891 is among the lyrical paintings of his friend Erik Werenskiold (1855–1938).

The particularly marked contrasts between summer and winter in North Norway made a strong impression on artists travelling to the north from the south. Mathias Stoltenberg (1799–1871) painted landscapes on several journeys to North Norway. His painting of the northern fisheries in Steigen (*Fra Steigen*) in 1859 was a prosaic depiction of different types of work at sea and on the shore in a snow-covered winter landscape. Peder Balke (1804–1887) painted a number of landscapes from the region in the years following his visit to North Norway in 1832, and was one of the first Norwegians to paint the Northern Lights (c. 1870). The British artist Elijah Walton (1833–1886) visited North Norway in summer 1869 together with the writer Bjørnstjerne Bjørnson (1832–1910) and did several paintings of the midnight sun, such as *Lofoten from the Vestfjord just before Midnight*. He is thought to be the first to paint the midnight sun. Otto Sinding (1842–1909), who is credited with the Norwegian artistic discovery of Lofoten during several visits in the early 1880s, painted fishing boats in the late winter fishing season in his motif from Reine (*Reine i Lofoten*) of 1883, and again 11 years later. He was followed by local painters. His pupil was Gunnar Berg (1863–1893), born in Svolvær in Lofoten, who painted a number of works from the winter fisheries in his home area from the late 1880s. Another artist from the north was Eilert Adelsteen Normann (1848–1918), born in Bodø, although he worked in Germany. In his romantic fjord landscapes, light played an important part, and the midnight sun was among his motifs from North Norway (*Sommernatt i Raftsund* 1887).

The light Nordic summer nights fascinated many and resulted in the painting of evocative landscapes. During the summers of 1886 and 1887, Skredvig was joined on his farm at Fleskum, near Oslo, by Munthe, Werenskiold, Eilif Peterssen (1852–1928), Kitty Kielland (1843–1914), and others, and they experimented with a style of landscape painting depicting mood through the distinctive light and atmosphere of the northern latitudes. In her painting "After Sunset" (*Etter solnedgang*) from 1885, Kielland captured the tranquil mood of the northern summer evening, with its lingering, slowly fading light. The summer night (*Sommernatt*) was the motif of lyrical paintings by both Kielland (Fig. 2-2) and Peterssen in 1886.

Figure 2-2. Kitty Kielland's "Summer Night" (*Sommernatt*), 1886. Photo: Jacques Lathion. Reproduced with the permission of the National Museum of Art, Architecture and Design, Oslo.

The painters of the "Fleskum colony" paved the way for the neo-romantic art of the 1890s. Living in the vicinity of Lysaker, near Oslo, Werenskiold, Munthe, Sinding and Petersen, along with the scientist and explorer Fridtjof Nansen (1861–1930) – who painted among other things the luminescent winter glow of the Northern Lights – became known as the Lysaker Circle. On the basis of naturalistic landscape paintings, which included seasonal motifs, they formulated a Norwegian national project seeking specifically Norwegian motifs and colour in order to express national identity.

The summer night appeared in a radically different style in the work of Edvard Munch (1863–1944), principally in his Frieze of Life, begun in the 1890s. Many of the motifs in this series of paintings, depicting life, love, anxiety and death, were set on the shore of Åsgårdstrand, where Munch had a house from 1893. The setting sun and blue twilight of the summer evening formed a backdrop to the eroticism and natural mysticism of his highly personal stylization.

Figure 2-3. Harald Sohlberg's "Winter Night in Rondane" (*Vinternatt i Rindane*), 1914. Photo: Jacques Lathion. Reproduced with the permission of the National Museum of Art, Architecture and Design, Oslo.

The trend of painting seasonal landscapes and rituals continued into the 20th century. The neo-romantic painter Harald Sohlberg (1869–1935), having painted the summer night (*Sommernatt*) in 1899, turned to winter. He depicted the harshness of the winter (*Efter snøstorm*) in the mining town of Røros (800 metres a.s.l.) in 1903. He painted several versions of a winter night in the Rondane mountains (*Vinternatt i Rondane*) (Fig. 2-3) between 1901 and 1924. He also captured the light of the setting sun on a winter evening (*Vinteraften*) in 1909 and in his autumn landscape (*Høstlandskap*) of 1910. Sohlberg continued to paint seasonal landscapes into the 1920s. Astrup, too, painted in the early 1900s seasonal landscapes from his home area of Jølster, in West Norway. His paintings included from 1902 the evening sun in spring (*Vårkveldsol*), from 1905 a spring night in the garden (*Vårnatt i haven*), depicting apple trees in blossom and girls picking spring flowers, and from 1910 a June night (*Juninatt og gammelt jølstertun*) with flowering pastures and old farm buildings. His series of paintings of the

Midsummer Eve bonfire (*St. Hansbål*), between 1902 and 1912, depicted the festivities of the summer solstice, following up the theme of Skredsvig's Midsummer Eve (*Sankthanskveld*) of 1885. A more recent seasonal expression is provided by Leif Lundgren's depiction in 1976 of snow weather (*Snøvær*) as experienced by car drivers.

Examples of seasonal landscapes in nationally oriented art are similarly found in the paintings of Swedish artists towards the end of the 19th century. The American art historian Michelle Facos has examined Swedish art of the 1890s in her book *Nationalism and the Nordic Imagination* (1998). Swedish artists followed the lead of the Norwegian painters, who had expressed patriotic ideas through their art some years earlier. Swedish artists chose motifs from Swedish history, legend, indigenous architecture, and, not least, nature as a means of promoting shared values and traditions, and providing a sense of physical rootedness. Concentrating on what were seen as typically or uniquely Swedish subjects, they conveyed Swedish cultural ideas by depicting a close relationship between the landscapes of Sweden and its inhabitants. The naturalistic painters Richard Bergh (1858–1919), Nils Kreuger (1858–1930) and Karl Nordström (1855–1923) settled in the small town of Varberg, constituting what became known as the "Varberg school". Romantic twilight moods were a hallmark of their paintings of the distinguishing characteristics of Nordic nature. Examples of seasonal motifs include Kreuger's idyllic painting of the cultivated landscape of Halland in spring (*Vår i Halland*) of 1894 and Bergh's Nordic summer evening (*Nordisk sommarkväll*) of 1900. Stating his belief that art should emanate from its environment, Bergh called for a specifically Swedish art, and expressed in a letter of 1887 his love for "this land with its dark winter nights and its light, fragrant summer nights" (quoted in Farcos 1998: 111). Later, in 1908, he called for Swedish artists "to meet and celebrate under the winter night's sparkling, starry sky and in the summer night's quivering flood of light" in order to feel their innermost being and be filled "with a grand, collective love" (quoted in Farcos 1998: 179-180). Gustaf Fjæstad (1868–1948) specialized from 1895 in winter scenes, especially from Värmland, with pristine snow-covered fields and forests, winter moonlight, frost, and ice-covered lakes Anders Zorn (1860–1920) in the same period depicted folk live and peasant festivities as an expression of the rootedness of Swedish culture. He settled down in 1895 in his native Dalarna, a region often considered the heartland of Swedish culture. In 1897 he painted the midsummer dance (*Midsommardans*), when the holiday on the year's longest day was celebrated by dancing round the maypole. Zorn captured in close proximity the villagers in their traditional costumes dancing in the bewitching light of the summer night. Midsummer was associated with drinking and the relaxing of taboos, and the belief that flirts that night would

lead to marriage. This was a not a new theme in Swedish art. Johan Gustav Sandberg (1782–1854), who provided the starting point for the depictions of peasant life by artists in the 19th century, had painted the midsummer dance (*Midsommardans vid Sävstaholm*) in 1825, and a thread can be followed from this to the dances painted by in the 1850s by Wilhelm Wallander (1821–1888) and Kilian Zoll (1818–1860), whose midsummer dance (*Midsommardans i Rättvik*) was from 1851. However, Zorn's painting showed close involvement in contrast to the distanced and detached depictions of the midsummer dance by the earlier painters. It was a theme also taken up in literature, both in Norway by Henrik Ibsen (1828–1906) in his play "St John's Night" (*Sancthansnatten*) from 1852 and in Sweden by August Strindberg (1849–1912) in his play "Midsummer" (*Midsommar*) in 1900[7] (Varnedoe 1988: 50, 54-55, 78-81, 93, 274-275; Facos 1998: 5, 27-31, 50-53, 111, 155-157, 179-180).

Seasonal themes are also found in the art of Finland. Fanny Churberg (1845–1892) painted a whole series of landscapes of all the seasons between 1876 and 1880. Akseli Gallen-Kallela (1865–1931) painted winter landscapes from the 1880s on, and included the seasons among the subjects of his monumental painting in 1902. Ellen Thesleff (1869–1954) painted the spring night (*Vårkväll*) in 1894. In the late 1890s, Hugo Simberg (1873–1917) had many seasonal motifs – including the midsummer bonfire – among his graphics and aquarelles, which were stylized, often humorous, representations of life and death.[8]

In Denmark, P.S. Krøyer (1851–1909), the best known of the neo-romantic Skagen painters, made in the 1880s, 1890s and early 1900s a series of paintings of persons on the beach in the light summer evenings, including one with the St Hans bonfire of midsummer as it central motif. The prolonged twilight was known as the "blue hour", giving rise to the term "blue painting", which characterized Krøyer's use of colour (Varnedoe 1988).

Seasonal landscapes have provided artistic expression not only of national identity, but also expressed the identity of other ethnic groups in the

[7] Midsummer's Day is the festival of St John the Baptist on 24 June, and is termed *Sankthans* or *Jonsok* in Norway, *Sankthansdag* in Denmark, *Midsommar* in Sweden and the Swedish-speaking parts of Finland, and *Juhannus* otherwise in Finland. Bonfires and dances traditionally took place on the night before, Midsummer's Eve, although in Sweden and Finland the holiday has more recently been moved to the nearest Saturday. Many of the customs associated with Midsummer derive from the pre-Christian festival of light and fertility at the summer solstice (Korhonen 1997).

[8] Works by Gallen-Kallela and Thesloff are illustrated in Varnedoe (1988). Many examples of Finnish art can be accessed on the website of the Ateneum Art Museum, Helsinki: http://www.ateneum.fi.

north. The Saami artist Nils Nilsson Skum (1872–1951) showed the landscapes and lives of reindeer nomads in drawings and text (Skum 1938). John Savio (1902–1938), born at Bugøyfjord in Sør-Varanger, was among the first Saami artists to become know nationally, and several of his woodcuts are in the National Gallery in Oslo. He depicted the different seasons in reindeer-herding (Ruong 1969; Berntsen & Parmann 1980).

Art has also been used to express the identity of the North Norwegian (Arctic) Finns. The cover picture of Olav Beddari's reader in Finnish (1987) depicts water being transported on a sledge to the sauna in winter. Beddari is a Finnish-speaking North Norwegian from Pasvik in Sør-Varanger.

Other visual arts that have used seasonality to capture the identity of the ethnic minorities include films. "The Pathfinder" (*Veiviseren*), directed by Nils Gaup and released in 1987, makes dramatic use of winter scenery in telling the Saami legend of escape from the ravages of their enemy the Chudes (*tsjudene*) (Gaup 2003). "Sealand" (*Havlandet*), directed by Lasse Glom and Bente Eriksen and released in 1985, was based on a series of four novels by Idar Kristiansen "The Corn and the Fish" (*Kornet og fiskene* 1980-81). Set in the 1860s, the novels tell the story of Finns driven north by famine to the rich fishing resources of the "Sealand" in Ruija, the Finnish name for North Norway. Seasonal mobility takes them from the uncertain corn harvest in Finland in summer to the more reliable winter fisheries of the Arctic coast. They travel north on skis and sleighs, and back south on foot, partly using horses and partly boats.

Seasonality in the landscape is similarly evoked in relation to ethnic identity in other forms of art. The Saami writer Nils-Aslak Valkeapää (1943–2001, Nordic Literature Prize in 1991) evokes in his poetry and illustrations the powerful experience of nature in the different seasons as the reindeer-herders move with their animals (Valkeapää 1985; 1987; 1994). In one particularly remarkable poem, reindeer-herding terms in the North Saami language are laid out across the page to depict visually the seasonal movement of a reindeer herd (poem no. 272, Valkeapää 1988; 1990; 1997). Seasonality is also expressed in the Saami singer Mari Boine's record *Eight Seasons – Gávcci jahkejuogu* (2001), the title of which was inspired by the ethnographer Ernst Manker's book *The People of Eight Seasons* (1965) (*De åtta årstidarnas folk* 1963).

5. THE SEASONAL LANDSCAPES OF DIFFERENT TYPES OF LIVELIHOOD, WITH EXAMPLES MAINLY FROM NORWAY

All forms of production are affected to a greater or lesser extent by seasonality. Although some livelihoods pay relatively little attention to seasons, many livelihoods actively exploit the seasons, often through mobility. Movements of people and animals may be made to exploit resources that are available in different places in different seasons. The physical landscape is thus a seasonally differentiated source of livelihood through the different niches exploited at different times of the year. This exploitation in turn changes the landscape and leaves physical traces in the form of different types of land use. The following examples[9] illustrate the link between land use, seasonality and mobility in different forms of production. Movements are related to the natural rhythm of the year, depending on the resources available at different locations in different seasons; but they are also given social meaning through religious festivals, markets and other recurring activities. These phenomena have a visual impact on the landscape in the different season.

5.1 Primary sources of livelihood

In prehistoric times, hunting, fishing and gathering were a principal form of livelihood. These activities needed to be flexible and adaptive, depending on the movements of game animals and fish stocks, and on the varying seasonal availability of exploitable fauna and flora. Hence mobility varied according to season, and occurred over both short and long distances. Settlement showed patterns of concentration and dispersal according to season. The annual cycle of the Varanger Saami at the end of the 17th century has been reconstructed by the ethnographer Ørnulv Vorren (1980). Their livelihood was still at that time based on hunting, fishing and gathering, with movements between different resources. Their winter dwelling was at the head of the fjord. Here birch provided fuelwood; fish, seals and small whales were caught in the fjord; fur-bearing animals were trapped; and the annual winter markets and assizes took place. In spring, fishing took place in the outer fjord. In summer they returned to the fjord bottom to fish in the inner fjord and rivers, and gather berries and plants. In autumn, they dispersed among several camps away from the coast to catch wild reindeer and beavers.

[9] The examples in this section are to a large extent based on information derived from Jones 1985a and 1999a.

Through much of history, hunting, fishing and gathering have been combined with other livelihoods, such as reindeer-herding, agriculture or forestry. Today they may also be combined with urban livelihoods, generally as a form of recreation. Modern sea fishing has become a specialized occupation, with mobility over long distances depending on the seasonal migrations of fish stocks. In Svalbard (Spitsbergen) and East Greenland, a few Norwegians subsisted on hunting and trapping until the mid-20th century. Although economically insignificant, overwintering by Norwegian hunters was one of the activities used to help support Norwegian claims to sovereignty in these regions. Hunting thus gained symbolic value for Norwegian "polar imperialism" in the 1920s and 1930s. In the case of Svalbard, Norwegian sovereignty was recognized by the Spitsbergen Treaty of 1920, whereas Norwegian claims to East Greenland were rejected by the International Court of Justice in 1933 (Arlov 1996; Jones 1999b).

Throughout most of history, agriculture over widespread areas of Norden has consisted of variants of what is often termed the infield-outfield system. Crop cultivation in the infield (Nor. *innmark*) has been combined with a wide range of resource use on the farm's outlying land or "outfield" (*utmark*). The appearance of the cultivated infield changes with the seasons of the agricultural year – the sowing season in spring (or autumn), the growing season in summer, the harvesting season in late summer and autumn, and the winter season when the ground is in most places covered with snow. Historically the infield was often grazed before spring sowing and after harvesting in the autumn. Since the permanent farmstead is located in the immediate vicinity of the infield, seasonal work operations here involve relatively short movements of labour and machinery. However, agricultural inputs to the farm (including in some cases seasonal labour) and the transport out of products for processing or to markets involve seasonal movements over longer distances. The exploitation of the outlying land takes mainly place in summer, although forestry is often a winter activity. Historically there were a variety of activities in the outlying land: summer grazing; the collection of hay, leaves and lichens for winter fodder; the processing of milk on summer farms (shielings or seters); fishing, hunting and trapping; gathering of berries, fuelwood and bark; peat-cutting; tar-making, charcoal-burning, and small-scale iron manufacture from bog ore. In some regions were also found spring and autumn farms, stops on the way to and from the summer farm, and even winter farms, where the animals were taken in winter instead of fodder being transported to the main farm. The normal pattern, however, is for the livestock to be kept indoors at the permanent farmstead in winter. Since milking cattle and goats was the women's responsibility, seasonal resource use had a gender dimension; summer farms were women's landscapes, where the dairymaids often stayed

the whole summer and were visited by youths and men at weekends and summer festivities. Summer farms have declined greatly in numbers during the 20th century. Today they may still be used for milking but more rarely for cheese-making; recreational use has become common. The main uses of the outlying land are now for summer grazing, forestry, hunting and fishing. The use of the outlying land requires seasonal mobility of people and livestock locally, and sometimes over long distances (for example the historical use in Finland of distant outlying lands called *erämaa* for hunting, fishing and grazing (Luukko 1959)).

In the forested regions of Norway, Sweden and Finland, forestry was generally combined with farming. Within the household, the men undertook lumber work in the winter (when transport over snow was facilitated by the sledge), while the women looked after the farm livestock. In the summer, cultivation of the fields would be undertaken by men and women together. Timber-floating was a spring and summer activity after the melting of the ice on the waterways. Today, with motorized transport, forestry has become a mechanized all-year activity and timber-floating has ceased.

On the coast, combined farmer-fisher holdings were the norm until the middle of the 20th century. These used resources from the land, the shore and the sea. Along much of the coast, an infield-outfield system operated, with often small cultivated plots, and outlying land which included small islands used for grazing and fodder collection in summer. The shore was used for activities such as fowling, eiderdown collection and seaweed-harvesting, seasonal activities involving local seasonal mobility, as different farms often had rights of use at some distance from the farmstead. Along the Norwegian coast, the drying of stockfish on racks, and the salting and drying of *klippfisk* on rocks, took place on the shore from late winter to the middle of the summer. Fishing was a seasonal activity involving both local mobility and long-distance mobility. The important Lofoten fishery in late winter attracted fishermen from the whole western and northern coast of Norway. The Finnmark fishery was in early summer. Herring were caught in spring, summer and early autumn, and showed marked geographical as well as annual variations. The seasonality of resource use was accompanied by a complementary division of labour between men and women. The women were responsible for the farmstead and animals, and thus only locally mobile, while the men were away during the main fishing seasons, returning to assist with the heavier agricultural operations in summer (Jones 1985b).

A Coast Saami variant of the fisher-farmer livelihood, in which the resources of the outlying land are particularly important, arose with the introduction of livestock into the old seasonal pattern of hunting. This has been documented for the Varanger area in North Norway around 1900 (Vorren 1980; Schanche 2002). Winter dwellings were in the lower river

valleys, where grass was harvested in late autumn, fuelwood was cut, hunting and trapping occurred, and cattle were housed for the winter. The summer dwellings were at the heads of the fjords, with salmon-fishing, berry-picking, collection of hay and sedge grass, and cattle-grazing. Fishing took place in the outer fjords in spring, and hunting and lake fishing went on at dispersed locations inland during the autumn.

The development of Saami reindeer nomadism led to long-distance mobility between winter, spring, summer and autumn grazing lands. The main movement is between summer grazing in higher more mountainous areas with herbaceous and grassy vegetation and winter grazing in lower more forested areas with reindeer lichen. The best lichen areas are those with less nutritious soils, favouring lichen growth, and less precipitation, so that the snow is not too deep and less subject to icing, allowing the reindeer to forage easily for the lichen through the snow cover. Along the way, stops are made for calving in spring, earmarking the calves in summer, and slaughtering in winter. The different stops provide the base for local hunting and fishing trips. The spring and autumn stops also involve a changeover from summer to winter means of transport. In Finnmark the movement is from the winter grazing inland to the summer grazing on the peninsulas and islands of the coast. In Troms and Nordland, the main movement is from winter pastures on the coast to summer grazing in the mountains further inland, meeting herds coming from winter grazing in the Swedish forests. In Central Norway the movement takes place inland between summer pastures in higher areas of Trøndelag and winter pastures in lower-lying areas of Hedmark. Until the early 20th century, the reindeer were relatively tame and were milked in summer – this was again women's work – and the whole family moved with the animals, living in seasonal dwellings or tents (i.e. classical nomadism). Nowadays the reindeer are less tame: they are no longer milked but herded for meat production. While the men have main responsibility for herding, whole families take part in operations such as earmarking. Besides their permanent dwellings, families make use of cabins and caravans at different places along the herding route. Modern reindeer-herding no longer has the characteristics of fully fledged nomadism, but resembles to some degree the transhumance of the Mediterranean. In the Jotunheimen mountains in southern Norway, reindeer-herding is practised by farmers. The same is partly the case in northern Finland, where reindeer-herding occurs with local movements largely in the forest, and except near the northern border with Norway is undertaken by Finns rather than by Saami.

5.2 Secondary and tertiary sources of livelihood

Mining of iron, copper and silver was historically in the Nordic countries closely associated with agriculture and forestry. Most families had farms, and while mining and foundry-work were undertaken by the men, the farm was the main responsibility of the women. In summer the men were sometimes allowed a shorter working week and a period free in the summer when the workload in farming was greatest. Modern mining is little affected by the seasons, thus resembling manufacturing.

Manufacturing differs from primary production in that the working rhythm in factories is essentially the same summer and winter. Activity in certain branches may be affected by seasonal fluctuations in markets and deliveries of raw materials (such as logs to sawmills), but this has also become less in recent times. The main seasonal feature is the annual summer holiday, when activity is often at a minimum, and some factories may close down. Seen from the individual factory worker's viewpoint, the worker's productive time is divided between work and free time, in which the latter is important for recreation and reproduction. Free-time activities are often seasonal, involving both local and long-distance mobility. Small garden allotments, separate from the users' permanent dwellings and generally rented form the local authority, were taken into use in most Norwegian towns in the early 20th century. They began as a working-class phenomenon and were used in the summer for growing vegetables, fruit and flowers, as well as for recreation and social activities. Small cabins were generally erected. Other seasonal landscapes indirectly associated with manufacturing include summer cabins on the seashore, in the forest or in the mountains, seaside resorts, skiing resorts and other holiday destinations within Norden and during the last fifty years increasingly abroad. Beaches in the Mediterranean and the Canary Islands, and increasingly further afield, are popular among holiday-makers from the Nordic countries.

The same pattern is found among those working in trades and services. Shops, offices and other businesses in the tertiary sector are, like factories, relatively little affected by the seasons. Certain types of business are seasonal, such as outdoor markets, outdoor summer restaurants and ice-cream kiosks. Business travel is largely non-seasonal. However, wealthy merchants began in the 17th century the practice of moving to summer houses in rural surroundings in the immediate vicinity of the towns. Today, those working in the tertiary sector have annual holidays and other periods of free time, in which seasonal holiday travel and recreational activities associated with summer houses, winter cabins, and seasonal sports create seasonal landscapes.

In Norway, the number of second homes (cabins and holiday houses) increased from c. 47,000 in 1945 to 287,000 in 1980 and 379,000 in 2006. About half are located in the mountains and about half on the coast, especially around Olsofjorden and the south coast of Norway. There are marked seasonal peaks of use, such as the summer holiday season, and the winter skiing season, especially during the school winter holiday and at Easter. In addition, Caravans may provide substitute second homes. The number of caravans in Norway increased from c. 4,700 in 1963 to c. 77,000 in 1980 (later figures are not available). Many caravans are permanently placed, with tents and fixed wooden constructions attached, although by law they can only be used seasonally. They are often on the coast and used for fishing in spring and summer. Furthermore, recreational boats may serve as mobile second homes. Their number has increased in Norway from c. 50,000 in 1965 to c. 400,000 in 1990. The seasonal landscape – and "soundscape" – of boating is especially marked in Oslofjorden and the south coast of Norway in summer. Recreational boats require in turn harbours and anchorage facilities, such as marinas, which are markedly seasonal in use.

The rapid expansion of holiday travel has led to new commercial activities and purpose-built seasonal landscapes. Hotels, holiday housing, bathing resorts, theme parks, golf courses, riding centres, winter sports facilities etc. show a marked seasonality in use, with off-season inactivity. Their use is frequently associated with long-distance mobility. Purpose-built seasonal tourist landscapes outside Northern Europe, such as on the Mediterranean, cater for Scandinavians wanting to escape the northern winter. There has also developed seasonal consumption of existing landscapes in complex ways. Open-air museums, heritage sites, national parks, and idyllic villages and small towns have their open seasons or high seasons during holiday periods, resulting not infrequently in off-season inactivity and creating consequent problems for local livelihoods.

6. THE LEGAL GEOGRAPHY OF SEASONAL LANDSCAPES

The final approach examines how seasonal land use is dealt with in law. The seasons are, of course, not a prime cause of legal institutions, nor do legal institutions alone determine seasonal rights in a simple sense. There is, however, a complex interaction between seasonal land uses and legal interpretations of rights to seasonal resources.

This section begins with a brief introduction to "legal geography", or "geography of law". According to Blomley's survey of this field in *The Dictionary of Human Geography* (2000), two earlier schools of thought on

the relationship between geography and law can be identified. The first, dominating until the 1920s, involved the descriptive mapping of the regional diversity of law and legal systems. It carried the danger of environmental determinism, where the geographical environment was seen as a causal, structuring agent of law, epitomized by Semple (1918). The second school, from the 1930s on, examined the implementation of laws on spatial patterns and landscapes in the policy-analysis tradition. Laws were here seen as instruments of landscape modification, exemplified by Whittlesey (1935). This reverse causality carried the danger of legal determinism, with the law seemingly operating on a passive spatial situation. According to reviews by Blomley (2000) and Forest (2000), studies from the mid-1980s have acknowledged that there exists a complex interaction between space (or landscape), law and society. Law is not purely instrumental in a simple cause-effect relationship, but is more broadly constitutive of social life through the empowerment and disempowerment of different groups. Significant is the role of legal language, discourse and meaning for geographical representation; legal terms and categories create places by naming and by establishing boundaries that regulate conditions of access and use. Examples are property boundaries, the bounding of public space, the designation of national parks and other conservation areas, and the formal establishment of hunting areas and reindeer-herding districts, each with formal or informal sets of rules. Also important are local conceptions of law, local legal cultures, customs and folk law. The way in which laws are implemented and practised may diverge locally from national norms; laws may be subject to local interpretations, they may be modified by customary rights, or by local features not taken into account by central legislation. A further dimension may be the contestation of laws and particular legal interpretations; consistent opposition may lead to certain laws not being implemented, or may even lead to change in the law. Thus legal praxis is directed or constrained by particular geographical and historical contexts. In the following I will present some tentative ideas on a legal-geographical approach to seasonal landscapes.

A legal doctrine held previously, especially in the 19th and early 20th centuries, maintained that hunters, fishers and nomads, i.e. groups with mobile livelihoods exploiting seasonal resources in different locations, could not establish property rights, and hence the land they used was considered to belong to the state (Austenå & Sandvik 1998; Hyvärinen 1998; Korpijaakko-Labba 1998; Oskal 1999; 2004; Pedersen 1999a; 1999b; Päiviö 2001). This illustrates how attitudes expressed in a particular legal discourse may discriminate against seasonal users of landscapes. The legal historian Kirsti Strøm Bull (1999) refers to a legal theory in Norway at this time that nomadic people could only have usufruct, i.e. rights of use, but not of

ownership. There have been two competing views on the nature of these rights. The rights of reindeer pastoralists were long regarded as "endured" or "tolerated usage", that is rights granted by the civil authorities and subject to their tolerance, as opposed to rights based on "age-old usage", existing since time immemorial. This still to some extent appears to be the belief, despite a series of Supreme Court cases upholding customary usage. The first view holds that the legal basis of the rights of reindeer-herders is statutory law, and that these rights can hence be simply changed or extinguished by legislation. The second view holds that rights based on ancient customary usage are held independently of statutory law, and if removed must be compensated in accordance with the constitution (Bull 1997; 1999; Austenå & Sandvik 1998). The legal historian Sverre Tønnessen (1972) concluded that the rights of the coastal Saami in Finnmark were recognized as a form of ownership until the 16th century and in some areas to the 17th. There is historical evidence from the end of the 17th century that Norwegian settlers took possession of Saami summer settlements at places in Finnmark when the Saami were away at their winter settlements (Schanche 2002: 50). After farmers had colonized reindeer-grazing areas, complaints were made against the reindeer-herders of damage to fields and forests, and attempts were made to curtail seasonal rights of use at the end of the 19th century (Bull 1999). Laws on reindeer-herding of 1883, 1897 and 1933 clearly stated that reindeer-herding rights had to give way where new cultivation took place (Bull 1997). Today, seasonal usage is threatened by new forms of economic activity and fixed installations, such as hydroelectric power dams, road-building, and tourist and sports complexes. In its recommendations for Finnmark, the Saami Rights Commission argued in 1997 that the rights of reindeer herders should be accepted on the basis of age-old usage, and that reindeer herders should be legally protected against expropriation without compensation (Bull 1999). In 2003, the Finnmark Act was passed, by which the state's property in Finnmark was transferred to an independent body controlled equally by the county authorities and the Saami Parliament. Saami reindeer-herding rights were confirmed on the basis of age-old usage, independently of landownership. Other private and collective rights to land based on customary, age-old usage were also recognized, subject to the clarification of claims by the courts.

The legal historian Kaisa Korpijaakko-Labba (Korpijaakko 1989; Korpijaakko-Labba 1994; 1999) has documented that until the mid-18th century the Saami inhabitants of what were termed "Lapp villages" in northern Sweden and Finland were treated as owners of their land (see also Ruong 1969). In 19th-century Finland their land came to be regarded as state-owned land. Although the title of the Saami to their land was never legally terminated, their special livelihood meant that they came in a

subordinate position (Hyvärinen 1998). The situation was similar in southern Finnmark, which until 1751 was under Swedish jurisdiction (Jebens 1999). The legal historian Nils-Johan Päiviö (2001) has shown how after the demarcation of the boundary between Norway and Sweden in 1751 there occurred in Sweden a change in legal language from referring to Saami ownership rights to referring to Saami usufruct. Adjudication of rival claims was transferred in the later 18th century from the local courts to the county administration, which favoured new settlement by farmers to the disadvantage of Saami reindeer-herders. Although the Swedish authorities recognize the Saami villages' usufructary rights to reindeer-herding, hunting and fishing, Saami interests remain relatively weak in relation to interests connected to forestry, industry and tourism (Bengtsson 1998). In 1981 the Swedish Supreme Court gave a verdict in a case concerning Saami claims to ownership of mountain areas in Jämtland. While accepting that ownership rights could be acquired on the basis of Saami land uses such as reindeer-herding, hunting and fishing, without tilling the land, the court decided that the areas concerned had been ownerless before the state began effectively to exercise its claim to ownership in the 18th century, and that Saami use before this was not sufficiently intensive, nor within clearly marked boundaries, that it gave ownership on the basis of customary use (Svensson 1997; Jebens 1999).

The Lapp Codicil, appended to the border agreement between Sweden and Norway in 1751, recognized the rights of reindeer herds to move between the two countries. However, the migratory Saami were no longer allowed to own land in both countries. When the border between Norway and Russia was demarcated in 1826, rights of seasonal movement across the new border were severely curtailed, and this contributed to the dissolution of the distinctive form of livelihood of the East Saami (Andresen 1983). In 1852 winter grazing in Finland was closed to reindeer-herders from Finnmark, and reindeer-herders based in Finland could no longer cross to summer grazing in Norway. The border between Finland and Sweden was similarly closed in 1888. Although reindeer herds can still cross between Norway and Sweden, numbers were reduced when the Lapp Codicil was replaced by new agreements between Sweden and Norway in 1883 and 1919 (Hanno 1983; Bull 1997; Austenå & Sandvik 1998; Päiviö 2001; Pedersen 2006). International borders have thus contributed to exclude or limit in various ways the rights of seasonal users of the landscape.

In agriculture, land is privately owned, with individual family tenure for cultivated land, while the outlying land is owned according to a mixture of individual tenure (e.g. forests) and usufruct on various types of common

land.[10] Often the right to use seasonal resources located at some distance from the farmstead is based on usufruct, for example summer farms, grazing rights, hunting rights and rights to harvest natural meadows. It is easier to represent on maps and in land registers individual holdings than seasonal rights, especially where the rights of different owners to different resources overlap one another, a situation not uncommon historically in the Norwegian mountains. Moreover, such rights are frequently subject to negative mention. Over wide areas of Europe, land reallocations in the 19th and 20th centuries had the specific aim of converting usufruct to individual tenure. The negative representation in legal discourse of particular geographical conditions was used to justify the creation of new property boundaries (Jones 1985c), which in turn paved the way for new types of use such as forest plantations or new cultivation, which tended to subvert the previous seasonal uses. Changing agricultural conditions in Norway led to a decline in the number of mountain summer farms during the course of the 20th century from more than 44,000 to less than 3,000 (Daugstad 2000). Furthermore, in the period from 1950 to 2006, the number of permanent farm units in Norway has declined from 200,000 to 50,000, raising new legal challenges regarding rights to commons that previously were upheld by continued seasonal use.

Seasonal fishermen at fishing stations (*fiskevær*) on the outer coast of Central and North Norway had historically weak security of tenure to their shanties (*rorbuer*). In the 19th century the land was held by powerful proprietors, who imposed as a condition for renting shanties and fish-drying racks an obligation on fishermen to deliver their fish to the proprietor, either by contract or through a system of debt-bondage. Contestation by the fishermen and state intervention from the 1890s onwards resulted in the forbidding of such conditions. Since World War II, however, the total number of fishermen has dramatically declined. Where shanties are still used by fishermen during the winter fisheries, this is combined with use by tourists in the summer season (Jones 1985b; Fjær 1990).

The urbanization of society has led to new types of conflict with regard to seasonal activities. In Oslo the commons surrounding the town, in which all citizens had rights of grazing and firewood cutting, were gradually encroached on and enclosed by wealthy merchants. Their establishment of summer residences led to progressing privatization of the city commons from the 17th century onwards, until they were engulfed by city growth in the 19th century. In other cities, such as Trondheim, the city commons have

[10] Different types of commons and rights of use in Norwegian rural areas are outlined by Falkanger (1998) and Sevatdal (1998), but without focusing on the aspect of seasonal use.

remained, but the type of seasonal use has changed from grazing and woodcutting to modern forms of open-air recreation (Otnes 2002).

In the modern urban-industrial and service society, the distinction between work and free time has been accompanied by a strengthening of the old customary rights of public access (*allemannsretten*), which in Norway is enshrined in the Open Air Recreation Act (*friluftsloven)* of 1957. The right of public access applies to outlying land (*utmark*) and to snow-covered or frozen cultivated land (*innmark*). Patterns of outdoor recreation are strongly seasonal, but in this case supported by vocal and politically powerful urban interest groups. This has led to the establishment of new types of commons for seasonal use. Since the 1930s state and local authorities have purchased shore areas for recreation. Since 1965 there has been a legal prohibition on building within 100 metres from the shore, unless legal dispensation has been given by the local authority and except where building is regulated by a ratified local plan. Since the mid-1970s, the state has systematically acquired from landowners servitudes to islands and shore areas along the southern coast of Norway, ensuring the general public a permanent right of recreation in what is termed the Archipelago Park (*Skjærgårdsparken*). However, conflicts arise between different types of seasonal use for recreation. The general right of public access to the shore has been contested by the owners of summer cottages, who like other landowners exercise what they consider to be customary rights of ownership and use of the shore belt to a certain distance offshore. By erecting flagpoles, jetties, lamps, fences and signs, they attempt to mark their property and create a social barrier against free access to the shore (Berge 2005). In 1998 the Supreme Court judged that the setting up of fences around recreational dwellings in the shore belt was an infringement of the public right of access under the Open Air Recreation Act, as the shore was considered as *utmark*. There have also been debates over the granting of dispensations from the 100-metre belt restriction to allow the building of summer houses and cabins along the shore. In some areas, recreational houses have become all-year dwellings; although this is in conflict with the rules, local authorities do not always take action, and sometimes have given permission afterwards. On the other hand, in other areas – such as small communities along the south coast of Norway that are threatened with depopulation in winter while attracting a large population of holiday-makers in summer – local authorities have imposed restrictions on the sale of existing houses for second homes. In Finland, another type of problem has arisen where rights to village common land have generally not been included in sales of land for summer cottages. Shore displacement due to land uplift has led to the summer cottages being cut off from the shore by commonly owned emergent land in which they do not own a share. To solve

this problem, legislation was introduced giving rights of purchase in such cases (Jones 1971; 1974).

7. CONCLUSIONS

The present chapter has summarized a wide selection of existing literature showing examples of the links between seasonality and landscape in Northern Europe. Five approaches have been illustrated. In the first approach, the natural phenomenon of seasonality was presented, and consequences for the physical landscape described, based on literature in regional geography and briefly introducing the field of phenology. The second approach provided examples of how human responses to seasonality are expressed in the landscape through seasonal activities. Although systematic studies are lacking, with the notable exception of winter, the topic is addressed to some extent in regional geography, while there are a number of studies of particular aspects of seasonality in geography and other disciplines. The third approach focused on seasonal landscapes in the visual arts, especially pictorial representations of the marked seasonality that distinguishes Northern Europe. During the 19th and early 20th centuries, the seasonal contrasts between summer and winter, and associated seasonal activities, were seen as among the defining features contributing to Nordic national and regional identities, a topic that has been addressed in the main by art historians but also in some geographical studies. The fourth approach is functional analysis, as found in historical geography and ethnology, examining how the exploitation of seasonal niches by different forms of livelihood produces different types of landscape. The fifth approach is an institutional one, as adopted in the field of legal geography, illustrating how seasonal land use is dealt with by legal institutions. This occurs usually not expressly but indirectly, through the regulation of activities and livelihoods that are dependent on the seasons, and dealing with the conflicts that may aris thereby contributing to the shaping of the physical landscape.

These examples show that seasonal landscapes are not simply the result of a natural phenomenon, but reflect the complexity of human relationships with their surroundings. Seasonal landscapes are in part the product of natural phenomena and in part human constructions in the physical landscape. Equally they are socially constructed through preferences and expectations influenced by the visual arts, literature, place-naming and the ways in which geographical spaces and landscapes are represented in legal discourse. Seasonal landscapes reflect various forms of identity attached to the use of landscapes at particular times of the year. They also reflect constellations of power. Interactions between law and customary rights, and

between the implementation, practice and contestation of these, are reflected in the appearance and use of seasonal landscapes, and people's attachments to them.

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Chapter 3

SEASONALITY IN BRAZIL: RAIN, MUD AND DROUGHT

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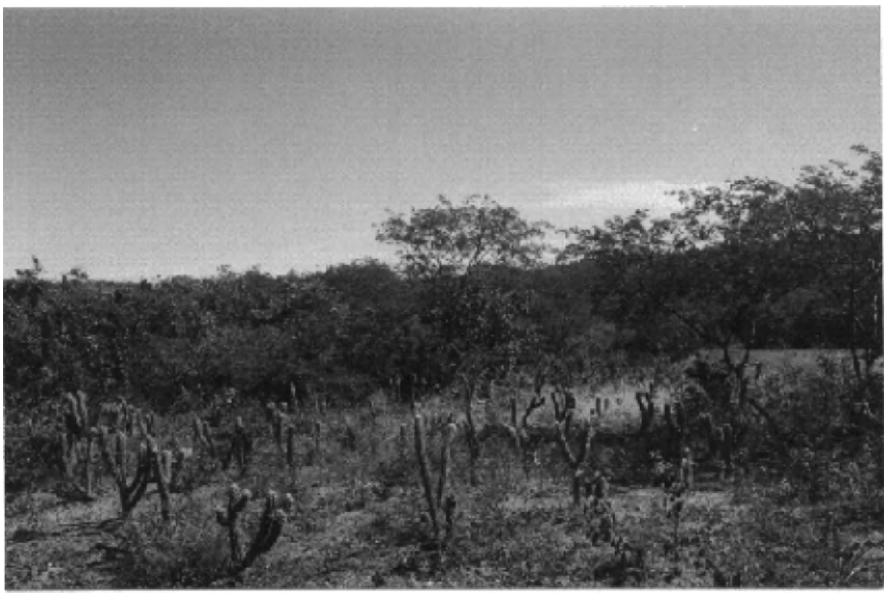

Figure 3-1. Caatinga near Piauí, in the Parque Nacional da Serra da Capivara. Photo: Sergio Chaves.

H. Palang, H. Sooväli and A. Printsmann (eds.), Seasonal Landscapes, 61–83.

1. INTRODUCTION

Brazil owes a high climatic diversity due to its continental dimensions, its geographic form, the long extent of its coasts, its topography and the dynamics of air masses acting on its territory. These factors have a direct influence on atmospheric pressure, winds and the humidity of air in the different parts of the country. They condition temperatures and rainfall.

Brazil remained a rural country until well into the 20th century – its population lived the succession of rainy and dry periods as key factors in the cultures they practiced, the cattle they raised and the social life they had. The prevailing representations of seasons reflected the resulting rhythms of economic and social activities. Seasonality was at the same time interpreted through the myths and religious beliefs of the three components of Brazilian population, Indian tribes, Portuguese settlers and African slaves.

New waves of settlers in the 19th century, as well as rapid urbanization and globalization in the 20th, have superimposed time conceptions, images and expectations imported from Europe and North America on the old forms of seasonality. The new one is less based on the rhythm of rainfall than on heat, which draws people to the beaches and conditions leisure time. The periods of high consumption are increasingly based on an international pattern.

The north-eastern part of Brazil (the *Nordeste*) differs from other Brazilian regions by the irregularities of its rains and the high frequency of its droughts. The Nordeste does not fit the main pattern of Brazilian climatic rhythms. It lacks regular seasonality. This situation was, and is still, used as an argument on the political scene to get money from the federal government.

2. SEASONALITY DEPENDING ON RAINFALL

Just as in other tropical or subtropical countries, seasonality owes more in Brazil to the rhythm of precipitations than to temperatures. The *inverno* is the time of rain (generally, from November to April), the *verão* or *estiagem* the dry period (generally, from May to September)[1] (Fig. 3-2). The range of mean monthly temperatures varies from +1°C in Western Amazonia to +3°C or +4°C in most of the intertropical area, +5°C or +6°C on the tropics and +10°C or +11°C in the south (Fig. 3-3). Rain falls generally during the hot season, but the frequency of cold fronts coming from the south explains the

[1] In the past, the use of these two terms was general all over Brazil. Today, it persists mainly in a part of north-eastern and central Brazil, and in some areas of Amazonia.

fair amount of cold season rains in the south and along the east coast. As a result, equatorial or tropical climates are present over most of the country, with a transition subtropical climate south of the tropic of Capricorn. This transition zone covers about 600,000 sq km, 7% of Brazilian territory (Fig. 3-4).

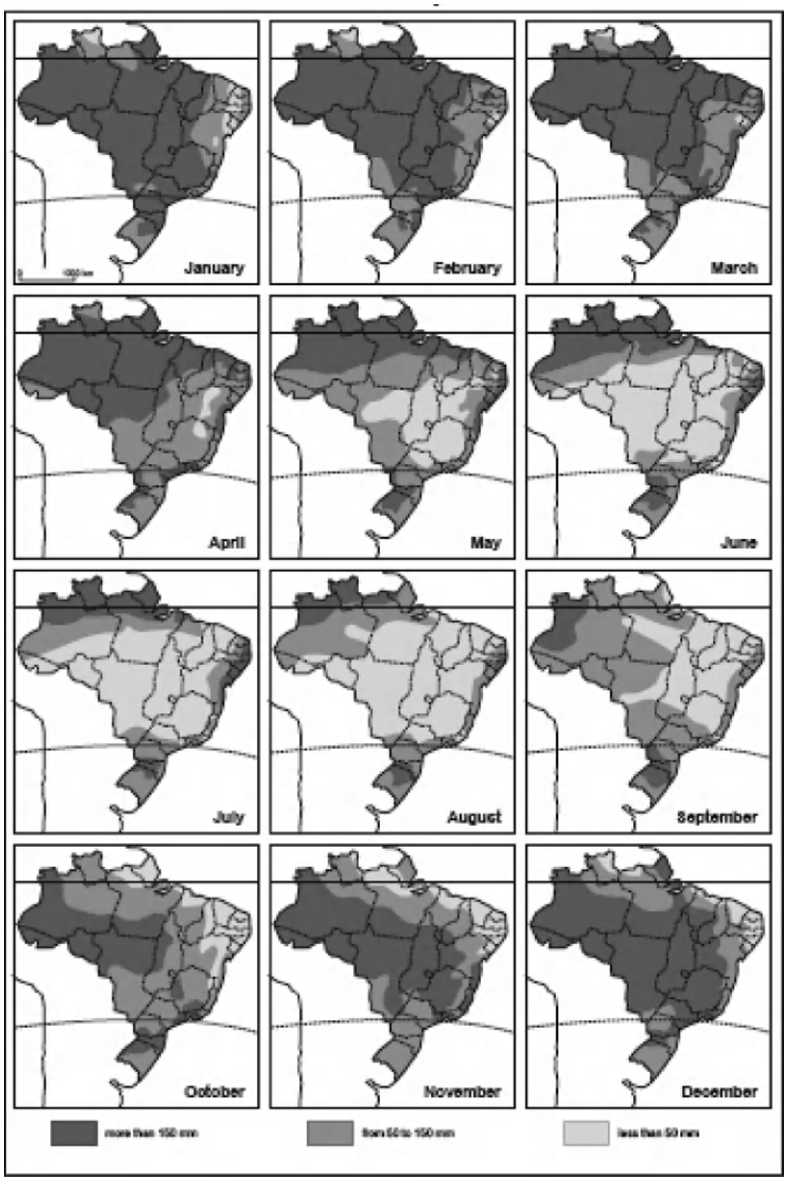

Figure 3-2. Main monthly rainfall (Gourou 1976: 337).

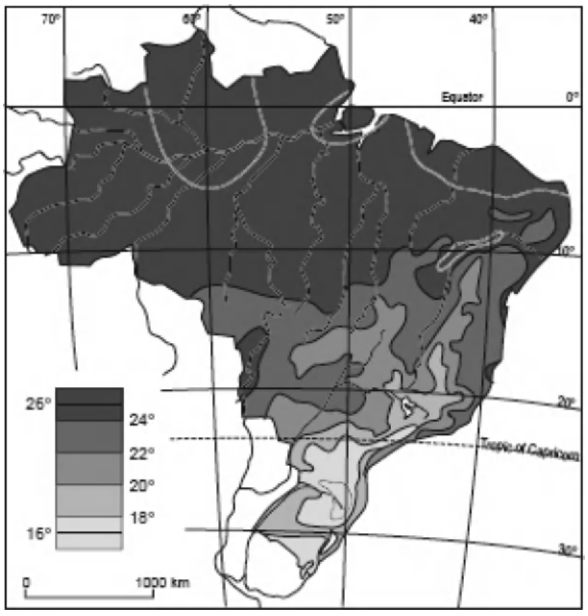

Figure 3-3. Thermal amplitudes (Gourou 1976: 335).

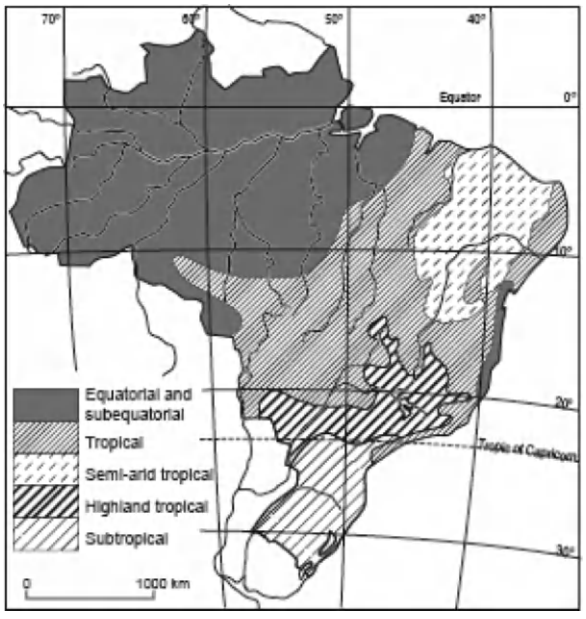

Figure 3-4. Types of climates (Gourou 1976: 335).

Figure 3-5. Caatinga after rain. Photo: Sergio Chaves.

Figure 3-6. Caatinga during the dry season Photo: Sergio Chaves.

The air masses which influence the more directly Brazilian climate are: (i) the Equatorial one, either Continental or Atlantic; (ii) the Tropical, either Continental or Atlantic; (iii) the Southern Polar Atlantic. These air masses are responsible for the major climatic oppositions in the country: superhumid hot climates where the equatorial air mass prevails, as in most of Amazonia, and semi-arid zones where high pressures prevent rain, as in the north-eastern *sertão*. According to Strahler's classification of climates (as presented in IBGE 1991), it is possible to distinguish five major climatic belts:

(i) The humid equatorial climate of converging trade winds, which includes Amazonia.
(ii) The tropical climate, with a rainy and a dry season, and moderate to important precipitation, which includes the essential part of central Brazil and of its north-eastern sea-shore.
(iii) The tropical climate, with low to very low precipitations, caused by the irregular action of air masses, in the *sertão* of Nordeste and the middle Rio São Francisco.
(iv) The humid tropical climate mainly linked to the influence of the tropical maritime airmass.
(v) The subtropical humid climate linked to the interaction between tropical and polar airmasses, in the southern part of the country.

Evergreen trees dominate both in the Atlantic and Amazonian rain forests, *mata atlantica* and *mata amazonica* respectively. Elsewhere, the color of the grasses of prairie or savanna (*cerrado*) or of bush (*caatinga*) change from green in *inverno* to yellow in *verão* (Fig. 3-5 and 3-6).

2.1 Seasonality, farming and cattle raising

Seasonality never reflects directly climatic conditions. As most countries, traditional Brazil was mainly rural. Agriculture was everywhere based on the Indian practice of opening clearings in the prairie (*clareiras*), forest (*mata*), savanna (*cerrado*) or bush (*caatinga*): the most significant period was the time when everything was dry enough to burn: it was the time for creating *roças* (clearings), i.e., September and early October in most Brazil, December or early January in the *Nordeste*, due the autumn rains of this region. One of the inferiority of the equatorial type of climate of western Amazonia comes from the lack of dry season, which makes difficult the preparation of fields by fire.

Immediately after burning came the time for sowing corn and beans, and planting manioc or potatoes. Harvesting or collecting was also significant, but less dramatic than elsewhere since tubercles may stay underground for some time.

The rhythms of commercial crops were somewhat different. In the state of São Paulo, the main flowering of coffee-trees occured in September-October. Crop coincided with the dry season, from May to August. Coffee trees do not require much work during the rainy season: at the end of the 19th century, it left time enough to the Italian workers for growing a crop of corn, an important resource for them. In this way, a happy combination of food and commercial crops was possible (Denis 1927).

Cattle raising depended also on the rhythm of rains. In the south, cattle introduced along the Plata Bay by the Spanish explorers had run wild by the end of the 16th century and occupied the pampas on both sides of the Parana and Uruguay rivers. In the Rio Grande do Sul, the herds move without any control all over the actual *campanha,* the grass country. These wild herds migrated according to the abundance of vegetation: the Portuguese settled in central Brazil knew the existence of the migrating herds, which they called *gado do vento,* herds of wind, since their movements appeared as free as winds blowing from the four compass points: they practiced a form of natural transhumance.

Since the rains were mainly concentrated between November and April in most inland Brazil, there was an annual rhythm for cattle reproduction: calves had to be born in the beginning of the rainy season, when an abundant vegetation helped cows to give milk enough to feed them. Because of the length of the dry season, farmers had to build cisterns (*cacimbas*) where cattle could find water during the long periods of drought. As a result, the control of herds was easier than in the *pampas* of Rio Grande do Sul, where the climatic control was less severe (Denis 1927).

2.2 Seasonality, transport and communication

In a tropical country like Brazil, seasonality is particularly important in traveling and transportation: most paths, trails and roads could not be used at the time of rains, i.e. during the months of December, January, February and March (sometimes April) for most Brazil. It was only for navigation than *verão* was a good season.

The *bandeirantes* of São Paulo who organized expeditions to open the interior of the continent called them *monções,* monsoons, since their timing had to respect the rhythm of rainy and dry seasons. One example: the two bandeirantes from São Paulo who opened the road to Cuiabá, where gold was discovered in 1727, relied mainly on the river system. From São Paulo, they sailed down the Rio Tietê and the Rio Paraná, and then took up the Rio Pardo, on the right bank of the Rio Parana. After the portage of Camapoã, they moved down the Rio Taquari to the Rio Paraguai, and then up the Rio Paraguai and its letf bank affluent, the Cuiabá river. The itinerary was easier

when followed during the rains – because of the flooding of the Pantanal during the rain period, from December to March, it was possible to cut short the normal route: boats could move directly from Rio Taquari to the Cuiabá river (Denis 1927).

As soon as gold mining became important, in the 1730s, another form of transport was required. A land route was opened for carts. It was traced from Vila Boa (now Goiás Velho, another miners' settlement). From Goiás, the road, which led initially to São Paulo, was redirected towards ports within what is today the state of Rio de Janeiro, Parati first and later Rio de Janeiro. Such roads were mainly used during the dry season, from April-May to October-November.

Cattle raisers from the inland part of Brazil had a specific problem: if they wished to offer cattle which was not too scraggy to their customers on the coast, they had to move their herds during the rainy season, when pastureland was plenty, even if it was the time when trails were the worst. Cattle was sold in fairs, which were held at the end of the rainy season: Santa Ana, Curralzinho and Candeúba in Bahia, Brejo d'Areia, Itabaiana to the north-west of Pernambuco (Denis 1927). The herds and mules of Rio Grande do Sul left their pastures in September or October. They reached Sorocaba in the state São Paulo between January and March, during the rainy season: there, it was the time of the annual big fair (Denis 1927).

All social life was rhythmed by the practibility of trails and roads. Except for the special cases of water inland routes and cattle trade, it took place mainly during the dry season, from April-May to September-October. The railroad allowed for the first time to travel or make shipments all the year round. Since it was for long impossible to build solid roads (there are extensive areas in the country where there is no rock outcrop, Amazonia for instance), cars were of no use during the rainy season. Huge trucks destroyed so rapidly the gravel roads that they did not help to develop most inland Brazil until the construction of black-topped roads, which started mainly in the 1960s. For most of the country, the tyranny of the rainy season disappeared only a generation ago – and is still a significant factor in the life of the pioneer fringes. The transamazonian road, which links the eastern and western parts of central Amazonia, is still closed for a part of the year.

3. SEASONALITY AS AN EXPRESSION OF THE DIVERSITY OF BRAZILIAN POPULATIONS

3.1 Seasonality and the Indian component of Brazilian population

Seasonality was interpreted in Brazil by populations of diverse origins. The forms it took in the Brazil of the past – which are still alive in many rural areas – were built out of their contributions. The way of life of Indian populations combined the exploitation of a variety of resources: gathering, hunting, fishing and farming. A division of labor existed between genders – men were basically warriors, hunters and fishermen; they were also in charge of felling and burning the trees when preparing *roças,* the clearings. Women were in charge of most of farming, nursing and caring for children, weaving and cooking – which was time consuming for a food like manioc.

Manioc and corn were the basic foods, but some diversity was introduced through the gathering of fruits. Hunting and fishing provided the population with proteins, which had otherwise lacked, except for beans – there were no domestic animals raised for their meat or milk. Even if farming played an important role in the life of Indian populations, they were not wholly sedentarized. They moved their villages because of the exhaustion of soils, or because they decided to follow one of their medicine men, who had discovered the location of Earth without Evil they were permanently looking for. Dantas notes, for the state of Ceará:

> "The moves of tribes living on the coast towards inland areas (mainly the *sertão*), or the reverse, were frequent during some periods of the year. As an example, the Cariris Indians, who lived in the *sertão* […], spent October and November in the coastal area in order to escape the hardness of the semi-arid climate and gather caju nuts. The Tremembés, who lived in the coastal zone, moved in winter time towards the hinterland in order to gather honey and forest fruits in Uruburetama Mountains" (Dantas 2000: 111).

Indian rites stressed the rhythm of farming – there were for them "two important ceremonies for celebrating the time of manioc and pineapple maturing and crop" (Freyre 1933/1992: 97). Their mythology was not, however, basically that of farmers. We know it partly through the accounts given by Jesuit missionaries in the 16th and 17th centuries.

Jurupari played a central role in the native myths, in the Devil (Cascudo 1983: 51ff). He was a god of men – he had given them back the power once usurped by women. He was a god of warriors or hunters, representing the

power of the Sun. The feasts organized for *Jurupari* were given for (i) the initiation of men, (ii) the first bath of children in manioc juice, and (iii) the first menses of young ladies. His cult had nothing to do with the rhythm of farming activities.

Anhangá was a wandering spirit, who tormented human beings through the nightmares he induced. He was also a protector of game and played in this way a significant ecological role (Cascudo 1983). *Curupira* was the protector of forest, and acted for it just as *Anhangá* did for game (Cascudo 1983). There were in Brazil, as elsewhere in the world, many wills-o-the-wisp. *Mboi Tatã* personified them. Since wills-o-the-wisp might be observed by everyone, the legends of *Mboi Tatã* were easily diffused among the other components of Brazilian populations. Because of linguistic proximity, *Mboi* was frequently transformed into *Boi,* the ox, during this process.

Indian religion was in many ways a religion of nature, but much more of the wild nature, game or forests than of farming.

Indian culture was mainly introduced to the other components of the Brazilian population through the role Indian women played in the early colonial times. The half-breeds, the *caboclos,* showed the Portuguese settlers how to clear and burn the forest, and grow manioc, beans and corn. It was thanks to their Indian women that Portuguese shifted from bread to *farinha,* from wheat to manioc in their diet. Indian myths were not responsible for the institutionalization of a specific calendar.

3.2 Seasonality and the African component of the Brazilian population

Black slaves from Africa came from countries where seasonality was similar to that of Brazilian Indians – a seasonality of tropical peoples, living in countries where the rhythm of seasons was based on the fluctuation of rainfall more than on temperatures.

African slaves came nearly from the entire African tropical belt: western Africa, the Guinea Gulf and Nigeria in particular, and in the southern hemisphere, Angola and Mozambique. Most of them were animists. Out of their African traditions, slaves elaborated new religions: the Candomblé, which owed most of its features to the religions of Yorubás and Dahomeyans, and Umbanda, closer to the religions of Bantu populations of the southern hemisphere.

The African religions emphasized the role of natural forces, the sky, the sun, the sea, but did not suggest a religious calendar of their own. The gods of Candomblé had not settled in Brazil with the slaves: their home was still in Africa. The cult aimed at attracting them for a while, astriding faithful dancers in trance (Bastide 2001). The place where it was organized, the

terreiro, was in this way transformed into a sacred space inserted into the Brazilian nature, often in a park, but still evoking African realities (Corrêa 2004).

Afro-Brazilians were responsible for the interpretation of many Indian or European myths. The cycle of *Boi Bumba* or *Bumba-meu-Boi* was typical in this respect. It was based on an African myth which told the killing of an ox – *boi.* It took a part of its sacred character from its confusion with the Indian cycle of *Mboi Tatã.* It was adapted to the Brazilian scene: its characters were present in every plantation: the hero, a poor guy, and his wife who was pregnant and wished to have an ox sacrificed, Uncle Mathew, Aunt Catarina (the masters of the plantation), a veterinary, a Roman Catholic minister, a cowboy, a sheep, a donkey, the ox (Mattoso 1992).

Most slaves worked on plantations or in cities. In the *engenhos* all over the Brazilian sugar belt, slaves were mainly in charge of cane farming, specially planting and cropping. Food, mainly manioc, was grown on small fields by the slaves or bought from local *caboclos* – with, as a result, an irregular and poor diet. There was no husbandry on the farms – dried meat (*carne de sol*) came from the *sertão*, cod (*bacalhau*) from Europe. Even if plants played an important role in African-American rites in Brazil, they did not influence much the daily life of the majority of the population, since they were not linked to the productive activities of the colony. Some of the habits of the black population permeated the whole Brazilian society, especially for cooking *feijoada:* a rich dish made of beans, is served everywhere on Sundays, since it was the day off of slaves.

The integration of black slaves into Brazilian nature was complete only when they escaped from the plantations. Fugitives created free settlements, *quilombos,* where they practiced types of farming which were often borrowed from the Indians – partly because these former slaves often raided Indian tribes to get women.

3.3 Seasonality and Portuguese settlers during the colonial period

The seasonality of Portuguese settlers was a Mediterranean one – the evergreen vegetation was not a surprise for them, but the occurrence of rains mainly during summer was new. The symbolism of Christian feasts, adapted to a Mediterranean environment, did not fit, however, in the tropical conditions.

The way farming was developed in Brazil was also different from the European tradition: no more ploughing, no more oxen or horses for drawing ploughs or harrows; animals were used only for drawing carts. In the remoter parts of the country, transport relied exclusively on pack horses and mules.

In such a context, Christianity should have been partly deprived of its capacity to symbolize the rhythms of nature and agricultural life, as it did in the northern hemisphere. In the southern hemisphere, Christmas occurs when the days are longer. For most of Brazil, it coincides with the beginning of the rainy season, the most stifling period of the year.

A naturalist interpretation of the Christian calendar was, however, soon developed in Brazil. The baroque atmosphere which characterized Brazil during the 17th and 18th centuries was conducive to the association of religious events with rich rituals and festivities. During the 19th century, in Salvador for instance, beautiful cribs were prepared for Christmas. There were sometimes set in a model of the city of Salvador, which was a way to locate the Nativity in the New World and to associate it the local forms of farming. Young people dressed up as shepherds danced before them (Mattoso 1992).

Epiphany was the time when the legend of *Bumba-meu-Boi* was played (Mattoso 1992) – such a strange blending of Indian mythology and African legends with the Christian creed was typical of the syncretism so strong in the popular form of Roman Catholicism which prevailed in Brazil. Through it, some relation with natural rhythms was reintroduced into the Christian calendar.

Carnival was imported with the first Portuguese settlers and remained, until mid-19th century, a popular feast, known under the name of *entrudo.* It did not coincide, as in the northern hemisphere, with the beginning of a period of food-shortage for human societies. As a result, it was not marked with an over-consumption of meat and food. The main entertainment was to throw bombs of perfumed – or dirty – water (*limões de cheiro*) on anybody else. It was an adaptation of the European carnival to a tropical climate, but had nothing to do with the forces of nature (Ferreira 2005).

In the southern hemisphere, Easter had nothing to do with the renewal of natural forces. Since it had lost its natural symbolism – the glorification of life – it appeared more as an expiatory feast as a celebration of resurrection. During the Holy Week which was more significant than Easter Sunday itself. Many processions took place, where people flagellated themselves – an expression of baroque sensibility.

One of the paradoxes of the Portuguese colonization was that the share of Portuguese blood was higher inland than on the coast, where the plantations were located. There were only a few black slaves in the *sertão*. Since economy relied there mainly on cattle raising, most of the techniques were imported from Europe. Even if the Indian component of the population was significant, the behaviors and beliefs owed more to Portugal than to it.

It was in these inland areas that the popular forms of Christianity, which were so characteristic to Brazil, took their more complete forms. There were

few ministers, more prayers than masses. Faith was simplified: the pantheon was centered on God, Christ and Our Lady, but included also many saints, small or great. Everyone was linked to a particular saint through its name. There were also local saints, whose powers were important in specific fields: healing sick persons, cattle or sheep, farming, etc. In this crude form of Christianity, the faithful generally prayed for the health of their husbands, wives, parents or children, the success of their crops, the return of their commercial activities. They made compacts with saints: "If you intercede on behalf of me with the Lord, I shall pay you back by penitence, a pilgrimage to one of your sanctuaries, or money for the Church" (Hoefle 1996). As a result, Brazilian Christianity was largely based on the cult of saints and on the development of a rather dense network of pilgrimages (Rosendahl 1994; 2002).

The seasonality of pilgrimages was partly based on the Christian calendar. Since the cult of Our Lady was so important and its main ceremonies were celebrated in August and September, many pilgrimages occurred at the time when traveling was easier: the pilgrimage of the Lady of Abadia, in Muquem (north of Goiás state) happened between August 5-15 each year; that of Santa Cruz dos Milagres (south of Piauí state) lasted from September 5-14. Since the pilgrims were mainly rural settlers, such pilgrimages were always linked to the time-table and worries of farmers – people came because they wished to pray the saint for the success of their future crops, or thank him because the previous ones were plentiful.

In this way, the Brazilian society, as it developed from 16th to early 20th centuries was a Christian society, based on farming, and where the popular forms of Christianity had allowed a real adaptation of the Christian calendar to the rhythms of local nature.

The religion of Brazilian cities of the time was closer to the European model, and less integrated into the southern hemisphere environment.

4. SEASONALITY IN AN URBANIZING COUNTRY

4.1 The impact of European settlers in the 19th and early 20th centuries

A part of the second wave of European settlers, in the 19th century, came from continental or Eastern Europe. The policy launched by the Emperor Pedro I and developed by his son Pedro II aimed at the creation in Brazil of another type of American society. The United States served as a model: the idea was to attract settlers from all over Europe except Portugal (since the

Emperor Pedro I thought that Portuguese people would too easily adopt the traditional Brazilian attitudes concerning slavery), to provide them with small or medium size farms and to create in this way a middle class of rural landowners, essential for the development of a democratic and free society. The experience was launched in the southern states of Rio Grande do Sul, Santa Catarina and Paraná – and up to a point, in the state of Espírito Santo, in the south-east of Brazil. In São Paulo, the owners of coffee plantations, who had understood that the time of slavery would shortly come to an end, decided to build their own version of a white society through the systematic employment of free immigrant workers coming mainly from Italy. Some of these immigrant groups, the German one in particular, tried to reproduce the forms of settlements they had left in their home countries.

In this way, a "white" and "European" Brazil was built between 1830 and World War I. Its population came first from Germany and Switzerland, and later from the Netherlands, Poland, Ukraine, Bohemia, Italy, Lebanon or Syria. It was made of Lutherans (part of the German immigrants), Roman Catholics (majority), Orthodox, Maronites, but also Jews and a few Moslems.

The new settlers were soon convinced that the only way to succeed in their farming activities was to adopt the local techniques and crops: they learnt to open clearings (*roças*) by felling the trees and burning them; they produced two or three crops before leaving their fields revert to a forested cover (*capoeira*). They turned to native crops, corn, beans, even if some of them stuck to wheat and introduced wine-growing (mainly the Italians in Rio Grande do Sul and up to a point, in Paraná). Most of them raised cattle for the production of milk.

In many ways, the new wave of immigrants did not change deeply the relation of Brazilian people to their environment – they preferred to adopt the dominant technologies and calendars.

Mediterranean countries have evergreen vegetation, which meant that Portuguese settlers had found in Brazil conditions which were not completely different from those of their home country. For the German, Polish, Ukrainian, Bohemian settlers – and for the Italians coming from northern Italy too –, the differences were more important. They came from countries with deciduous vegetation.

With this new wave of settlers, Christianity took another character. The naturalist symbols of some Christian Feast, Christmas and Easter, were very important for them: they longed for deciduous leaves, beautiful firs and snowy landscapes – and up to a point, tried to create substitutes for them.

In this way, the 19th century immigrants introduced into Brazil new dreams, new sensibilities. Because of the hot and humid season was so uncomfortable, it became fashionable for the affluent part of the society to

spend a few months each year in mountain resorts – in the Serra of Tijuca and later in Petrópolis and Teresópolis for Rio de Janeiro. A part of the population of these highlands was German or Swiss (Nova Friburgo, close to Teresópolis, for instance). When moving to the mountains during the southern hemisphere summertime, people were expecting an environment a bit similar to those of Alpine regions. It was impossible, since there was no perpetual snow on the highest summits of Brazil.

With the development of tourism, dreamed landscape flourished in the highlands of Brazil. Mountain resorts opted frequently for Bavarian, Austrian or Swiss types of buildings. It was the case in Campos de Jordão, Aguas de Lindóia and São Bento de Sapucaí (Serra of Mantiqueira) in the state of São Paulo, or in Teresópolis and Petrópolis in Rio de Janeiro (Yázigi 2001).

4.2 Seasonality in an urbanized tropical country

Brazil is today an urbanized country. In 1940, Brazil was still mainly rural: out of the 41 millions inhabitants of the country, less than 13 million lived in cities. Today, there are about 140 millions of urban dwellers out of the 175 millions of Brazilians. In two generations, the number of urbanites has been multiplied by more than ten times.

For the majority of the Brazilian population, seasonality has ceased to be lived mainly through the rhythms of farming and the time of crops – in all the cities and everywhere in eastern Brazil, the old opposition between two major seasons: *inverno*, the rainy season coincident with the austral summer, and *verão* or *estiagem,* has been replaced by the universal astronomic seasons: austral summer, which is the time of rains, has ceased to be equated with *inverno,* and austral winter has ceased to be equated with *verão* or *estiagem*. They are four seasons, as everywhere else in the world: *primavera, verão, outono* and *inverno.*

In a country where temperatures do not vary much, the rhythm of season does not introduce much variety – except in the south, the length of days is approximately constant. In most of the country, the only difference between the coldest period of the year and the warmest is that air conditioning can be switched off. The difference between the humid and the dry seasons is more important – life is more pleasant when there is no rain, but it does not make a lot of difference for all those who do not live outdoor, that means, for the majority of population. Air conditioners rub out the hottest periods of the year.

In most Brazil, huge rainfalls are today the only significant climatic accidents. Rivers are flooding. Motorways are closed because they are flooded, especially when they have been systematically located in the

valleys, as in Salvador. There are risks of mud flows on all the steep slopes, where a part of the shanty towns, the *favelas*, have been built.

The variations of temperature are felt more deeply because the places and rhythms of work have changed – winter humidity and cold are very uncomfortable in the south, where most houses or apartments have no heating systems. Working in an office or living in a small house with a corrugated iron roof in the hot humidity of the rainy season is very testing. Only a minority of Brazilians is still wealthy enough to afford an air conditioner.

In social life, the dry season was the time of mobility and sociability since the rains transformed trails and roads into muddy quagmires and holes and made them unusable for months. The most striking result of urbanization and modernization is a complete reversal of the rhythms of mobility: it is at the time of rains, from November to March / May that urban dwellers are glad to leave their overheated houses or apartments to congregate on the beaches (the majority of people), in highland areas (a minority), or along the beaches of inland rivers, as in the Bananal island, the largest inland island in the world, along the Araguaia river, for instance.

The migration towards the coastal belt occurs mainly in December, January and February, the rainy season – it is not possible, however, to stay outdoors all the time because of clouds and showers. Hence the recent success of Fortaleza and the seashore of Ceará, where the dry season lasts until March, with regular trade winds which make the climate pleasant.

Urban seasonality is a class reality: the higher classes have generally second homes; middle classes are rich enough to spend some time – generally a week or two, exceptionally a month – on the beaches of the sea-resorts. For the lower classes, the only possibility is to take advantage of week ends to frequent the beaches. In Rio de Janeiro, buses coming from the *Zona Norte* (the northern zone) bring hundreds of thousands people to the coast in *Zona Sul* (the southern zone). In Salvador, everyone visits the ocean front, between Barra and Itapõa.

4.3 Seasonality in a consumption society at the time of globalization

Brazil is today a society of consumption. The seasonality that Brazilians live is increasingly imported from other Western countries, United States or Europe. The rhythms of life have ceased to be thought in terms of the Christian calendar and its natural or farming connotations. They are increasingly borrowed from the international society of our global time as it is mirrored by movies, TV shows and international press. Brazilian affluent "people" are living just as their likes in other Western countries.

In such a context, life is mainly structured by the time to buy things and make gifts, and by the periods when tourist migrations occur. In Brazil today, the time of gifts coincide, as in the northern hemisphere, with Christmas and the New Year, even if the temperatures are quite different.

Leisure also reproduces these global models: it is particularly evident in the sea or mountain resorts. Mountain tourist areas are increasingly Alpine or German in their look. Along the coast, many features of the man-made environment have been imported from the Mediterranean or the Caribbean. The landscapes people are fond of during the hot season are made of long white beaches of fine sand, with coconut trees – Brazil is well endowed with them. Hence the fashion of "Brazilian" sea-resorts, with their two varieties: the high density one, with its high-rise buildings along a beautiful bay, as in Copacabana, and the low density one, with one or two storey buildings dispersed in the trees, as in Praia-do-Forte, north of Salvador, or Búzios, east of Rio de Janeiro. In both cases, the beach is lined with coconut trees; on the beach, there are straw huts where cold drinks and beer, snack food or barbecued fish and meat are sold. In a way, Brazil has become, mainly for the middle classes living in the major metropolitan areas, São Paulo or Rio de Janeiro, a picture of this seasonless paradise which is central to the globalized representation of Western consumption societies.

One of the more original characters of Brazil today is the dynamism of its media industries. Series, locally known as *telenovelas,* play a central role in TV programmes. Through them new styles of Brazilian seasonality are created. Often shot in the Western suburbs of Rio de Janeiro, in the coastal area of Sepitiba, they set many scenes in beautiful inland *fazenda,* or luxury second homes along the coast. The blue lagoons of Ceará, close to Fortaleza, have been sometimes used to promote an image of high-class environments for the lazy life of the tropics.

Telenovelas are highly popular – millions of spectators follow them every day. They create a dream shared by most Brazilian population, mainly in the middle or lower classes. Thanks to media, the image of the tropical environment diffused – and accepted – in the shanty-towns, the *favelas,* is that of this eternal spring or summer.

Contemporary Brazil is also a country of strong critical movements – many people are mobilized along the programmes of *altermundialismo*, another way to build the world. The criticism of contemporary society is also expressed by the growing significance of new Pentecostal Churches and sects. Will they shape another perception of seasonality in Brazil? It is too early to answer.

5. THE PROBLEMS OF THE *NORDESTE:* THE LACK OF A CLEAR SEASONALITY

The *Nordeste* is especially interesting for studying the seasonality of Brazil because of the complexity of its climates and its early settlement by Portuguese people relying on Indian or black African labor force for producing export goods.

5.1 The rhythms of climate

The climate of the *Nordeste* is complex, because it is based on four systems of atmospheric circulation, namely the south, north, east and west disturbed streams.

The stream which comes from south is made of polar fronts. During the austral spring and summer, it reaches the coastal areas of the southern Bahia state, and brings frontal and post-frontal rains along. These rains reach the Pernambuco coastal area during the austral winter, at a time when the *sertão* remains under the influence of tropical high pressures.

The system of disturbed streams coming from the north, represented by the Inter Tropical Convergence (ICT), is responsible for rains during the austral summer and early autumn as far south as Pernambuco. The east streams are, however, more frequent during the austral winter, when they are responsible for abundant rains on the eastern seashore, but seldom reach the scarps of the Borborema Highland (800 m a.s.l.) or Chapada Diamantina (1200 m a.s.l.).

Last, the system of disturbed west streams, brought by the Tropical Lines of Instability (TI), occur from the end of austral spring until the beginning of autumn, seldom reaching the states of Piauí and Maranhão.

Concerning the thermal regime, temperatures are high, with annual means between +20°C and +28°C, the maxima being observed in southern Maranhão and Piauí. During the austral winter, mainly June and July, minima are between +12°C and +16°C in the coastal area, and lower inland; +1°C has been observed after a cold front in the Chapada Diamantina.

In this region, rainfall is a major concern. The annual totals vary from 2,000 mm to 500 mm between the coastal areas in the states of Bahia and Pernambuco, and the lowland of Patos, in the state of Paraíba. Generally, mean annual rainfall in the *Nordeste* is below 1,000 mm, with 278 mm, the lowest annual mean in Brazil, in Cabaceiras, in the inland zone of Paraíba. In the *sertão,* the rainy period lasts normally only two months every year. In some years, it does not exist at all – these regional droughts are called *secas.*

Because of the interplay of the four streams and their interannual variability, the rhythms of climate are not stable in the *Nordeste*, particularly in the *sertão.* This variability is responsible for specific forms of seasonality.

5.2 Vegetation

The great diversity of phytogeographic landscapes in the *Nordeste* is directly linked to the great variety of climates. When talking in Brazil of the "*nordestino* landscape", the first image which comes to mind is that of the *caatinga* phytogeographic domain. This association of ideas between the *Nordeste*, semi-arid climate and *caatinga* results from the great importance of this landscape domain in the *Nordeste*. All the ideas related to this landscape, such as, for instance, those of drought (*seca*), hunger and poverty – ideas which not always coincide with what really exists –, not only permeate the collective imagination, but characterize what we call, by generalizing, the north-eastern *sertão.*

Even if *caatinga* holds a great importance, three other domains of vegetation may be found in the *Nordeste*: the rainforest, *mata atlantica,* the Amazonian subcaducifolial forest and the savanna (*cerrado*). Moreover, there are in the *Nordeste* elements of transition which are as important as the main ones. There are also vegetation formations "enclosed" in alien landscapes; they exist probably because of soil and topographic local conditions, and offer in this way an original type of vegetation within a completely different environment. On the whole, it is possible to distinguish ten types of phytogeographic landscapes: (i) coastal evergreen rain forest; (ii) Bahianese hilean evergreen forest; (iii) Amazonian subcaducifolial tropical forest; (iv) subcaducifolial tropical forest; (v) non-thorny tropical forest; (vi) *caatinga*; (vii) savanna (*cerrado*); (viii) prairie (*campos*); (ix) flood prairie; (x) coastal vegetation.

5.3 Drought (*seca*)

The main climatic characteristic of the *nordestino sertão,* which is extended to the entire *Nordeste* in the perception Brazilians have of the region, is the drought, *a seca.*

The drought (*a seca*) is a natural phenomenon characterized by the late occurrence of rainfalls or their irregular distribution. It is harmful to the growth and development of grass and crops. Archival records show that the phenomenon occurs approximately every ten years, and may last for periods of three, four or exceptionally, five years. The droughts (*secas*) are known in Brazil from the 16th century, when the first settlers observed the damage they caused to economic activities and social life.

The regime of droughts (*secas*) may have different intensities. According to rainfalls, the droughts may be characterized as absolute droughts (*secas absolutas*) or green droughts (*secas verdes*). When there is an important deficit of rainfall, with less water than needed for seeding or planting, the drought is characterized as absolute. When rainfall is just enough for covering *caatinga* with leaves and accumulates a small quantity of water in the tanks, it is a green drought, *seca verde.*

Droughts in the *Nordeste* result from the interaction of various factors. Some are exterior to the region, as for instance the processes of wind circulation and maritime streams, which depend on atmospheric movements. They prevent the occurrence of rain in specific areas. They are also, however, internal factors, as the characters of vegetation (which is not very hardy), topography and soil reflectivity.

The *Nordeste* is a region of contrasts in all its aspects: natural, human and economic. There are rainy stretches of land, just as the coastal area, and semi-arid areas, just as the *sertão.* About one fourth of the population lived in poverty, receiving less than a monthly minimum salary[2], when 0.8% of it receives 20 or more minimum salaries a month.

Many *nordestinos* have to leave the region in order to get a job. Commonsense tends to link such a situation of poverty in the *Nordeste* to the dry climate. The regional problems, however, are not only climatic ones – if only because the entire *Nordeste* is not dry. A region is poor for various reasons, which have been combined throughout history. In order to understand the reality of the *Nordeste* with all its contrasts, it is important to study the way natural as well as human and social factors have interacted to produce this particular region within the Brazilian space – or, to tell it differently, how was created what we call, until today, the industry of drought (*a indústria da seca*).

It is interesting how the lack of a clear seasonality of rains in many parts of the *Nordeste* appeared – and still appears – as a disaster in the perception Brazilian public opinion had (and still has) of the region.

5.4 The narrative of drought in the *Nordeste*

Geographic determinism provided the basis of "the narrative of the drought in the North-East" (*o discurso da seca nordestina*). Relying on simplistic conceptions of causal relations, it made nature the main culprit for the backwardness of the *Nordeste*, since the semi-arid climate induced a deficit of water, responsible for a weak agriculture, which generated hunger

[2] Because of the long periods of inflation, the minimum salary does not reflect the prices of today. It means that the threshold of poverty is today at 4.5 monthly salaries.

and poverty, and, as a result, the economic backwardness. Otherwise expressed, where there was no water, there was no development.

We know that this determinist vision does not explain reality: the arid climate of California or Israel does not reduce the populations of these countries to a state of misery. Thanks to technical and scientific development, human societies are able to overcome the obstacles nature imposes. The narrative of drought was in fact born of the strategies of regional elite, in its attempts to get more money from the federal government and consequently more power on the local scene.

The idea of drought as linked to poverty did not always exist. During the first half of the 19th century, after the independence of the Brazilian state, Brazilian intellectuals had to draw a historical, geographical and cultural portrait of the nation, in order to province it with a strong identity. Geography played a fundamental role in this context since it had to show what the national territory was and to explain the characters of the Brazilian regions according to the prevailing ideas.

In the environmentalist perspective of the time, the *Nordeste* was considered as full of promise, since its climate would guarantee its progress. It would make work easy, as soon as the north-eastern man (*nordestino*) would prove strong enough to overcome natural obstacles, which he would do since he was apt for whatever task. More, the hot climate would facilitate procreation, creating a healthy race. As a consequence, the dry climate would be a cause of development.

It was at the beginning of the 20th century that the tragic significance of drought – i.e. of a lack of regular seasonality – began to be stressed. An increasing number of writers began to describe the *sertão* in a dramatic way. Their works were later used as arguments to transform drought into a "national problem" – the idea of the inexorable influence of environment was easily transformed into an association between the backwardness of the region and its physical environment.

This imaginary representation succeeded in eliminating completely the previous one, with its romantic flavor and its exaltation of the national soul, where the climate of the *Nordeste* was one of the determinants of progress. The drought was by now terrific, destructive. It threw out on the roads the population of the North-East and caused poverty.

Using this set of ideas, the media and public opinion gave a tragic character to the droughts and launched campaigns for supporting the population of the *Nordeste*. In this way, they linked together drought, poverty and hunger, strengthening the pessimistic image the national opinion already had of the region.

In the Parliament, drought ceased to be a regional problem and became a national one – the *nordestino* members of the Parliament took advantage of

the tragic narrative of the drought (Castro 1992). They stressed in a sentimental way the poverty of their region and the necessity to subsidize it – every time at a higher level. In fact, such policies did not really contribute to solve the real problems of drought.

As a result, the inferiority of the *Nordeste* was associated with drought. This image is still alive today, since it has been constantly reinforced by north-eastern elites. Since it was rooted in social imagination, the geographic determinism contaminates the ideas relative to man/milieu relationships and served the economic interests of north-eastern great landowners (*latifundiários*). As a result, during the twentieth century, the *Nordeste* became to be considered a "problem region", with the worst indicators of social and economic development.

We know that in the world, climatic periodic crises are common, either floods, deep colds or droughts. In some cases, they are transformed into social calamities, but these crises turn themselves into a social curse only when precarious social, economic and political conditions concur in such a result. The problem of drought in Brazil cannot be reduced to the lack of water. More than the difficulties to find water, what is mainly lacking are solutions for its distribution and the will of politicians, higher classes and elites, which draw advantages of the problems confronting the lower classes, in their position of poverty and need:

> "It is necessary to expose the prevailing image of drought as a destabilizing element in the economy and social life of the *Nordeste*, and as a source of high expenses for the Union […] to expose the idea that drought, being a natural event, is responsible for the hunger and poverty which prevail in the region, as if these elements were the only ones to be present there" (Andrade 1995: 12).

The physico-climatic conditions which prevail in the *Nordeste* are certainly responsible for the difficult life of a part of its population. They require a higher control and a better rationalization in the management of natural resources in general, of water in particular. They cannot be held, however, as responsible for the conditions of poverty. What is mainly lacking in the semi-arid *Nordeste* is not water, but a cultural model which would improve the efficiency of the organizations involved in the treatment of water problems.

The option for sustainable development – a process which would combine compatible economic growth with environmental conservation, the quality of life and social justice – transforms droughts (or floods) into social facts, beyond their physical dimension.

In fact, it is the human behavior which worsens the effects of droughts or floods – these negative effects result from deforestation, the farming of

riverine plains, the waterproofing of soil in urban areas, the discharge of unprocessed drainage water in rivers, the loss of available water and economic and political interests. In the fields of scientific policies, the attitudes concerning these problems are also of social origin.

In such a context, the evaluation of the problem of water (and drought) cannot be reduced to the simple balance between supply and demand. It has also to cover the relations between water resources and the other environmental and socio-economic characters, with as ultimate aims to raise and warrant the quality of life, the quality of socio-economic development and the conservation of ecological conditions.

As other Western societies until the mid-20th century, the Brazilian one mainly based its evaluation of the quality of an environment on its farming capacities, which depended on the regularity of its seasons. The main reason for the development of the north-eastern narrative on drought lies in the inability of Brazilian intellectuals, in the early 20th century, to imagine a conception of nature which did not rely on the agrarian model of seasonality.

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Chapter 4

SEASONALITY IN EUROPEAN MOUNTAIN AREAS: A STUDY IN HUMAN ECOLOGY

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Figure 4-1. Cattle grazing the alpage above Kaltenbrunnen, near Reichenbach, Switzerland. Photo: Robert Dodgshon.

H. Palang, H. Sooväli and A. Printsmann (eds.), Seasonal Landscapes, 85–101.

1. INTRODUCTION

All areas outside equatorial areas experience seasonal changes in climate and biological output. In this respect, mountain regions and their human communities are no exceptions. But arguably, the seasonality of life matters more for mountain communities simply because the physical and biological underpinnings of their seasonality are drawn out on an extended scale. The topographic character of mountain areas, together with the extended climatic extremes and variability that goes with such topography, means that large areas of the land and potential resources available to mountain communities are set at a distance, are not easily accessible, and have a foreshortened season of output. Further, such regions are subject to higher risks of crop failure and stock loss, or have large areas of unproductive land.

These various limitations and handicaps provide mountain communities with a different experience of seasonality to lowland areas. They do so in three ways. First, it takes the seasonal curves of temperature and dramatises them, even more so in the continental alpine areas, making inter-seasonal temperature differences greater so that there are summer temperature peaks over shorter periods than in the lowlands. Second, seasonality in mountain areas is not uni-dimensional, with a single set of temperature and output curves. Rather is it multi-dimensional. Each habitat at each altitude effectively has its own regime of seasons, each with its own curves of temperature and output. Third, the topographic range of mountain areas, along with their climate and its implications for biological output, has the effect of turning the upper edge of many mountain farms and villages into a veritable frontier. The ubiquitous existence of this upper frontier, with its climatic extremes and variability, means that farming in mountain areas faces much higher levels of risk compared to its lowland counterparts. When we bring these various challenges together – the extreme climatic variation, the multi-dimensional nature of seasonality, and the greater than average risks for sustaining farm output – we can more easily understand why mountain communities utilised their resource systems through seasonally-elaborate patterns of time-space adaptation, one that commonly involved seasonal changes in the place of residence. All rural communities might experience seasonality but few go to such lengths to cope with its challenges as mountain communities.

In looking more closely at these issues, this chapter will look at three aspects. First, it will explore the seasonal climatic variations of mountain areas and how this affects biological output. Second, it will explore how mountain communities have traditionally exploited the range of resources available. Third, it will draw out how this pattern of resource exploitation has long involved seasonally structured patterns of time-space adjustment.

The time frame for the chapter will be traditional farming since 1900. During the past century, farming in mountain areas has been transformed by a change in its markets, by depopulation and the loss of labour and by far-reaching changes in the wider rural economy, including the rise of tourism. Yet, though under pressure from these changes, especially over recent decades, the essential framework of traditional mountain farming has maintained itself in many areas.

2. A LANDSCAPE OF EXTREMES – THE TOPOGRAPHIC AND CLIMATIC CONSTRAINTS

Owing to their variety of topography, including altitude, aspect and ground conditions, a signifying feature of mountain habitats is their sheer diversity and range of climate and, therefore, of the conditions for biological output. Inter-seasonal variations are far greater than in lowland areas. Their scale of inter-seasonal variations, though, is only part of their character. In addition, their altitudinal range means that mountain areas comprise a complex mosaic of habitats, each with its own annual temperature curve and calendar of seasonal change. A basic determinant of this mosaic is the decrease of temperature with height (Barry 1981; Körner 1999). The consequent temperature differences between low ground and high ground habitats can be considerable. It is possible for low ground habitats to be experiencing temperatures that mark the start of summer and rapid plant growth at a point in the year when the habitats of high alpine area, are still affected by the frosts and snow of late winter. However, an important consequence of the radiative and convectional heat exchanges that are such a feature of mountain areas is the occurrence of temperature inversions. At night and in winter, the cooling of temperatures on the middle slopes can lead to the sinking of cold air underneath the warmer air of the valleys. The result is that temperatures can be lower in the valley bottom but increase as one moves upslope, through what is known as the thermal layer, only to decrease again above this layer. The effect of such inversions means that the lower valley ground can not only experience some of the warmest temperatures in mountain areas, but also, can experience some of the coldest conditions during the course of the year.

Light regimes provide another source of inter-seasonal variation in mountain areas but one that is underpinned by significant geographical variations. Scandinavian mountains located at latitudes above 60 degrees North display a significantly different light regime when compared to the

mountains of, say, central Europe. For four months in summer, they have virtually no darkness and the available light is sufficient to allow photosynthesis for more than 21 hours per day for terrestrial plants. Studies have shown that the difference was smaller than could be expected since the longer days in the north, <21 hours, with weaker light compared with the shorter days in central Europe of 14 hours but at higher solar intensity resulted in comparable light sum (Prock & Körner 1996). Light is also an important factor in mountain areas owing to the far-reaching effects of aspect. Across all mountain areas, there is a fundamental ecological difference between the slopes or valley sides that are substantially in sun for much of the day, as opposed to those which are in shadow. The enduring importance attached to this distinction in the Alps is highlighted by the common use of terms like *adrêt* and *ubac* (Fr.) or *Schattenseite* and *Sonnenseite* (Ger.) to describe the slope that lies more in shadow and that which is more in sun respectively (Garnett 1937). Such slopes can be ecologically very different, the one more sunny and dry and the other more cool and moist. By preference, Alpine communities settled the slopes lying most in sun, leaving the *ubac* or *Schattenseite* under forest (see, for example, Cole & Wolf 1974; Viazzo 1989). In a detailed study of where Alpine settlements were located, Garnett (1937) found that most were sited so as to maximise the duration of insolation, the length of light rather than its intensity being the key factor. For old established settlements, the degree of early spring sunshine appears to have been a particularly vital aspect of site choice. Of course, the climatic contrast between *adrêt* and *ubac* can be compared to the quite extreme temperature contrasts that could be experienced on very high ground as one moves between sun and cloud, or sun and shadow, conditions, owing to the fact that the thinner air of the high alp cools quickly. Sharp temperature transitions are also a feature of the diurnal variation of mountain climates, with daytime and night time conditions in some habitats effectively having the range of inter-seasonal variations especially under clear sky conditions. The variability of mountain climates owes much to such transitions.

These variations in temperature regime across the day and, seasonally, across the year, are combined with the large differences produced over short geographical distances in mountain areas by topographical variations in elevation, slope and aspect. Acting together, these climatic and topographic factors support a large number of different habitats that are used by specialised plant and animal communities, some involving high levels of species richness (Körner 1999; Fischer & Wipf 2002). Further, diversity has been added by the grazing and mowing practices of farming communities, so that even high ground pastures in mountain areas are best described as semi-natural rather than natural habitats. The rich mosaic of habitats produced by

this mix of climatic, topographical and human inputs is what Guillet (1983) had in mind when he referred to the "highly irregular biotic distribution" of mountain areas. From a human point of view, mountain communities have long had to cope with these extremes of seasonality because of the widespread tendency for them to have a valley-to-ridge allocation of resources. In effect, each tends to have a share of all the different habitats that comprise mountain environments, from the lower valley ground to the high Alpine pastures with all the attendant diversity of seasonal conditions (Netting 1972).

3. COPING WITH EXTENDED SEASONALITY – THE HUMAN EXPLOITATION OF MOUNTAIN RESOURCES

3.1 The role of transhumance

Despite their marginality, most mountain areas form part of the outer edges of a cultural landscape, one in which natural habitats have been modified and transformed by centuries of human exploitation through cultivation and strategies of stock management. For farming communities, exploiting their resources has always meant coping not just with the topographic and other abiotic limitations (climate, soil etc.) of their environment, but also, with its intricately defined and pronounced seasonality of growth conditions. Survival meant mapping this intricacy and exaggeration of seasonality into the farm or village economy. Doing so poses a number of distinct challenges. In most alpine or mountain areas, farming has been based on agro-pastoralism (Viazzo 1989) or what some prefer to see as agro-sylvo-pastoralism (McNeill 1992), with arable, pasture and timber resources being actively exploited. The supply of land capable of being used for arable though, has always been at a premium, because of the topographic constraints. The widespread use of terraces is a solution, but one only achieved with heavy investments of labour. Beyond arable, the vast bulk of available land – other than forest land – comprised meadows and grazings of varying quality plus land that was too steep, too exposed or too stony for grazing, even by goats. In many cases, grazings are spread over an extensive area, often involving land that is either located at higher altitudes than the home or winter farm or land that is set at a distance from the home farm. In either case, the traditional response has been to exploit such meadows and grazings via a system of transhumance, with communities and their stock moving to temporary seasonal settlements. Fig. 4-2, depicting the

Norwegian practice of transhumance, captures the basic movement of such a system.

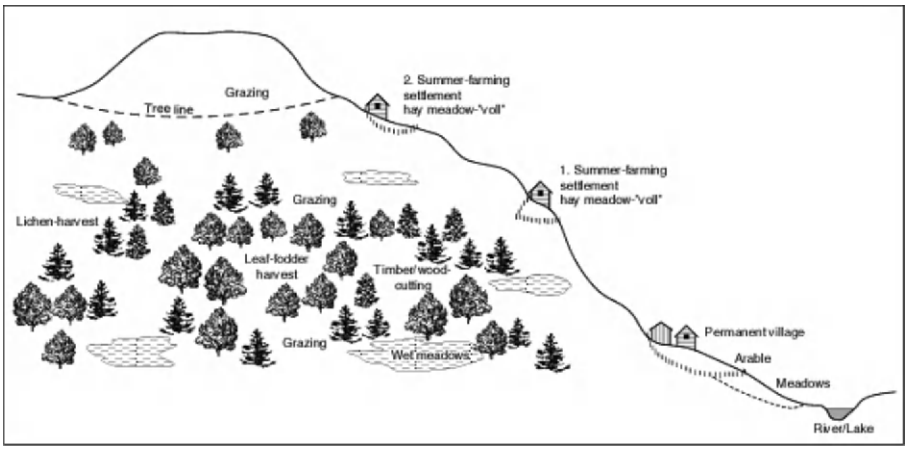

Figure 4-2. Generalised picture of seasonal movements of inhabitants and stock and resource use in the common lands in mountains in Mid-Norway up to the mid 20th century. Along the vegetation period, early spring to late fall, main part of the livestock were moved from the permanent farm in the valley to summer farming sites (1 and 2) in the mountains in order to exploit the seasonally available biological production. The summer farm sites at highest altitudes (2) were used in mid/late summer only (from Olsson 1996). Lichen was harvested on the ground for livestock fodder in forests near the tree line (Olsson 2004).

Such transhumance movements between winter and summer grazings have been practised in all European mountain areas (Price 1981). In the central Alps, for instance, some of the higher pastures, the so-called *alpage* (Fr.) or *Alpen* (Ger.), could be as much as 2000 m or more higher than the winter farm, and implying a substantial expenditure of energy for humans and beasts simply in moving between them even where the physical distances were less than 10 km, involving what has been called *petite transhumance* (Carrier 1932; Loup 1965). Where considerable, the geographical distance between winter farms and areas of summer grazings could demand a substantial expenditure of energy. In the Jotunheimen area of Norway, summer farms can be as much as 70 km away from winter settlements (Olsson et al. 2000). By far the most extreme displacement of winter and summer settlement areas though, is represented by what has been termed *grande transhumance* (Carrier 1932). *Grande transhumance* was a feature of southern French Alps, especially the Alpes Maritime and Haute Provence, and was based on the long-distance movement of sheep between low ground winter farms in non-Alpine areas like the Camargue, and high summer alpine grazings (Legeard 2002). In practice, alpine grazing areas

exploited by such farms could be as far apart as 100-200 km and involve a climb from near sea level to pastures as high as 2000 m via a network of *carraires* (Fr.) and *drayes* (Fr.). In some areas, like the Pindus Mountains in Greece, the relationship between grazings and settlements was reversed, with the main settlement being in the mountains and the low ground used simply as summer grazings via temporary settlements owing to the lack of summer grazings in the mountains (Evans 1940; Davies 1941). Areas like the Burren in the west of Ireland provide a further variant. The mild, moist winters enabled farmers on the coast to invert normal practice, moving stock on to the higher pastures of the Burren during winter (Dunford & Feehan 2001). This seasonal use of grazings outside as well as inside alpine or upland areas shows one fundamental difference with those systems of resource use that were based wholly within mountain areas. The former were able to outwinter stock so that the seasonal shift was from winter grazings to summer grazings. The latter meanwhile invariably housed stock during winter, so we have to speak of a seasonal shift from winter byres and hay feeding to outdoor summer grazings. This is also what John Frödin (1940-1) described using the German term *Alpwirtschaft* for the mountain summer farming he observed in the Alps and in Scandinavia. Similar systems existed also in the central Highlands of Scotland. Because of the climatic regime in alpine areas, stock had to be wintered indoors. This meant that communities had to accumulate the fodder needed to maintain stock over winter. It was this indoor wintering of stock and the heavy emphasis on hay or fodder production during summer, as well much as the seasonal movement of stock to high ground pastures that distinguished the "true" alpine system (Frödin 1940-1). The resource use, the mountain summer farming, contributed to the shaping of semi-natural mountain habitats whose species composition and patterning was greatly affected by how they were managed and exploited as areas of grazing and meadow.

The mountain farmer faced this dilemma when exploiting these various resources. As a resource set, they would have formed a veritable pyramid of opportunity, with grazings that were highly productive, and productive for a longer period, forming a broad base and those that were less productive and productive for only a short period forming the apex. To be added to this pyramid of opportunity was the extra labour cost of exploiting pasture resources higher up the pyramid, resources that also yielded less per unit of labour input. Mountain farmers or communities always had to set the often considerable physical cost of exploiting a particular resource against the gains of exploiting it simply because so much was set at a distance and at an altitude.

If we take the total set of resources available to the mountain farmer, the different habitats were not all available to be exploited at one and the same

time. Of the very essence to the problem facing farmers is the fact that the habitats on the higher ground, that is, those that tended to require more input for what, in most cases, was less output, were only available to be exploited for a narrow season of opportunity, high summer or June to September, less in the case of the more exposed sites. In short, habitats on the alpine parts of the mountains offered farmers an uncompromising choice over when to exploit their short growing season. Yet the fact that mountain communities invested considerable labour in exploiting their higher ground means that such a strategy must have had real benefits for them.

One of the manifestations of the exaggerated seasonality of mountain regions is the way in which summer output was counterbalanced by a near-complete winter shutdown. Prior to modern systems of transport and access, some mountain communities were to all intents and purposes house bound – or at least place-bound – during winter, along with their stock. Without the means to fall back onto markets if need arose, their entire provisions for winter – as well as their strategies of risk aversion – had to be in store or place beforehand. The use of high ground pasture and the investment of vital labour to herding, milking and cheese making, therefore, had a strategic purpose. They combated winter scarcity by providing butter and cheese for the maintenance of humans and hay and other fodders for the maintenance of stock. As storable foods, these helped to even out the most uneven of all farming years. Amongst these strategic uses, the harvesting of winter fodder, particularly the harvesting of hay meadows, was the most demanding, especially if communities had to manage and maintain the irrigation of their meadows. Over time, the systematic mowing of some hay meadows and the systematic mowing and grazing of others on a fixed calendar basis had a profound ecological effect for it fostered the noted species-richness of alpine meadows (Peterer 1985; Ellenberg 1996; Austrheim et al. 1999; Fischer & Wipf 2002). Yet whilst hay meadows were the most important source of winter fodder, they were not the only source. Farmers responded to local environment in an adaptable way. An interesting example of this is the strategy pursued by mountain farmers in Jotunheimen, Mid-Norway. Due to the continental climate here with low annual precipitation (495 mm), comparable to savanna conditions (Mistry 2000), the habitats available for winter fodder collection are mainly dry pine and birch forests and heathlands. Such habitats do not produce grass that can be converted to hay. Instead lichen was collected from the ground as well as leaves and branches of mountain birch and willows and used for winter fodder (Reinton 1955; Olsson 2005).

3.2 The seasonal organisation of labour

The basic dependence of mountain or alpine communities on the summer collection of winter fodder patently had implications for how summer routines were organised. Communities could take one of two broad approaches. First, they could invest considerable labour in moving hay and other fodder down from the meadows to byres sited beside or incorporated into the winter settlement. This was the solution followed in Bruson, Weinberg's sample community in eastern Switzerland (Weinberg 1975; Cole & Wolf 1974; Cole 1976), and by traditional farmers in the Scottish Highlands (Dodgshon 1998). However, a second solution was for farmers to establish small byres or barns within their different meadows and for the hay to be stored locally. Where such meadows were shared, there could be a scatter of such byres, each one linked to a single farmer or small group of farmers. A consequence of this dispersed storage of hay was that farmers had to oversee stock during winter in byres that could be at some distance from the main winter settlement, so that some actually spent part of winter living away from the winter farm. This was the case in Törbel, with farmers tending stock at some outlying barns on a daily basis but having to spend as much as a month away from the main settlement to tend the stock in the more outlying barns (Netting 1981). It was also the case with farmers who harvested lichen in Jotunheimen. Because lichen is a far bulkier feed than hay, large amounts of it were needed to produce a satisfactory nutrient intake. Consequently, a large number of journeys would have been needed between the high mountains and the permanent farms. The solution in Jotunheimen was to travel back with the stock to the mountains in winter time and allow the livestock to consume the stored lichen in situ, effectively creating a form of mountain winter farming (Reinton 1955; Olsson 2004).

It has been said that the problem with traditional mountain communities is that they suffered from labour scarcity during the summer, when too many tasks had to be carried out over too large and extensive an area, but suffered from labour abundance in winter, when snow cover and sustained frost meant that little in the way of work can be done (Viazzo 1989). The summer scarcity of labour in the face of all the tasks that could be done is, of course, another reason why the exploitation of particular resources had to be prioritised. Whilst we need to acknowledge the sub-variants, we can bring together the various annual schedules of labour into a broad scheme (see Fig. 4-2). Few European mountain economies were wholly pastoral in their constitution. Most had an arable as well as a pastoral component. In addition to the extra buffering against risk provided by any mixed farming systems, an arable component potentially offered more energy capture per unit of labour than a pastoral system and so was always going to be a best next-step

for a growing system of population. Apart from the labour of preparing arable, sowing the seed, and harvesting the crop, activities that began and rounded off the calendar of farm-based activities, the other major commitment of mountain communities was that of the mowing hay meadows and systematically moving stock between grazing areas. The latter tasks were closely integrated into the natural calendar of plant growth on meadows and pastures. Beyond question, where meadow management was developed to its maximum, the mowing of hay was the most labour demanding task of the mountain calendar. In parts of the central Alps, as well as in areas like central Norway, summer rainfall was actually quite modest, and the labour that had to be invested was further increased by the need to irrigate meadows so as to maximise summer grass growth.

In highly developed mountain systems, such as those of the Alps or Scandinavia, land and its exploitation was elaborately sectored. We can see this at two scales. On the one hand, many communities recognised a broad scale sectoring of resources, with not just a winter farm, but also, an operational distinction between different areas of grazing on their mountain land. For instance, in many parts of the Alps, communities have areas of meadow and grazing around their arable, gardens and vines. This core land, the so-called *Heimgrund* (Ger.) is usually surrounded by forest land within which existed scattered areas of intermediate pasture, including May pasture, that is, the pasture onto which cattle are put when they are first out of the byre in May, though it could also be used again in late summer when stock returned from the high ground pastures. Above it, lay two key areas of grazings: the low alp, to which cattle were moved in June and beyond that, the high alp, to which cattle were taken in mid-late July (Weinberg 1975; Viazzo 1989). What identified these two areas of grazings as distinct sectors was the fact that they provided the foci not just for grazings, but for temporary summer settlements. In the case of the lower alp, some even replicated the functions of the winter farm, with arable as well as pasture and hay meadows. We find a comparable broad sectoring of resources in Norway. In Western Norway, communities organised their summer grazing around two areas, a home *seter* (No.) close to the winter farm and a more distant *fjeld seter* (No.), the former occupied during early summer and part of late summer and the latter during high summer (Moisley & Moisley 1949; Potthoff 2004).

Everywhere though, this broad differentiation of resources, especially of pastures, was underpinned by a further, fine-scaled appreciation of their use, one that captured a closer adaptation which such communities made to the intrinsic seasonality. This fine scaled appreciation was based on the fact that mountain farmers are very sensitive to the way in which the output of crops and grass, and its precise timing, varies between habitats and niches even

over short distances or between modest changes in altitude. At this level of focus, we can see strategies over the use of labour being adapted to the micro-ecology of seasonal output. In the first place, farms did not have their land laid out at a single level or composed of a single habitat, but had a portfolio of different habitats arranged from the valley floor up to the highest usable alp or mountain pasture. In the second place, arable and meadows were deliberately laid out at different altitudes and managed so that different fields and different hayfields were at different stages of output at any one point in the growing season. Thus, one field might still be ready to harvest whilst another was still ripening. Likewise, one field might only just be ready to mow just when the hay of another field had already been cut, dried and stacked. Effectively, communities turned the multi-dimensional seasonality of their various habitats and niches to advantage. By phasing or staging the output of crops and meadows in a progressive way, that is, by fitting them in with the individual seasonality of different habitats and niches, they were able to make more effective use of their labour, spreading out the labour demands more evenly. Put simply, as spring and summer progressed, they worked their way up the mountain side, returning downwards for the second hay crop and arable harvest by late summer and early autumn. However, some mountain areas, notably the Alps, traditionally started to harvest their rye crop as early as June, soon after their first hay crop (Cole & Wolf 1974). Such was the fine scale mapping of activity that in some parts of the French Alps, farmers had a different byre or stall for hay storage and cattle feeding for each week of the summer (Viazzo 1989). McNeill (1992) characterised mountain communities "doing different things at different heights", but he should have completed the triplet by adding "at different times".

4. A HOUSE FOR ALL SEASONS – THE SEASONAL CHARACTER OF MOUNTAIN SETTLEMENT AND COMMUNITIES

The point has been made that farmers in mountain areas moved their stock and hay making from pasture to pasture, meadow to meadow, as the renewal of plant growth spread upwards during spring and early summer. Because of the distances or changes in altitude, it was commonplace for mountain communities to occupy a succession of settlement sites as they moved between areas of exploitation. In its most basic form, this seasonal adjustment of settlement involved simply a low ground winter site and a high ground or more distant summer farm. However, in many areas, two or

more sites of summer settlement might be involved (cf. Fig. 4-2). Indeed, in areas like Jotunheimen, there also existed less substantial transit dwellings that were used over night in transit to the main summer farms due to the distances involved (Reinton 1955). In the Alps too, the logistical challenge of exploiting a dispersed pattern of resources on a strict calendar basis led to a diverse and complex pattern of settlement. Some maintained quite substantial settlements made up of summer granges on their lower alp lands, particularly where such sites had arable as well as meadow land present. In many cases, though, mountain resources were exploited via less substantial settlements. Many of the byres, hay sheds or *Stallen* (Ger.) that grew up besides or within meadows for the storage of hay and manure were also used for short term accommodation in the movement to the main summer granges (Carrier 1932; Cole & Wolf 1974). Indeed, where communities shifted between a complex array of meadows and pastures as the year progressed, farmers could have a different byre or shed available for animals and themselves during virtually each week of the summer, such was their attempt to map residence onto resource use (Viazzo 1989). Other specialized functions could be associated with temporary settlements. In some areas, for example, separate huts provided accommodation for those involved in cheese making. On the high alpage, there usually exists a further pattern of temporary huts or cabins occupied by the shepherds who tended the common flocks and herds that were taken there during the height of summer. As in all mountain areas, the exploitation of the high alpage was often on a shared basis, with farmers contributing animals to a common herd or flock, a system that enabled their management to be reduced to a relatively small handful of shepherds.

The way in which these summer farms and huts were exploited, their social context of use, is also relevant. There are two ways of looking at this aspect. The first relates to how use rights were allocated and exploited and their implications for social interaction during the course of the year. Most low ground resources in mountain areas – that is, those areas farmed intensively whether as arable, meadows, gardens, or vineyards – tended to be held and worked through private property rights whilst high ground resources exploited via grazing and gathering tended to be held and worked on a common property basis (Peattie 1971; Weinberg 1975; Netting 1976; 1981; Viazzo 1989). As Netting (1976) found in his study of Törbel, whether resources were exploited through private or common property rights was not a cultural or ethnic issue but to do with the ecology of production and the land use associated with that ecology, with factors like the intensity of resource exploitation or the scarcity of a resource being critical aspects of this land use. Put simply, "land use by and large determined land tenure" (Netting 1976; 1981). Though exceptions to this general patterning of private

and common property rights can be found in some Alpine areas, some would dismiss them as "exceptions of little significance" (Viazzo 1989). Despite the general holding of low ground land as private property, there were no fixed or universal rules over the layout of either landholding or settlement. We find some areas in which arable and settlement were locally dispersed and others in which they were compact or nucleated. Likewise, we find some communities who worked their low ground land via a communal or shared system of husbandry and others that worked their land on a holding by holding basis. As one moves upwards, away from arable and the better meadow, property rights tended to become organised on a common property basis (Netting 1976). Yet where land is exploited intensively, such as for meadow, it is common for individual landholders to be assigned specific blocks of land, which could be enclosed and which could acquire byres, hay sheds, granges and the like. The scatter of byres, hay-sheds and granges on such meadows though, can provide a deceptive indication of how communities worked this higher ground, for individual granges and byres might be shared between different families. In Törbel, for instance, it was found that, on average, each landholder had rights in five different barns, but that the average share was only two-fifths of a barn (Netting 1981). Further, at Törbel, the degree of social networking was increased by the need for cooperation over irrigation. Higher still, on the high Alp, where grazing was often open range, most mountain communities maintained a common herd or flock. The reason for this was simple. Most families only possessed a small number of cattle, sheep and goats. To maintain a separate herd or flock on the high alpage therefore would have been uneconomic. By contributing to a common herd or flock, more effective use was made of scarce labour during summer.

The second way of looking at this problem is through the way labour was actually allocated to the tasks performed at different sites. Whilst there were situations in which the entire community moved en bloc, this was not the norm. More usual was for only sections of the community to move between the different sites so that, not just the size, but the composition of the community shifted or fluctuated seasonally (Fig. 4-3). Where communities had a significant arable sector on their lower valley ground, it was common for some of the men to remain behind whilst women, children and some of the men went to the summer farm. This was common when summer farms were not located at particularly high altitudes and were used simply for grazing and for making cheese and butter. This was the case in parts of Norway (Daugstad 1999), and formerly the case with the shielings of the central Highlands of Scotland (Dodgshon 1998). Any sort of hay production from high ground meadows though, usually meant that men were present for part of the time because of the heavy demands of hay making. Indeed, so

burdensome were the demands of hay making that those who had migrated away from mountain areas were often expected to return in the hay making

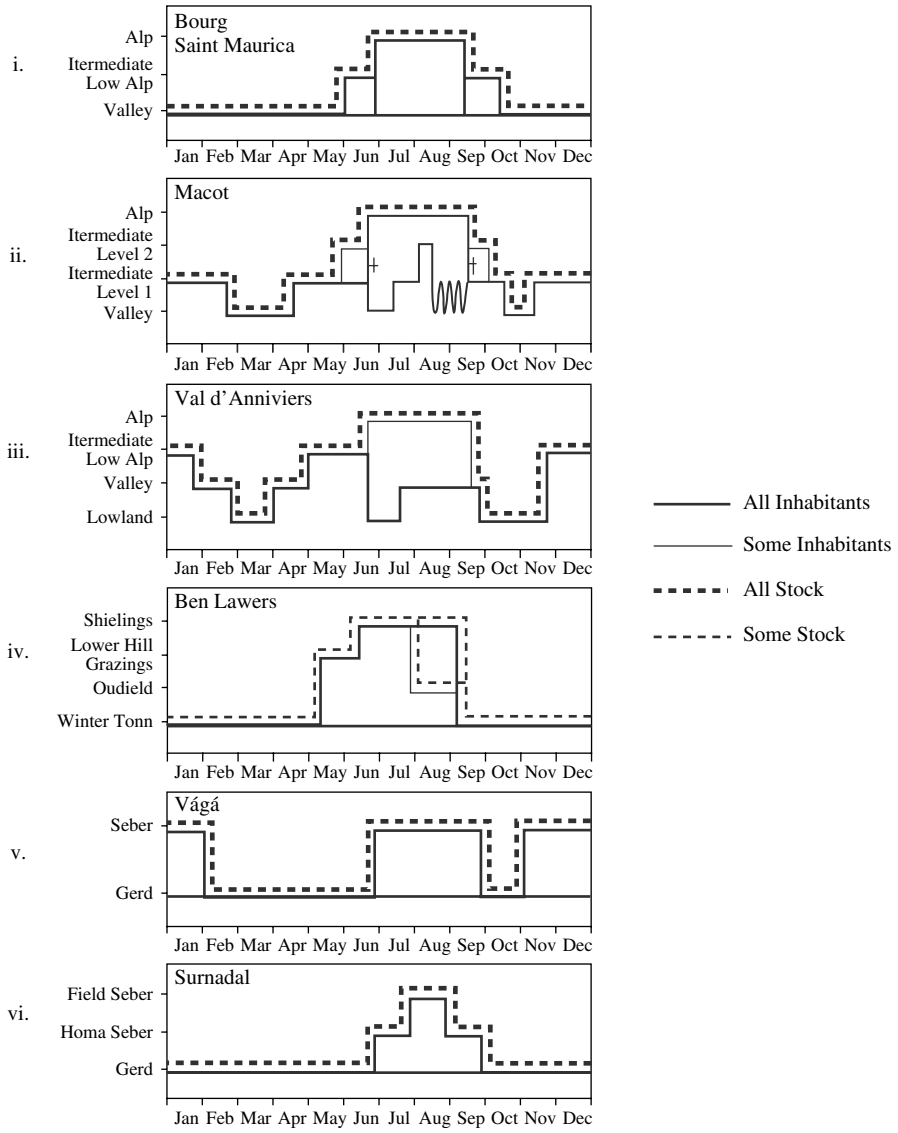

Figure 4-3. Pattern of seasonal movements of inhabitants and stock in (i) Bourg Saint Maurice (ii) Macot (French Alps), (iii) Val d'Anniviers (French Alps), (iv) Ben Lawers (Scottish Highlands), (v) Vågå (Norway) and (vi) Surnadal (Norway). Examples i-iii based on Carrier (1932) and v-vi on Olsson (1996).

season to help with the hay. In those alpine areas where communities managed a range of meadows at different altitudes, such as in the central Alps, the management of such meadows could involve complex routines of transhumance, with farmers working and living for a week or so at a number of different local sites. Likewise, cheese making in such areas could engage women and children living for a few weeks in cheese-making huts, not on the high ground but beside the meadows on the lower Alp. In these circumstances, the highest pastures, were grazed during the height of summer by common herds and flocks under the control of a small number of shepherds or herdsmen. Nor must we see these transhumance movements as a feature solely of summer. As already mentioned, where farmers stored winter fodder (e.g. hay, lichen) in sheds or huts close to its source, one could have a small scale form of winter transhumance, as farmers moved back up to their meadows or pastures to attend to stock for winter periods of up to a month. To sum up then, when we consider the annual cycle of tasks in mountain areas, we need to appreciate how the seasonal routines of farming often involved a seasonal re-shaping of community structures.

5. CONCLUSIONS

The opportunities for human subsistence and resource exploitation in mountain areas are greatly narrowed by environmental constraints. Yet within these constraints, the multiplicity of physical conditions (i.e. altitude, aspect, slope, etc.) has led to a wide variety of different habitats, each with a different potential for plant and animal growth.

Because of this diversity, and the wide range of environments over which they are spread, mountain habitats manifest a wide range of seasonality as regards output. The challenge for farming communities has long been how to cope with these marked differences in seasonality, so as to bind the exploitation of farm resources together into a year-round strategy. For this reason, the character of the farming year for mountain communities tends to be much more strongly shaped by the demands of seasonality than it is for lowland farming communities.

Responding to these demands has traditionally involved seasonal adjustments not just between markedly different habitats, each associated with its own pattern of husbandry and work routines, but also, in the nature and site of settlement and even in the structure of the farm community itself. It is the breadth of these adjustments, and the degree to which they permeate into the very fabric of they community, that serves to give mountain communities such an intense experience of seasonality.

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Chapter 5

SEASONALITY OF AGRICULTURAL LANDSCAPES: READING TIME AND PLACE BY COLOURS AND SHAPES

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Figure 5-1. July in Drenthe, the Netherlands. Photo: Karina Hendriks.

H. Palang, H. Sooväli and A. Printsmann (eds.), Seasonal Landscapes, 103–126.

1. THE IMPORTANCE OF SEASONAL DEVELOPMENT

> "There is something strange going on with nature. The Netherlands are becoming ever greener, but that is not what nature lovers are looking for. They don't want green heathland, they want it pink or purple. No green grassy pasture land, but sorrel red or buttercup yellow. Not for them dunes covered in grasses and shrubs, but white dunes with wind-blown sand, speckled with moss and herbs in a whole range of colours. Just green isn't enough to make you happy" (Roos et al. 2000: 239).

This quotation stresses the importance of colour in the landscape and the time aspect related to it. The changing colours in the landscape, together with changing forms and activities (of people and animals) are some kind of a clock that give the opportunity to read the time of the year. Next to this, the changes in the seasons are typical for landscapes. As written in the quotation, landscapes can be characterised and recognised by their expression of the seasons. So, seasonality does not only contribute to the answer of the question "what time is it" (in the year), but also to the question "where am I". These two questions are linked with the fundamental need of people to orientate in time and place (Lynch 1960; 1972; Van der Maarel & Dauvallier 1978; Bourassa 1991; Van Mansvelt & Van der Lubbe 1999; Jacobs 2000). To feel happy and safe people are constantly seeking for clues that inform them about time and space.

In his study in four regions in the Netherlands, Coeterier (2000) found four types of qualities important in defining the attractiveness of the cultural landscape. In order of importance these are: seasonal character, historical character, naturalness, and sensorial impressions. This categorisation provides good reason to pay attention to the subject of seasonality in perception research. Some circumstantial evidence on the role of seasonality in the appreciation of landscapes is found in perception research highlighting that colours in the landscape are important for people. For instance, Arriaza et al. (2004) found that colour contrasts between water, wilderness, mountains and vegetation are one of the positive features of the Andalusian landscape (Spain). Clay & Daniel (2000) found that an area with colourful meadows during a large part of the summer is visually preferred to an area without colourful meadows. Hands & Brown (2002) assessed the visual preferences of ecological rehabilitation of decommissioned industrial land and found that preference levels increased with the amount and diversity of colours.

However, not much attention is given to the colour and form aspects of seasonality in neither perception research nor geographical research.

Johnston (1993) relates this to a dual lack of constancy, of both the biological state of the population and the surrounding environment that creates problems of methodology and interpretation in research. Or, as Jackson et al. (1978) state: "Not only does the perception and evaluation of a specific environment vary from person to person, it is also subject to change by the person himself in accordance with changing situations. A man's feeling about a specific environmental setting will vary in rain and shine, cloudy and smoggy days, and according to his general sense of well-being on that specific day". Moreover, Van der Schouw & De Veer (1981) argue that mapping of seasonality is almost impossible.

Most of the attention is given to seasonality as a bias for landscape preference research. Buhyoff & Wellman (1979), for instance, found an interaction between the season in which photographs are taken and the season in which they are evaluated. They argue it is possible that the seasonality effect can be explained in terms of a novelty mechanism. People tired of winter are aroused by stimuli associated with impending spring, and conversely, autumn colours signify a welcome change from an overly familiar summer landscape. This also explains why so many people are eager to see the first swallow or godwit; they are the signs of a new season. In perception research, this behaviour of people is often seen as a bias. To avoid such a bias it is necessary to complete all field survey in a relatively short time period (Robinson et al. 1976).

In this chapter we aim to provide insights into the seasonality of landscape, its theoretical considerations and methodological approaches, in other words: not to see seasonality as a bias or obstacle in research, but as research topic of its own. On the basis of three case studies we show how seasonal aspects can be used to assess landscapes, both on regional and farm level.

2. THE RHYTHM OF THE SEASONS

Phenology is the study of recurring phenomena and is above all amongst biologists considered the study of the links between organic natural phenomena and weather conditions. We have translated this concept to landscape and call it seasonality or course of the seasons, which we define as the link between the colours and shapes in the landscape and the time of the year.

The course of the seasons is perceived in two ways: by phenomenal qualities, such as changes in colours, lighting conditions temperature etc., but also by the different ever-recurring activities (Coeterier 1996). Where in former days the latter type was dominant, because most people were bound

to agricultural activities, nowadays the pictorial attributes of the seasons are more important. Nevertheless, in selecting their activities, people are influenced by the seasons. For example, in spring time they visit the river area with the many orchards blooming, whilst autumn is the season for visiting forests, as the leaves change colour, and collecting chestnuts and beechnuts. The seasons elicit pictures that people wish to experience.

Figure 5-2. This picture from Waterland expresses the time of the year. The height of the of the new stems and the fact that the old stems are still visible, makes clear that it is late spring, presumably the month of May. Photo: Karina Hendriks.

In studying or experiencing seasonality, we differentiate between two time dimensions, namely momentary time and cyclical time. Firstly, we discuss momentary time. Standing in a landscape one can observe colours and shapes which express a specific moment in the year. This is known as *seasonal coherence* (Fig. 5-2). It is the coherence between a specific moment in the year and the expression of the landscape. In addition, at the same time one can observe symbols from previous seasons and symbols that point to what is going to happen. Bockemühl (1986) describes this as the *coherence of change* in the landscape. For example, from dried-out, golden reed beds in the winter, it is possible to deduce that at this same site, in the summer, the water will be fringed with a strip of green, as tall as a man. The work of Van der Schouw & De Veer (1981) is one of the few attempts to develop these perspectives. They used photography to investigate how seasonal characteristics of various landscapes can be recorded in pictorial maps. The

researchers were able to identify specific characteristics, but it proved difficult to chart out abstract characteristics such as openness, variation and structure. To define "openness", an average is generally taken irrespective of season, or the appearance in the summer, taking no account of the rest of the year. Such characteristics as incidence of light, light intensity, shadow and weather conditions, according to Van der Schouw & De Veer (1981), are not suitable for recording on pictorial charts.

Secondly, we discuss cyclical time. In phenology, the cyclical dimension is known as *seasonal development*. The observation of seasonal aspects is repeated on several occasions throughout the year, and these momentary pictures are linked together to create a "movie". The development of seasons gives an insight into the process-character of the landscape. Van der Haar and Wezenberg (1985) studied the development of seasons on farms, on the basis of seven visits. Although the observation of colours was part of their method, in the end they focused on describing the farming activities and not the changing appearance of the landscape. Pedroli (1989), in a hydrological study of the sand soils of Brabant, typified a range of landscape entities by expressing seasonal development in terms of dynamism in groundwater management and the appearance of the landscape. By doing this, he showed that seasonal development is a fundamental component of the character of the various landscape entities. Stobbelaar (1992) carried out a study into the changing colours and shapes in the landscape of the polder district near Spaarnwoude, and the dunes to the south of Zandvoort. The seasonal development in the dunes can be described as a continuum of minor changes, whereby seasonal recognition is almost always possible. Only in the late winter does the landscape seem to briefly come to a halt. Colour and shape changes in the polder, on the other hand, take place far more abruptly and on a much greater scale. In spring, many things happen together; cows start grazing outside, grasslands bloom, meadow birds make their nests, and the copses of poplar turn orange. After the first cut, and once the trees are in leaf, development comes to a "halt". Seasonal recognition is difficult from this moment on. One conclusion of this study was that the seasonal development of colours and shapes can serve as a scientifically-usable feature for characterising the landscape.

3. METHODOLOGICAL APPROACHES TO STUDY SEASONALITY

The overview of the landscape phenological theory given in the previous section indicates that it is possible to assess landscape seasonality by colours and shapes. On this basis we did case studies in tree regions in The

Netherlands (Fig. 5-3), studying two levels in the landscape: the regional and farm level and the interaction between those two. This means that the seasonal expressions of the farms were studied within the context of the case study (Table 5-1). In the next step the cases were compared, which makes it an embedded multiple case study (Yin 1994).

Table 5-1. Framework of the research and the iterative steps taken in it.

1. Theory	Seasonal coherence Seasonal development	
2. Selection of regions and farms for multiple case study	3 regions in the Netherlands with appr. 10 farms each	
3. Inventory and analysis of seasonality	Geographical research: • Parameter setting • At least four visits per year to each farm • Observations recorded and processed by using fixed observation points, drawings, descriptions, seasonality maps and phenology diagrams	Perception research: • Interviews on current and preferred state of the seasonality of the landscape on regional and farm level
4. Making a reference image for farm and regional level	Valuating the observations and making a semi-quantitative assessment of the farms	
5. Comparison of geographical and perception research	• Drawing conclusions on the scientific use of the methodology • Drawing conclusions on the farm performances	

We choose West-Friesland, Waterland and Drenthe for the case study areas because they contain a relatively high concentration of organic farms. In total, 30 farms were studied, aiming at finding differences between organic and conventional farms. Another reason for choosing these three study areas is the great differences between the regions, regarding geography, history and land use. This could increase the possibility to draw a more general conclusion on the performance of our methods.

West Friesland is a clay area in the northern part of the province of North Holland. Our study areas were the horticultural areas of West Friesland, where intensive land consolidation took place in the 1960s and 1970s. At this time, transport by water was replaced by road transport reshaping the old landscape entirely. Farms were situated and developed taking this new lay-out into account. In West Friesland, eight horticultural farms were studied, of which four were environment-friendly and four organic.

Waterland is a peat-grassland area near Amsterdam, which has an important landscape value. Nature conservation organisations own large

areas and agricultural use often incorporates nature and landscape management. The most important land use is dairy farming, and some of the farms traditionally raise sheep as well. Innovation-oriented activities including education and agritourism are also currently being developed. For this study, five conventional and five organic dairy farms have been studied in this region.

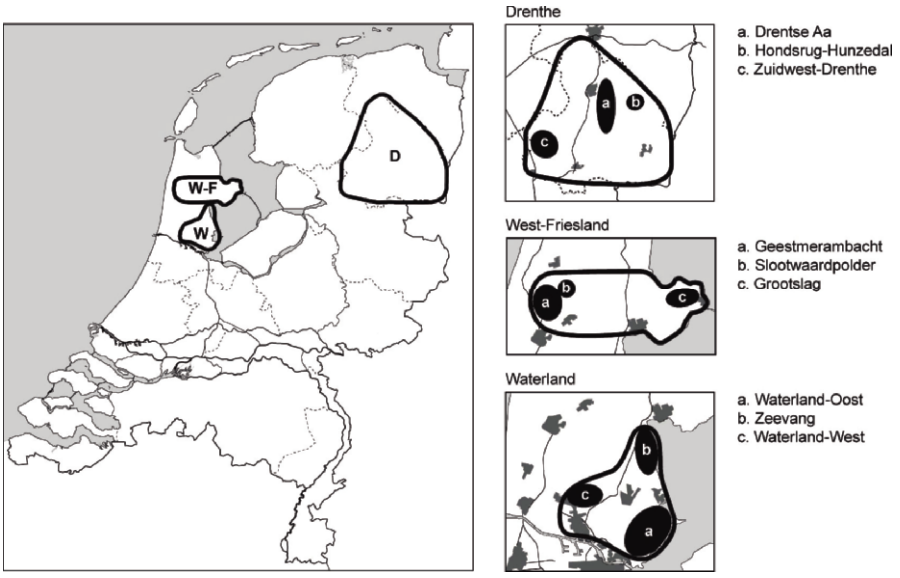


Figure 5-3. Location of the case study regions – West Friesland, Waterland and Drenthe.

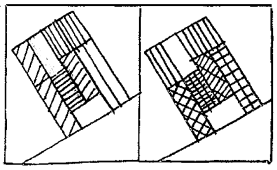
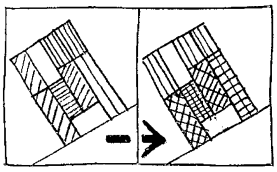
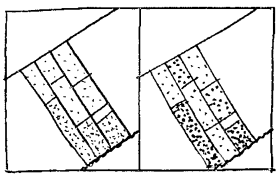
The landscape in Drenthe shows a large variety in abiotic conditions, reclamation patterns and land use. This variation is reflected in the farms that have been selected for the study. The six conventional and six organic farms include dairy farming, arable cropping, horticulture or combinations of these. The farms are situated in three different sub areas: the area of the Drentse Aa, the transition area between Hondsrug and Hunze, and Southwest-Drenthe.

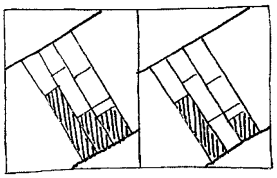
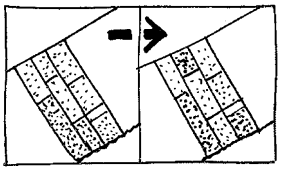
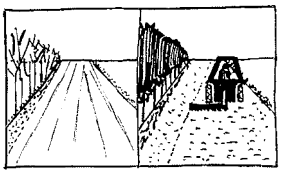
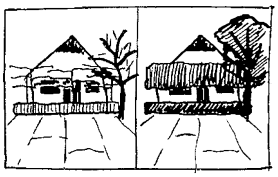
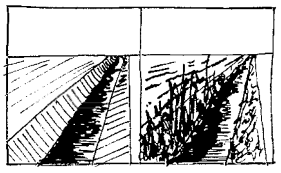
A comparison was made between the seasonality aspects of organic and conventional farms. We assessed landscape seasonality (both seasonal coherence and development) at farm level and district level, by making an observation once in each of the four seasons we distinguish in the Netherlands. The visits were planned during the "high points" of each season, in other words, the period in which the seasonal characteristics typical for the area are clearly expressed. These periods were selected on the basis of field visits, literature, and discussions with farmers. In each season we walked a fixed route that included the observation points. There were at

least four fixed observation points per farm – a main observation point that gives an overview of all characteristic elements in their mutual coherence, a characteristic edge and yard and a touristic view from the main road.

The *seasonal coherence* at those four moments of time is described according to specific characteristics such as: what is in bloom and in what colours, in what quantity and ratio, and a description of the visual-spatial structure. The *seasonal development* is derived from these specific descriptions of the four moments in the year. In combination with knowledge of the land management, derived from interviews with the farmers, seasonal development is expressed in abstract characteristics, such as the duration of the colour periods, the nature of change and the degree of change in shape. The parameters employed are listed in Table 5-2. In the remainder of this chapter while referring to seasonal development, we also include the momentary seasonal coherence, to avoid overlap in the text.

Table 5-2. Parameters used

		Parameter	Additional descriptions recorded in:
FIELDS 1.1		**Colours and forms of arable land** as an expression of the moments in the year. In all four seasons, the plots of land were assessed for colour, form and texture.	Photographs, ground plan
1.2		**Duration and scale of changes of arable land** as an expression of seasonal development. This parameter relates to the period between the four measurements of seasonal coherence, supplemented on the basis of general agronomic knowledge and information from the farmers.	Phenology diagram
1.3		**Colours and forms grassland** (bloom, maturity and dying back of grasses and herbs) as an expression of the moment in the year. In the spring and autumn, the colour diversity was measured by estimating the coverage of image-determining varieties, according to the following scale: 0%, 1%, 1-5%, 5-10%, 11-25%, 26-50%, 51%>. Observations were made of the variation in colour, and the number of plots where variation is visible.	Tables, type description of vegetation

		Parameter	Additional descriptions recorded in:
1.4		**Area of colourful grassland** with colour other than green, as an expression of the moment in the year. On the basis of coverage (see parameter 1.6), the percentage of farm area exceeding the colour threshold of 5% colour in spring and autumn, was calculated.	Tables, ground plans
1.5		**Duration of colourful period of grassland** as an expression of seasonal development. The information from parameter 1.7 was combined with information about management (cutting, grazing), thus providing an overview of the duration of colourful periods per farm.	Phenology diagram
1.6		**Other changes** Changes in abiotics, spatial characteristics, cultural history and activity as an expression of the seasonal development. Attention was paid to ground forms, water levels, the spatial characteristics of the farm, cultural-historical elements or patterns and activities of people and animals on the farm.	Photographs
FARM YARD 1.7		**Colours and forms farmyard** as an expression of the moment in the year. Fruit trees, berry-bearing shrubs, flowers and various types of tree determine the colours and forms visible in the seasons. The four observations were averaged.	Photographs
LAND-SCAPE ELE-MENTS 1.8		**Colours and forms elements:** all verges as an expression of the moment in the year. Ditch sides (West-Friesland and Waterland) and other landscape elements (Drenthe) were observed in all four seasons. The most commonly occurring type on a farm was accurately observed. The four observations were averaged.	Photographs

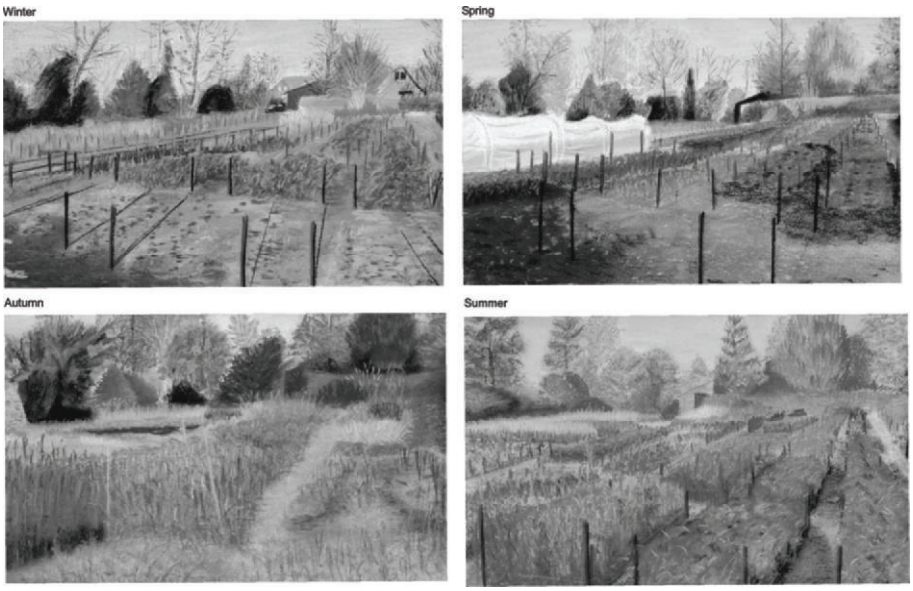


Figure 5-4. Drawings showing the typical-to-the-season view from a fixed observation point, when influences of weather are deliberately eradicated. Characteristics of each image such as colours, forms, density and light effect enable us to recognize the seasons.

The observations were recorded and processed in various ways (see Table 5-1). Photographs from the fixed observation points, but also from other specific points (e.g., spots very rich in colour or structure) provide a specific picture of the landscape at a given moment. In West Friesland, we also prepared drawings from the main observation point, from which the influences of the weather were deliberately eradicated and the most important features highlighted (Bockemühl 1986; 1992; Von Arx 1992) (Fig. 5-4). Drawings often give a clearer image of the farms than photos. Ground plans provide an overview of colours on the entire farm at the moment when the photographs were taken (Fig. 5-5). As such, they indicate nothing about the changes occurring during the year. For that purpose, a phenology diagram was produced which shows when and how the most important changes in colour take place (Fig. 5-6). These methods generate a picture of the farm, from the very specific through to the abstract, providing sufficient material for assessing the parameters for the seasonality of the farms.

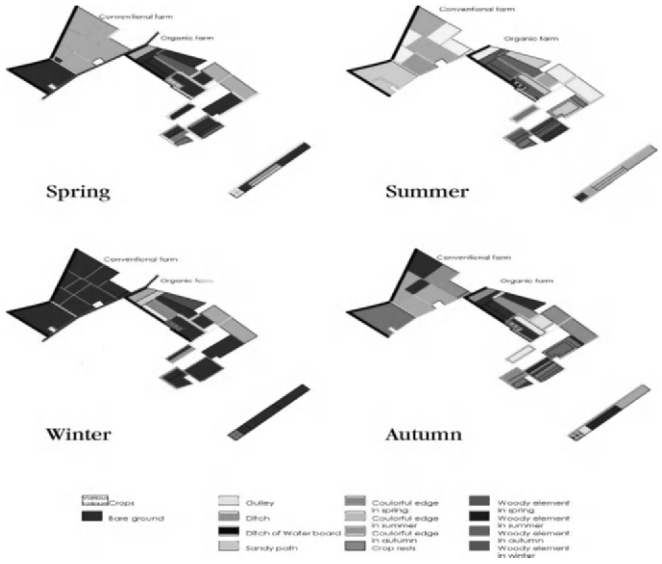


Figure 5-5. Ground plans with an indication of the colors in the fields of a conventional and an organic arable/horticultural farm in Drenthe, in four seasons. Particularly visible is the variety of plots of land with continually changing shapes and colors on the organic farm, the colorful ditch edged in the spring and the permanent cover in winter. On the conventional farm, fewer plots are present, and those are often covered by the same crop. In spring, the ditch edges are not colorful and in winter the farm is entirely bare.

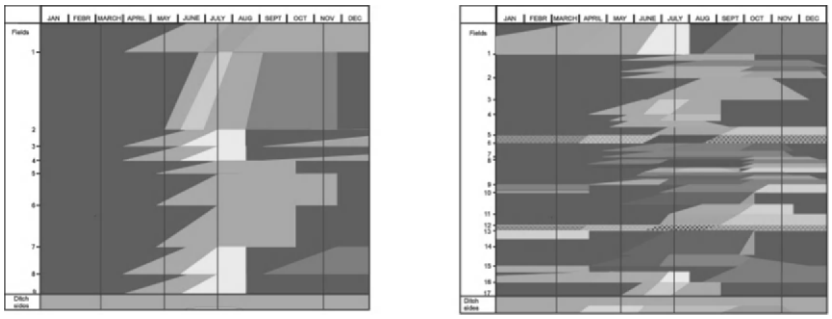


Figure 5-6. Phenology diagrams of (a) conventional and (b) organic arable/horticultural farm in Drenthe, with an indication of the colour changes in the field and field verges. The rows indicate the various plots; the height of a row represents the relative farm area. The height of the colourful line in the row of the ditch sides is relative to the surface of all ditch sides of the farm. The vertical lines are the observation moments (as shown in Fig 5-5). The variation in colours on the conventional arable farm is limited; the presence of colours in the fields and ditch edges is limited to the months of April to October. On the organic farm, there is a variation in colours and forms throughout the year, and the colour develops in a dynamic fashion. The only moment of rest occurs in early spring.

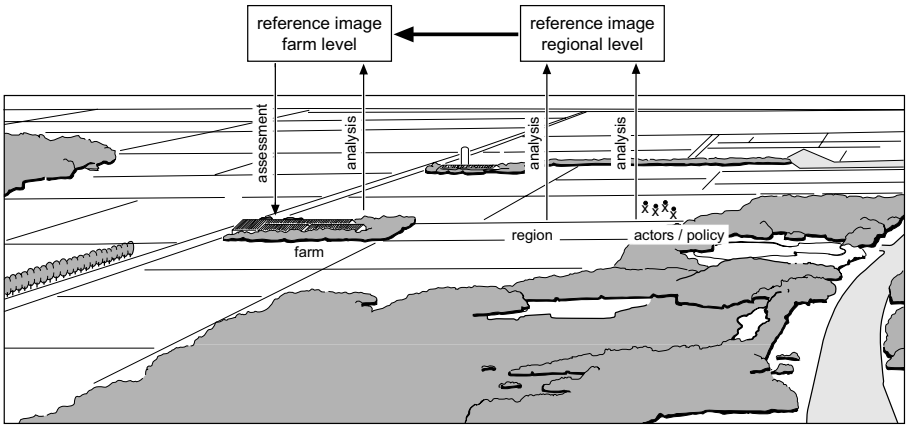


Figure 5-7. Reference image for assessing seasonal landscape quality of farms. The reference image at regional level is achieved by combining observed qualities with wishes expressed in policy and by local players. It forms the framework for the reference image at farm level, further supplemented by field observations. Using this reference image, the landscape quality of a farm in the region in question can be determined.

To determine the quality of the seasonal development of the farms, a reference image was needed – a well-documented and explicit representation of the optimal manifestation of seasonal developments (Fig. 5-7). The reference image consists of a number of targets for seasonal development. Combining these targets and illustrating them with images could form the normative reference image for the whole region. To define these targets we used observations of the current situation, literature and common knowledge of soil, geomorphology, vegetation and landscape ecology, together with policy documents of state and provinces and reports from agricultural organisations. The reference image for the Waterland region serves as an example here:

> In Waterland, the seasonal development is above all reflected in the colour and structure changes of the grasslands and the ditch sides. The general picture does not deviate from that in other cattle breeding areas such as the Friesian clay lands (see Mak 1996), or the sand and clay of Terschelling (see Vereijken 1988).
>
> In the winter, Waterland is dormant. The cows are indoors, the sheep and feathered winter visitors graze the short vegetation. The landscape takes the form of an extensive, open space, partly due to the absence of leaves and other closed, upright vegetation. The ochre-coloured reed borders stand out clearly against the green-brown of the fields and the clear water, and accentuate the pattern of waterways. During the sparse periods of hard frosts, this is experienced even more intensely from the

ice by skaters, who are able to move freely through the landscape. The fields are in various green tints, depending on management, water level and the last treatment or use of the land.

In the early spring, other colours start to appear; the lilac of the Lady's Smock (*Cardamine pratensis*), followed slightly later by the yellow of the Dandelion (*Taraxacum sp.*), Buttercup (*Ranunculus sp.*), and the red of the Dock (*Rumex acetosa*). The flowering on the fields is subsequently taken up by the ditch sides. Kilometre after kilometre of ditch side forms a colourful structure around the open space. On the one hand, marshland vegetation emerges with the development of the True Ragged Robin (*Lychnis flos-cuculi*) and the Flowering Rush (*Butomus umbellatus*), whilst on the other hand the grassland and meadowland plants growing in the fields, which here have the opportunity to flower and set fruit, once the fields have been mowed.

In Waterland, spring is the most spectacular season, due to the rapid succession of colourful plants, the first cows put out to pasture, the farmer busily mowing and harvesting the first cut and the apparently nervous activity of the brooding meadow birds such as Black-tailed Godwits and Peewits. The farms and villages are surrounded by transparent, light-green planting, with occasional fruit trees in blossom. The winding roads and dykes are busy with cyclists and in-line skaters. During this period, large parts of the region change in only a few days into a bright succession of greeny-yellow mowed blocks, and unmowed, colourful plots of land. Because management varies, however, red and yellow plots of land can still be seen well into July. A sort of wave motion appears in the landscape, of plots alternating between regrowth (and flowering) and coloration, following mowing.

As the planting around villages and farms becomes denser, the scale of the individual spaces slowly starts to become smaller. Some dykes become noticeable because of their colourful planting, which stands out against the now green fields. Management is aimed at vegetation with a range of varieties, partially replacing the year-round grazing by sheep.

This normative reference image for the region serves as basis for setting target parameters on the farm level. In translating the regional level goals to the farm level goals, the observations from the fieldwork are crucially important. They provide an overview of the potential expression of seasonal development in a specific landscape type. These examples of good practice are not usually all found on a single farm. The reference image is therefore a compilation of qualities seen on many farms. It gives the optimal situation of the used parameters, which gives them a normative value. From this moment on, they become criteria that can be used for the assessment of the seasonal

development of the farms. The classification of the parameters is based upon the distinction of five classes (Table 5-3) and an average score is calculated for the fields, the farm yard and the landscape elements of each farm.

In West Friesland, an additional perception research has been done by Van Haperen & Van Herpen (1997; see p. 4.2). They used in-depth interviews supported by photos. Using the telephone book, the respondents were chosen at random, but geographically spread through the study area. None of the selected respondents were active farmers and they had all lived for more than five years in the area. 19 respondents were interviewed; 12 male and seven female. Half were born and raised within the region, the other half were originally from outside the region. Only three were professionally related to agriculture in the region (e.g. grocery salesman), so most of them only knew the area through recreational activities. Most of the respondents visited the area more than once a week and only a few not very often.

Table 5-3. Classification of the parameters is based upon the distinction of five classes.

Parameters	**- -**	**-**	o	+	+ +
Colours and forms arable land	very few	few	moderate	many	very many
Duration and scale of changes of arable land	very few and quit abrupt	few and quit abrupt	moderate and abrupt to gradually	many and abrupt to gradually	very many and very gradually
Colours and forms grassland	very few	few	moderate	many	very many
Area of colourful grassland	less than 5 %	5 – 10 %	11- 25 %	26 – 50 %	51 % or more
Duration of colourful period of grassland	very short (only early spring)	short	quite long	long	very long (spring till late summer)
Other changes	very static	quite static	moderate	dynamic	very dynamic
Colours and forms farm yard	very few	few	moderate	many	very many

The questionnaire contained questions about the regional landscape and about farm landscapes, about the actual state of the landscape and the desired state of the landscape. Images of four farms made in the research of Hendriks & Stobbelaar (2003) were used as examples of farm landscapes. These four were selected to present as broad range as possible of landscape

qualities (size of the farm, open/closed farm, type of vegetables, diversity of (non-)productive cultures, availability of on farm nature). Two of these were organic farms and two were conventional farms.

4. COLOURS AND SHAPES IN THREE DUTCH LANDSCAPES

4.1 The seasonality of farms

The 30 studied farms have been represented in diagrams (Fig. 5-8, 5-9, 5-10), according to their performance against certain criteria: seasonal developments in the fields, in landscape elements, in the farm, and a total score for the seasonal development. The maximum score matches the seasonal development as described in the reference image. The median line equates to a moderate seasonal development, and the bottom line equates to a minimal seasonal development. For an explanation of the differences found see Stobbelaar et al. (2004).

The farms that show considerable seasonal development in their fields are all organic (Fig. 5-8). On the organic horticultural and arable farms, the locally specific variation in colour and shape is considerable, and for a large part of the year, there is dynamism in colours and patterns (see Fig. 5-5 and 5-6b). The grassland of the organic dairy cattle farms is colourful on several occasions throughout the year. The fields of the conventional farms in West Friesland and a number of organic farms demonstrate moderate seasonal development, and comply reasonably with the regional reference. The lowest level of seasonal development is demonstrated on the conventional farms in Waterland and Drenthe. Here, grasslands are green throughout the year, and there is little variation in crops on the arable land (see Fig. 5-5 and 5-6b).

In West Friesland, the main changing landscape elements are the field verges and ditch sides, in Waterland the ditch sides, terraced slopes and reed banks are the main features, and in Drenthe, a wide range of woody plants, wet elements (ditch sides, dug trenches and pools) and field verges predominate. A high level of seasonable development in these regionally specific landscape elements was visible on ten organic and two conventional farms (Fig. 5-9). On a number of organic and conventional farms, there is little temporal variation present, due to a lack of these elements or monotonous crop selection. The lowest scores were achieved in West Friesland, by the vast majority of conventional and organic horticultural farms (Fig. 5-12).

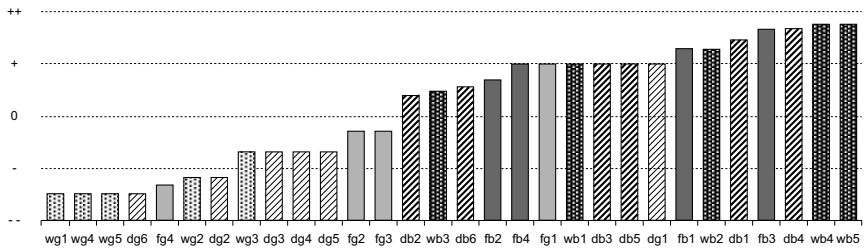


Figure 5-8. Ranking of the investigated farms according to the degree of seasonal development of the fields (f = West Friesland, w = Waterland, d = Drenthe, g = conventional, b = organic).

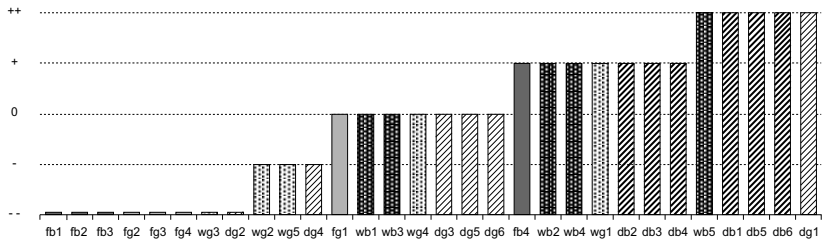


Figure 5-9. Ranking of the investigated farms according to the degree of seasonal development of landscape elements (f = West Friesland, w = Waterland, d = Drenthe, g = conventional, b = organic).

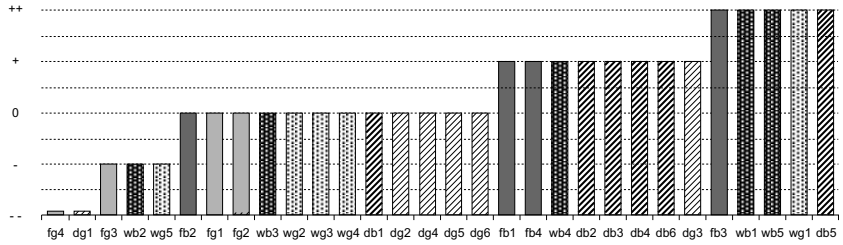


Figure 5-10. Ranking of the investigated farms according to the degree of seasonal development of the farmyard (f = West Friesland, w = Waterland, d = Drenthe, g = conventional, b = organic).

As with the fields and the landscape elements, seasonal development on the actual farmyard is far more noticeable on the organic farms (Fig. 5-10). On the farms scoring highly, the farmyard consists of a mix of stone elements, such as buildings and surfacing, and green elements, such as planting, an ornamental garden and possibly a vegetable garden, fruit trees,

runs for small animals, etc. There is plenty of space for green elements, considerable variation in functions and the varietal composition of planting is diverse (Fig. 5-11). The result is a considerable change in colour and shape during the year. A large group of both organic and conventional farms score moderately in this respect. They have only little planting and an ornamental garden within the farmyard. The farmyard areas of those farms demonstrating almost no seasonal development have much surface metalling, and any planting present is dominated by evergreen bushes and trees, which show no seasonal changes. In a number of cases, location, such as in the centre of a village, is the limiting factor for a clearly recognisable seasonal development within the farmyard.

Figure 5-11. A farmyard with a varied planting structure that shows seasonal features all year round. Photo: Karina Hendriks.

Figure 5-12. On both the organic and the conventional farms in West Friesland, good management of ditch sides and field verges offer major opportunities for landscape improvement. Photo: Karina Hendriks.

4.2 The inhabitants perception of seasonality

In the described above, the respondents were asked about the qualities of the present-day landscape and about the desired qualities of the landscape (Table 5-4). The answers enabled extracting the respondents' views on the role of the seasons in the landscape. The respondents were also asked to put drawings of some farms in the area in the right sequence of seasons.

Table 5-4. The current and desired seasonal qualities of West Friesland (NL) according to participants in a perception research

	Current seasonal qualities	**Reference image seasons**
Regional level	• Little variation among seasons • Long period of fallow land	• Regionally defined variation among seasons • Seasons visible in crops and planting
Farm level	• Fallow in winter, some seasonal qualities in summer and autumn • Only few shrubs and trees that show the seasons	• Sequence of, and transitions between, seasons are visible • Seasons are expressed in crops, shrubs and trees • Every season has distinct features • Colour in ditch sides

The openness of West Friesland is valued positively, but the lack of variation both in space and time in this open area is seen as negative. Due to large-scale cabbage growing, most of the land is fallow for much of the year, and when it is planted, cabbage is the crop to be seen. Most of the

respondents would like more seasonal variety in colours, which can be expressed in more crops, planting and more colourful ditch sides. However, these plantings and changes in the ditch sides should not disturb the openness of the landscape.

The respondents had far less difficulty in arranging the drawings of the organic farms compared to those of the conventional farms. The reason for this was that the organic farms showed more information about the seasons in crops and planting. This greater variety made it much easier to see the change in the seasons. The respondents also stated that they preferred the images that showed the seasons so obviously.

The outcomes of the geographical and perception studies share many points in common. This gives the geographical study a social basis, and it shows that the general public is aware of these phenomena.

5. CONCLUSIONS

5.1 Seasonality is essential for regional character and perception

Seasonal coherence and development is an essential component of the character of a region and of indispensable importance for the perception of the landscape. In our opinion it deserves greater attention in research and planning. Seasonal development also provides an orientation in space and in time, by answering the question, "where am I, and what season is it?"

Studying seasonality brings out a much richer image of an area, as it focuses on the process qualities of the landscape, next to the much more studied pattern qualities. It also provides insights in the changing character of a landscape during the seasons. As Bohnet (2002: 283) states: "The decision to focus on four seasons in the landscape survey (as adapted from Hendriks et al. 2000) was confirmed to be valuable in capturing the differences in management regimes and their subsequent impacts on the farm landscapes studied. The four season fieldwork also provided a much richer and dynamic picture of the farms studied compared to only one landscape assessment as farms can change considerably during the year".

One of the outcomes of the perception research was that the respondents preferred the (farm) landscapes that showed strong changes in seasonality fitting in the identity of the region. Each region can also be typified according to seasonal development. West Friesland is at its most characteristic as an autumn landscape, when the fields are full of cabbages, and there is much harvesting activity. Waterland is a spring landscape, with

flowering fields, cows grazing in the pasture, the first grass cut and the numerous nesting birds. Drenthe is a more an all-year-round landscape, where there is always something to enjoy.

5.2 The scientific use of seasonality

Seasonal development is a scientifically-usable criterion for evaluating the quality of farms. It provides information about the condition of the farm throughout the entire year, and the contribution of the farm to landscape quality.

This paper advances previous research into the seasonality of landscapes, in several respects. Compared with Van der Schouw & De Veer (1981), it succeeds in converting the seasonal characteristic colour into a chart and a diagram of the changes throughout the year (see Fig. 5-4 and 5-5). The majority of landscape seasonality studies to date have been focused on the description and characterisation of seasonal development (Van der Schouw & De Veer 1981; Van der Haar & Wezenberg 1985; Pedroli 1989; Stobbelaar 1992). By making use of a reference image, it is possible not only to provide a description of, but also to determine a score for, seasonal developments. The method can be used anywhere in the world, as the objectives of the general parameters have to be locally defined.

5.3 The difference between conventional and organic agriculture (concerning seasonal development)

The farms that demonstrate the greatest level of seasonal development are all organic; moderate seasonal development is demonstrated by a number of both organic and conventional farms, and the remainder of conventional farms achieve a low score. In other words, on average, on organic farms, the seasonal development is more pronounced and more recognisable than on conventional farms. The degree to which the discrepancy between organic farms and conventional farms occurs differs from region to region and according to the farm component.

The results of the study tie in with those of other studies into the difference between organic farming and conventional farming (Stolze et al. 2000; Bohnet 2002; Hendriks & Stobbelaar 2003). Organic farms do make a greater contribution to the landscape quality of the region than conventional farms, in both spatial and temporal terms. They are therefore extremely well-suited for strengthening specific regional landscape characteristics.

6. DISCUSSION AND RECOMMENDATIONS

6.1 Evaluation of the method

The seasonality of landscapes is a rather new field of research and we have attempted to make some advances in this area. Below we discuss a number of the steps we took.

Firstly, the selection of seasonal "highpoints" was somewhat arbitrary: is May the highpoint for grassland in spring in the Netherlands, with buttercups and sorrel in bloom, or is it March-April, with the early blooming meadow flowers such as lady's smock and dandelion? In this case, the selection can be made for the period of greatest differentiation (between farms), in this case May, or the decision may be taken to measure at two moments.

Secondly, seasonal development is based on observations at four moments. The intervening phases must be filled on the basis of general knowledge of plant growth on farmland, in combination with brief visits to the field and discussions with farmers. As a consequence, it is possible that the researcher fails to note a proportion of the changes that occur over the year. The more becomes known about the seasonal development in a particular landscape, the easier it gets to complete the picture on the basis of a limited number of measurements. Moreover, the more observation moments, the easier it becomes to make the transition from seasonal coherence to seasonal development. The movie is then supplemented with additional pictures.

Thirdly, a reference image is required, in order to assess the seasonal development of farms. This reference image consists of the possible seasonal expressions of that very landscape. The choices made in this respect are represented as openly as possible, and illustrated with descriptions, photographs and diagrams. The construction of this reference image is therefore open to criticism. The limitations of this method are that it does not include contributions from residents concerning the desired seasonal development, and the method accepts the current situation as given. No account is taken, for example, of possible fundamental changes in the landscape such as increased afforestation. It is, of course, possible to include the wishes of residents in the reference image.

6.2 Implications for research and planning

Colours and forms are primary, sensory impressions that can easily be observed by anyone. Why, then, has so little research been done in this field? Is it too mundane? Our study has demonstrated that these specific aspects of the landscape bring to light considerable differences between farms. In

addition, during the study, it emerged that these seasonal aspects work well in communicating with people. It is often an eye-opener for people to observe landscapes in this manner. They seem to become consciously aware of what they had subconsciously already perceived.

At this point, we can identify a number of themes for further research.

- The relationship between diversity in colours and forms, environmental quality and varietal diversity in flora and fauna. For example, can the wealth of colours in a pasture or ditch edge serve as an indicator of environmental quality in that location?
- The relationship between seasonal aspects and recreational use. For example: to what extent is recreational use dependent on the wealth of colours and forms in an area, and could this be taken into account when landscaping an area?
- The relationship between seasonal aspects and land use. For example: what are the consequences for the seasonal aspects, if further economies of scale take place in farming, or when new crops are introduced to a region?
- The psychological importance of seasonal aspects for humans. Clearly, seasonal aspects are a determining characteristic in the perception and valuation of landscapes. But what functions do seasonal aspects such as colours and forms, smells and sound, fulfil in human temporal perception? To what extent do they support orientation in time, and how important are they in this process? To date, literature does not contain enough answers to these questions. The way in which the year develops is an important aspect for the identity of a region. Every landscape offers possibilities in each season to demonstrate that season. If it becomes clear that certain expressions are severely underrepresented, additional attention can be paid to those aspects. For example, in parts of Waterland, the six winter months (October-March) are uninteresting. This could be solved in a regionally-specific manner, by introducing more reeds, which are more visible in winter and play an important role in structuring the landscape at this time. By designing the landscape with an all-round image, it also becomes clear, for example, that concealing ugly buildings behind blocks of planting is not a solution for the winter months. By focusing attention on seasonal development in forming the landscape, the identity and diversity can be strengthened throughout the year.

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Chapter 6

ISLAND LIFESTYLES IN THE AEGEAN ISLANDS, GREECE: HEAVEN IN SUMMER, HELL IN WINTER?

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Figure 6-1. Faliraki, the most touristic place on Rodos, in winter. Photo: Thanasis Kizos.

H. Palang, H. Sooväli and A. Printsmann (eds.), Seasonal Landscapes, 127–149.

1. INTRODUCTION: ISLANDS AND ISLAND FUNCTIONS IN THE PAST AND PRESENT

1.1 Islands

What is an island? Why do people live in islands and especially in the winter? Although these questions are far too general to be addressed for islands and people all over the world in one paper, this chapter attempts to give some insights using material and experiences on the general seasonality framework from a group of islands in the Mediterranean, the Aegean Islands in Greece. Why islands in the first place? Because islands are paradigmatic cases of seasonal changes in practices, perceptions, lifestyles as the example presented here will demonstrate.

In the first section of this paper, islands and their functions will be presented. Although much attention is paid on generalizing island developments and functions, the discussion and examples used are focused on Mediterranean cases. This is necessary as on one hand some of the developments are far too diverse for different islands, while these examples will help in understanding the case study of the chapter. Although the fact remains that despite the differences, islands are always islands and their common symbolic qualities overcome differences, the reader should keep in mind the Mediterranean orientation of the material presented. Then the concept of attractiveness will be discussed in brief in order to assist the analysis of island seasonal geographies in general and the typical example of the Aegean Islands geographies that follows. The last section returns to the above questions with some answers and considerations.

The material presented here on islands' qualities (measurable and symbolic) and life on an island stem from three sources: empirical data, literature survey and, the author's personal experience of life on an island in the Aegean. Empirical data on Aegean Islands come from research previously published in EURISLES (1997), Spilanis et al. (2002), Spilanis et al. (in press) where the reader is directed for further discussion on methods and materials; and from original research which is based on a number of data sources that include: published official data such as censuses and annual statistical surveys; tourism statistics; ferry and airplane schedules, passengers, freight; the types of Aegean Islands ferries; local authorities data (seasonal teachers numbers, availability of selected services in small islands, number of houses that are empty during winter, etc.). Some were acquired via personal communication with the relevant authorities and the rest are available at local sources or from the author. The diverse methods are presented briefly with results, along with literature about the Aegean. The

author's personal experience dates back a decade when I moved in one of the largest islands of the Aegean, Lesvos, and still live there.

What is an island? Everyone agrees that an island is a "piece of land surrounded by water", but this does not fully cover all different cases, notions and beliefs about islands. The UN and international sea conventions excluded artificial and permanently uninhabited islands (Dolman 1986) from their definitions. The Statistical Office of the European Union (EUROSTAT) has developed an administrative definition regards islands as all areas of size 1.6 km^2 at least, permanently populated, separated from the continent by a water channel of at least 1 km, not connected with the continent by permanent structures (tunnels, bridges) and where no state capitals are located (EUROSTAT 2000). Geographical approaches go even further and include more criteria regarding area, population, coastal area, relief, etc. in an attempt to distinguish "real" islands from semi-continental areas (Brigand 1991). Biogeographical definitions are broader and consider islands as all biotopes that are relatively small and are isolated by similar biotopes (MacArthur & Wilson 1967; Shafer 1990; Whittaker 1998). Symbolic definitions are even broader conceptually and regard islands as ideal places where utopias take place, tourism paradises, prisons or exile places (Clarke 2002; Gillis 2004). In every case though, all definitions are based on isolation and spatial in-continuity, characteristics that "make" islands what they are (Beller et al. 1990; Brigand 1991; Gourmelon & Brigand 1991; European Union 1994; Poirine 1995; Patton 1996; Baum 1997; Sanguin 1997; Casabianca 1998; Spilanis 1998; Briguglio 1999; Cross & Nutley 1999). The United Nations Environmental Program (UNEP 2004) recognizes more than 2,000 islands around the world, more than half of which are in the Pacific, with the smallest average area per island, followed by the Atlantic and Indian oceans, the Arctic and the Mediterranean.

1.2 Island functions

Islands, despite their isolation and limited carrying capacity, have long been prizes of war and political struggle, due to their importance in the maritime transportation network in all cultures and all over the world. Another way to examine the social, ecological, productive and symbolic role of islands is to investigate the functions they serve (Brigand 1991; Gourmelon & Brigand 1991; Braudel 1993; Horden & Purcell 2000; Clarke 2002; Abulafia 2003; Gillis 2004).

First, islands serve as *military posts and places of great strategic importance*. The castles, forts, watchtowers etc. are the marks of the importance of old and airports, military bases are the contemporary marks of strategic importance in numerous islands throughout the world. This

importance has led to different implications: on one hand military presence has served as a strong economic activity and a driving force for the creation of infrastructure that would not be constructed otherwise, but on the other hand has created a potential threat in the well-being of the inhabitants, as it implies that the island can be claimed or disputed. Contemporary military presence in a series of bases and camps has a significant seasonal dimension – people that inhabited these camps and bases change periodically and these geographies will be dealt in more depth later on in this paper. Older examples can be found throughout the world. Malta is a case of an island placed in the middle of the highly important Mediterranean Sea trade route, resulting in impressive fortifications and numerous invasions.

Second, islands are *commercial nodes*. This function is probably the most important and best studied one. Islands served in commerce networks as more than stepping-stones. Some developed complicated ways of utilizing these networks in their favor and enjoyed wealth and power. Commercial importance and economic integration goes hand in hand most of the times with military importance and the rich islands were usually the most well guarded ones. Greek islands in the Aegean make very good examples of commercial (and industrial) nodes.

Third, islands function as *industrial poles*. In times when maritime transport was the only way to move goods and people safely and swiftly from place to place in major quantities, it was financially profitable to develop industries and manufacturing units in general in places were ships could port easily and safely and reduce transport costs. This resulted in spatial concentration of significant manufacture and industry in many coastal areas and islands. Again, here the Aegean serves as a typical example, as Greek steam industry in the end of the 19th century developed in four ports: two in the continent and two in islands (Sifnaiou 1996).

Fourth, islands have been used as *safe hideouts*. Islands were in general considered as safe places. Big armies could not easily be transported in them and defense was generally easier than in most continental areas. Safety, though, has three more dimensions: the first one refers to safety from official or central control for island populations. Piracy in the 17th century Caribbean is the popular example of a worldwide practice that has a modern equivalent in the Indian – Pacific Ocean islands piracy. The Mediterranean pirates were also numerous, changed sides and were notorious for their ruthlessness and their part in the lucrative slave trade (Horden & Purcell 2000). The second dimension refers to safety from all outside influence and therefore to the self-sufficiency of islands, which has led to the notion that islands can serve as utopias, ideal laboratories of social experiment. The third dimension refers to everyday safety and is still regarded as one of the greater advantages of islands.

The fifth use of islands has been *prisons*. Isolation has served as a safety switch, but its other side meant also imprisonment. Islands have served as exiles and prisons for criminals, political prisoners, sick and unwanted. Island prisons are double prisons: apart from the prison walls, the invisible island walls ensure imprisonment.

Finally, islands have been considered *holy places*. Many islands have served as meeting points for celebrations and religious ceremonies. Some have profited greatly from this holy status, as this meant protection from political and military conflicts. Here, some typical examples offer seasonality insights as well. Pacific sacred islands were uninhabited most of the year and were populated only during seasonal ceremonies and festivals.

Today, islands serve different functions with very diverse and of high symbolic significance. They are paradises for tourists and visitors and are strongly connected with utopias, places where people can "re-discover themselves", come to "terms with nature and life", "escape from the crazy, modern way of life" and return to a "golden age" of "relaxed lifestyles". This *islomania* (Clarke 2002) the "crave for island life" is surely connected with some of the above historic functions of islands, but there are some current points as well that could be mentioned.

The first of these is the development of tourism after the 1950s (Lickorish & Jenkins 2004). The reasons that islands soon became tourist attractions are many and diverse. First of all, history mattered and indeed the first islands to become attractions were very rich in history and historic sites. Then it was isolation and the differences of the islands and the islanders from the "everyday" scenery of tourists. Islands are "split" between innovation and backwardness (Braudel 1993); island cultures are regarded as different in many ways than similar cultures and cultures in proximate places, and many islands have been considered as "heritage tanks" – places where tradition is preserved and "lived" by local people. Tourists are attracted by differences and were more and more attracted by a romantic promise of "tradition" that island lifestyles were supposed to have, a resilience to "progress", "modern life" etc. The third fact that also mattered was the setting. Holidays were increasingly concerned with hot weather, sea, sun and relaxation. Most islands have at least one of these ingredients, many have more than one and some have them all. So, tourists fancied islands and islands found in tourists an economic activity that could help them increase their incomes. Before the improvement of transportation technology in the beginning of the 20th century, islands were intermediate ports in almost all maritime journeys. The inventions of steamboats and eventually gasboats on one hand and the improvement of land (rail and road) and air transportation on the other made all these stops and ports unnecessary, depriving many islands of an important and financially profitable role. Tourism came as a

counter balance and was greatly assisted by this transportation improvement and especially air transport (Williams 1997; Minca 1998).

The second point is the development of public and private sector services, mostly in developed countries. Public services are meant to provide equality and availability of a certain minimum level of services and infrastructure for all citizens of a state. Isolated and remote areas and islands, mostly in developed countries, were mostly benefited by this development, as it meant jobs and improvement of the quality of life for their populations. Private services' development is the result of the differentiation of developed societies' economy away from agriculture and industry and is considered as a sign of "progress" and increased "quality of life".

Most of the above functions, especially present ones, entail antitheses (isolation and vastness; prisons and tourism paradises; innovation and backwardness; empty houses and mass tourism) which appear as inherent island qualities, having islands "split" between different realities, notions and beliefs. Most of these antitheses suggest seasonal differences. Transportation depends heavily on the weather and in most island cases winter (in the Northern Hemisphere and summer in the Southern) used to practically stop almost all transportation of sailing ships and today it delays, postpones or makes difficult movements of modern ships. At the same time, most of the functions presented above depend on the movement in and out of the islands, fact that attaches a seasonal character to all island life. The exception of air transport is important here for many islands, but in most cases it is too expensive for most of the locals, while goods and cargo are generally carried via ships, at least in most Mediterranean Islands.

Why do people live in islands? Nowadays when most islands have lost their pivotal position in a number of past functions that were less seasonal than most modern functions and especially tourism, it gets harder to explain the reasons for permanently inhabiting islands, let alone small ones.

A useful concept for explaining this "islomania" is insularity, or "islandness", a term that removes the "semantic baggage of separation and backwardness" that insularity is connected with (Baldacchino 2004: 272). Here, insularity is preferred exactly because it entails antithetical concepts and symbols. It is used to describe the complex identity of islands, a common identity that exists despite differences in size, population, isolation, economy, culture, etc. It is defined as the specific quality of perceptions and behaviors affected and shaped by island spaces (Sofoulis & Dalakou 1992). Insularity expresses "objective" and measurable qualities such as small area size (that results in limited resources and small populations), isolation, special natural and cultural environments, but also a special "experiential identity", a non-measurable quality that stems from imagining islands and life in them. Despite shortcomings, islands are still popular, mainly due to

the symbols they are connected with, namely isolation and confinement of natural limits on one hand and vastness – connectivity of the sea on the other. Literature on islands (Baldacchino 2004; Gillis 2004; Peron 2004) agrees on this specific point that they are objects "of the mind" as well as "physical" objects and islands of the mind "continue to be extraordinarily valuable resources, a treasure trove of images" (Gillis 2004: 3).

Another useful concept is attractiveness that captures the seasonal character of islands better and is discussed in more detail in the following section of this paper.

2. ATTRACTIVENESS AND SEASONALITY

2.1 Attractiveness

Some places are more attractive to live in or visit than others. The reasons and the driving forces behind such decisions to live in a place or visit it may not always be clear. In the economic and development planning sciences various approaches have been developed on attractiveness for different kinds of economic actors (enterprises, people, infrastructures, services). Literature on attractiveness for enterprises (industry, services, and retailers) proposes a series of factors, namely location in terms of raw materials availability and remoteness from markets, population size of the area, infrastructure availability, human resources availability and quality, and administrative – tax framework (Walker & Chapman 1987; Spilanis 1996; Lambrianidis 2000; Polyzos & Petrakos 2001; Mazzarol & Choo 2003). Although these approaches differ significantly conceptually and operationally from each other, they all regard attractiveness as a concept that can be estimated through experts' opinions and indicators, leaving people's opinions out of the estimation process. For example, planning for economic and social development in the EU is realized in NUTS II level with the use of common indicators and methods (European Commission 2002). The issue of attractiveness for people and why they choose to live in an area has received less academic attention until recently. Different approaches include diverse topics and methods such as migration studies and population movements (UNHCR 1995), population mobility (Tapeinos 1993; Tsaousi 1997) internal migration (see e.g. Portnov et al. 2000; Stockdale 2002, for more references) and landscape attractiveness (see e.g. Daniel 2001; Palang et al. 2003).

The attractiveness of an area is the image of the area for a group of people connected in some way with it that affects their decisions for working or living in the area. Attractiveness is a socially constructed concept and the

social group for which its estimation is attempted should always be included in its definition. Therefore, before answering the question "how is attractiveness estimated?" we have to answer two questions first (Kizos et al. 2005): "attractiveness for whom?" and "attractiveness when?". The first question refers to the group that defines attractiveness, the second to the temporal context of the estimation. All three questions are connected and indeed the only way to answer the temporal and the operational question is to define the group first. The concept of attractiveness can be used for understanding temporal, spatial and even seasonal changes in population, products and services' flows between places. Its explanatory power lies on that it includes the major driving forces between such flows in its definitions, namely the different attractiveness images different populations or groups of people attach to places. At the same time, it can also describe the results of these driving forces, which are exactly the spatial and temporal changes in these flows. The case of islands is in many ways typical of the changing beliefs and opinions on attractiveness over time and here, attractiveness is used for understanding seasonal changes in flows and people.

2.2 Island attractiveness and seasonal geographies

All cultural characteristics have an economic side and seasonality is no exception. Different attitudes, movement frequency, demands of goods and services require differences in offering goods and services.

Conceptually, seasonality is similar to that of the islands: everyone seems to know what it is, but exact definitions prove quite difficult. This difficulty results from the fact that seasonality can only be defined when compared to non-seasonality. If the "regular" side of a practice is not defined then its seasonal variation cannot be defined either. Apart from this issue, another conflicting aspect of seasonality definitions is what exactly is "seasonal" in seasonality. The ideal case of a seasonal practice is that of a practice that is different from its "regular" state for a short period of time, a season in an annual seasonality cycle for example. But in "actual" societies and "actual" practices, ideal cases are rare. So, specific temporal criteria have to be set in order to distinguish between seasonal and non-seasonal changes of a practice. Such criteria should refer to the complete cycle of the phenomenon and the time span of the seasonal change (Palang et al. 2005).

Attractiveness can be used for understanding seasonality and seasonal changes in practices that are connected with places. More specifically, the temporal dimension of attractiveness ("attractiveness when?") can be used for defining temporal scales for the group or groups of its first dimension ("attractiveness for whom?"). An example of the different seasonal

attractiveness images and results for the Aegean Islands will be presented in the following section of the paper.

The discussion of islands and their characteristics above indicates that at least two major groups ought to be included in an analysis. On one hand, the permanent inhabitants of the islands consist the first group, and on the other hand the seasonal inhabitants (workers, tourists, visitors, etc.) the second. These two groups are not homogenous and in the next section their many faces will be presented and discussed at length. But, they correspond to two different "insularities" in spatial and temporal terms, encompassing seasonality in these differences, as one of the criteria for distinguishing these groups. For the first group (permanent inhabitants) insularity and attractiveness is un-seasonal and very "real", regarding islands as attractive or unattractive places to live on. For the second group on the contrary, insularity and attractiveness is strongly "symbolic" (in the sense that it regards islands as objects "of the mind" instead of physical objects) and seasonal, structured around dipoles (winter – summer, holiday – isolation). In the next chapter these two major groups along with some of the most important divisions and their seasonal geographies will be discussed for the Aegean Islands.

3. ISLAND SEASONAL GEOGRAPHIES FOR THE AEGEAN ISLANDS, GREECE

Seasonal geographies in islands are special forms of seasonal geographies in physical and symbolic terms. Physical terms refer to their insular status. The fact that accessing an island requires sea transport[1] results in different accessibility possibilities in different seasons. In the Aegean Islands' case, not only sea travel is more difficult in winter, but transport frequency is also reduced significantly for most islands and especially for smaller and more remote ones (in 2004 in the Island of Lesvos, local port authorities banned ferry departures for 26 days in total, or 2 days per month on average, in a rather windy year).

Symbolic terms refer to two distinct dimensions of "islands of the mind". The first dimension deals with the symbols connected with the ways people can reach or leave islands. In most cases, public transportation alone serves travelers, a fact that requires planning ahead if you travel and change some everyday practices according to ferry boat schedules. Although ferry schedules are a real situation they affect the "islands" people have "in their

[1] As already mentioned, air transport is important for people's transportation, although rather expensive and only for islands with airports, but insignificant for goods in the Aegean.

minds", especially in winter where difficult weather conditions and less frequent schedules is the rule and feelings of isolation and insecurity arise for residents. A typical example is the case of Kalimnos, an important in size and population terms island in the South Aegean, which was connected daily with Pireas' port via a local ferry company. The collapse of the company in 2003 brought major changes, as the new company refuses to stop to the island more than once a week during winters, fact that has made winter transportation very difficult and dependent on the nearby Island of Kos (with daily ferry and air connection with Pireas – Athens and 30 minutes by small boat from Kalimnos). This fact has "isolated" the island greatly in "the minds" of locals that complain (going as far as visiting en mass the minister in charge of sea transportation in Athens twice in the winter of 2004), removing the daily "safety net" connection with Pireas.

The second dimension refers to the symbols that islands are connected with. Islands were always connected with a sense of isolation and the Aegean Islands were no exception. The fact that many served as exiles and prisons helped in establishing the isolation factor. Tourism has added to seasonality and has created the feeling of even more remoteness and isolation in the low season – winter. This dimension is important and is developed further in the next sections.

3.1 The Aegean Islands

There are 16 Island Regions in the European Union (NUTS II level) and in the rest Regions seven NUTS III level areas exclusively insular (EU 1994). In Greece four insular NUTS II level regions are found, two of which comprise the majority of the Greek Aegean Islands (some islands lying close to continental Greece are parts of continental NUTS II level regions). Geographically, the Aegean Islands are a complex of 3,053 islands[2] in a space defined by Crete in the south, continental Greece in the north and west and continental Turkey in the east, in total 210,240 km^2. In the regions of North and South Aegean 53 islands are found according to EUROSTAT (2000) definitions (population more than 50 inhabitants, see Table 6-1).

Population has declined significantly as a result of economic decline from 1951 to 1991 with 41 of the 53 islands losing population (-25% on average with 11 cases over -50%, see Table 6-1). In 1991-2001, the trend was reversed and the population stabilized to 1991 levels. Only six islands with population loss in the previous 40 years lost population again during that decade, but this increase for the rest of the islands offers only partial compensation for the losses of the previous 40 years and most islands are

[2] 2,800 islands with 22,600 km^2 belong to Greece and the rest 253 of 400 km^2 to Turkey.

still on negative balance with the 1951 population as reference. Today, population and area are strongly correlated (Pearson r = 0.949**, a = 0.00).

Aegean Islands' societies are ageing, and this fact is hidden behind the stabilized population of the 2001 census. A closer examination of the population's age distribution reveals that the average percentage of persons under 15 has reduced from 18.3% in 1991 to 15.2% in 2001 (country average at 15.1% in 2001) and while the average percentage of persons over 65 has increased slightly (from 18.3% in 1991 to 18.8% in 2001, with the country average at 16% in 2001), this slight increase means greater absolute numbers as total population has increased as well. So, it appears that this small population increase is caused by people that age or old migrants that return, as the negative natural growth and the positive net migration percentage imply[3].

Economy is based on tourism and agriculture but is also heavily dependent on "imported" human resources, as the following discussion will demonstrate.

Table 6-1. Inhabited islands (pop. > 50 inh.) of North and South Aegean regions. Source: Greek National Statistics Service (1951, 1991, 2001), (* no data).

Island	**Area in km^2**	**Population 2001**	**Population difference 1951-1991 (%)**	**Population difference 1991-2001 (%)**	**Population density 2001 (inhabitants / km^2)**
Lesvos	1630.38	89,935	-31.3	3.2	55.16
Rodos	1398.08	117,007	66.6	19.2	83.69
Hios	841.58	51,936	-21.0	1.7	61.71
Samos	476.20	33,809	-31.0	2.4	71.00
Limnos	475.61	18,009	-26.5	2.1	37.87
Naxos	428.13	18,188	-20.2	22.6	42.48
Anthros	379.67	10,009	-40.3	14.0	26.36
Karpathos	301.18	6,511	-24.5	22.3	21.62
Kos	290.28	30,947	38.3	17.3	106.61
Ikaria	255.28	8,312	-28.9	10.2	32.56
Paros	194.52	12,853	6.3	34.0	66.08
Tinos	194.21	8,574	-24.0	10.7	44.15
Milos	150.60	4,771	-21.4	8.7	31.68
Amorgos	120.67	1,858	-34.9	14.0	15.40
Kalimnos	110.88	16,255	17.3	3.5	146.60
Ios	107.80	1,838	-5.6	11.1	17.05
Kea	103.58	2,412	-42.5	35.0	23.29

[3] This is corroborated by the fact that the percentage of persons over 65 is negatively correlated with the population change between 1951 and 1991 (r = -.706**, a = 0.000), while the percentage of persons younger than 14 is positively correlated with the change of that 40 years (r = .565**, a = 0.000).

Table 6-1. (Continued)

Island	Area in km^2	Population 2001	Population difference 1951-1991 (%)	Population difference 1991-2001 (%)	Population density 2001 (inhabitants/ km^2)
Kithnos	99.26	1,608	-35.6	-1.5	16.20
Asrtipalea	96.85	1,238	-40.3	15.4	12.78
Mikonos	85.48	9,306	82.0	50.8	108.87
Siros	83.63	19,782	-14.1	-0.4	236.54
Thira	75.79	13,402	0.3	43.2	176.83
Serifos	73.23	1,414	-40.8	29.1	19.31
Sifnos	73.18	2,442	-29.3	24.6	33.37
Kasos	65.98	990	-21.6	-9.0	15.00
Tilos	62.83	533	-73.5	91.0	8.48
Simi	58.10	2,606	-41.4	11.7	44.85
Leros	52.95	8,131	14.3	0.9	153.56
Ag. Efstratios	43.23	371	-92.6	29.7	8.58
Nisiros	41.40	948	-60.8	3.8	22.90
Sikinos	41.03	238	-54.7	-10.9	5.80
Psara	39.77	422	-37.4	-3.7	10.61
Anafi	38.35	273	-50.9	4.6	7.12
Kimolos	35.71	769	-52.6	5.6	21.53
Antiparos	34.83	1,037	20.4	26.6	29.77
Patmos	34.05	2,884	1.9	8.3	84.70
Folegandros	32.07	667	-35.3	19.5	20.80
Fournoi	30.27	1,329	11.6	7.8	43.90
Halki	28.13	313	-51.6	11.4	11.13
Irakleia	17.60	151	-39.2	31.3	8.58
Pispi	15.98	698	-31.5	15.2	43.68
Pserimos	14.78	130	-66.1	64.6	8.80
Inusses	14.20	1,050	-52.5	54.2	73.94
Agathonisi	13.50	158	-42.9	41.1	11.70
Donusa	13.48	163	-59.2	46.8	12.09
Thimena	9.99	140	24.6	-4.8	14.01
Thirasia	9.30	268	-53.5	15.0	28.82
Megisti	9.13	406	-52.1	47.6	44.47
Shinusa	7.78	206	-46.0	68.9	26.48
Arki	6.70	54	-45.7	8.0	8.06
Kufonisi	5.70	366	-2.5	33.1	64.21
Telenthos	4.65	54	-38.0	-5.3	11.61
Farnakonisi	3.88	74	*	0	19.07

3.2 Seasonal geographies in the Aegean Islands

The Aegean case of island seasonality has many aspects:

Public servants' seasonal geographies. The need to offer island residents a quality of life of the same standard with continental areas has lead to the import of many employees in a number of different services, including

education, health and administration. Different cases have different seasonal implications. Education is the most obvious case of public servants' seasonal movements. The reasons are the inadequate number of teachers in all education levels that live permanently in islands and especially smaller islands. This brings every fall a number of seasonally working teachers who will stay for eight-nine months in the islands they are appointed to. Health services also import doctors and nurses on a less seasonal and regular basis but still, seasonally. The military also imports officers in the army and navy camps on less seasonal but regular basis. The numbers of these public servants can reach as high as 35% to 40% of the total of high school teachers, even in big islands such as Lesvos[4], and it is even bigger in smaller islands. Apart from their differences, all these share some common practices, notions and beliefs. They stay in the islands only as long as necessary and seek to "escape" in weekends and bank holidays. They live in furnished apartments, usually summer tourist rooms. They rarely get involved with locals and usually get involved with partners or other public servants, with whom they share similar lives, although they sometimes get married to locals and stay permanently. In their minds, islands and especially small ones are exiles; they leave when they can, although some actually stay for good.

Tourists' seasonal geographies. Tourism in the Aegean Islands is by far the most seasonal and in many islands the most important of all geographies in economic activities and people involved terms (Terkenli 2005). The number of tourists fluctuates around 3.5 million people with a small growing tendency, but this depending on the year (charter passengers were more than 2.6 million or 67% of the total passengers in 2001 according to official statistics all of which arrive from April-May to October, and the number of nights that tourists spent in official hotels – rooms – apartments was more than 20 million). Tourists travel mainly if not exclusively in summer and this fact causes intense seasonal flows in transportation terms, as will be discussed further on. Tourists can be distinguished with a number of criteria (Lickorish & Jenkins 2004). With regard to their willingness to visit a particular place two broad categories are recognized: those that choose to come in one or more islands and those that want to go on holiday and buy a tourism package and do not really pay much attention to their destination. With regard to what they seek out of their vacations, two categories are recognized: those that come seeking peace, quietness, relaxation, and a certain degree of remoteness in small "heavens" and havens "out of time";

[4] Data stems from a personal communication with the administration of secondary education in Lesvos prefecture. These percentages are varying from year to year as different needs arise and the ones referred here are averages.

and those who want to live intense moments and party in typical 3S (sun, sea, sex) playgrounds. The Aegean Islands with their diversity in area, setting, isolation and tourism development can offer both situations. What is interesting in these seasonal geographies is the fact that the same people that regard islands as "exiles" in the winter, come to "island paradises" in the summer. This symbolic antithesis is responsible for the construction of insularity in Modern Greek society on the basis of the above dipole: exiles in the winter, heavens in the summer (Raptis & Terkenli 1998).

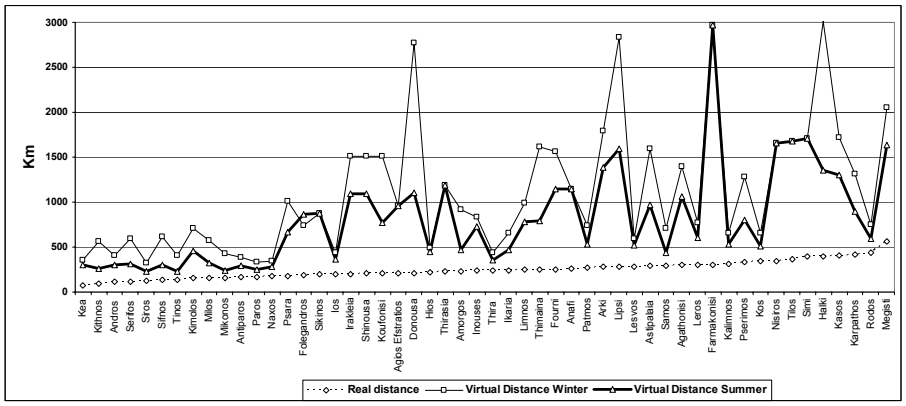

Figure 6-2. Real and virtual distance of inhabited Aegean Islands in summer and winter.

Ferry-transportation seasonal geographies. As already mentioned, ferryboats are very important for the Aegean Islands. This fact makes the frequency of the ferryboat schedule, the quality and capacity of boats, the hours that ferries arrive and leave very important. Weather conditions add a seasonality dimension on the quality of travel in sea, but the greatest seasonality differences refer to the different frequencies of connections between seasons. A good way to quantify these differences is to use an accessibility index, which addresses with data important issue of island isolation and connectivity. The index measures the "virtual distance" of islands from central ports (in the case of the Aegean Islands the port of Pireas, Fig. 6-2), by taking into account the frequency of connections between the two ports, standard waiting time and possible intermediate ports. The formula for calculating virtual distance is given in equation (1):

$$VR = 29.7 * (Wt + Rtt + F) \quad (1)$$

Where VR stands for virtual distance, 29.7 km/hr is the average speed of ferryboats, Wt stands for waiting time in ports, Rtt stands for real travel time and F stands for the frequency of the ferryboat schedule (see Table 6-2).

The results that are depicted in Table 6-1 and Fig. 6-2 indicate important differences between real and virtual distance, especially for smaller islands and important differences between summer and winter, which "bring closer" the islands to Greek continental land during the summer and then again "isolate" them in the winter[5]. Results also reveal that although "real" and "virtual distance" correlate mildly (r = 0.669*, a = 0.012), frequency is the most important factor in determining virtual distance (Pearson r = 0.977**, a = 0.01). Illustrative examples here are the cases of the small Islands of Irakleia, Shoinousa, Koufonisi and Donousa near Naxos (Fig. 6-3). Their area sizes and real distances from Athens are similar (Irakleia is closest at 203 km and Donousa remotest at 213 km), but virtual distances in winter differ significantly (Irakleia 1,515 km, Shoinousa 1,530 km, Koufonisi 1,560 km and Donousa 2,792 km, Fig. 6-2), due to the fact that in winter the first three islands are connected twice a week with Pireas, while Donousa only once. In summer connections are the same and winter differences are smoothed (Fig. 6-2). Another option is traveling via Naxos, trip which reduces winter virtual distance at 1,233 km, but this does not mean that it is easier or more comfortable as locals may have to spend a night in Naxos, rather the contrary, although this is not easily measured. Another revealing example is the big islands of Samos and Rodos. Rodos is 439 km from Pireas and Samos 294 km, but the virtual distance of Rodos in winter is 725 km, while that of Samos 802 km, due to more frequent ferry connections, bringing Rodos "closer" to Pireas than Samos. Winter and summer virtual distance differences confirm the existence of two different "Aegeans'", a summer and a winter one. This, apart from a feeling of isolation for the inhabitants, creates a number of problems in terms of services availability, especially in winter.

Summer workers' seasonal geographies. Summer workers are a result of seasonal tourist flows that take place in the summer. Tourists require services and summer workers move to the islands to offer these services. The season lasts four to six months, but there are more workers working for shorter periods of time. A significant part of the seasonal workers consist of tourists who stay for a longer period of time and find low pay jobs for some weeks. Summer workers are a diverse group: some are highly experienced, a

[5] Airports alter the results illustrated in Figures 6-2 and 6-3, but generally in favor of the bigger islands, which are the ones with greater frequencies anyway, enhancing thus the isolation of smaller islands that have no airports. The same can be said of high-speed boats that stop at bigger islands only.

well-paid and live in "proper" houses, while most are low-paid young workers who share small houses with co-workers. They work in summer enterprises like bars, restaurants, hotels etc. Most young workers work and have vacation simultaneously and consider their occupations as not "proper" work. This lifestyle is similar to tourist lifestyles and sometimes contradicts local values and lifestyles, fact that causes conflicts between workers – tourists and locals. Summer workers' actual number is unknown and is certainly varying. They are not restricted to islands of course and all tourism destinations have to cope with seasonal movements, but islands and especially small islands are much affected by this seasonal availability of jobs and the arrival of summer workers.

Table 6-2. Island accessibility indicators. Source: adapted from EURISLES 1997. Times and frequencies from Greek Travel Pages (2004, www.gtp.gr), local lines data from the Ministry of the Aegean.

Indicator	**Definition, measurement**	**Calculation**
Real Distance	Euclidean distance in km	Measurement in digital map
Waiting time (Wt)	The minimum time in hours required for embarkation according to port authorities	Different according to port: For Pireas, two hours, for island ports one hour. In cases of two ports the waiting hours are added according to official time schedules
Frequency (F)	Weekly frequency of connections with Pireas port or with intermediate port	Calculated with the formula: (7*24)/N*1/2 = 84/N, where 7*24 = 168 the hours of the week, N stands for the minimum number of weekly connections and ½ or 50% stands for the possibility for a passenger to get to the port accidentally before or after the ship's departure. Data for January and August
Real travel time (Rtt)	The official sailing hours	Time in hours according to the official schedule

Students' seasonal geographies. The steady development of the University of the Aegean in the last 20 years has lead to the rise of the number of students that live on the islands where the departments are located. Students tend to return to their homes in holidays and therefore can stay in furnished tourism rooms like public servants do. They are very good sources of income for a number of service providers in the winter (restaurants, bars, markets, etc.) and are more and more sought from locals (the total number of undergraduate and graduate students exceeds 5,000 in all five islands where the university is located). They tend to give different image in islands in symbolic terms as well, as their presence in the winter is a sign of dynamism and different cultural opportunities for local societies, who otherwise would be devoid of youngsters.

The pensioners' seasonal geographies. Many people that have moved from the islands to continental areas return on a permanent or seasonal basis

when they retire. Most keep and restore their old island house and their farms and stay in big urban centers (like Athens) in the winter in order to have access to quality health services. They are never away from home though – they stay for two to three months in the summer and always visit in holidays, big religious festivals and celebrations. Some live as far as the US (but visit their home islands regularly[6]). Like the summer workers, pensioners are not found only in islands but it is only a symptom of a general tendency to "return home" of people who have migrated. Another relevant development is the wish of many North Europeans and especially pensioners to buy a holiday house in the South. Although this is a development mainly found in Spain, France and Italy, it is important for some islands such as Rodos, Samos, Mikonos in the Aegean; Corfu, Crete and mainland Greece, but it is an increasing tendency even in smaller islands. These pensioners stay seasonally in the islands and "color" local societies with practices, lifestyles and run for local office.

Islanders' seasonal geographies. All the abovementioned seasonal geographies refer to people who periodically or seasonally come to spend some time on one of the Aegean Islands. Permanent residents or "locals" do not necessarily experience similar seasonal geographies, although indeed most of the above sketches of seasonal geographies affect their lives. First of all, tourism seasonality is a major driving force of changes for permanent residents. It has provided seasonal jobs and seasonal incomes and has changed attitudes, ethics and habits; "opening" close island societies to the world. On the other hand, tourists often perceive islands as "playgrounds", places where "anything goes", which is not shared by permanent residents, who after all will be there in the winter as well and therefore have to maintain good relationships with neighbors as well as the social status in conservative islands societies (especially in smaller ones). The rest of seasonal geographies affect permanent residents' lives less, as most do not coincide with tourism geographies or have exact opposite seasonality circles. For locals, life on an island is a mixture of solitude and crowdedness, remoteness and closeness, following the seasonality circles of the other geographies. If for tourists and most seasonal visitors summer is "heaven" and winter is "hell", for the locals no such clear distinction can be drawn. The lack of suitable empirical material of their actual opinions in some scale and for different situations (small and big islands, more or less isolated, etc.) does not allow generalizations, as apart from spatial differences, economic

[6] The author overheard a discussion of a couple of old ladies from Ikaria, traveling to Athens, about Philadelphia (USA) suburbs, where it is nicer to stay and the best bus/train routes for New York! These ladies come every year from Philadelphia to Ikaria for at least one month.

and social differences are also important in Aegean societies. Judging from the results of their behavior though, many share this seasonal "heaven – hell" belief of non-locals, as it has a very real side on things and practices that affects their lives, fact demonstrated by the accessibility discussion above. Nevertheless, it seems that there is also a number of locals who find tourism both a blessing and a curse and conceive the situation the other way around, despite actual disadvantages and difficulties that winter brings to their life. The question of where they live and how many they are cannot be answered with actual numbers yet, but it seems that such a group exists, or the population decline would continue, but they are not so many as to "speak" for all locals.

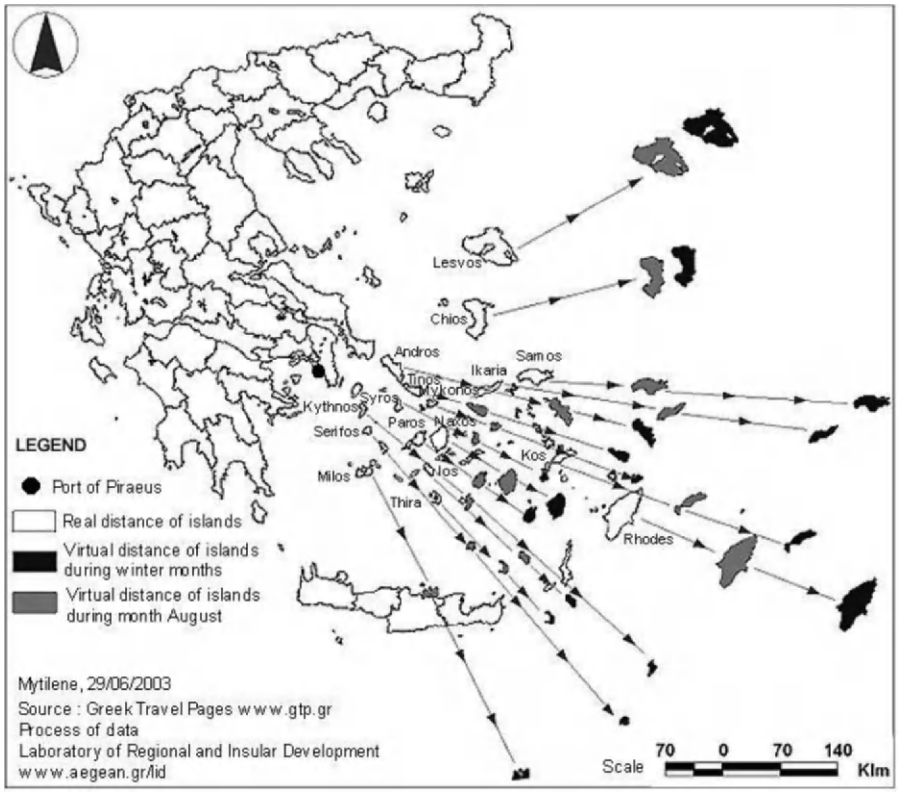

Figure 6-3. Accessibility of the Aegean Islands.

4. CONCLUSION: HEAVEN IN SUMMER, HELL IN WINTER, OR HEAVEN IN WINTER, HELL IN SUMMER?

The interrelations of the seasonal geographies in the Aegean are complex. First of all, the "type" of the island is important: area size, permanent population and tourism development are the three key issues in considering interrelations. Bigger islands sustain bigger permanent populations and are therefore more attractive even in winter in all cases, as "there are things to do" on one hand, and more transportation opportunities and frequency on the other. Bigger permanent populations have another side-effect: they reduce seasonal dependence on tourism for employment and incomes and major seasonal differentiations in locals' geographies in general. Smaller islands with smaller permanent populations and greater dependence on tourism appear to support more differences in locals' seasonal geographies. This is because they correspond with more important actual seasonal differences in people and flows. This statement though remains more an assumption and a personal feeling rather than an established fact, as it is not supported with actual data of their opinions.

Returning to the questions set in the beginning of the chapter, we have to ask whether islands are "heaven" or "hell" and for whom and when? The discussion has indicated that there may be an important division between islanders and non-islanders, or non-seasonal and seasonal inhabitants. These two extremes are closely connected with the insularity notion and islands' characteristics and also with social imagery, notions and beliefs.

Although seasonal inhabitants are not homogenous and indeed they cover many and different groups under the name, these different people with different aspirations, needs, wishes, etc. have two things in common – they live seasonally in islands and wish to do so on a foundation partly ideological and emotional. The attitudes are the same towards islands' seasonal attractiveness: summer is "heaven" and winter is "hell". Thus, they visit or live in the islands willingly only in the "heaven" season and only unwillingly on the "hell" season and this is demonstrated clearly by the previous discussion of the seasonal geographies of so many different groups. The attractiveness concept that is used here has facilitated this demonstration by highlighting actual differences between Aegean Islands and between islands and continental Greece in terms of accessibility, economy and quality of life in different seasons.

On the other hand, islanders do not necessarily follow the same attitudes. For them, there may be no significant seasonal differences, especially on non-tourist islands where seasonal flows are smaller. Their most important difference from non-permanent residents is the most obvious one: they have

chosen to live permanently on a place thought of as "hell" from visitors and/or seasonal inhabitants. For them it is not a "hell", as they choose to live in it, although differences surely exist among the many different islands. There seems to be a group for whom the situation is exactly the opposite and islands are "heavens" in the winter and "hells" in summer. These beliefs lie heavily on the seasonal changes of people in the islands. Summer crowdedness and winter "peace" is one reason and tourism ethics and attitudes towards local values and lifestyles another one.

Differences in perception are striking. The same places are regarded, thought of, imagined as completely different seasonally. This is more true for seasonal residents and visitors / tourists but locals too (in diverging numbers and intensity) seem to consider "their" islands differently in seasonal terms. These symbolic differences do have a "real" side, discussed in the various seasonal geographies of the Aegean Islands as differences in accessibility, area size, population size, quality of life, etc., but the question whether these real differences actually correspond to the symbolic differences remains open to interpretations from the various groups involved. This assertion is very important for seasonality studies in general, for island studies in particular and has to be supported by empirical data on real and symbolic geographies, as the case study has demonstrated.

The question remains, how these generalizations can be questioned and if there are possible exceptions. The discussion so far seems to be confirming common opinions about islands and seasonality. Are these opinions set in such a way that they cannot be changed? And more importantly, are they representing all different sub-groups within the dominant two larger groups described (permanent and seasonal residents)? The answer appears to be negative in the light of the evidence the Aegean Islands' case provide. Further discussion, though, requires more data, especially qualitative ones, studying opinions of different sub-groups in different seasons and for different islands in the lines discussed above: area size, population, dependency from the main seasonal economic activity, in this case tourism.

Islands are exemplar cases in seasonality differences as the attractiveness discussion of the Aegean Islands' geographies has attempted to show and generalizations or theorization will benefit much from including island examples. For island studies, the above discussion has demonstrated the difficulties in arriving at common findings about all people who, on a seasonal or permanent basis, are connected with islands, let alone planning futures for them.

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Chapter 7

SEASONALITY OF SECOND-HOME USE IN DENMARK

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Figure 7-1. Second-home area on Holmsland-Klit, Western Jutland. Photo: Gunther Tress.

H. Palang, H. Sooväli and A. Printsmann (eds.), Seasonal Landscapes, 151–179.

1. INTRODUCTION

A house in the dunes, thatched with straw, painted in red or yellow, close to the broad sandy beach and with a sea view – this for many people is the epitome of wonderful leisure or holiday in Denmark (Fig. 7-1). Second-home use seems to be a successful symbiosis of the careful use of the coastal landscape and of the increased expectations and demands of second-home tourists on the organization of their leisure time. Within the last three decades second-home use in Denmark has developed as an important part of Danish tourism industry. Second homes are used not only by their Danish owners as recreational homes but also as holiday homes by increasing numbers of domestic and foreign tourists. About 50% of all tourist overnights in Denmark are made in second homes, about 25% are made in hotels and 25% on camping sites (see Tress 2000). In rented second homes solely about 15 million overnights were recorded for the year 2000 (*Dansk Turisme* 2005). Overnights in homes which are self-owned or loaned for free come on top of this.

Although tourism activities in Denmark underlie seasonal variance, the seasonality of the different second-home uses and second-home users has not been studied in detail yet. So far, little is known about the characteristics of user groups and whether seasonal variances occur in the different second-home areas in Denmark. This paper aims at analyzing the seasonal characteristics of second-home use in Denmark and investigates differences in types of second-home use, types of second homes and types of second-home users during the four seasons.

According to Dower & Downing (1973) and Shucksmith (1983), *second homes* are properties owned or rented on a long lease as the occasional residence of a household that usually lives elsewhere. A detailed overview on definitions of second homes provides Visser (2004). Typically, a second home in Denmark (in Danish *sommerhus*) is a privately owned cottage or house close to the sea that is used for recreational or tourism purposes. Second homes are usually grouped together in areas with a few houses and up to several thousand houses. For this paper, "second homes" includes not only houses that are built for second-home use but also those houses that are used for second-home purposes. *Second-home tourism* is defined as the recreational use of second homes by their owners, friends or relatives of the owners, or vacationers who rent them. It covers all relationships, behaviors, and actions that result from traveling to, and staying at the second home. Permanent residence in second homes is not considered to be tourist activity. But all groups of second-home users traveling from their main residences to second homes are tourists, whether owners, friends or relatives of the owner, or vacationers who rent them (Taubmann 1973; Jaakson 1986; Gartner &

Girard 1993; Tress 2000). Two main groups of second-home tourists can be distinguished, the second-home owners as users of their own homes and second-home guests as users of rented or loaned homes.

Seasonal variance in second-home tourism is a known phenomenon in Denmark. Allcock (1989: 387) defines *seasonality* as "the tendency of tourist flows to become concentrated into relatively short periods of the year". According to Higham & Hinch (2002) seasonality is one of the most prominent features of tourism in general. The vast majority of tourism destinations are characterized by systematic fluctuations in tourism phenomena throughout the year. Seasonality in tourism leads often to a peak of tourism activities in the summer months and lower activities in other seasons. The tourism industries worldwide have identified this as a problem and work hard to lower the summer peak and increase tourism activities in other seasons. Also for host communities the economic, social and ecological consequences of high-peak tourism phenomena on the one hand and off-peak underutilization of capacity on the other hand is a sever problem (McEnnif 1992; Butler 1994; Baum 1999a). Seasonal variation in tourism is analyzed for different types of tourism and destinations by BarOn (1975), Hartman (1986), Go (1990), Snepenger et al. (1990), Butler (1994), Kennedy (1999), Baum & Lundtorp (2001), Gustafson (2002), Hui & Yuen (2002), Fernández-Morales (2003), and Getz & Nilsson (2004).

Seasonal fluctuation has a notable impact on many aspects of tourism economy (Witt & Moutinho 1994). Therefore, many studies analyzing seasonality in tourism focus on economic aspects (see Witt & Moutinho 1994; Goh & Law 2002; Getz & Nilsson 2004; Rosselló Nadal et al. 2004). In Denmark, the most well known indicator for seasonal variance in Danish second-home use is the seasonal variance of renting prices for commercial second-home use during the summer months (Hansen 2000; Tress 2000). As this aspect is well covered, this chapter focuses on other than economic aspects of seasonal variance and analyzes the variance in second-home use and user groups. The chapter reviews briefly the development, types and restrictions of second homes and their use in Denmark in order to provide the context for the analysis of the seasonal variance.

2. SECOND-HOME DEVELOPMENT AND USE IN DENMARK

2.1 Second-home development

The Danish word for second home, "sommerhus", reveals already that the origin of the second-home tradition has a seasonal component. The tradition of second homes arose in Denmark during the transition from the 19th to the 20th century. It can be put down to the search of artists for unspoiled nature and pastoral idylls (Bøgh 1992). Summer visitors, especially from Copenhagen, also discovered the recreational value of small coastal villages. The first summer villas and the simply constructed summer houses, which were inspired by the tradition of Italian country houses or the northern cottages, arose together with the establishment of bath hotels in coastal villages (Balslev Jørgensen 1979). In the beginning of the 20th century ownership of a second home by the sea became the desire of an increasingly broader class of society. Simple wooden houses, the characteristic second home, were built along the coasts, independent from the seaside resorts (Dahlkild 1991). From the middle of the 1950s and especially from the 1960s, the second home started to establish itself as a place for recreation and holiday on a broader scale. The number of second homes in the middle of the 1950s was about 50,000 and it increased until the middle of the 1970s up to 150,000, mainly built along the best bathing coasts. The second home boom of the 1960s and 1970s brought about a commercial standardization in the building of second homes, which has not been before. They became smaller copies of detached family houses. Fig. 7-2 illustrates different types of Danish second homes.

In the 1970s, the privately owned second homes became attractive as *holiday houses* for foreign visitors during the summer months – most of all for Germans (Schultz 1988; Tress 1999). The ongoing unchecked sprawl of second-home areas was followed by regulation – from then second homes could only be built in certain areas, the recreational zone. According to this law, future second-home construction became possible only within the designated recreational zone. The recreational zone is in most cases a 1-3 km broad coastal strip. The zone and the second-home areas within the zone are often located several kilometers away from the nearest village or the centre of the municipality. New recreational zones have not been assigned since the 1970s (Planstyrelsen 1988; Tress 2000). In the 1980s, the massive commercial use of second homes started by renting them out during the summer season to Danish and foreign second-home guests. The economic importance of second-home tourism today is significant; its position in Danish tourism is unchallenged. Until the middle of the 1990s the number of

foreign overnight stays in second homes quadrupled. The renting season expanded to all four seasons. The highest peak in number of overnight stays by foreign tourists was reached in the 1992/1993 season with approximately 17.46 million overnight stays (Tress 2002a). Since then it has been slowly decreasing. All in all the extent of overnight stays in the commercial and the non-commercial second-home tourism is about 35 million per year.

Figure 7-2. Different types of Danish second homes: (a) simple standard summer cabin, (b) modern luxury-equipped second home (left) next to older medium standard home, (c) privately-used medium equipped home near beach, (d) higher standard home used for renting only, (e) rebuild home of the early 20th century, (f) large luxury-equipped home of the 1980s, (g) second-home area of the 1970s, (h) simple standard home of the late 1960s. Photo: Gunther Tress.

2.2 Second-home location and seasonal restrictions for usage

There are about 220,000 second homes in Denmark currently; almost one out of ten families possesses one. The houses are concentrated in coastal areas, mainly on the west and north coasts of Jutland and on the north coast of Zealand. Denmark is amongst the countries with the highest density of second homes per km^2 of the national territory (Tress 2002b). The use of second homes has been subject to restrictions. Second-home use is allowed for 30 weeks per year. Whereas the houses may be used all days from April to September, they may only be used for four weeks from October to March. Exceptions are possible for few so-called non-seasonal second homes and for pensioners. Although the all-year round use becomes more and more popular, most of these uses are illegal according to the Danish law (Christoffersen 1999). Another restriction to second-home use is that citizens of other countries, in general, cannot purchase a second home in Denmark.

2.3 Types of second-home use

Four different types of second-home use can be distinguished (see Tress 2000):

1. Traditional second-home use by the owner of the home, which is the original and most common way of second-home use. The homes may be visited several times per year for a weekend or a holiday.
2. Loaning to friends and relatives of the home owner, without charging costs for the overnight.
3. Renting to second-home guests, either through professional agencies or on a private basis. Second-home guests pay a weekly fee for staying in the home.
4. All-year round use of second homes, which is no form of second-home tourism, but permanent residence.

Most of the Danish second homes have a mixed use of the different types (traditional use, loaning, renting), depending on area and season. This means, for instance, that one home is used a few weeks by the owner and is rented out some weeks to guests. In 1997-1998 about 72% of the homes were used traditional, about 43% were rented out, about 17% were loaned out and 7% were used all-year round. The two most important types of second-home use are the traditional use and the renting. If homes are rented out then in most cases not only for a few weeks but more than two or four months a year, whereas the majority of homes are used less than two months in a traditional way (Tress 2000).

3. METHODS

The data presented in this paper are derived from a questionnaire survey among selected second-home users in three research areas in Denmark between 1997 and 1998.

3.1 Research areas

The three research areas included the second-home areas of the four municipalities Holmsland on the west coast of Jutland, Pandrup on the northwest coast of Jutland, as well as the neighbour municipalities Trundholm and Nykøbing-Rørvig in the northwest of the island of Zealand (see Fig. 7-3 for location of the research areas).

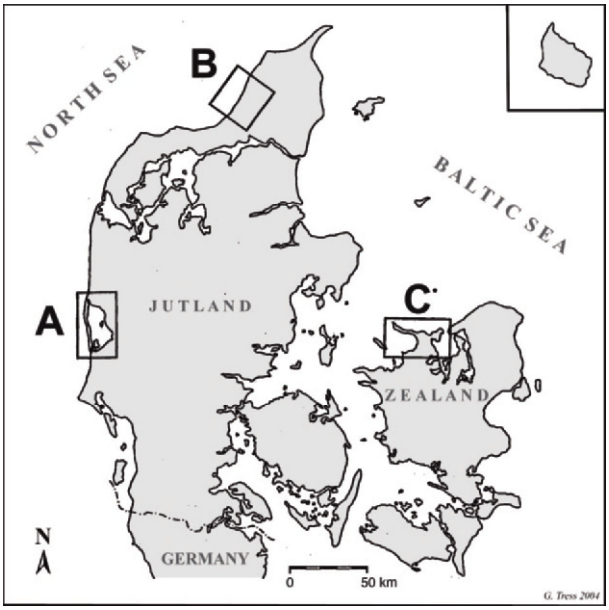

Figure 7-3. Location of the three research areas: (a) Holmsland, (b) Pandrup, and (c) Trundholm and Nykøbing-Rørvig.

Research area A (Holmsland Municipality), covers a 35 km long and 1-2 km broad coastal strip between the North Sea and the inland coastal lake Ringkøbing Fjord. The central resort is the old fishing village Hvide Sande with 3,300 inhabitants. This area is very popular by foreign – mainly German – tourists and included in 1997 about 5,600 second homes. Holmsland is one of the smaller municipalities in Denmark with about 9,400 ha and 5,200 permanent residents (population density of 57 inhabitants/km^2).

Research area B (Pandrup Municipality) is also located at the North Sea coast with the central holiday resort Blokhus. The second homes are spread out over an area of 21 km along the coast and up to 4 km inland. The about 6,000 second homes are popular by foreign and domestic tourists. The municipality has an area of 19,000 ha with 10,700 inhabitants (population density of 55 inh. per sq km). *Research area C* (Trundholm Municipality and Nykøbing-Rørvig Municipality) is located at the Baltic Sea coast. It is one of the largest connected second-home areas in Denmark. The 16,000 second homes are located along 60 km coast and are mainly used by domestic tourists. The area of both municipalities together includes 20,250 ha with about 18,200 inhabitants (population density of 89 inh. rer sq km). Nykøbing with about 5,200 residents is the centre of the area.

The three areas were selected because they represent three different types of development and usage. All areas are highly used second-home areas and are located at the coast. The three areas included by the time of the survey 27,600 second homes, which is about 13% of the total second-home stock of Denmark. The three areas were considered to be representative for the different types of second-home areas in Denmark.

3.2 Questionnaire survey

3.2.1 Survey sample size

Out of the total of 27,600 second homes in the three research areas, a proportional stratified random sample of 628 second homes was chosen, which is a sample of 2.3% of the total stock. According to the proportional distribution of the sample on the research areas the survey included 128 second homes in research area A, 136 second homes in research area B and 364 second homes in research area C. As the survey was conducted over a 12-months period to include all four seasons, four survey periods were defined according to each season. In each survey period, one quarter (157) of the sample of 628 second homes were surveyed. The second homes included in the survey were randomly selected.

3.2.2 Questionnaire versions

Two sets of questionnaires were prepared, one for second-home owners and one for guests, each in two language versions, Danish and German. The analysis of second-home use of Danmarks Turistråd et al. (1992) revealed that Danish and German users are responsible for more than 80% of second-home tourism in Denmark. Other users come from Sweden, Norway, and

The Netherlands. No second-home user was met that could not understand either Danish or German.

3.2.3 Distribution of questionnaires

Questionnaires were handed out personally to the second-home users accompanied by a cover letter and a free return envelope. Survey period I (summer) included June-August 1997, survey period II (autumn) September-November 1997, survey period III (winter) December 1997-February 1998, and survey period IV (spring) March-May 1998. Of the 628 second-home users who received a questionnaire, 345 (55%) were second-home owner and 283 (45%) other users of the second home. However, differences between the three research areas were recorded. In research area A only 20% of second-home users were owners, in research area B 30% and in research area C 77%.

3.2.4 Questionnaire design

The questionnaires included both open and closed questions. A first part contained questions about the size, location and equipment of the second home, about the second-home stay and travel behavior of the users, about the users' activities during the stay and demographic questions about the second-home users. A second part included different questions for second-home owners and other second-home users. Second-home owners had more specific questions about their second home, their personal use and the renting of the home. The other group of second-home users had to answer more detailed questions on their motivations for staying in and traveling to this second home, about their choice of the home and the level of satisfaction. Pre-tests were conducted in another second-home area prior to the survey.

3.2.5 Additional mail survey

The owners of all 283 second homes who were not met during the survey received an additional questionnaire by mail that included specific questions on the second home that could not be answered by the second-home users.

3.2.6 Response rate

The response rate of the 628 questionnaires was 74%. About 71% of the second-home owners and 77% of the other users returned their questionnaires. The response rate of returns from the three research areas

varied between 73% and 77%, among the four survey periods between 71% and 78%. The return of the additional 283 questionnaires that were mailed to second-home owners was 70%. According to Dillman (1999) the achieved response rates are satisfactory for these types of surveys.

4. RESULTS

4.1 Seasonal variance in second-home use

The types of second-home use varied in the respective survey periods. Whereas in the summer season the renting use is most dominant, in all other seasons the traditional use is dominating. Fig. 7-4 shows the distribution of all three types of non-permanent second-home uses during the seasons. Whereas renting and loaning hardly vary between autumn, winter and spring, the traditional use is less dominating in winter than in the other two seasons. This is because the second-home tourism activity is in general lowest in the winter season. The share of homes with all-year round use, which is a permanent use, is of course the same throughout the year. Yet, its relative influence becomes stronger when the general tourism activity decreases.

Strong differences in the types of second-home use occur especially among the three research areas, as summarized in Fig. 7-5. The summer season in research area A is almost exclusively dominated by renting, whereas in area C the summer season is the season in which the diversity of uses is highest compared to other seasons, in which traditional use is dominating.

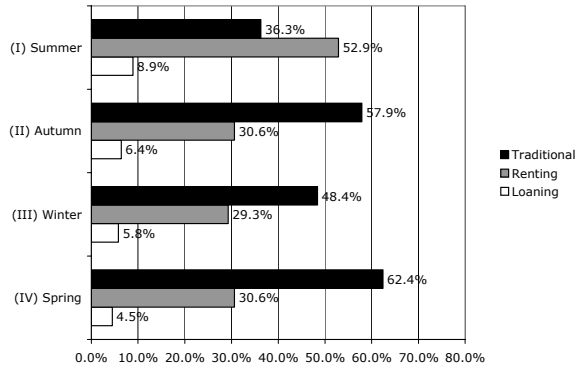

Figure 7-4. Seasonal variance of type of second-home use of the surveyed second-home users in 1997/1998 (n = 628)* (* Missing values to 100% are all-year round users).

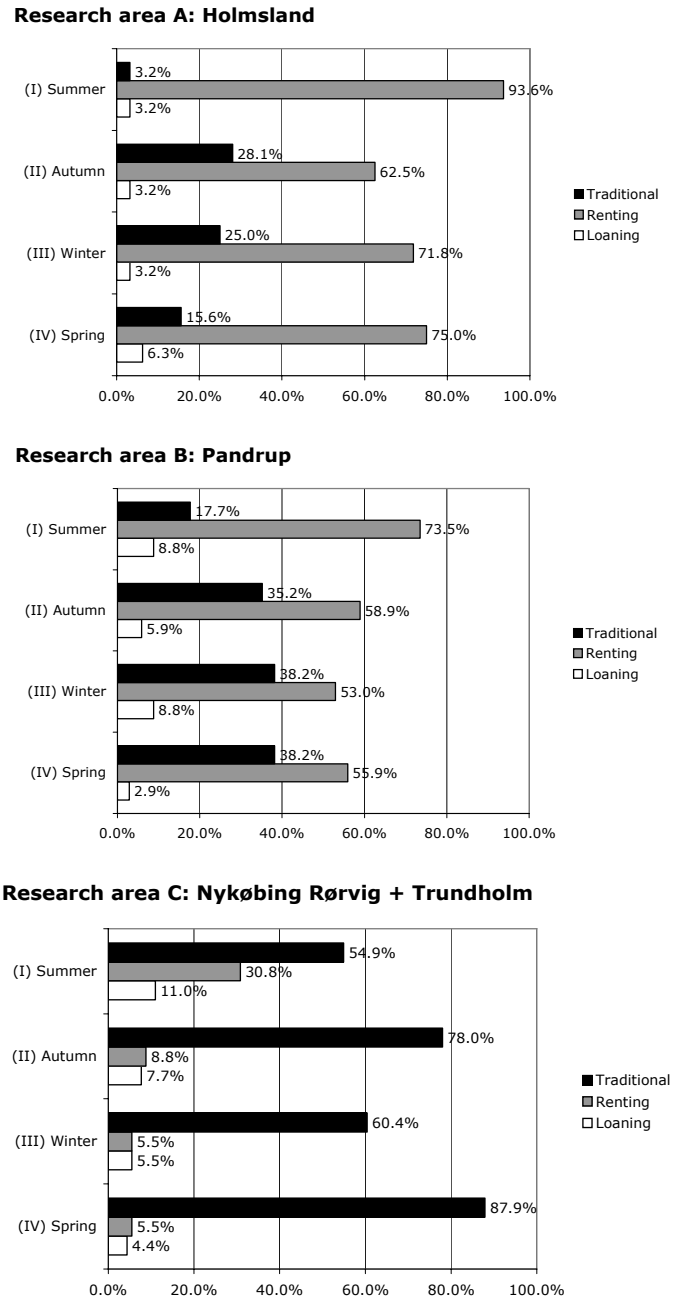

Figure 7-5. Seasonal variance of type of second-home use of the surveyed second-home users in 1997/1998, separated by research area (n = 628)* (* Missing values to 100% are all-year round users).

4.2 Second-home user groups and their seasonal usage patterns

4.2.1 Types of second-home users

According to the four types of second-home use, also four types of second-home users can be distinguished and characterized. The main difference is between second-home owners and second-home guests. The first group stays in the own private second home, either in a traditional way as *leisure-time user* or in all-year round use as *permanent user*. The second-home guests can be distinguished in the *second-home loaners* and the *second-home renters*. Apart from permanent users, all other user groups come for a periodical stay to the second homes. Fig. 7-6 shows the types of users and their origin. The two largest groups in the survey represented leisure-time users in their own second home and second-home guests in rented homes. Together, they represent 87% of the second-home users and all further analysis will therefore focus on these two groups only.

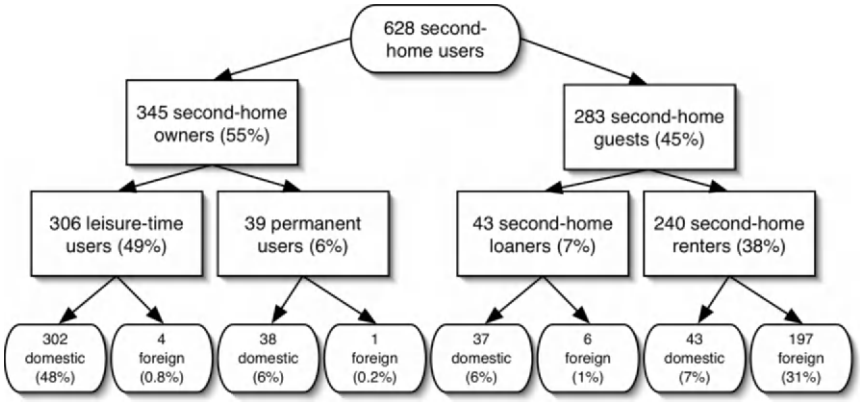

Figure 7-6. Overview on the 628 surveyed second-home users.

Leisure-time users were on average 54 years old, about 40% were older than 60 years. In the majority of cases the second-home stay took not longer than one week, in many cases not longer than three days, however seasonal variance has a strong influence as shown in Fig. 7-7. Second-home stays for up to one week were mostly done during the one-week holiday periods of the Danish schools. Longer stays are mostly done in the summer season.

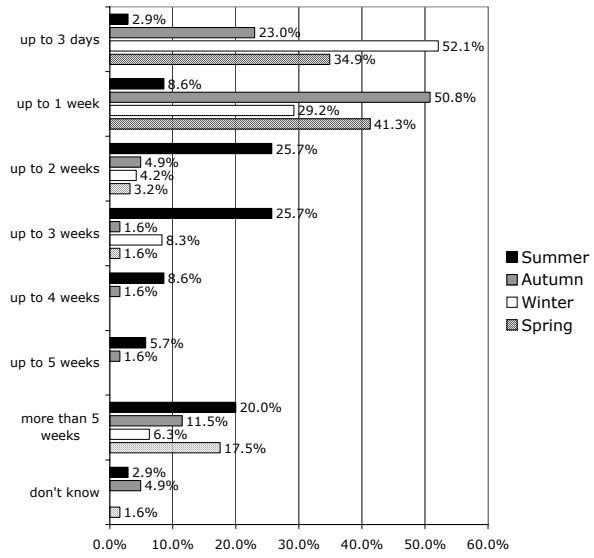

Figure 7-7. Seasonal variance in duration of the second-home stay of the surveyed leisure-time users 1997/1998 (n = 207).

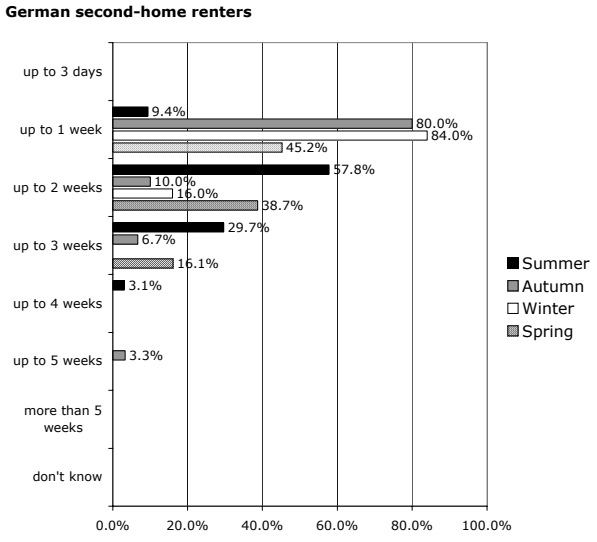

Figure 7-8. Seasonal variance in relation to the duration of the second-home stay of the second-home renters 1997/1998 (n = 181).

About 16% of the second-home renters are Danish, 81% are German tourists. The remaining 3% come from other Scandinavian countries, The Netherlands or Switzerland. On average, second-home renters are 41 years old, and are thus on average 13 years younger than second-home owners. About half of the second-home stays is made by renters and lasts one week. More than half of the German guests stayed two to three weeks as illustrated in Fig. 7-8.

Second-home loaners are on average 42 years old and mostly Danish citizens. They are mostly found in research area C and in the summer season. In few cases only they stay longer than one week. Because of the small amount of second-home loaners in total it is not suitable to differentiate further seasonal differences.

4.3 Characteristics of seasonal second-home users

4.3.1 Demographic characteristics of the seasonal users

As reported earlier, the average age of second-home renters is below the one of leisure-time users. Fig. 7-9 shows that the second-home users met during the winter season are on average the youngest group. A further characteristic is the number of persons living in the household of the main residence of the second-home users. The second-home renters live generally in larger households than the leisure-time users. The largest households amongst the second-home renters are on vacation in summer, the leisure-time users in summer come from the smallest households. In contrast, the leisure-time users met in winter come from the group of largest households as can be seen in Fig. 7-10. Among the guests renting a home, the users in summer travel the longest distance to come to the house, whereas users in winter live closest to the home (see Table 7-1). Amongst the leisure-time users the seasonal differences are not as significant.

Table 7-1. Average distance from second home to main residence of the users (n = 405)

	All leisure-time users	**All second-home renters**
Summer	139.36 km	687.24 km
Autumn	*292.61* km	435.85 km
Winter	223.06 km	430.75 km
Spring	147.92 km	511.40 km

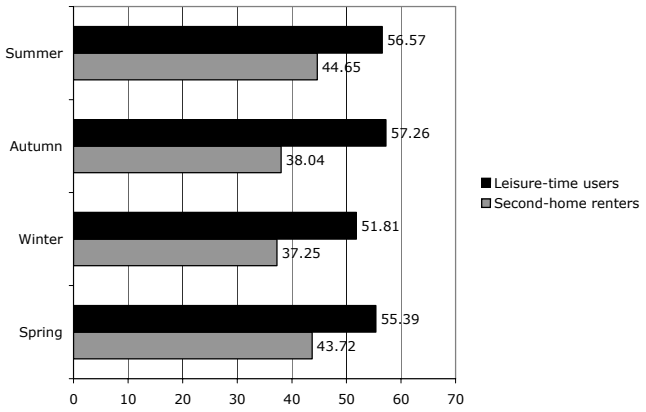

Figure 7-9. Average age of leisure-time users and second-home renters (n = 383).

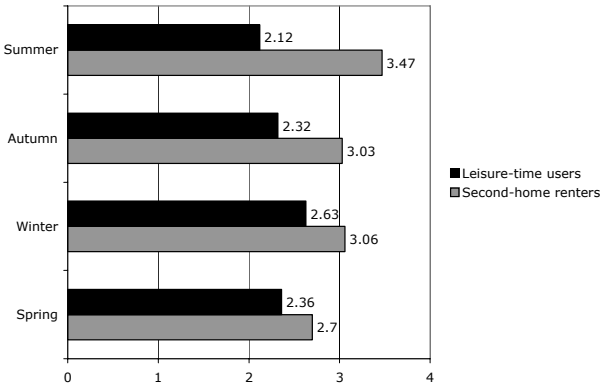

Figure 7-10. Average number of persons living in the home household of the second-home users (n = 333).

4.3.2 Group characteristic of the second-home users

The number of persons staying in the second home was clearly higher for second-home renters than for leisure-time users. On average about 2.88 persons stayed in the home of a leisure-time user and 4.8 in the home of second-home renters. Almost no seasonal variance can be recorded for the group of leisure-time users, whereas clear differences can be noted in the group of second-home renters with the highest number of persons staying in the house in the winter season and lowest in autumn and spring season (see Fig. 7-11).

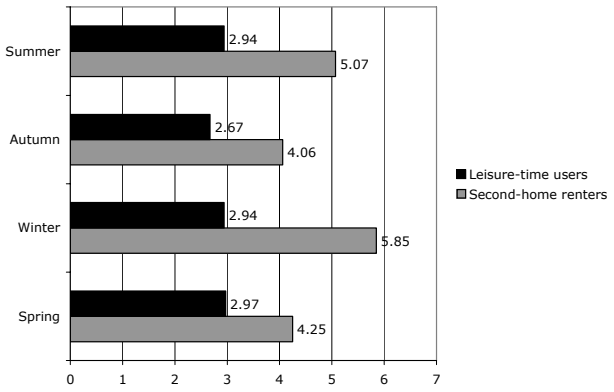

Figure 7-11. Average number of persons staying in the second-home (n = 333).

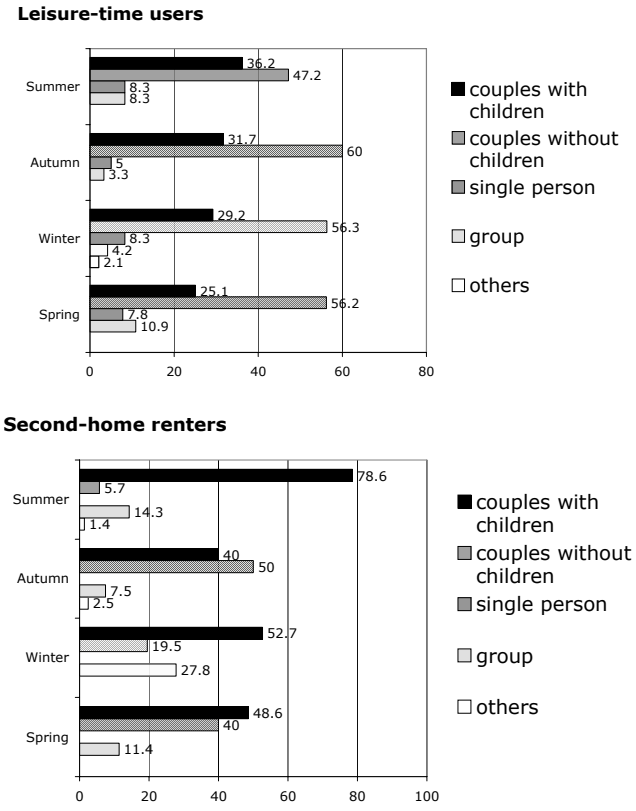

Figure 7-12. Group composition of leisure-time users and second-home renters (n = 389).

Differences in user groups and seasonal use can be found when looking at the composition of the group of persons staying in the second home. Most leisure-time users are couples without children, especially during the autumn, winter and spring season. Couples with children are the second most important group, especially during summer (see Fig. 7-12a). A different picture shows Fig. 7-12b illustrating the group composition of the second-home renters. The summer season is dominated by couples (one or more) with children, whereas couples without children are mainly found in spring and autumn. A special characteristic of second-home renters is the high share of users during the winter period.

4.3.3 Characteristics of the second homes

The second homes chosen for the stay varied greatly between user groups and seasons. In general, leisure-time users stay in older second homes than second-home renters. However, there is a clear tendency that younger houses are used in winter and older houses during summer. Especially for second-home renters the seasonal variance between summer and winter is big. The used homes in summer are on average 20.37 years old; in winter 7.76 years (see Fig. 7-13).

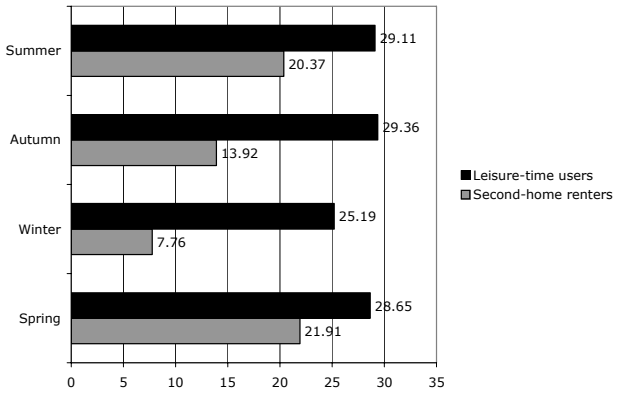

Figure 7-13. Average age of used second homes (n = 515).

Another aspect that was surveyed is the standard of the house that was used during the second-home stay. Four levels of standard can be distinguished. The simple standard includes homes with oven, fridge, electric heating, fireplace and TV. The medium standard includes additionally washing machine and bicycles, the higher standard satellite TV, dryer, dishwasher and sauna. A luxury-equipped house includes a spa or

indoor pool. Again, a significant difference can be identified between the homes used by leisure-time users and second-home renters as well as between the homes used by second-home renters in the four seasons (see Fig. 7-14). In general, second-home renters stay in better-equipped homes than leisure-time users. A general trend is the use of better-equipped homes in winter. Second-home renters stay far more often in luxury second homes. These results correspond with the available living space for each home that was used by the different users. The homes of the leisure-time users show no big variance, but the homes where second-home renters stayed during the winter had about 50% more space available than the homes chosen in summer (see Fig. 7-15).

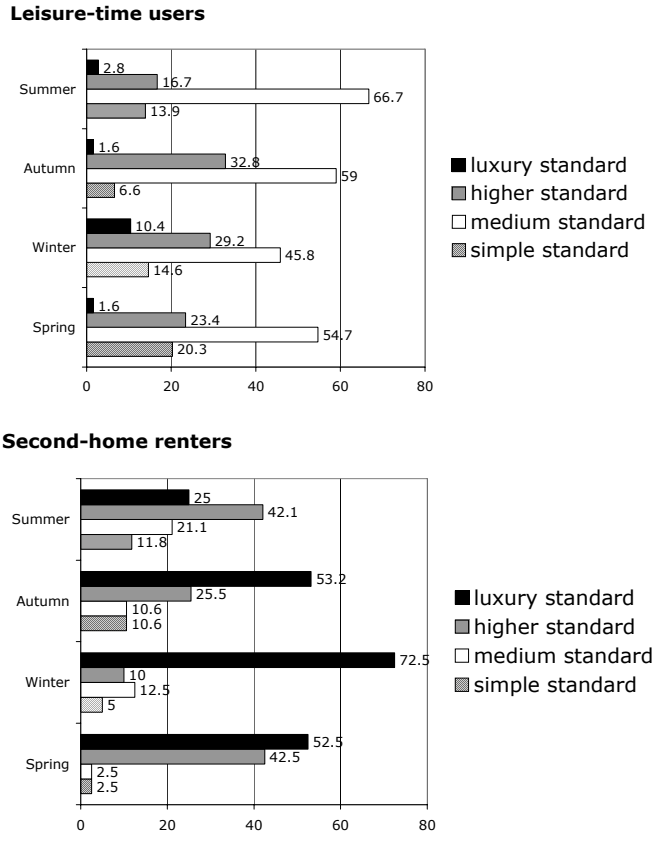

Figure 7-14. Level of standard of second homes used by leisure-time users and second-home renters (n = 412).

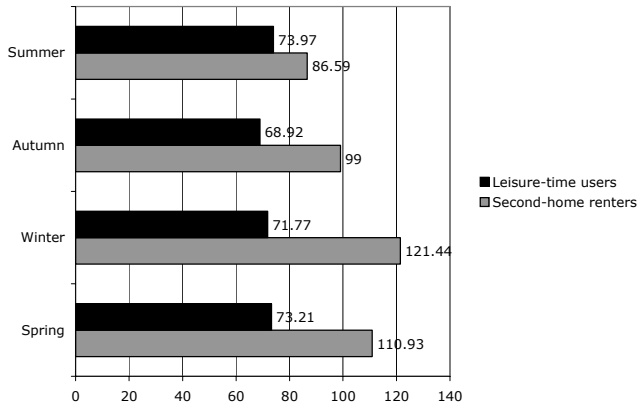

Figure 7-15. Available living area per second home (in m^2; n = 515).

5. DISCUSSION AND CONCLUSIONS

5.1 Seasonal variance in dominating second-home uses

The results clearly indicate seasonality in the dominant occurrence of different types of second-home uses. Although regional differences were measured between the three research areas, the general trend on the national scale indicates the renting of second homes as dominating the summer season, whereas the traditional use by home owners characterizes the other three seasons. Also on the individual scale of the three research areas seasonal variance occurs. In all three areas the renting use is highest in the summer months and traditional use highest in the other seasons. This trend clearly demonstrates the dominance of international and commercial second-home tourism in summer. This is the time when also the highest number of second homes is used for recreational purposes (Tress 2000). Summer is the time of the year when the competition on the second-home renting market is highest and as a consequence renting prices per week are on top.

The loaning of second homes to friends and relatives plays a minor role throughout the year and no strong seasonal variance can be measured. One reason for this is that owners might loan their homes to friends and relatives only during those weeks and days when they are not interested in staying in the home themselves. The loaning might thus often be outside the public holidays or peak season.

5.2 Reasons for seasonality in second-home use

According to BarOn (1975) and Hartman (1986), seasonality in tourism can be attributed to two groups of factors, natural and institutional. Natural seasonality refers to temporal changes in natural phenomena such as climatic change, temperature, wind, daylight, water temperature or availability of snow. Institutional factors include social norms and practices based on ethnic, cultural, religious, social and economic considerations and influenced by the number and availability of holidays (Lim & McAleer 2001; Higham & Hinch 2002). Both factors play a role in second-home use in Denmark but to a different extent for the different user groups.

Natural factors have a strong influence on the second-home use during the summer months. Most of the second homes are located within three kilometers distance from the sea and many second-home users appreciate the proximity to beaches and the possibility to (sun) bathing. However, the study of Tress (2000) revealed that many of the second-home users in Denmark, especially the foreign guests, choose for the Danish destination in spite of the fact that weather conditions in Denmark can be unstable and (sun) bathing cannot be guaranteed. The foreign second-home guests decide purposely for a Danish second-home stay and against southern destinations because they prefer the more private and less-crowded conditions in Danish second-home areas. Natural factors play also a role for foreign second-home guests during the winter season, when guests intend to experience the windy and cold weather conditions in Denmark. In contrast, domestic second-home users prefer more southern destinations for their winter holidays and use the second home only for short stays, mainly weekends.

Institutional factors have also a strong influence on seasonality in second-home use. In summer and autumn, the school holidays are the most prominent factor determining second-home users' period of stay. During the holiday period of the foreign guests, prices for second-home renting are highest. Prices are far lower outside the peak season but because of the dependency of most of the foreign second-home guests to the holiday period, they can hardly make advantage of this economic benefit. One important factor for seasonality of second-home use in Denmark is the national planning and second-home law that only allows extensive use of second homes during April and September. In the remaining months, each second home may be used for a maximum of four weeks, regardless whether it is used for private or commercial use (Tress 2000; 2002a). Main reason for the seasonal restriction of second-home use during the winter half year is the intent to avoid further sprawl of permanent residence in coastal areas. This intention helps keeping up the tradition of second-home use as a temporary use with a recreational focus. This is not only important for Denmark in

terms of safeguarding the specific tradition of second homes and the related tourism sector. It is also important because once second-home use would be allowed all-year round, the distinction between main residences and second residences must be given up. A consequence of this would be that Denmark could not keep up its exceptional position in the European Union that prevents citizens of other countries to purchase second homes in Denmark. Another reason for the seasonal restriction of second-home use is related to nature conservation and environmental issues and the intention to protect the vulnerable coastal areas from all-year round disturbance and damage. Altogether, this legal framework results in a clear limitation of all attempts to expand the second-home use in the period of sixth months from October to March. Other studies outside Denmark report from numerous efforts of the tourism industry to develop strategies that lower the seasonal impact of tourism (Sutcliffe & Sinclair 1980; Wanhill 1980; Allcock 1994; Butler 1994; Baum 1999b; Fernández-Morales 2003). For the Danish tourism industry the restriction is a handicap and implementation of strategies how to get a more balanced distribution of tourism activities over the year is hampered.

5.3 Seasonal usage patterns

In general, the longest stays of all second-home users are measured during the summer. This indicates that the stay in a second home during the summer months is the main holiday for many of the second-home users. During other seasons the stay is mostly limited to one week. Differences between Danish and foreign users can be explained by the fact that the minimum period to rent a second home is one week and therefore all foreign guests stay at least one week. Only outside the peak season shorter rental periods are possible. One week is also the usual length of stay for Danish renters. Only during the winter, Danish users, guests and owners, prefer shorter stays of up to three days. Danish users can make benefit of shorter stays due to the lower travel distance from the main residence to the second home.

Differences in the seasonal use of different second-home types, from simple to luxury standard, relate to the different climatic conditions in the various seasons and the different user groups that stay in the second homes in each season. In general, leisure-time users stay in older and simpler-equipped homes than second-home renters. However, there is also a general trend that the better-equipped homes are used outside the summer season, and simpler-equipped houses in summer. The better-equipped homes are more suited for staying also in winter times, whereas the houses with simple and medium standard are built and equipped for summer use only. Prices

between homes with different standards differ a lot, also between seasons. For the renting price of a medium standard second home in summer, second-home guests can afford a luxury home in winter. It would need additional investment from the second-home owner to rebuild a simple standard second home to be suitable for winter use. The limited demand for second homes outside the summer season, however, and the legal restrictions for second-home use between October and March reduce the owner's interest in doing so.

For leisure-time users, the second home is a place to go for a shorter visit and not necessarily the main holiday destination. Therefore, the medium standard home is sufficient for the owners' demand. For second-home guests, spending their main holiday, the required standard is higher.

5.4 Characteristics of seasonal second-home user groups

The survey results allow distinguishing three different groups of second-home users: (1) couples with children, (2) couples without children, and (3) mixed groups of individuals and couples. Each group dominates second-home use during a different season. In summer, couples with children form the main user group. These are mainly foreign tourists coming to a holiday in Denmark. Second homes for them are the optimum solution of a cost-benefit analysis. The second homes offer enough space for the whole family, allow for individual day planning and meal preparation, and offer all necessary facilities for a reasonable price per person. In the shoulder seasons couples without children are dominating, both on the sides of renters and leisure-time users. Because of the fixed holiday schedule of school children, couples with children have difficulties in realizing a second-home stay during this time of the year, whereas couples without children are more flexible. The dominating group in the winter are mixed groups of individuals and couples. They spend on average one week in a high or luxury-equipped second home, coming from smaller households. Among the people who want to spend a week in a luxury house with pool the percentage of the group with young people is relatively high.

5.5 Ecological consequences of seasonality of second-home use

The consequences of seasonal variance of second-home use are manifold. The high peak of second-home use during the summer results in a very concentrated impact on the coastal ecosystems (see Tress 2000). Vegetation cover and especially dunes are under intensive use. Many second homes,

especially old ones, are located on vulnerable dune and heath areas, because in the early days of second-home development agricultural areas were seen as too valuable for tourism development. Nowadays, the close proximity of second homes to dune and beach areas results in vegetation and ground cover damage through trampling of vegetation and wild paths between second home and beach (see Fig. 7-16). Although authorities try to prevent further damage through tourists and visitors, the seasonal restriction of second-home use and the resulting lower pressure on the coastal ecosystem in the off-season is the only instrument to control and counteract further damage.

Figure 7-16. Vegetation and dune damage through wild paths between second-home areas and beach. Photo: Gunther Tress.

Second-home use is a type of recreational housing that demands a lot of space. Sprawl of second-home areas is prevented through planning restrictions; however, the degree of use of second homes is different between peak season and off season. The focus on the peak season, summer, results in a high demand of second homes to house all the tourists during this time. A more balanced distribution of second-home demand and supply over all seasons could result in a lower demand of second homes and thus would lower the spatial pressure on second-home areas during the summer.

Other main ecological consequences of seasonal second-home tourism are associated with consumption and supply of energy, water and waste

disposal. The peak of consumption is in summer when the number of second-home users is highest. A second peak can be noted in winter when tourists chose for large and luxury-equipped homes, often with a pool, spa, sauna and electric heating. During these peaks the consumption of energy and water from second homes is many times higher than the average annual consumption of the local inhabitants of the municipality. For the local authorities supply of water and energy in second-home areas is a huge problem because of its extreme seasonal variance.

Figure 7-17. Beach near second-home area is used as public parking area. Photo: Gunther Tress.

Finally, second-home use induces a high traffic volume. About 97% of second-home users travel by car to the second home. Main reason for this is a lack of efficient and comfortable alternatives for transportation of second-home users and their baggage to the second home. Again, the seasonal variance causes within very few weeks relative high traffic pressure on areas, which most time of the year have very little traffic at all because of their remote location. The dependency on transportation by car is tightened by the fact that second-home users must sometimes drive longer distances to find shopping and retail facilities. In some areas, it is allowed to drive on the beach and in summer the sandy beach easily turns to become a public parking area (see Fig. 7-17).

5.6 Socio-economic consequences of seasonality of second-home use

The socio-economic consequences of second-home use can easily be assumed by realizing the pure numbers of second homes in relation to local population as presented in the description of the three research areas (see section 3.1). From an economic point of view, the consequences of the seasonal variance of second-home use are best expressed in the different renting prices of second homes, which can be up to five times higher during the peak season than during the off-season.

In general, second-home use is an economic benefit for the host municipalities, but due to the seasonal variance the benefit varies too. Many of the Danish second-home areas remote and low populated areas for which second-home use generates important additional income. Whereas in the peak season the direct income generated by second-home use can be up to 90% of all tourism generated income, the effects outside season are lower and of a more indirect kind (Tress 2000). Besides the direct spending of second-home users for food and boarding bought at local retail stores, the extended opening hours of shops and the enlarged range of goods, the host municipalities benefit from services and taxes, which generate income also outside the summer season. For instance, renovation, reparation and construction of second homes is mainly done outside the season and an important source of income for local craftsmen. In many of the large second-home areas the number of carpenters and construction firms has increased. However, services such as cleaning of homes and guiding of tourists are very much focused on the peak season. The number of tourists and visitors can then be up to 25 times higher than the number of local residents. It is thus the biggest challenge for municipalities to provide services and infrastructure for such high numbers of tourists during the peak season and coping with the lack of people outside the season. An additional drawback of second-home use can be seen in the low number of direct employment that is created by second-home use, especially compared to other forms of tourism accommodation, especially hotels.

Seen from a socio-cultural perspective, second-home use causes additional impacts. As the results have shown, users of different origin stay in second homes in the different research areas and during different seasons. The most extreme variation is found in the western second-home areas, where most of the second-home users in summer are Germans, whereas in the eastern regions Danes dominate second-home use. In both cases, second-home users are not local residents but come from abroad or the large Danish cities and might have only limited possibilities or interest to get in contact with the local population. Tress (2000) has shown that the main motivation

for a second-home stay is experience of nature and landscape; cultural experience and social interaction play a minor role. As a consequence, the exchange of second-home residents and local residents is limited, also because many second-home areas are located away from the residential areas of the local population. In summer, when large numbers of foreign tourists are staying in second homes, the main language spoken on the beaches and in the shopping areas of the nearest villages is German, not Danish. To make greater benefit of the foreign tourists' stay at the host municipality, retailers adapt to the predominant language of their clients. Similar adaptation strategies to seasonality in tourism are also discussed by Gallent et al. (2003) and Getz & Nilsson (2004).

Figure 7-18. Beach on the Danish west coast with a second-home area nearby during the summer peak season. Photo: Gunther Tress.

Another socio-cultural impact, which has been discussed from an economic point of view above, is the high fluctuation of temporary residents in the host municipalities and in their retail facilities. Especially visitors' numbers of local museums, natural monuments and beaches underlie strong seasonal variance of second-home use. For instance, during the summer months the beaches close to second-home areas are crowded with tourists and visitors (see Fig. 7-18). Although access to the beaches is guaranteed to everybody, also in second-home areas, it must be questioned in how far locals feel tempted to visit their most pleasant beaches nearby their villages during the peak season.

6 CONCLUSIONS

Seasonality in second-home use in Denmark exists almost per definition. The second homes are built to provide a place to stay for the summer months of the year to experience an alternative surrounding to the main residence. The second-home development over one century has kept this main characteristic in spite of the commercialization of second-home use and the expansion of the season. The legal constraints have tightened the seasonal character of second-home use to avoid the expansion of all-year round second-home use. Only a very small percentage of second-home owners, mainly pensioners, have the permission to stay in their second homes during the whole year.

The consequences of the seasonal character of second-home use are similar to other seasonal occurrences of the tourism phenomenon at other destinations. The fluctuation of inhabitants in the host communities is enormous and can increase during the summer months to about 500 % of the regular population. Consequently, supply facilities in these areas experience also high fluctuations. Positive effects of the seasonal variance are that the second-home areas can recover from the intensive summer use in the off-season and local inhabitants can rest. Because seasonality in tourism is a regular phenomenon its impacts are predictable and measures could be taken to prevent major drawbacks.

However, for the second-home users outside the peak season the restful experience of landscapes and environment is a major motivation for the second-home stay. It is questionable whether a more balanced distribution of second-home use throughout the year would guarantee for the same experience of off-season users. The different demands of off-season users of second homes would request to rebuild old and less equipped second homes to luxury houses. It would, however, hardly be possible to expand the current diverse second-home usage patterns successfully over the whole year because the demands and preferences of the different user groups are too different. Although institutional factors for seasonality may change over time, the natural factors, especially the climatic conditions, will still have a huge influence on tourists' demands and behavior.

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A Survey with Examples from Central Europe

Chapter 8

LANDSCAPE, SEASONALITY, AND TOURISM: A SURVEY WITH EXAMPLES FROM CENTRAL EUROPE

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Figure 8-1. Untersberg, view to West; Berchtesgadener Alps near Salzburg, in October 2005. Typically, good sight on top of the mountains and, in the afternoon, fog in the valleys. Photo: Oliver Bender.

H. Palang, H. Sooväli and A. Printsmann (eds.), Seasonal Landscapes, 181–213.

1. INTRODUCTION

The purpose of this chapter is to give an overview of how landscape, seasonality, and tourism are linked with one another. The interrelationship of these topics has attracted only minor research interest so far; therefore the scientific literature is still fragmentary. The geographic focus is on Central Europe, especially Germany and Austria. This chapter gives a brief outline of the history of landscape-tourism and the causes for seasonality in Central European tourism. Subsequently the results of an attempt to measure the seasonality of tourism for destinations in Austria and Germany based on the figure of "nights spent" taken from the respective tourism statistics are presented and discussed. On the basis of this analysis regions of interest to tourists and the regions' seasonality are selected and described in detail.

Seasonality is documented in tourism research, especially in North America and northern Europe (e.g. Bar-On 1973; Helleiner 1974; Butler 1994; Baum & Lundtorp 2001; Koenig & Bischoff 2004), as well as in Austria (e.g. Bundesministerium für Wirtschaftliche Angelegenheiten 1998). Nevertheless, the concept is mostly limited to regional case studies and little or no space is given to the topic in textbooks on tourism geography (e.g. Williams 1998; Hall & Page 2002; Becker et al. 2003). Within the literature, where aspects of seasonality are addressed, the focus tends to be on the economic effects of seasonality, which is evident in regions with strong climatic differences (Butler 2001). Experiencing the scenic beauty of a landscape is a central tenet of the tourism industry (Terkenli 2004), but its significance has changed over time. For today's tourism industry, landscape is a collective term for associations that may have a spatial relationship, but no other common systemic relationship. Reference to landscape may give rise to pleasant visions, stereotypes and clichés (Stadelbauer 2004).

The attractiveness of a landscape depends to some extent on the land use. A diversified cultural landscape and its seasonal variations in vegetation appearance is generally appreciated by tourists. Concerning the natural landscape, summer tourists prefer bodies of water and waterfronts, whereas winter tourism depends on mountainous relief and reliability of snowfall. As early as in the 1960s, attempts were made, using a quantitative geostatistical method, to analyze specific regions for their suitability for tourism (Kiemstedt 1967). According to his study particularly attractive landscape features are waterfronts (including water sports activities), forests and forest edges, a varied terrain, as well as small structured agricultural land use, settlements and their integration into the landscape. The appeal of a landscape is strengthened by a rich cultural heritage (e.g. historic buildings) or by mineral and thermal springs (Becker 2000).

In the moderate climate of Central Europe, natural conditions are only one aspect that creates seasonality in tourism. This relates to regular temporal variations in natural phenomena, particularly those associated with climate (temperature, rainfall, snow, sunlight, etc.) and the seasons of the year (phenological aspect of land cover). Tourists have specific preferences (bathing-, hiking- or skiing vacations) which are related to different seasonal conditions of the landscape.

Another basic element of seasonality in tourism can be addressed as "institutional" (Bar-On 1973: 21) and is in some cases, linked to the "natural" elements. This institutionalized form of seasonality depends on social factors and policies concerning specific customs and legislated holidays. Early examples include certain religious holy days and pilgrimages related to them. There were also trends among the upper social classes to divide the year into specific "seasons": winter meant staying in town, while summer was spent on countryside estates, and included activities such as farming and hunting. Later, in the 19th century, winter seasons were spent at spas or on the Mediterranean coast. Thus, for the privileged elite it was considered a social necessity to participate in selected activities, which took place in seasonally different locations (Butler 2001).

In the 20th century, especially in the age of mass tourism, vacationing often depended on school, industrial and public holidays, which, even today, have been based on historic conventions (e.g. agriculture, high seasonal working periods) and climatic condition adjustments (e.g. summer heat).

All these points contribute to the above-mentioned unevenness in the intensity of leisure travel during the course of the year. This fluctuation or seasonality "may be expressed in terms of such elements as numbers of visitors, expenditures by visitors, traffic on highways and other forms of transportation, employment and admission to attractions" (Butler 2001: 5). Seasonality may also cause overuse as well as under-utilization of resources and facilities (Jülg 2001). Seasonality can be considered a major economic problem for the tourism industry, not only because of low returns on investment and problems caused by obtaining and employing full-time staff, but also because of the temporal effects from heavy traffic and the exhaustion of infrastructure and natural resources such as water consumption (Ball 1989; Ashworth & Thomas 1999; Krakover 2000). The dimensions of these effects are dependent on the amplitude of seasonal variations (see part 3) and the significance of tourism for the national economy.

1.1 Landscape and tourism – a historical review

During Europe's history, travel has always been connected to a specific purpose: trade, business, pilgrimage, and education, such as craftsmen who

took to the road as journeymen or students studying at different universities in Europe. Young noblemen on the "Grand Tour" in the 17th and 18th century had as their goal to get to know foreign courts, customs, and pleasures rather than admiring foreign countries and the landscapes through which they were traveling. Recreational travel was limited to only a small percentage of the population. Little interest in viewing the landscape existed; mountainous areas in particular were perceived as dangerous or even terrifying (Bätzing 1991).

Perceptional changes first occurred after the discovery of the aesthetic value of landscape. Formerly, European culture was affected by a utility concept of beauty that included areas of fruitful fields and lush meadows. The aesthetic beauty of nature that was set within stringently controlled sculptured landscape-parks was admired. The successive discovery of beauty in landscape in the 17th and 18th centuries was a trigger for the development of tourism (Becker 1994). The geometric shapes in French-style parks became relaxed to more closely resemble the styles found in English gardens, which had more natural features. The interest in landscapes outside of parks was triggered by the works of Jean-Jacques Rousseau and other writers who provoked the first small segments of tourists, consisting of the British upper class, to discover the natural beauty of Europe during the mid-18th century (Cosgrove 1984; Bätzing 1991).

It was during this epoch of Romanticism that the interest in landscape and in the beauty of landscape initiated traveling in larger dimension than before. This epoch was also the age of the Industrial Revolution. It was a period in which the majority of citizens became more and more distanced from nature. In addition, nature was coming increasingly under man's control due to changes in technology and accessibility. Earlier fears of nature changed to thrill-seeking forms of athletic challenges in nature. At first people considered it to be important not to stay in a too dangerous environment. The rugged peaks of the Alps and the low-mountain ranges (i.e. Harz, Franconian Alps) were admired from safe distances out of the cultivated landscapes in the valleys. As technology and accessibility improved, the allure and thrill needed to be increased. Simultaneously landscape became a mere backdrop (Bodenstein 1972). The scenic beauty of a landscape is not, *per se*, a given fact. It emerges in the context of the Industrial Revolution as a specific cultural reevaluation of the relationship between man and nature (Bätzing 1991).

These romantic ideals of landscape continue to a certain degree today with different landscape preferences in different countries (Cosgrove 1998). In Great Britain a strong interest in park-landscapes has been maintained. It is considered the common type of landscape with blurred borders between artificially created parks (15th to 19th century) and the rural landscape. Also,

compared with other European countries, the small extent of forests emphasizes the role of park-landscapes for recreation (Jäger 1976). In the Mediterranean countries a preference for garden landscapes can be observed that stems from the mixed agriculture (*coltura mista*) that was formerly widespread in large parts of Italy (Rother & Tichy 2000). In contrast to that, a special affinity for forests can be noted for the German-speaking countries and Scandinavia (Lehmann & Schriewer 2000).

2. REASONS FOR SEASONALITY IN CENTRAL EUROPEAN LANDSCAPE TOURISM

2.1 Climate

The attractiveness of a destination largely depends on the natural and cultural landscape varying through the seasons. Seasonal climate (Fig. 8-2) and the accompanying changes in vegetation as well as in the landscape (phenology, snow cover, etc.) have a large influence on travel behavior (Hall & Page 2002).

Today, most traveling takes place in the mid- and late-summer months during the main vacation season. This was the time of the main harvest for farming populations or, in contemporary more urban society, the time when staying in cities often is uncomfortable and carrying out office or school work is hardly productive. Under such circumstances during the summer months, certain areas, that are ideal for their "refreshing summer weather" – either along the sea, near a lake, or in the mountains – became designated for spending summer vacation there (Rosner 1994). These traditional vacation destinations have their maximum overnight stays in August. During June or July, just 22 out of 166 regions in the northern, western as well as southwestern parts of Germany have their maximum stays then, while Bavaria and Austria have their peak period in August. This depends partially on the more continental climate (August is the warmest month with the most stable weather and longest period of sunshine), which, in Bavaria, is followed by a later start of summer school holiday. However, climate does not play such a large role for a regional comparison within Central Europe. Regions with the highest summer temperature (July average of more than 20°C), especially in large basin and valley regions that do not have any lakes or other bodies of water for tourist use, are not favorable. This circumstance, which is even more apparent south of the Alps, had led to a form of summer tourism known as *villeggiatura* during the pre-industrial period. In the beginning, during summer, members of the urban upper class moved to their

feudal estates in the countryside, a relocation that was often connected with farm work or the supervision of the estate (Dörrenhaus 1976).

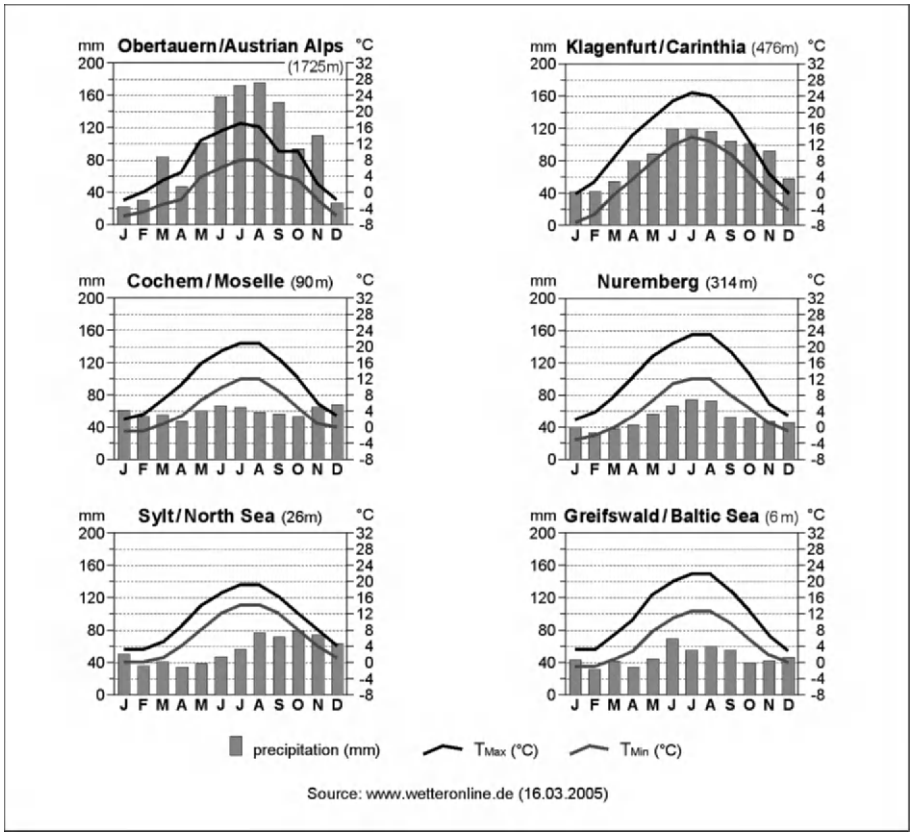

Figure 8-2. Climate-diagrams representing an axis stretching from the high mountainous Alpine regions to the coasts of the North and Baltic Seas.

During the last 40 years, a second wave of tourism has developed: besides summer tourism winter sports has become a mass-phenomenon. The largest world-wide market segment by far, it consists of the more than eight million active German skiers (*Bundesministerium* 2004). Even more as in the summer vacation season, the relief (ski slopes) as well as the climate play a determining role for winter tourist regions. The necessary snow level is dependent on constant low temperatures (with a January average temperature at -2°C in central and southwest Germany and -4°C in southeast Germany and in the Alps) as well as regular snowfall. If needed, snowfall, in the case of the highest profit-generating skiing areas, can be supplemented with the help of technical equipment such as snow cannon. Other than an adequate

snow mass, tendencies over the last decades show that only winter sports areas with the best premises and facilities remain competitive. This would mostly include the high-lying locations at the tail-end of the valleys where winter lasts longest and with the highest snow reliability (Lichtenberger 2000).

The winter (sports) season usually starts at the beginning of December, depending on snow conditions. However, the beginning is usually sluggish. According to the tourism statistics December tends to have only half of the overnight stays as January has. The most favorite season is the late winter period in February and the first half of March, as the tourists have more daylight and warmer daytime temperatures, when there is also more accumulated snow. The month with the longest periods of stays is January. It includes holidays in southern Germany and Austria that last, on average, until the January 10.

2.2 Phenology of vegetation: a seasonal object of interest

The scenic beauty of an area can also play a role outside the main tourism season, especially in those areas where spring-like warm weather comes early. In this context, the seasonal development of vegetation plays an important role (Brassley 1998). In springtime, some areas become attractive when fruit trees start blossoming, such as in the Altes Land near Hamburg, the river Havel region, and areas with espaliered fruit on the plains and hillside slopes of the German low-mountain ranges. During the fall, most central regions of these mountain ranges that are forested are popular among tourists for hiking and trekking.

The beginning of springtime (beginning of blossoming cherry and apple trees) is particularly differentiated over regions' variation depending on elevation or climate zone – the earliest blossoming of apple trees in the Rhine- and Moselle-valleys is during the last week of April, the latest during the last week in May in the regions of higher elevation of the low mountain ranges in Germany and the Alpine valleys in Austria (Zahn et al. 1991) Regions of higher altitude without fruit-growing and with a generally shorter spring, meanwhile, are less attractive. In holiday regions with two tourism seasons the off-season is not regarded as a problem. In the Swiss Upper Engadine for example, the least attractive month of May is used for the annual leave by those employed in the local tourism industry.

2.3 Agriculture

Connected to the aspects of the climatic seasons is the generation of regionally specific agricultural products (Günther & Jahreiß 2001). The

harvest period and the tasting of fresh food can be a special tourist attraction (Hall & Page 2002). The most important example includes the viticulture areas where there is opportunity to taste recently produced wines. Special wine and food establishments near the local wineries are limited in their opening time (several weeks) and their offerings (Horn et al. 2000).

Other examples of agricultural products that stimulate tourism at least on a regional level, include asparagus and self-picked strawberries in springtime, cherries in summer, and apples and other fruits (such as those sold at street-side or at farmers markets) in autumn. In the late autumn during hunting season, delicacies such as wild game and in some areas, local catch such as carp and fishing itself are an attraction.

Similarly, local traditions and folklore also have become tourist attractions (Agreiter 2003). Such traditional examples include the annual harvest festival, wine festival as well as the herding of cows up into the mountain pastures in the spring (and bringing them down in autumn). Several of these traditions were discontinued or given up during and after World War II and only later revived as a way to draw tourists (e.g. chestnut festivals in some parts of the Alps; Bender 2002), others create added value within a region such as the farmers' fall festival, or *Bauernherbst*, in the Salzburg region. In fall during harvest time local farmers sell their products at a market. This is part of local events and engenders marketing strategies with special low (shoulder-season) prices for overnight stays.

Also worth mentioning is that, in contrast to modern agricultural methods in which greenhouses or intensive stock-rearing of animals are employed, seasonal agriculture has not only seasonal effects on tourism, but provides a stimulus to the local employment market. To this effect, as seen in Germany, approximately 289,000 people were employed in 2003 as seasonal workers in either agriculture or forestry jobs, which includes numerous farmhands from Central and Eastern Europe working in the cultivation and harvesting of specialized crops.

2.4 Policies and customs

A further cause of seasonality is not dependent on natural conditions, but on human actions and policies. The preferred time for spending holidays is fixed by public holidays. In Central Europe most of these holidays have a background in Christian culture, such as Christmas in December or Easter in spring. A peak in tourism activity in most regions could be identified in May, due to the public holidays of Labour Day, Whitsunday and Whitmonday, Ascension Day and Corpus Christi, which allow for extended weekend bookings. Even more important are school and industrial holidays in summer. Today, about half of the population in Germany is dependent on

school holidays for planning their vacation (Kessler 1990). The origin of a long school holiday in summer and additional holidays in the fall stems from the need formerly for students to be available to assist in the harvest. Such needs no longer exist in Western countries, but the patterns still dominate the tourism industry (Butler 2001). In Germany and Austria attempts have been made to reduce the problem by staggering the school holidays of different regions (federal states of Germany and Austria) over a longer period of time, which has, to a certain degree, compensated for seasonal variations.

3. MEASURING AND TYPIFICATION OF SEASONALITY

The interest in research on tourism seasonality usually depends on the magnitude and effect that seasonal fluctuations have for a regional or national economy. It is therefore amazing that, despite the socio-economic importance of seasonality, little research exists on the characteristics and extent of tourism seasonality in Central Europe, especially in Germany.

Such a research can be based on tourism data, which is reported in Austria for municipalities (*Berichtsgemeinden*) with more than 3,000 overnight stays, and in Germany for enterprises which have more than eight beds. In both countries, data was collected and published by the respective statistical state and federal offices[1]. Aggregations were made at the communal, state and federal levels respectively.

In Austria, tourism data is available at the district (NUTS IV)[2] level, and in Germany at the level that is based on the 142 so-called "Tourism Areas" (*Reisegebiete*), which usually do not correspond with the size of the administrative districts. The German "Tourism Areas" were slightly modified, while for Austria, the data from 98 districts ("Bezirke") was sorted into 36 regional units, similar in size to the "Tourism Areas" in Germany and analogous to the concept of NUTS III. To this effect, 166 tourism areas were created that can be statistically and, by measures of cartography, visually compared (Bender et al. 2005).

[1] Tourism seasonality research reported in this chapter was done on basis of the tourism data available at the *Statistik Austria* (www.statistik.at/isis/) and the German *Statistisches Bundesamt* (www.destatis.de).

[2] See www.statistik.at/verzeichnis/nuts.shtml; NUTS is the abbreviation for "Nomenclature des unites territoriales statistiques" (Nomenclature of Territorial Units for Statistics) in the EU administration statistics.

3.1 The course of tourism seasonality

One simple approach for getting oriented with the seasonal cycles is to consider the maximum and minimum value months (Fig. 8-3). Most tourism regions have few visitors in January and November, with November being the month that has the fewest overnight stays. Normally, most visitors come during the vacation period in August and partially in September. A considerable number of regions also have their main tourism period in May, since a number of holidays occurring during that month allow for extended weekend stays. Central European summer tourism, including vacations made in high mountain regions, has been experiencing a loss due to increasing competition from destinations reached by air travel.

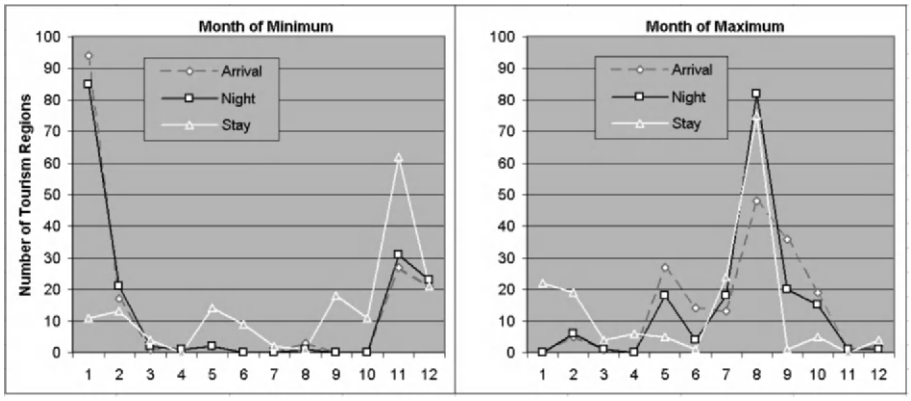

Figure 8-3. Number of minimum and maximum months of arrivals, nights spent, and lengths of stay (mean value) in all 166 Austrian and German Tourism Areas.

The Inner Alpine winter sport regions have their maximum of overnight stays in February; however, not all regions have a maximum average length of stay during that period. The Alpine Region has a certain monopoly hold on winter tourism, which has been continuously growing over the last 30 years. Those areas equipped with the necessary tourism infrastructure and capacity, are the ones which profit (Zimmermann 1998; Lichtenberger 2000). It is also interesting to note that two regions in Germany – Nuremberg and the Ore Mountains – have most arrivals in December, as they are popular Christmas destinations.

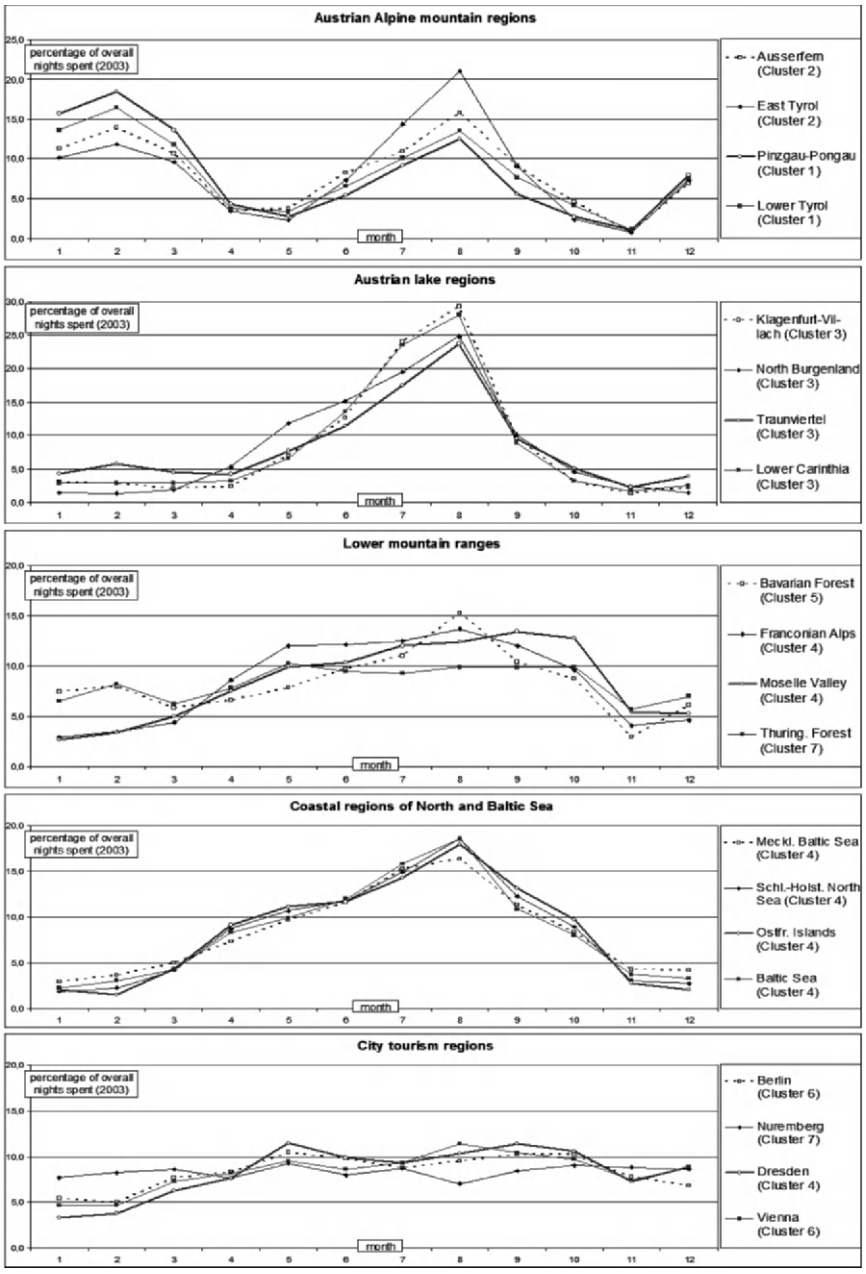

Figure 8-4. Yearly curve (2003) of nights spent in selected tourism areas (cluster types below).

The number of peak season periods (one or two seasons) and the duration of the season (including "shoulder season") can be observed in the yearly curve (Fig. 8-4). We found out that regions with either one or two short seasons (sharp peaks) that are predominantly located in the Austrian lake- or winter-sports regions. The lack of a "shoulder season" depends on the number of foreign visitors – which, in Austria is relatively high compared with Germany – as well as on the preference of Austrians to have a second home (Lichtenberger 2000).

A much longer season with a distinct maximum and minimum can be observed at the German holiday destinations, e.g. the Baltic Sea or the Franconian Alp region. The rest of the regions, as well as all metropolitan areas in the study, show a weak maximum peak level in terms of overnight stays, as in the case of Berlin in May and Vienna in August. To this effect, some of these regions have registered a clear minimum in winter (Berlin and Vienna), while others show more evenness throughout the whole year (Nuremberg).

3.2 The extent of tourism seasonality

Various indicators quantify the extent of seasonal fluctuations in a particular region and therefore allow for a direct comparison to be made between different regions. Information regarding tourism capacity is of general economic interest (Fig. 8-5, 8-6). The "seasonality ratio" (Yacoumis 1980: 90, similarly to the "seasonality indicator", after Lundtorp 2001: 29) shows the percent of unused bed capacity, based on the assumption that the supply of beds remains constant and that full occupancy is reached during the maximum month. In this regard, Nuremberg has a low, i.e. advantageous, comparative value of 11%, while the lake region in Carinthia has an unfavorable value of 72%. Similar results could be obtained with the summer- to winter-season ratio. In any case, it shows that the classical summer destinations, for example, the coast and lake regions, as well as the Franconian Alps and the Moselle Valley are revealing even more unused capacity in comparison with the Austrian winter sports regions, which show the existence of at least one additional season in summer (Fig. 8-7).

The GINI coefficient as a generally recognized measure for inequality (Wanhill 1980; Tsitouras 2004) is a classical measure to account for the unevenness over all months. Concerning overnight stays, the classical vacation regions show the largest degree of unevenness, whereas urban areas and nearby tourism regions, i.e. potential areas for local recreation, reveal less fluctuation (Fig. 8-8).

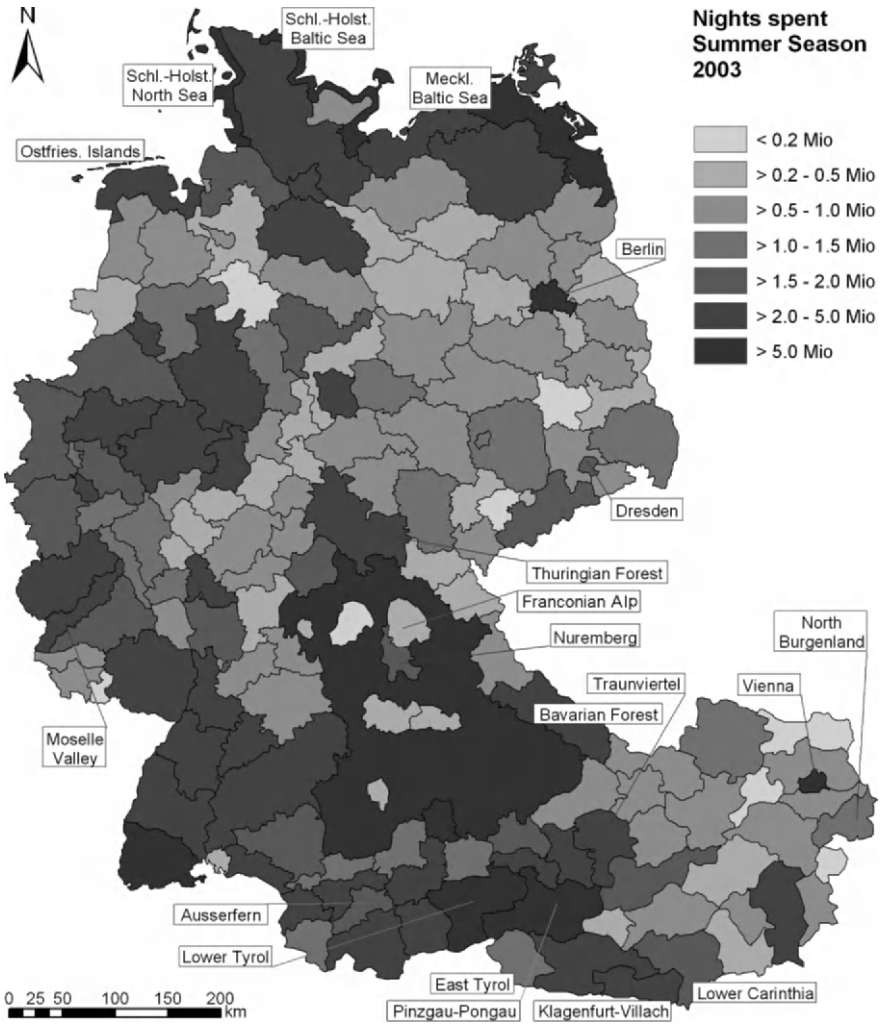

Figure 8-5. Number of nights spent in all 166 Austrian and German Tourism Areas, summer season 2003.

Based on a newly developed indicator by Bender et al. (2005) in which the differences between two consecutive monthly values are summed up, vacation regions can be assessed differently. Using this indicator for all Austrian tourism regions, the summer as well as the winter regions have the most conspicuous values. Here, the span between high-season and off-season is largest (Fig. 8-9).

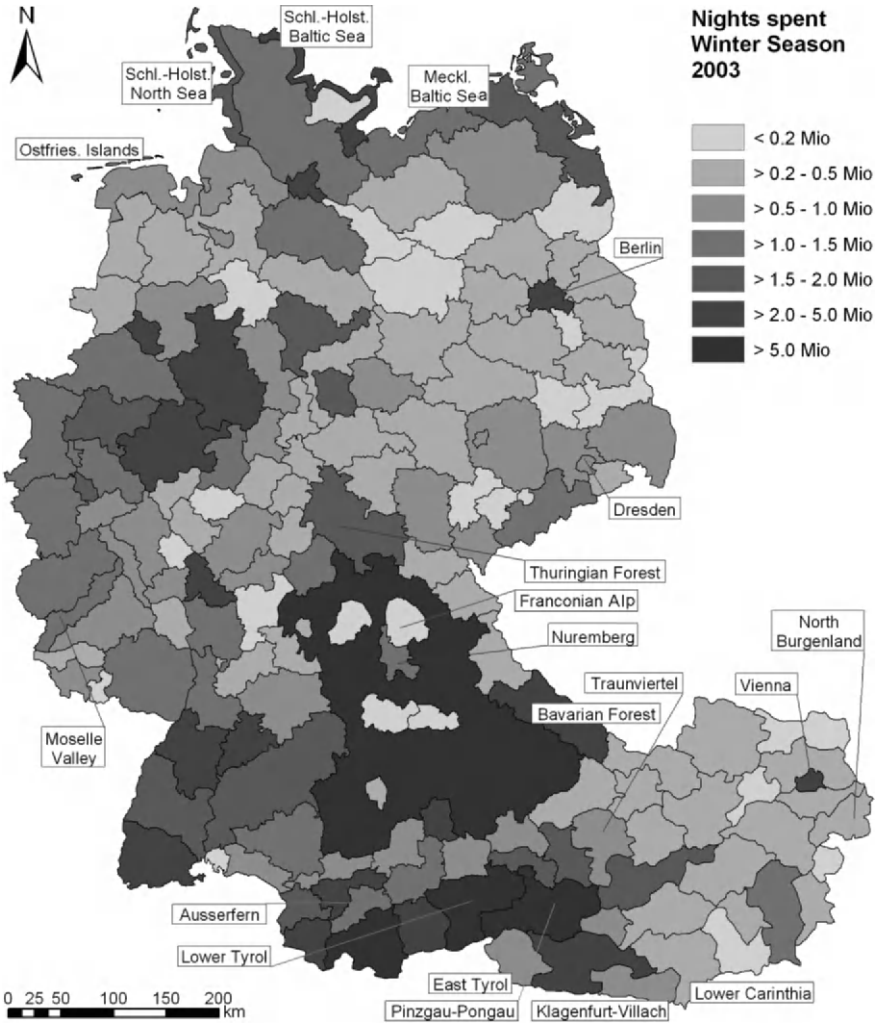

Figure 8-6. Number of nights spent in all 166 Austrian and German Tourism Areas, winter season 2003.

3.3 Cluster analysis – an attempt to distinguish tourism seasonality types

Hierarchical cluster analysis helped to categorize the 166 investigated Tourism Areas into various groups. Cluster analysis classifies large differences between the groups and similarities within groups. The study by Bender et al. (2005) shows two main approaches: one approach analyses

yearly patterns based on 12 monthly values. Another approach is based on a set of indicators consisting of the summer to winter season ratio, GINI coefficient, summed-up differences between months, and months with the most and fewest overnights. For the tourism economy, overnight stays is a more significant unit of measurement for capacity utilization than arrivals or

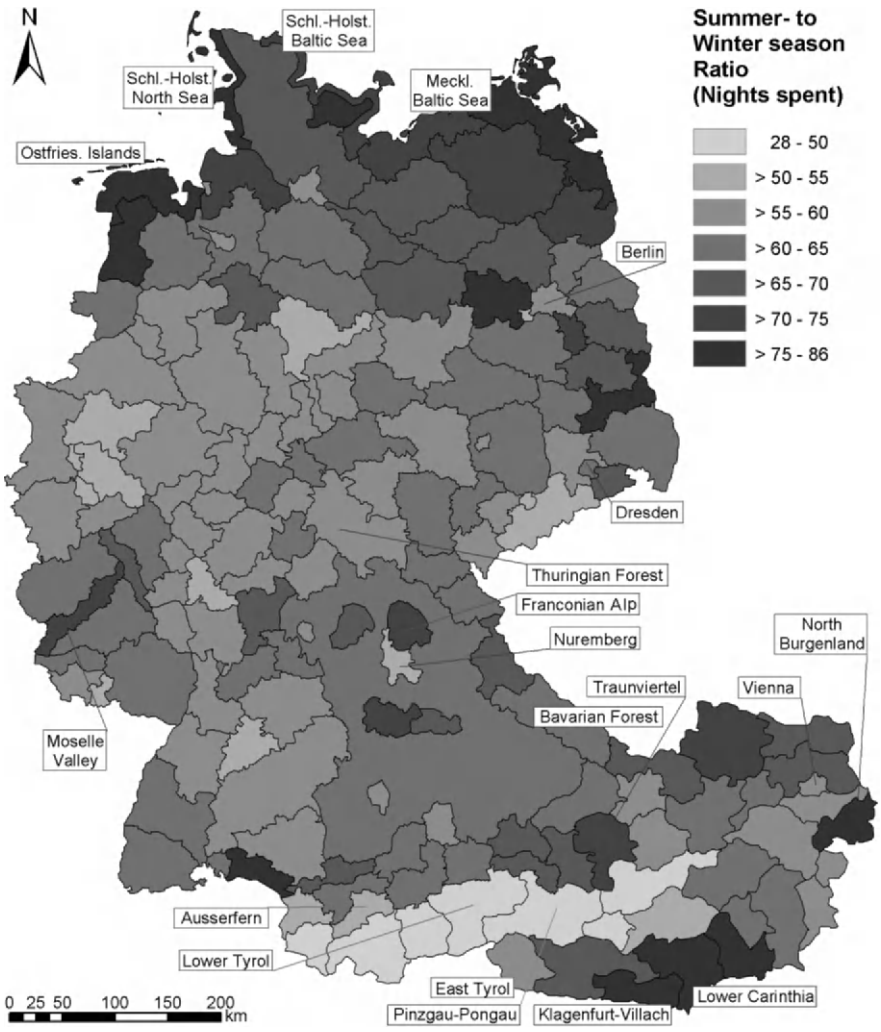

Figure 8-7. Summer- to winter-season ratio of nights spent (2003) in all 166 Austrian and German Tourism Areas.

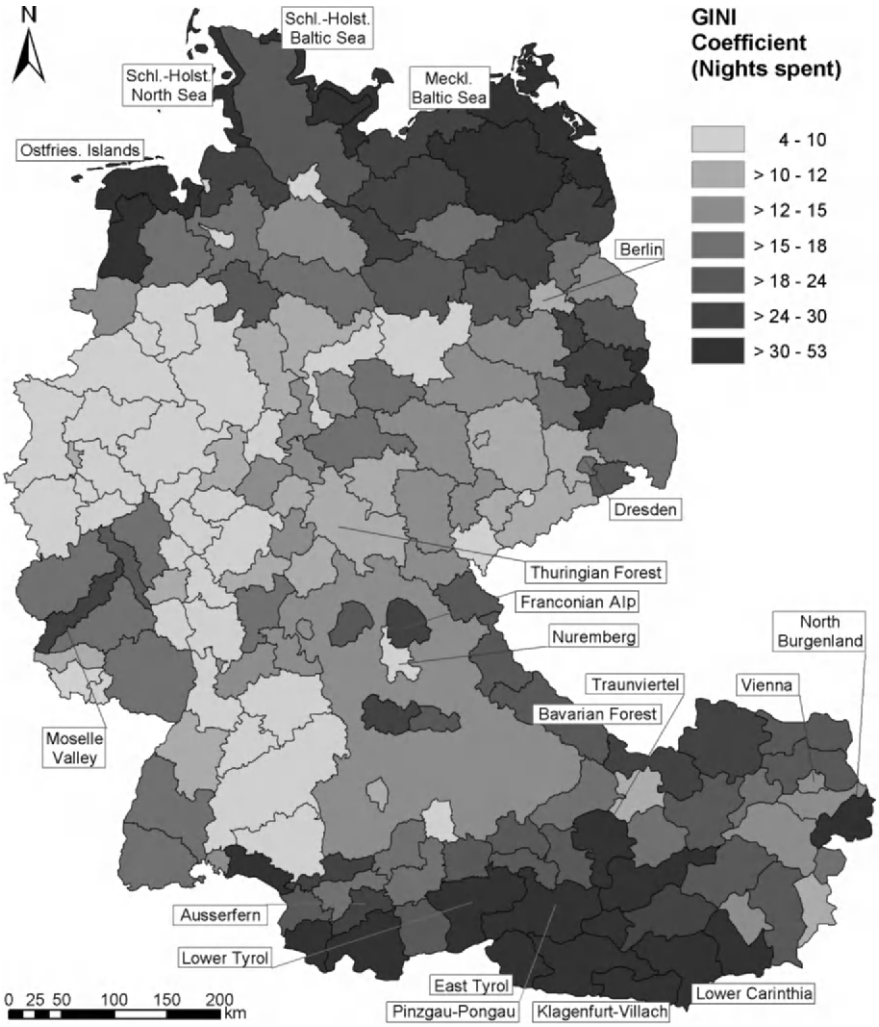

Figure 8-8. GINI coefficient of nights spent (2003) in all 166 Austrian and German Tourism Areas.

length of stay. Therefore, the following recommendation of seasonality types just refers to overnight stays.

The cluster analysis of the indicator sets (Fig. 8-10) essentially showed more differentiated results as opposed to the patterns of the course of the year. Also, a comparison with the yearly curves reveals that the indicator set is better suited for arrangement in groups. This is the fact that by indicating the maximum and minimum months, the pattern of the year can only

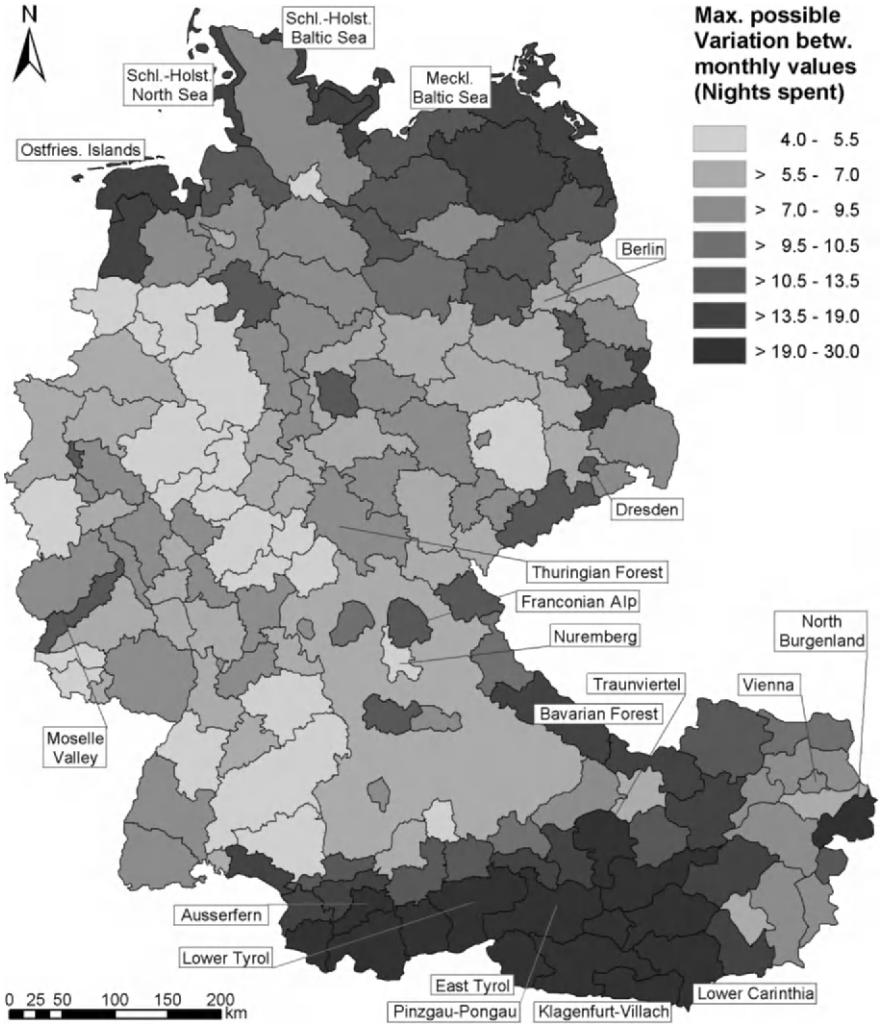

Figure 8-9. Possible maximum variation between monthly values of nights spent (2003) in all 166 Austrian and German Tourism Areas.

incompletely be portrayed. Finally, it remains to be discussed whether the groups from the cluster analysis display seasonality types, or rather, from which groups seasonality types could be derived. Without additional information, the clusters themselves could be hardly interpreted. To this effect, and in order to explain how many seasonality types should be formed, we recommend referring to the yearly curve (see Fig. 8-4).

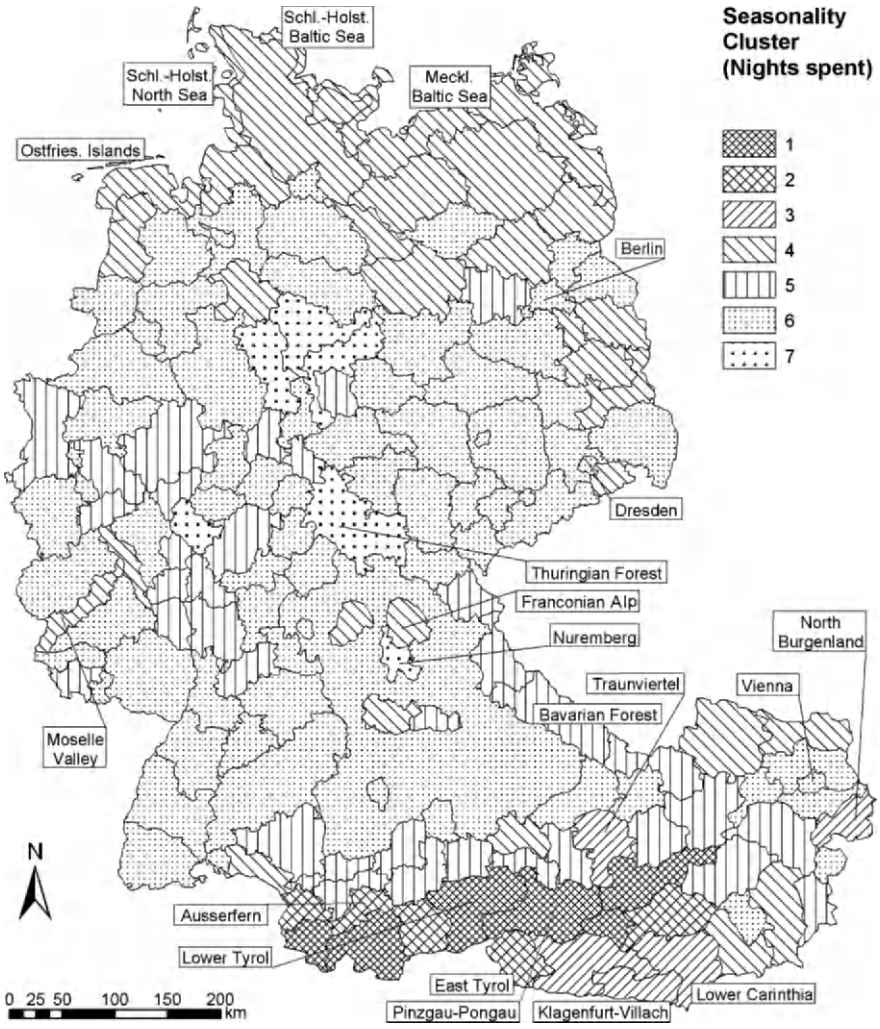

Figure 8-10. Seasonality clusters of all 166 Austrian and German Tourism Areas, based on nights spent data (2003).

Based on the cluster analysis of the indicator sets, Bender et al. (2005) give the following recommendation of seasonality types (Fig. 8-10) just referring to overnight stays:

1. Regions with strong distinct forms of seasonality (predominantly tourism regions):
   a) with two defined seasons, with the winter season more predominant (Austrian Alps, e.g. Lower Tyrol and Pinzgau-Pongau);

b) with two defined seasons, with the summer season more predominant (Austrian Alps, e.g. East Tyrol, Ausserfern);
c) with a dominant summer season and no shoulder season (lake regions of Austria, e.g. Traunviertel, North Burgenland, Lower Carinthia);
d) with an extended summer season and a distinct minimum in winter (German coastal areas and lake regions, low mountains, e.g. Baltic Sea, Moselle Valley, Franconian Alps);

2. Regions with a moderate seasonality (predominantly regions close to the urban centers, partially vacation regions):
   e) with a more or less wide summer season, weak shoulder seasons or at least a weak minimum in winter (esp. northern Alpine rim and Alpine foothills, Eastern Bavarian, Hessian and North Rhine-Westphalian low mountain ranges, Bavarian Forest);
3. Regions with a weakly pronounced form of seasonality (partially urban regions and regions close to cities, but also low mountain areas, which rarely include vacation regions):
   f) without a particular season, but with a clear minimum in winter (e.g. Berlin, Vienna, Black Forest);
   g) with only a minimum amount of variation (e.g. Nuremberg, Thuringian Forest).

3.4 Discussion: seasonality types referring to regions and landscapes

The seasonality types relate to the types of the natural landscape in Austria and there predominantly in the Alps. This is connected to the suitability of a landscape for different forms of tourism. First of all, traditional tourism regions, characterized by a high amount of long stays in summer and/or winter, show a distinct seasonality (cluster 1 to 3 on Fig. 8-10). These destinations cannot balance the main season with an equal amount of short-time visitors or guests who are able to travel outside the main holiday period. This is all the more true in Austria where international tourism is the most important.

In Germany, a distinct or at least more pronounced seasonality can be stated for more peripheral regions. It concerns the coasts of the North Sea and the Baltic, as well as the seascape of Mecklenburg and the lake regions of Brandenburg (cluster 4), the Bavarian Alps, and the low mountain ranges in eastern Bavaria (cluster 5). These are attractive landscapes with a highly scenic beauty and a corresponding importance as holiday destinations. Due to the long distances from large urban areas to these destinations, short trips are less important in these regions. Also, cluster 5 represents some

landscapes in low mountain ranges in western Germany and Bavaria that have special regional or landscape characteristics (see paragraphs 4.3 and 4.4). Therefore, in these regions the landscape types with seasonality are very diverse.

The rest of Germany shows only a minor or no seasonality. This is especially evident for the cities – because business and cultural tourism is not dependent on the seasons of the year – and other regions are of no special interest for tourism. Nevertheless, this cluster includes tourist destinations in different federal states, such as the Black Forest, the Palatine Forest, or the Thuringian Forest. These regions also have winter sports facilities (few compared with the Alps), but the almost flat yearly curve of arrivals and overnights must rather be explained by the proximity to large urban areas.

Finally, the comparative assessment and categorization of tourism regions reveal a considerable amount of interregional differences, even between neighboring regions and between regions with the same or similar touristic attractions (e.g. low mountain ranges, and urban regions, respective with and without a distinctive winter minimum).

4. REGIONAL EXAMPLES

4.1 Tourism seasonality in the Austrian Alps

The Austrian Alpine region has two defined seasonal peaks: one in summer and the other in winter. The demand for the rest of the year is, by contrast, rather sparse. This high degree of concentration is, with the two main vacation periods (summer resorts, winter sports), boosted from tourists coming from abroad, especially since Austrian inland tourism patterns are, in terms of visitors, rather low (*Bundesministerium* 1998). The average length of stay is 5.2 days (in contrast to 4.2 days for all of Austria) and the share of foreign tourism is even higher than the average 75% proportion of foreign visitors in Austria, of which 70% are German, making them, by far, the largest contingent, followed by the Dutch.

While the Alps are internationally renowned for having a “certain monopoly in winter tourism” (Lichtenberger 2000: 253), there also exists a traditional summer tourism that must compete more and more with international air travel tourism. The start of summer tourism in this region the 18th and 19th century is well documented (Bätzing 2003). It started as an adventure with the (first) ascent of the Alpine mountain peaks and as a summer health resort for the upper class at spas and other locations with special scenic beauty, which could be reached by rail lines such as the

Semmering in Lower Austria. Between the two World Wars, the middle class eventually started to come to the Alps as well, staying (especially in Austria) in privately let rooms and apartments. After massive increases in tourism during the post-war period, summer tourism has developed in an irregular pattern since the 1970s, with peaks occurring during the early 1980s and 1990s after which the level fell again below that of the 1970s (Zimmermann 1998). The generally weak demand during spring and fall has, up to now, not been seen as a problem and is reflected in tourism data concentrating on the dualism of summer and winter.

The outline of the seasonality can be explained by the dominance of traditional tourist summer and winter activities, which include in summer mountain hiking and climbing and the modern risk sports (free-climbing, rafting, paragliding, etc.) as well as skiing and snowboarding in winter.

The destinations for these activities, in the western part of Austria, are interestingly enough, staggered regionally (Lichtenberger 1979; 2000). The more traditional summer tourism is stronger in the lower and middle altitudes and is connected to the older settlement structures. The winter tourism is more concentrated in areas of higher elevation (villages at the tail-end of valleys, on top of the passes, etc.), where some newly developed tourism villages also exist (e.g. Obertauern)[3]. The increasing preference of higher elevated areas is dependent not only on snow-reliability, which, during a period of global climate change, has been decreasing (Elsasser & Burki 2002), but also on the fact that the development of expensive winter tourism infrastructure only pays off when a long season exists. In 1993, for winter tourism in Austria, there were: 3,500 cable cars, funiculars and ski lifts, 22,000 kilometers of ski runs and skiing trails, 400 ski schools with 8,300 ski instructors and 1,270 ski huts and mountain restaurants (Lichtenberger 2000). Summer ski resorts even were established on glaciers. Nevertheless, the development of winter tourism in this region of Austria has come at the expense of scenic beauty for summer tourism (Zimmermann 1998). This is especially true for skiing areas, which require the clear-cutting of forest aisles with leveled soil (ski runs) and only sparse grass cover in the summer as well as the installation of pylons and cables for lifts.

Winter tourism began in the late 19th century and developed very slowly at first. It was not until the 1960s that winter tourism levels caught up to that of summer tourism. The rate of increase between 1966 and 1981 was 12% per annum, while during the 1980s it was 8%, and in the 1990s it was less than 2% (Zimmermann 1998). The alleviation of growth is due to a

[3] In France and Italy several artificial skiing towns have been constructed in higher altitudes with enough snow, e.g. Val D'Isère, Alpe d'Huez, Courchevel, Isola 2000, Sestrière. (Bartaletti 1994; Bätzing 2003).

saturation in German tourism abroad. Nevertheless, overnight stays during the winter seasons became dominant by the 1980s in Vorarlberg, Tyrol, and Salzburg. This is important in an economic sense because of the higher expenditures made per day by the more affluent winter tourists (Jülg 2001).

For reasons of its natural suitability (high elevation) as well as its proximity to visitors coming from Germany, who have pushed its dynamic development for a long time, the structure of Alpine tourism in Austria is "extremely lopsided" (Zimmermann 1996). The main area of tourism and its large rate of growth over the past 50 years can be clearly seen in western Austria, from which the "front" (Lichtenberger 2000) of tourism movement has slowly shifted to the east over the Salzburg Alps into Styria (upper Enns-Valley) and toward Upper Carinthia. Between the dynamic western part and the also well developing proximity of Vienna a "sizeable touristic vacuum" exists (Lichtenberger 2000: 259). There were several other reasons for the minor development of tourism within the communities of the eastern Alps: the relatively large distances from areas where tourists originated (namely Germany) as well as the relatively low heights of mountains in this region (most less than 2000 meters) had given little chance for investment opportunities. In addition, forest owners in the east had little interest in selling land for mass tourism as opposed to mountain farmers of western Austria (Lichtenberger 2000). The Lower Austrian Alps have been reserved for domestic tourism and provide areas where residents of Vienna constructed or rented second homes. In addition, this region faced many conversions of privately let tourist apartments into year-round housing for Viennese residents. This in effect had caused a reversal of potential lodging capacity for the region (Lichtenberger 2000).

Although tourism occurs over a wide range throughout the region, the fact is difficult to reflect in tourism-statistics. Areas of foreign and domestic tourism, however, are not fixed, but rather occur in a seasonal rhythm. During the summer, foreign visitors travel along the main traffic lines to Carinthia, into the Enns-Valley as well as to the Alpine foothills of Lower Austria. Austrian tourists travel in the reverse direction during winter, as they travel westwards to ski resorts and other winter mountain attractions (Lichtenberger 2000).

4.2 Tourism seasonality in the Austrian Lake Region

Tourist activity in the Austrian Lake Region is predominantly concentrated within a two-month summer season. For reasons of their regional proximity to the Alps, there are similarities that this region shares with the "mountain summer" regions. This destination allows for a variety of activities ranging from water sports (bathing, sunbathing, boat travel) to

mountain sport activities. The scenic beauty of the Salzkammergut region as well as the lake region in Carinthia – lakes with a mountain setting in the background – is exceptional combined with their outstanding water quality. The region around Neusiedler See on the eastern border of Austria "is a rather special case due to the scenic attraction of the Pannonian-Continental lowland area" (Zimmermann 1998).

As in the mountain region, tourism is also tied to the summer resort tradition of the 19th century. Further development occurred similarly to the mountain summer region and was especially dynamic in Carinthia. However, the Austrian Lake Region has been strongly affected by a crisis over the last 25 years. A 40-50% decline in overnight stays occurred between 1991 and 1996, which is far above the average for other regions (Zimmermann 1998).

Tourist infrastructure, especially the construction materials of lodging houses, is aging. Many places of accommodation, especially in Carinthia, are not suitable for winter use (*Bundesministerium* 1998). For reasons of low utilization throughout the year, many of these long-established businesses could not obtain the necessary capital for their refurbishment and improvement. For potential outside investors, undeveloped lakeside parcels were no longer available. Therefore, a negative circle was beginning to develop, which at best could be forestalled by extending the season by means of short-term tourism (Zimmermann 1998).

4.3 Tourism seasonality in the low mountain ranges of Southern Germany: the example of the Franconian Alps

"Franconian Switzerland" (Franconian Alps) is a small, low-mountain region and, as its name implies, is a destination for landscape-based tourism. Tourism development started very early and is connected, much like in the "real" Switzerland, to aesthetic romantic concepts that were common during the late 18th century (Stremlow 1998). The picturesque landscape in this region contains such features as green meadow valleys and steep valley slopes with (sheep) pastures and bizarrely shaped limestone cliffs.

In this region, the historical development of tourism can be classified into four different phases. The beginning was marked with cave and paleontology discoveries made by Esper (1774) and other scientists, whose discoveries initiated a growing trade of bones and fossils, which led to measures for preserving these caves later on. The second phase was characterized by romantic journeys of writers such as Tieck et al. (1793) and their successors, artists and students in pursuit of "the joy of wandering and drinking" (beer – a regional specialty) in the meadow valley of the Wiesent River.

The beginning of the third phase for tourism in this region can be identified by the opening of resort spas on the edge of the mountains (whey spa) during the mid-19th century, when wealthy urban residents made their second homes in newly built villas there. Hiking paths and scenic outlooks with rest areas and pavilions were constructed, which conveyed the aura of the romantic landscapes. The Franconian Switzerland Association, founded in 1901 (similar to the Austrian Alpine Association in 1862 and the Bavarian Forest Association in 1883) organized this work excellently so that vacationers from all over Germany as well as from abroad came searching for peace and quiet. Toward the end of the 19th century, tourism travel started to make its way to small villages in the larger valleys. Accommodations at that time were quite simple, and so in many villages, privately let rooms were made available. For many farmers this was the opportunity to expand their businesses. The last phase of development since the 1920s was marked by the build-up of traffic infrastructure that enabled mass-tourism. The Franconian Switzerland now has more than 230,000 arrivals with approximately 1.3 million overnight stays per year. The latest forms of tourism are hiking holidays for elderly couples or more sports-oriented holidays with activities such as climbing, canoeing, enjoying boat rides, golfing, etc. In the traditional destinations along the large valleys, tourism has been the main source of revenue for the communities. On the other hand the communities are amply investing in tourism infrastructure. The town of Heiligenstadt, for example, recently spent € 600,000 on cycling tracks and established four self-guided trails with the themes of Nature, Forests, Agriculture, and Geology. The development of tourism over a 200-year span in the Franconian Switzerland shows a clear concentration of tourism during the summer months; their record is more distinguished than that of most other low mountain regions in Central Europe. The Franconian Alps, in contrast to the Bavarian and Thuringian Forest, has a lower altitude and a terrain that does not allow winter sports, furthermore, the tourism infrastructure is relatively undeveloped. A further lengthening of the season into spring and autumn exists, due to local recreation travel (without overnight stays) from the conurbation of Nuremberg. Efforts therefore are being made to moderately develop more tourism infrastructure for regular and short-term overnight stays.

4.4 Seasonal wine-tourism in the Moselle Valley

The Moselle river valley in Western Germany cuts deep between the low Hunsrück and Eifel mountain ranges. The valley's scenic beauty is distinct, especially along the meandering part of the river between Trier and Koblenz. Most of the valley's slopes that face in a southern or south-western direction

were terraced for wine-growing a thousand years ago. These small terraced and extremely steep slopes hold some of Germany's premier vineyards. The valleys' scenic quality has been further improved in the 1960s by building a new system of navigation locks and barrage weirs in the river, thereby creating a larger water surface and improving the river's waterfronts (Becker 1984). The area is a typical destination for short-term holidays. Also, day-trips to the Moselle Valley by people from the Ruhr Basin or the Netherlands are very popular.

The Moselle and Saar valleys have distinct tourism seasonality with an extended summer season and a minimal one in winter. The valleys' seasonality differ notably from the surrounding low mountain regions, which have no distinct season, only an obvious minimal one in winter. The main months in terms of arrivals and overnights in the Moselle Valley are September and October with the beginning of the tourism season in May. The least busy months are January and February, with an increase in March, but still below the values of November and December. The most remarkable fact is the increase of tourism numbers from October to November. This can be explained by the special characteristic of this destination – wine-tourism (Becker 1984). Most of the tourism and its activities are centered on the wine: the experience of the viticultural-landscape as a main reason for traveling, tasting and buying of wine, as well as experiencing the cultural and wine-growing elements in the villages and vineyards. Compared to other low mountain areas other tourist activities are less popular and trips are limited to neighboring villages in the valley. The climate in summer is less favorable. During the summer, the hot, muggy weather is rather uncomfortable for hiking without shade on the steep slopes (Becker 1984). Thus, 70% of tourist arrivals take place during the growing season of the wine from May to October with the maximum arrivals occurring during the harvest period in October. This influx of tourists is further strengthened by special events and the seasonal opening of simple taverns by the winegrowers (*Strausswirtschaften*). The organization of events also follows a seasonal pattern with a first maximum in May, which is a preferred month for short trips due to several public holidays that allow for extended weekends to take place. The number of events is reduced in October because of the time-consuming process of harvesting the grapes (Haart 2003). The concentration on the summer season can be further explained by the large number of tourists staying at camp sites and the sizeable number of visitors who come during boating holidays.

4.5 Seasonality of the German Coasts

The coastal regions of the North Sea, the Frisian Islands and the Baltic Sea in northern Germany have a long tradition as tourist destinations. The first seaside resorts were opened at the end of the 18th century with a boom phase in the first half of the 19th century. The main attractions were and are the beaches, the dunes and the bracing climate. The regions first served as tourist destinations for the upper classes; mass tourism developed later in the 20th century. Today the regions have an excellent tourist infrastructure and a large variety of cultural attractions (Seedorf & Meyer 1996).

The coastal regions have a very distinct seasonality in terms of arrivals and overnights. The main season is the summer with a maximum in August, there is a sharp decrease in tourist numbers later in the year. This summer dominance is especially evident for the number of overnights with a steep yearly curve. It is a result of longer stays with an average of 5.8 up to 9 nights, due to the high number of stays at health resorts over several weeks, often taken with the whole family. Also, the coast is a prime destination for taking the long summer holiday. The long distance to the large cities further emphasizes the trend to make overnight stays of several days. A shoulder season in spring has emerged, especially in the East-Frisian Islands where long weekends are spent during public holidays and because the islands are ideal for short trips with stays of only one or two nights. According to the tourism statistics of 2003, there were almost as many arrivals on the often car-free islands in May as in August.

The climate is central for understanding this distinct seasonality and is also a main obstacle to lengthening the tourist season. Only in July and August are water temperatures above 15 to 17°C, warm enough to feel reasonably comfortable in the water (Newig 1974). In summer the local land-sea-wind system produces a breeze in the afternoons, which makes it pleasant to stay on the beaches on a hot summer day. The period from October to April is the time when storms and sometimes storm floods occur, December to February is the windy season. The rapid weather changes and only minor cloud cover make conditions comfortable in summer, but this is preceded in the spring and followed in the fall by rather rainy weather (Seedorf & Meyer 1996). Tourism intensity in winter reaches only 10-20% of the arrivals and overnights of the summer maximum. Nevertheless, it is still an important factor in local economies, because many towns and villages are completely dependent on tourism (Feige et al. 2000). For people staying in health resorts the season is less important. In recent years the number of people visiting the coast in winter has increased. Tourists (mostly couples without children) take short trips to the coastal areas or the islands, looking for a relaxing, quiet time, without the mass tourism of summer and

to enjoy the rough windy climate that gives the landscape a different aspect than in summer.

4.6 City tourism: the examples of Vienna and Nuremberg

City tourism is a special type of tourism, characterized by rather short stays and a special clientele. For other types of tourism the average length of stay in Germany is 3.1 days, while for city tourism it is only two days. Especially important for the number of visitors in large cities are the participants of conferences, congresses, and trade shows, which amount to 65% of all arrivals mostly during weekdays, whereas the weekends are dominated by leisure tourists (Anton-Quack & Quack 2003). Their main interest is historic city centers, sights, monuments, and most important of all the cultural life, e.g. museums, theatres, opera, architecture. Both types of tourists come to Vienna, which "ranks fourth in the league table of European cities, after London, Paris, and Rome, with about 7 million overnight stays in 1995, representing an increase of more than 5% per annum since 1981" (Zimmermann 1998: 181). The fall of the Iron Curtain has further increased the number of arrivals, strengthening Vienna's function as a meeting place between Western and Eastern Europe. The most recent development in city tourism, and not only in the case of Vienna, concerning the "low-cost airlines" has yet to be studied. In 1995, conference-related tourism accounted for 120,000 visitors with 400,000 overnight stays, making Vienna the second most popular conference city worldwide after Paris (Jülg 2001). Vienna is the third domicile of the United Nations and its subordinated authorities and other international organizations (e.g. OPEC). The number of leisure tourists is hard to calculate in the case of Vienna due to the large number of tourists staying in the communities around Vienna, who commute to see the attractions of the city and therefore are not represented in the statistics. This figure can be illustrated by the number of visitors to the most popular sights. For example, the Schönbrunn Palace was visited by more than 1.4 million people and the Austrian Gallery in the Belvedere Palace had over a half million visitors in 1997 (Jülg 2001) with musical theatres being the newest attraction. The proportion of foreign visitors in Vienna at 85% is even higher than the proportion in Austria as a whole. However, at 21% the proportion of German visitors is rather low, compared with the proportion of German tourists visiting the rest of Austria.

It is not astonishing that the yearly curve of tourism arrivals in Vienna shows no clear seasonality, which is also typical for the German cities included in our study, e.g. Nuremberg, Dresden, and Berlin. In the case of Vienna a slight minimum in January, February, and November distinguishes

the most unpleasant time for city tourism in terms of weather. December is different because of the Christmas Holidays.

The city of Nuremberg, with half a million inhabitants in 2004, has a long-standing tradition as a tourist destination. Nuremberg being one of the most important trading places in the Middle Ages rose as an industrial city in modern times and already a hundred years ago tourism was an important factor. An illustrative description of the pre-war Nuremberg can be found in a travel guide[4]: "With its splendid Gothic churches, the proud patrician houses and the impressive five-kilometer-long city wall at the time of Richard Wagner (Meistersinger of Nuremberg) and the era of Romanticism, Nuremberg was called the little treasure chest of the German Empire (des Reiches Schatzkästlein)". During World War II the city was almost completely destroyed. Since its reconstruction in the 1950s, the city centre is still the major attraction, combined with an active cultural life. In 2003, almost one million visitors came to Nuremberg, of which 27.4% came from abroad with Italy and the United States representing the main countries[5]. Considering the large German inland market for tourism, this is a high proportion of foreign tourists compared with Bavaria (19.4%) and all of Germany (16.3%). In addition, Nuremberg is one of Germany's most important places for convention and exhibition tourism with 1.2 million visitors in 2003 coming to trade shows at the Exhibition Centre Nuremberg[6].

Similarly to Vienna, tourism in Nuremberg shows no distinct seasonality, but only minimal variations in the yearly curve of nights spent and arrivals. The statistics are characterized by a slight decrease in overnight stays in August due to the decrease in conference travel during the main holiday season in summer. Another reason might be that tourists take day-trips to Nuremberg from other Bavarian holiday destinations and therefore are not included in the statistics. Interesting also is the peak of arrivals in December because of the famous Christmas Market (*Christkindlesmarkt*) from the end of November to December 24. More than 2.5 million visitors arrive each year to see this special attraction and taste Christmas goodies such as Nuremberg gingerbread (*Lebkuchen*) and mulled wine (*Glühwein*) and to buy Christmas gifts and decoration.

[4] http://www.airberlin.com/site/snuernberg.php (21.03.2005)
[5] http://www.statistik.nuernberg.de/en/stat_inf/niz/FaF2004.pdf (23.12.2005)
[6] http://www.nuernbergmesse.de/main/d0ngejnc/d0ntenu9/d0ntkk8z/page.html (23.12.2005)

5. CONCLUSIONS

Statistical analysis of tourism data could distinguish those tourism regions in Central Europe that have a distinct form of seasonality. This phenomenon of seasonality is particularly evident in peripheral regions with attractive landscapes, especially in mountainous, coastal or lake regions. For explaining the underlying causes of tourism seasonality, the role that weather and seasonal variations of landscape or scenic beauty play, even in the moderate climate of Western Europe, has been analyzed.

At least four different functions of landscape for tourism can be distinguished:

- The physical and cultural landscape and its variations during the course of a year as the major attraction and basis for tourism and its activities (e.g. hiking, skiing, and bathing, especially in vacation regions).
- Landscape as the setting for a journey or a stopover (e.g. wine-drinking in a beautiful river landscape such as the Moselle Valley, Wachau – other wine-regions such as the Austrian Weinviertel attract fewer travelers and visitors; restaurants in the mountains accessible by aerial railway; golf courses in view of an Alpine mountain setting).
- Landscape as a geographical backdrop (inherent), for example landscape as a living history museum. The Scandinavian concept of assembling displaced buildings in open-air museums has to be distinguished from the French concept of Ecomusée where historic landscape elements are preserved *in situ* and integrated into a museum-concept (Pöttler 1992; Ongyerth 1995).
- Landscape as event (sporadic): fairs, tradeshows, festivals, sporting events, pilgrimages (e.g. Tour de France, Rhine in Flames fireworks, National Garden Festival in Germany).

An important topic in tourism management and in urban and regional planning is to overcome the distinct seasonality of destinations due to the economic and environmental problems it causes. It is generally recognized that seasonality tends to have more negative effects, especially from a socio-economic viewpoint (Butler 2001). This also affects approximately two million jobs in Germany that are dependent on tourism (Harrer 2003). In the regional planning process in federal states such as Bavaria and Baden-Württemberg, one priority is protecting and developing tourism areas. To this end, more pressure is placed on infrastructure. However, in the planning programs, it remains unclear whether infrastructure should be more oriented toward the needs of the main tourism seasons. Another example for the lengthening or abolition of seasonality is the recent discussion about the opening up of areas for glacier skiing in the Alps. In tourism management, there have been several attempts made to overcome seasonality, such as

lengthening the main season, establishing additional seasons, diversifying markets, using differential pricing and tax incentives on a temporal basis, encouraging staggered holidays, and encouraging domestic tourism in off-seasons, and providing off-season attractions or "events" (Butler 2001). Also, special events such as festivals and conferences could help overcome the seasonal effects within tourism regions, provided that they take place in the shoulder or off-season (Freyer 1996).

At the end of the 20th century, the creation of artificial landscapes and places has become common. These are, for example, artificial skiing towns in the Alps, tropical holiday parks under a greenhouse-like enclosure near the North Sea or in Brandenburg and other types of indoor entertainment such as indoor skiing facilities in northern Germany (Dziomba & Beyerle 2003; Steinecke 2003). The latter type tries to overcome the location factor of the natural/cultural attraction that characterizes traditional vacation regions, especially in contrast to urban residential areas. On the other hand, this seems to be a way of overcoming the problems caused by the natural cycle of seasons, but it is hard to say whether the seasonal restrictions predetermined by customs and policies can be solved. Up to now, it is unclear whether these are true alternatives or only additional offerings for those tourists who cannot afford to travel due to financial or time restrictions. Further along this train of thought, travel could be moved into fictitious, mental, or virtual spaces. Today's computer adventure games, the consumption of artificial reality shows on TV, or simply watching the Tour de France race on TV instead of taking the time to travel to the French Alps and watching the race for only a brief period, might be the early phase (Kreisel 2003). Nevertheless, we believe that traditional (cultural) landscapes are irreplaceable for tourism in Central Europe and more efforts should be made to protect and develop landscape-based, regional tourism, which is less harmful in the context of global environmental change than is international air tourism.

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Chapter 9

FROM EXPERIENTIAL TO CHRONOMETRIC SEASONALITY – THE ESTABLISHMENT OF SEASONS AS A NATIONAL SYMBOL IN MODERN JAPAN

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Figure 9-1. Terraced rice paddies on Noto peninsula, Japan. The seasonal work cycle in traditional villages has been elevated to the status of moral in *satoyama* discourse and has also become a major tourist attraction. Photo: Kati Lindström.

H. Palang, H. Sooväli and A. Printsmann (eds.), Seasonal Landscapes, 215–229.

1. INTRODUCTION: NATIONAL SEASONALITY?

This chapter discusses the symbols of Japanese national seasonality, including *hanami* or cherry blossom viewing, on the backdrop of the transition from experience-based perception of seasonal landscape to chronometric perception. While the politically engaged nature of landscape representations in general has found extensive coverage in landscape studies, the seasonal nature of these images has only been dealt with in passing. Since seasonality influences almost every aspect of our everyday life from economics to food and mobility (Palang et al. 2005), the passage of time as embodied in the form of seasonal changes, is one of the most important characteristics of the subjective landscape perception of a person dwelling in a landscape (*sensu* Ingold 2000). At the same time, the personal seasonal experience in a modern society is largely governed by the public calendar, seasonal media events like the broadcasts of cherry blossoms, and the seasonality of commerce and public landscape ideals. Thus the inclusion of seasonality in public representations could be considered one of the most crucial aspects of the public-private interface of landscape.

2. THE PARADOX OF NATIONAL SEASONALITY

The idea that the image of landscape is deeply engaged in national discourse has been widely discussed in landscape scholarship (Cosgrove & Daniels 1988; Herb & Kaplan 1999; Setten et al. 1999; Mitchell 2002). Starting with the imagery of national currencies and anthems and ending with literary works, paintings etc. the image of the landscape is often used for creating and fostering a national/group identity or, on the other hand, for undermining it (Olwig 2002; Bunkše 1999; Bermingham 2002; Helsinger 2002; Bunkše 2003). For example, during the Soviet occupation in Estonia, the image of dispersed settlements with individual farms was equalled with the idea of an independent Estonia, while the official Soviet discourse employed an image of vast fields of collective farms (Unwin 1999; Kõresaar 2002; Sooväli et al. 2003; Lindström 2004; Peil & Sooväli 2005). Landscape as a symbol and carrier of regional identity is frequently used for tourism purposes as well.

The landscape of articulation (Sörlin 1999), or the landscape considered worthy of representation in some media tends to follow rather uniform rules. Avoiding overly industrial scenes, the landscape image favours rural and historical sceneries in an idyllic light, and in an indefinite/infinite moment of time. A postcard would hardly ever depict the landscape in its worst climatic conditions. Rain and other “nasty” elements would occur only when they are

considered so bad that they are almost majestic (i.e. winter in its extreme temperatures, rain with lightning and black clouds etc.). Hard work does not occur in national landscape images, unless we deal with discourses like Soviet propaganda. It is Sunday forever on postcards. People generally appear only when they are considered to be typical enough for the landscape, that is, connected to the land use patterns of the area and thus almost as good as a physical land form for outsiders. Even if they are not, the rule is that they have to look blissful (Prince 1988; Hanssen 1999; Linnap 2003; Lindström 2004).

This is in line with general landscape preferences regardless of the country: public opinion favours well-maintained traditional agrarian landscapes that show clear signs of a human touch (Coeterier 1996; Katsuhara 1999; Alumäe et al. 2003; Antrop 2003; Palang et al. 2003; Iiyama et al. 2005). The inhabitants absorb these values during the process of so-called landscape socialisation (Sörlin 1999, compare to mnemonic socialisation by Zerubavel 1999) and expect the representations to conform to them. In fact, in Japan I have often been scolded for taking pictures of factories and aggressive housing development in regions that are considered to be "rich in greenery" and "areas of outstanding natural beauty". That an idealised image would be used for tourism purposes is quite evident, since obviously the masses could not be attracted to a place that has a public image of mediocrity.

Things become much more intriguing when the national landscape image includes hints to seasonality. On one hand, seasons are something truly ephemeral – they are always changing, never permanent and they are never the same even in the same geographical location – whereas at the same time they are cyclical and much more universal than the landscape itself. Two villages less than a hundred kilometres apart can have completely different landscape features but the seasonal differences between them would be rather minor. In fact, seasonal similarities can unite loci thousands of kilometres apart. Nevertheless, of the 98 local residents and 52 tourists who answered my questionnaire about landscape preferences in Southern Shiga prefecture in Japan in summer 2005, a considerable number of people found that the most beautiful and characteristic phenomenon in the landscape of the area is its seasonality, whereas climatically speaking, it would have hardly any differences with the "four seasons of Kyoto" that has become a cliché of its own. At the same time, any Japanese tourist brochure would pay considerable attention to a phenomenon labelled "the Japanese four seasons" as if this was somewhat different from the four seasons in any other part of the world with temperate climate or as if this was a uniform notion for the whole Japan. In reality, ranging from a sub-arctic to a sub-tropical climate, the perception of seasons and even the number of seasons is guaranteed to be

different in different parts of Japan. Hokkaido is bound to have more seasonal similarities with Estonia than Okinawa. The question here is: if the seasonality aspect of the landscapes is born from the experience of the individual, then whose seasons are the ones that are chosen for national ideals, and what kind of perception are they based on?

2.1 Experiential *versus* chronometric sense of seasons

Place as a locus for individual actions, identity and immediate perception has been an issue in landscape studies since the 1970s (Tuan 1974; Relph 1976; Tuan 2005 [1977]). Ingold argues that "human life is a process that involves the passage of time" and at the same time it "is also the process of formation of landscapes in which people have lived" (Ingold 2000: 189), establishing temporality as one of the most important aspects of dwelled-in landscape. Like dwelled-in space, so is the dwelled-in time by its nature quantitatively indivisible; the differentiation between different points in the experienced time and space is qualitative and depends on what kind of borders and distinctions dwellers decide to make through their own actions and movements. The time is divided into distinguishable units by the tasks people undertake in their landscape and the passage of time is perceived first and foremost as a sequence of tasks, which in their turn are embodied in landscape forms (Ingold 2000). Landscape in dwelling perspective is thus born from the movements of body, smells, sounds and other aspects experienced during the course of everyday activities. This is what can be called an experiential sense of time. An experiential sense of seasons would thus mean that a person experiences the change of seasons through his everyday actions and perceptions and as such this perception is profoundly personal and private – for me winter is over at the moment I do not have to wear woollen socks, while for my neighbour who loves fishing, it might end when the ice cover on lakes melts, and for somebody else it is the light scent of plum blossoms that brings the spring. The number of seasons itself is not a constant in experiential perspective – living in Estonia, I think there are only two seasons, white and green winter, whereas living in Kyoto, I fail to notice the difference between the official autumn and winter, at the same time cutting the official summer into three different periods (rainy season, sunny season and typhoon season).

However, Olwig (2005) warns that it is important to distinguish between different modalities in the perception of seasonality. Olwig emphasises the difference between the perception of seasons born out of experience and the seasonality created by the chronometric measurement of time. Like cartographical space, the chronometric time is exactly measurable, universal and public. The arrival date and the number of seasons have nothing to do

with individual experiences and my woollen socks; it is exactly the same in Estonia, Hokkaido and Okinawa. It is clear though that neither of the perceptional types can be found in its pure form. Both of the modalities exist at any moment of time; the question is rather that of dominance. An urbanite organising his/her time according to the 24-hour clock and the calendar would no doubt notice that the cherries are blooming, but this knowledge usually does not bear any consequences for his/her perception of time. Rather, the real dates of cherry blossoms are anticipated following the calendar: first week of April (the first week of the fiscal and school year) being the official cherry blossoms season in Japan. On the other hand, a Japanese person from two centuries ago would have anticipated the start of the New Year from the movements of the Moon and the blooming of cherry blossoms but would have still needed to celebrate the coming of the New Year in an official festival in order to establish this personal experience as a public event.

Determining whether a landscape representation uses mostly experiential or chronometric modality of seasonality is a rather dubious enterprise, especially because choosing one media of representation would automatically mean cutting off some senses that are vital in a real-life experience of space and time. While multimedia art can capture the visual and audible and even imitate the process of movement, we are still very far from being able to convey the exact smellscape or the feeling of touching the soil in spring. The representation of any landscape would automatically mean transferring it from the personal to public sphere and creating a prototypic model of a landscape. Likewise, the representation of seasonal elements raises them from the personal experiential level to the public sphere of prototypic chronometric seasons. It can be argued that it is impossible to use a seasonal image as a national symbol until it has been removed from the private ground and given an exact value on the absolute scale of the public seasonal calendar. Therefore, even though the agrarian images like wheat fields or sowing and harvesting seemingly foster the experiential dimension of landscapes and the passage of time, the seasonal images are supposed to represent the "ideal season", and the task calendar of the farmer becomes a perfect ethical model for the human life cycle.

In Japan, this is especially well exemplified in the *satoyama* discourse. *Satoyama* is a notion which has become extremely popular in the Japanese national discourse over the last 15 years. Signifying an ecosystem that supposedly existed in Japan from the 18th century up to World War II, it is allegedly a landscape of perfectly balanced and sustainable resource use and as such, an ideal model for coexistence between humans and nature. The romantic image of this "affluent" rural life relies heavily on the seasonal images and the work cycle of the peasants. The photo materials (Imamori

2002) and even films ("Satoyama", NHK/BBC 1999; 2004) show the seasonal change of rice paddies and waterways in almost tedious detail, emitting, however, any signs of hardship. A seasonal work cycle has become a public moral representing the eternal cycle of life.

2.2 Seasonality in pre-modern Japanese: a twofold discourse

As mentioned above, the experiential and chronometric modalities of seasonal perception exist in parallel, the difference between different historical periods, social classes and cultural units lies mostly in which of the modalities dominates. Thus, the duality of private/experiential and public/witnessed-from-the-outside perception of seasonality existed in Japanese culture well before the introduction of the Western calendar in 1873 and the linear sense of time[1].

Like elsewhere, there has been a long history of traditional agriculture in Japan with its own task-induced logic of seasonal perception. On the other hand, the classical Japanese culture of the nobility must have been one of the most season-conscious cultures in the world and the remnants of this elite culture are still visible in everyday media discourse, marketing and advertising, and have been a reason why the national ideology prefers to propose the Japanese as a particularly nature-loving nation (Kalland & Asquith 1997). Anything from cup noodles to bullet trains can be advertised with some "seasonal spice".

Seasonal rhythm is the main organising principle of all classical Japanese art, starting from *haikai* and *tanka* literature, to landscape painting, and up to *ikebana*, clothing and food. Even now, "this season's food" and "this season's vegetables" are popular items in restaurant menus. The classical organisation of artwork and poems according to the sequence of seasons from spring to winter is still alive especially in the collections of amateur photos and poetry. Lost noble customs include choosing the colours and patterns of one's kimono and even the dishes according to the seasons – only the elite restaurants still serve from plates with seasonally appropriate patterns, thereby making "correct" seasonality a sign of status. Much of the social calendar of the nobility in Japan until Modernisation was filled with seasonal events like *hanami*, moon viewing, visits to fresh greenery, and picnics under plum blossoms, many of which were loans from Chinese court life.

[1] The linear sense of time, however, took a considerably longer time to get rooted. It can be argued that the cyclical sense of time has still not disappeared completely.

The obsession with seasonal symbols is especially pronounced in classical Japanese poetry. Unlike in painting, in the laconic forms of Japanese poetry[2] it would be rather easy to avoid any hints to seasonality if one chooses to. Instead, the seasonal connection is deliberately explicit to the point where the non-seasonal phenomena like moon are also attributed to one certain season (autumn in this case). *Haikai* and *renga* poetry make stating the season an obligation, dividing the poetic words according to the four seasons[3]. The gradation of different kinds of snow from late autumn to early spring and the differentiation of seasonal types of rain demonstrates a keen attention to the seasonal change of natural phenomena.

Nevertheless, there is still a major qualitative difference between the pastoral experiential seasonality and the seasonality of classical Japanese elite culture. It has been argued that classical Japanese poetry does not depict real landscapes until the Meiji period (1868-1912), the time of Modernisation and Westernisation of Japan, when landscape was suddenly "discovered" (Karatani 1993; Uchida 2001) and the "sketching from reality" movement led by *haiku* poet Masaoka Shiki was born. Until then, the landscape described was a transcendental landscape where landmarks were more cultural and poetical than geographical and showed a strong Chinese influence. A good example is the so-called "Eight Famous Views" tradition. Inspired by the Eight Xiao Xiang Landscapes of China, the pre-modern Japanese defined countless "Eight Famous Views" also in Japan, the most famous of which is Eight Famous Views of Ōmi. These landscape images in Chinese tradition are rather general, referring to the landscape elements of the whole Dongtinghu region. In Japan, they have been pinpointed to very exact points in space and time, but are nevertheless depicted according to the tradition rather than reality. The images include a very strong seasonal element, which at times overshadows the geographical reality completely. For example, the "Eight Famous Views of Ryūkyū" by Hokusai depicts the

[2] A *tanka* poem consists of 31 syllables and *hokku* (in Europe mostly called haiku) only of 17 syllables. Deviations of 2-3 syllables are allowed, but not favoured. *Renga* consists of alternating strophes with 17 and 14 syllables and is written in a group session. Starting with the 17-syllable strophe written by the most important guest, members take turns in writing each consecutive strophe. *Renga* has very rigid rules of seasonal alteration, with definite strophes meant for cherry blossoms (spring) and moon (autumn). *Haikai* designates a genre that includes *hokku*, *haikai* style prose and the comical *haikai* style of *renga*.

[3] Not all the words were accepted as respectable words for poetry and their use in poetry was restricted. In the Meiji period (1868-1912), the number of seasons increased to five (New Year, spring, summer, autumn and winter), possibly because after the introduction of the Gregorian calendar in 1873 the New Year no longer coincided with the beginning of spring and could not be included in the spring section.

mountains of the subtropical Ryūkyū Islands with a snowcap – an obligatory element in the Eight Famous Views tradition.

It was common for Japanese poets to write poems about places that they had never visited, only on the basis of literary tradition. Needless to say, the seasonal image of the canon was grounded in the climate of Kyoto and Tokyo (then Edo) and did not take into account the regional variability of seasons. Every poem would be embedded in the Great Seasonal Poem (Shirane 1998), in other words, projected onto the background of earlier seasonal art, taking care not to violate the established seasonal associations and mention phenomena in the "wrong" seasonal context.[4] It has even been proposed that the seasonal cycle in classical Japanese literature is a form to visualise the Neo-Confucian ideology of the Superior Way or Great Principle, making the change of seasonal phenomena a model for human life process (Ackermann 1997).

To my mind, the difference between the pastoral experiential seasonality and the seasonality of the classical Japanese culture can be equated with the difference between a participant and a witness. To be sure, purely experiential sense of seasonality is impossible by virtue of the subjects being embedded in intricate social networks, but the difference is still critical. While a farmer would physically participate in the scene, performing the seasonal change through labour, the degree of seasonal experience in the case of elite culture varies from none to the engagement of a witness who arrives on the scene with very little or no previous engagement. While the participant would relive the seasonal change by growing the flower from a seed back to seeds again, the witness would only arrive at the moment of blossoms to get a "snapshot" of pre-conceptualised seasonality without any commitments before or after. Although preceding the time when most individuals would possess the exact means of measuring time, the perception of a witness in pre-modern Japan is very close to modern chronometric perception of seasonality, and would later play a crucial role in the canonisation of "Japanese national seasonality".

2.3 *Hanami*, alpinism and the transition to modern seasonality

The most powerful seasonal symbol of Japaneseness is undoubtedly cherry blossoms. Depicted on the Japanese 1000-yen note together with Mt. Fuji, and figuring in virtually every tourist pamphlet, cherry blossoms have

[4] So big is the power of seasonality in haiku poetry that the international haiku lovers have created almanacs that specify seasonal associations of each word even in countries like Hawaii, where the division into four seasons is climatically impossible (Motoyama 1970).

started to run the whole Japanese economy. *Hanami* or the custom of going with a group of people to a group of trees to have a picnic with considerable amount of alcohol and noise, is the main seasonal event across the whole country (Fig. 9-2). In April 2006, an estimated 170,000 to 200,000 people daily visited Tokyo's oldest and the most famous *hanami* site, Ueno Park, that has more than 1200 cherry trees. According to the news agency Asahi news (April 3), people rushed to the park at five o'clock in the morning in order to ensure a picnic spot for their company in the evening. During the *hanami* season (roughly one week), a total of 73 people in Tokyo were taken to hospital from the *hanami* sites, suffering from serious alcohol intoxication (Asahi news, April 3). The national media broadcasts closely follow and predict the state of the cherry blossoms in different areas of the country, so that people would know were to head to. At the same time, cherry blossoms also represent a symbol of the beginning of the school or a new independent life as a member of society, since the school year and the fiscal year also start in April. While seasonal changes are generally not much considered in urban planning (Jauhiainen & Mönkkönen 2005), the Japanese landscape development is a (negative) example of how a seasonal and truly ephemeral landscape element, such as cherry blossoms, has come to govern the whole developmental activity. For instance, every public construction includes obligatory planting of cherry trees; public parks, roads and waterfronts feature mostly cherries. At that, the variety of cherries that is nowadays most commonly used (*someiyoshino*), is developed especially for blossoms and therefore does not bear fruit, neither offers any shade, rendering the extensive cherry parks useless for the rest of the year. If the Japanese decided tomorrow to love meadow flowers instead of cherry blossoms, the result would be the biggest landscape revolution in human history.

The history of *hanami* is a controversial issue with obvious national overtones. The origins are mostly seen to be twofold (Shirahata 2000). First, the seed of future *hanami* customs has been seen in the pastoral calendar and the peasants' spring festival, called *haru no yamairi,* when people prepared a picnic with food and dances in the forest at the time of cherry blossoms. The second origin is seen in the classical poetry on cherries and the elite custom of plum blossom viewing with poetry and sake that was borrowed from China. The exact explanations of how these two traditions merged remain rather unconvincing, since modern *hanami* emerges first among city dwellers and not peasants and since the image of cherry blossoms in classical literature has none of *hanami*'s merry overtones. Instead, it is the ephemerality of cherry blossoms and the nostalgic beauty of falling petals that catches the attention of the poets. Later, during the imperialist period (1912-1945), this idealised image of ephemeral beauty becomes widely used in military songs, where the beauty of falling cherry petals becomes an

ethical model for soldiers who should also learn to fall in the battle with elegance and beauty, since this is the true Japanese way.

Figure 9-2. Hanami in Koganei Park, Tokyo. Each family brings their own plastic sheet, lunch box and alcohol. At nights, the stage is taken over by whole companies coming to picnic. Photo: Kati Lindström.

It is clear that in the mid-17th century *hanami* had already become a popular pastime among the townspeople of Edo (present-day Tokyo). Seen on many woodblock prints of the period, the Edo *hanami* is clearly akin to its modern version, including a lot of people, food and beverages, music and noise, and a forest of cherry trees often kilometres away from one's own home. It is also clear that the crucial push in the popularisation of *hanami* came from the Tokugawa shogunate, since the first cherry parks in Edo and its suburbs were created on the order of the shogun Yoshimune along his hunting tracks (Shirahata 2000).

Nakao Sasuke claims that in the background of *hanami*'s sudden popularisation lies the expansion of decorative gardening among the lay people in the 17th century Edo: European plant hunters report that in Edo even the poorest suburban houses would have a small patch of garden with a tree or two (Nakao 2005). However, as he mentions himself, gardening is a performing culture, thus entailing a daily experiential bond with the

cultivated plants, whereas *hanami* is an event of mass tourism without daily connection to the admired plants. Without even attempting to give an explanation as to why *hanami* emerged and why exactly cherry blossoms have gained such popularity, I think it can be stated that the establishment of *hanami* as a national seasonal symbol would not have been possible without a shift from the experiential perception of seasonality to the chronometric one. Of course, the necessary conditions also include the pre-existence of witness-type seasonal perception, the emergence of a railroad network that allows swift movement of the *hanami* masses, industrialisation and the growth of cities, but without perceptional alienation from the rural experiential seasonality the worship of "somebody else's flowers" would not make sense. To cover considerable distances in order to see a seasonal or landscape phenomenon means that the phenomenon is already conceptualised as a symbol of a sort.

Hanami is certainly not the only phenomenon which can be connected to the change in landscape perception in the course of the Modernisation process in Japan. The gap between the experiential pastoral sense of time and the public urban time expanded even more when the new Meiji government decided to switch to the Gregorian calendar in 1873. The whole calendar was shifted one month earlier, so that many of the important old festivities ended up out of their original seasonal context. The New Year celebrations were divided between the old and new dates, weakening the symbolism of plum blossoms as the sign of New Year and spring. The reform of 1886 that set the start of the fiscal and school year to April increased the importance of cherry blossoms as the quintessence of spring even further. A new revolutionary government obviously needed a new sense of time. Undoubtedly, such changes in seasonal perception cannot be induced solely through downward regulations; it is a long process occurring in all social classes, although at a different speed. By today, the consequent historical changes (urbanisation, industrialisation, etc.) have resulted in the landscape of seasonal work being replaced with the landscape of flowers: "seasonal flowers" are one of the main selling points in the modern Japanese tourism industry.

The shift from experiential to chronometric seasonality cannot be seen as separate from the general changes of landscape perception in Japan. That includes the elite's discovery of the "real" landscape behind the earlier transcendental landscape image. In literature, this "discovery" was expressed in Masaoka Shiki's theory of "sketching from life" (*shasei*). In painting it appears first in the form of Western perspective techniques in the 18th century (Kashiwagi 2003a) and later in the depiction of "nameless places", meaning landscapes that are not famous (Kashiwagi 2003b). The Japanese

landscape grew to include the Hokkaido and Okinawa areas first and the occupied areas in Korea and China later (Kashiwagi 2004).

Figure 9-3. A family enjoying the cherry blossoms in Ninnaji temple, Kyoto. Photo: Kati Lindström.

Another practice that deliberately challenged the borders of everyday space and time in the course of Modernisation was alpinism. Alpinism as such is a rather late phenomenon worldwide and its introduction to Japan begins during the Meiji period, expressing the adventurous pioneering spirit of the Meiji people (Satō 2004). Mountains that according to *shinto* religion were sacred places used to be off limit for people in their everyday life before. The physical act of mountaineering began to signify the extension of daily human space beyond earlier boundaries (*ibid.*). Not only did the new Meiji government have a new calendar but it had new spatial boundaries, both horizontally (new territories) and vertically (mountains). However, it is crucial to understand, that mountaineering entails a whole new perception of seasonality. In just one or two days a person can experience/witness several seasons that under normal circumstances is not possible. For a dweller with an experiential sense of seasonality this might represent the divine dimension of time and be a spiritual experience. For an alpinist equipped with the latest chronometric devices this would be humankind's complete

victory over seasonality and time. Hoisting prayer flags on the mountains makes it a religious victory, while hoisting the national flag makes it a national one.

3. CONCLUSIONS

Differentiating between participant experiential, witness experiential and chronometric perception of seasonality, I have discussed how different phenomena like *hanami*, alpinism and environmental idealism (*satoyama* discourse) reflect the dynamics of these modes of seasonal perception in pre-modern and modern Japan. While the perception of seasonality should be an intrinsically private phenomenon, we have seen that the application of chronometric principles would turn seasonal experience into a public and shared event. Throughout the process of Modernisation, the seasonal perception in Japan has become more and more governed by the public discourse that is distanced from firsthand seasonal experiences and encounters the landscape elements with preconceived definitions of seasonality and time. Despite the apparent innocence of seasonal images, it is through distancing from the experiential ground that the seasonal changes in nature or the seasonal cycle of work can gain national overtones and start to function as a moral model for human life process. It can be expected that the more the everyday urban environment (air-conditioning, pavements, and lighting) overturns the effects of seasonal changes, the greater ideological value would be attributed to the seasonal rural life patterns.

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Chapter 10

SEASONALITY, RHYTHMS AND POST-POSTMODERN EVERYDAY URBAN LANDSCAPES

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Figure 10-1. Rhythms and seasonality at the University of Oulu. Photo: Jussi S. Jauhiainen.

H. Palang, H. Sooväli and A. Printsmann (eds.), Seasonal Landscapes, 231–256.

1. INTRODUCTION

Today, places on the Earth are spatially as distant from each other as they have always been. What makes a difference regarding the past is that they are much more reachable in, and through, the virtual dimension. Trends travel faster from place to place. What is in fashion in economy, politics or culture in one place will be known in other places almost immediately. This time-space compression is facilitated by modern information and communication technologies (ICT) and it is changing our life. What kind of rhythms and seasons does one find in the everyday 21st century environment? Is modern ICT increasing our independence from time and place? What about spatio-temporality and landscape studies?

In this chapter I pay attention to spatio-temporality in the urban landscape. I consider rhythms and seasonality in the urban landscape based on my recent experiences in everyday university life. The spatio-temporal relations of bodies and conducting research in practice through performance has been a topic discussed broadly in geographical studies from the 1990s onwards (Thrift 2000; Latham 2003; Simonsen 2005). I use observant participation leaning on non-representational theory (see Thrift 2000; Lorimer 2005). I adapt reflective rhythm analysis to analyse the spatio-temporal practices in my surroundings (see Hägerstrand 1976; de Certeau 1984; Lefebvre 2004). Simonsen (2005) defines rhythm analysis as a kind of phenomenological-hermeneutic description of the relationship among the body, its rhythms and its surrounding space. There is no separation between time and space and the body is central to social understanding. Rhythm analysis is about the bodily presence. Each living body both is space, and has its space – the body produces itself in space at the same time as it produces that space. A rhythm analyst must listen to his/her body and learn rhythm from it to appreciate external rhythms (Lefebvre 2004). "And yet in order to grasp a rhythm one must have been grasped by it, have given or abandoned oneself "inwardly" to the time that it rhythmed" (Lefebvre 2004: 88).

The notions of materiality and immateriality are a challenge in considering places and landscapes. According to Cresswell (1996: 13) "Places are neither totally material nor completely mental; they are combinations of the material and the mental and cannot be reduced to either… [P]laces are duplicitous in that they cannot be reduced to the concrete or the "merely ideological"; rather they display an uneasy and fluid tension between them". One possibility is to consider place or landscape (see also Cosgrove 1985; Entrikin 1991) as a way of performing and of performance. I do not mean here the well-elaborated notions of "performance" in the long tradition of drama or theatre studies. These notions and the theatre itself have significantly influenced the concept and

word "landscape" and its representational dimension (Olwig 2002). I deliberately use here the notion of performance to signify any action, including the non-linguistic ones, in the urban environment as well as any intuitive everyday practices – or tactics in the sense of de Certeau (1984) (see also *derivé* by Benjamin 1969). Bodily presence and absence as action are important. Personally, being part of human-non-human networks I consider post-postmodern methodology in which language and linguistic expressions are not central communication modes, exemplified with my everyday at the university.

2. CHALLENGES OF SPACE-TIME

Geographers have always been keen on studying places. Places have been traditionally depicted as locations of fixed coordinates, as locales of material setting for social relations and as a sense of place in which the people have emotional attachment to particular geographical surrounding (Agnew 1987). Depending on the epistemological approach of geographers, places have been unique facts on the geographically varying Earth's surface, unselfconsciously intentional centres of human existence, social constructions under unevenly mediated relations of power or particular open configurations in connective material, social and imagined processes (Cresswell 2004).

Time has always been in the study of places but geographers have often neglected its profound conceptualisation. May & Thrift (2001) have paid attention to various aspects in a sense of time. A sense of time varies across space and over time, but it can be treated rather universally in their measurable dimension. A variety of instruments and devices mark the passage and duration of time. Texts set out particular understandings of time. All societies are bound up by series of timetables and rhythms. In addition, various religious and secular systems of social discipline in particular settings shape the sense of time. Examples range from the diurnal cycle to the rhythms of the seasons, from the rhythms of the body to the turning of the tides (Carlstein 1980; Parkes & Thrift 1980; Crang 2005).

Time and space have been approached in geographical studies of places, however, often separately from each other. Most regional geography from the 19th to the mid-20th century studied the uniqueness of places developed over time. An urban landscape meant the accumulation of human-related facts over a bounded territory and temporal development of it was often associated with progress – at least in the Western context. In the latter half of the 20th century geography as a science studied spatio-temporal regularities and patterns in society facilitating the creation of a spatio-temporal order.

Time was universal measured as seconds, minutes, hours, months and years. The urban landscape was abstracted.

Towards the end of the 20th century a more profound interest in time and space emerged, contributed to by humanist and structural tones in geography. New conceptualisation of time recognised it as a life-time biorhythm, a life span, psychological time and a social time governed through systems of time measurement integrating individuals, groups and society (Parkes & Thrift 1980). The development of specific time-geography as an approach, description and model was influenced significantly by the schemes and concepts by Torsten Hägerstrand (see Carlstein 1980; Parkes & Thrift 1980; Hägerstrand 1982; Pred 1984). Each individual travelled through the life-span from one to another station facilitated and constrained by time and space. A city was an urban landscape consisting of different spatio-temporal layers in, and through, which people moved. Later this time-geography approach was criticised as being too structural, universal, physical, and visual and even bearing masculine and patriarchal notions of time and space (Rose 1977; Rose 1993; Davies 2001; Crang 2005). However, partly this criticism towards time-geography, especially towards the ideas of Hägerstrand, was misplaced due to the criticisers' too narrow consideration of the early time-geography (see Parkes & Thrift 1980; Hägerstrand 1993; Gren 2001; Simonsen 2003; Thrift 2005).

New geographies of temporality became an agenda from the late 1980s onwards. The first major debate dealt with the notion of "time-space compression". There it was considered how similar the urban environment was becoming everywhere under global capitalism. Relph (1976) and Augé (1992/1995) observed "placelessness" and "non-places" related to the similarities produced by the modern(ist) urban development. For many everyday observers, motorways, airports, hotel and restaurant chains, residential areas consisted of an endless block-of-flats and supermarkets in different locations looked similar to each other. The physical appearance of such objects did not relate to the history of the places they were located in. Harvey (1989) and Jameson (1991) connected globalisation into a broader sea-change in capitalism. The significance of cities increases as space of flow mediated through ICT (Castells 1996). In the new economic "landscape" time and space come together in a particular mode. It produced a hyperspace in which logic and visual appearance became simultaneously similar in many places around the world, blurring the time-space coordinates of the built environment. The critical voices claimed that such neoliberal economic globalisation was destroying the geodiversity. However, despite globalisation Massey (1991) sought a less bounded and more "progressive" understanding of place by pointing out the continuous interactions and processes opening up the multiple identities and histories in any place (see

Lynch 1972 for earlier viewpoints; see Gibson-Graham 1997 for a critique on totalising capitalism).

The second major aspect contributing to the rise of new geographies of temporality was the role of new ICT, first in the Western societies and nowadays increasingly also elsewhere. The rapid expansion of ICT, including the virtual worlds of the Internet and the mobile phone signified that the study of spatio-temporality in places continues to be a fascinating agenda (see for example Crang 1999; 2001; 2005). Some researchers observed a rising new global urban hierarchy in which the leading cities were becoming the politico-economic command-and-control centres (Sassen 2001). The agglomeration of the advanced ICT concentrated in metropolitan areas (Gorman & McIntee 2003). The advanced ICT infrastructure contributed to economic growth and the emergence of new enterprises positively. Some observers claimed that ICT would free people from "the tyranny of geography" by providing more spatial and temporal flexibility. Globalisation brought the entire world nearer to many more people than ever before in history. The accessibility provided by modern ICT means that we can be present in many places simultaneously, but that we also have to be present everywhere more instantly. Already by now particular communication modes have emerged such as mobile phone text messages, virtual chat, and reliance on the Internet as the information source about places and people. The connections in such technology-mediated virtual global village are instant. An increasing number of people are accessible 24 hours per day via ICT creating a situation in which they are all the time here and there (see Urry 2004). Particular rhythms emerge in our life and mix with the earlier particular place- and time-bounded practices. Nevertheless, Thrift (1997) argued, based on the long-term analysis of the history of technology, that such global forces and innovations do not destroy local places and a perceived homogeneity in the urban landscape is an overestimation.

The interest to deeply integrate time and space in the study of the urban landscape developed further in the 1990s. For example, then emerged the notion of geohistory as an unprioritised inseparability of space and time in the critical study of cities. The temporal span reached from the early urban landscapes of Sumeria to the contemporary Los Angeles (Soja 2000). Despite significant progress in the study of time and space regarding places, it was only in the early 2000s when more sophisticated approaches emerged (see Crang 2005 for geography). Most common references in the contemporary time-space studies are post-structural philosophers and scholars such as Gilles Deleuze (1989) and Félix Guattari (1992) and earlier Gaston Bachelard (1950/2000) and Maurice Merleau-Ponty (1962). Even feminist philosophers such as Julia Kristeva (1984) and geographers such as

Julie-Kathy Gibson-Graham (1997) and science and technology scholars such as Bruno Latour (1999) influenced the recent conceiving of spatio-temporality. Spatio-temporality as rhythms in particular places and seasonality in landscapes opened up various exciting research agendas for geographers (May & Thrift 2001; Crang 2005; Palang et al. 2005). In fact, the cultural turn in spatial studies has become as much evident as the spatial turn in cultural and social studies.

Among the most cited scholars in time-space studies is Henri Lefebvre, whose contribution on how space and spatiality are understood is very significant. Now, besides his approach on social space there is interest in how Lefebvre understood and treats time – or rhythms (Kofman & Lebas 1996; Elden 2004; Lefebvre 2004). Lefebvre became more specifically interested in space-time by observing the changes in French society and its everyday life during the 20th century. To understand time he leaned on the conceptual works of French social scientists, namely the earlier mentioned Gaston Bachelard (1950/2000) and also George Gurvitch (1964) (Kofman & Lebas 1996). According to Simonsen (2005), for Lefebvre, time was closely connected with space and apprehended in space. Both space and time had the same ontological status.

There are diverse and multiple rhythms in everyday life. Lefebvre (2004: 89) argued that "all rhythms imply the relation of a time to a space, a localised time or, if one prefers, a temporalised space. Rhythm is always linked to such and such a place, to its place, be that the heart, the fluttering of the eyelids, the movement of a street or the tempo of a waltz". Everything is rhythms – slower or faster, easier or more difficult to grasp through our senses and during our life-time. The everyday is "simultaneously the site of, the theatre for, and what is at stake in a conflict between great indestructible rhythms and the processes imposed by the socio-economic organisation of production, consumption, circulation and habitat" (Lefebvre 2004: 73). Life consists of continuously changing unforeseen instants and irregularities despite the structural presence of various laws, rules and rites that divide our life. In Foucault's (1982) terms life is in-between technologies of domination and of the self. The former indicates the ways in which individuals are transformed by others and the latter the ways how individuals transform and reconstruct themselves.

In modern society we are surrounded by various activities that still follow the rhythms of nature. So far technological development has not been able to disconnect us from the rather universal cyclical rhythms with periodical interruptions in the daily life of the people. For example, most shops close at night and the majority of people work during the daytime. Many societal routines and practices follow such seasonality. People enjoy their holidays following the natural seasons, which vary regularly. Humans are intertwined

by both by natural rhythms of respiration and the heart and the social rhythms of contemporary cultural processes. Time, space and energy coincide everywhere always creating a relative rhythm: faster rhythms imply slower rhythms and vice versa. Rhythms are about repetition, which produces the differences and rhythms become clearer with their breakdown. However, the repetitions are never absolute, as Lefebvre (2004) points out. Linear time has encroached the cyclical but cyclical time has never disappeared (Simonsen 2005).

3. FROM MODERN TO POST-POSTMODERN APPROACHES

The complexity of spatio-temporality is addressed in recent studies of landscapes. The first studies attacked modernism and leaned on critical postmodernism, postcolonialism and poststructuralism. The problem of representation regarding places and landscapes was opened and it became manifold (see Cosgrove 1985; Thrift 2003; Castree & Macmillan 2004). After this methodological opening emerged post-postmodernist approaches that address the challenge of representation, language and body more profoundly.

3.1 Postmodernism and the study of landscapes

The critical postmodern approach attacked the "god-trick" of modernism, in which there was claimed that the subject separated from the object saw everything from nowhere (Haraway 1991). The parody of representative interpretation was substituted with a straight interpretation. The arbitrariness of grand claims was playfully showed. This demonstrated the confusing multiplicity of reality and the naïveté involved in the earlier total synthesis in which life was compressed into one significant whole within one narrative (Ellin 1999). The earlier definitions of place, landscape and seasonality became questioned. The scholars inspired by postmodernism proposed indeterminacy rather than determinism, diversity rather than simplification, unique rather than general, intertextual relations rather than causality, unrepeatable rather than re-occurring, and particularity rather than the habitual or the routine (Rosenau 1992). It was significant to stress personal perspective(s) of everyday life (see Massey 1991).

Deconstruction, a postmodernist approach with a flavour of poststructuralism, was used to break the binary conceptual monsters of modernism. The aim was not to create a general theory with final truths but

the texts were treated as unique elements without a (totalising) method (Derrida 1995, in Kymäläinen 2005). According to Ellin (1999), there is an obsession with the text metaphor for the material environment. This is revealed in the extensive use of terms such as discourse, legibility, narrative, the vernacular, and interpretive communities, as well as in the growing interest in "reading and writing" architecture, the city, and culture – and urban landscape. However, deconstruction as a method often led into universal, though academically and politically "more correct" approaches valorising the globalisation from below, the position of marginalised, and the place-based politics.

Another related approach was postcolonialism. It criticised how knowledge and the past were constructed in colonial and postcolonial periods and what role architecture, urbanism, space and the urban landscape played in it (Lees 2002). Nevertheless, often postcolonialism did not offer much in the methodological sense. In fact, too often the authors, especially those inclined to the Anglo-American academic realm, re-colonised spatio-temporality of places and landscapes. The distant and exotic places were described with snapshots about the exotic particularities of "the far-away". Photos, paintings, videos, and souvenirs were taken of the physical and symbolic urban landscapes. This material was then digitalised and presented between scholars at international conferences (Lees 2002).

The methods associated with postmodernism have been also criticised. According to Clifford (1987), postmodernism risks framing the world in ironic, elitist and solipsist quotation marks. Therefore, the answer for landscape studies is not an extreme relativist "anything goes in the landscape" or solipsist "this landscape is true for me" based on randomness, eclecticism and pastiche (see Ellin 1999). Smith (2001), leaning on Clifford (1987) and Mouffe (1988), has indicated the challenges of two major methods of postmodernism in social sciences, namely postmodern ethnography and deconstruction. Ethnography as a method studies how people build up mutually agreed accounts of what really happened (Laurier 2003). Postmodern ethnography focusing on particularities criticised universal approaches, for example, in the study of urban, urbanisation, urbanism and urban landscapes. However, postmodern ethnography as a cultural critique tended to romanticise the position of "local" and to create a cooperative story of the "marginalised postcolonial subject" when defining or interpreting spatio-temporality. Deconstruction, as indicated above, ignored the myriad ways in the everyday practices of ordinary people, their feelings and understandings of their conditions of existence, how such practices mediated the impact of global capitalism on urban culture, and often modified the everyday urban life. Furthermore, concepts such as home,

abroad, event or place were often taken for granted in studies about places and (urban) landscapes (Smith 2001; Kymäläinen 2005).

3.2 Post-postmodernism and the study of landscapes

Recently post-postmodernism has been proposed as a more appropriate methodology. An enriched sensitive contextualism is needed in the conceptualisation, analysis and interpretation of landscapes. From a conventional perspective, post-postmodernism is based on theories of context concerning the time-space variety in places. After the messiness of relativistic and de(con)structive "anything goes" statements associated with postmodernism a new clarity is sought (see Ellin 1999). Some notions of post-postmodernism connect to the recent openly religious tones in politics and academia, for example, behind some influential persons in the George Bush administration or in certain academic circles in which an intuitive comprehension about the world order is based on faith. Such is evident in several theological writings and political messages in the United States after 9/11, 2001. Sometimes post-postmodernism refers controversially to the period before postmodernism. For example, Morrish (1990) defines with post-postmodernism a particular "seasonal urban design" in architecture and planning, which takes into account the *genius loci* of places and adapts this into natural seasons and rhythms.

However, the core in post-postmodernism is the challenge of representation illustrated here with language, body and communication (translation). Translation is taken seriously in its technical (paraphrasing concepts from one written language to another) and ontological dimensions (whether and how much it is possible to translate and communicate experiences into and through written language). Such broader ontological emphasising is not new in geography. For example, Olsson (1991) reflected on human beings as semiotic animals and on the earlier Wittgenstein's (1922) thoughts about the limits of language limiting the world. Words and language themselves might be the treasures rather what is done with them (Ellin 1999).

According to Simonsen (2003), the constitution of meaning refers to networks of social practice and the capability of acting within social, temporal and spatial contexts. The language user is always connected to a practice and specific situation. Following the latter Wittgenstein (1953) and Merleau-Ponty (1962; 1968), Simonsen (2003: 162) argues that language can only exist intersubjectively through practical experience and learning and that "self-consciousness has no primacy in relation to consciousness of the existence of the "other" people, since language – which is collective in character – serves as access to both". Language contributes to the building

blocks of ontology – it constructs and limits our vision as well as reflects and constructs power (Howitt & Suchet-Pearson 2003). Also Zierhofer (2002) indicates the vital importance of language. He claims that outside of language there is no possibility for clear thought. Only spoken or written language statements are a useful form of language so language replaces thought as the primary and dominating medium of meaning. He admits that mental and corporeal processes are necessary preconditions for communication, but they cannot determine the structuration of meaning in communication. Communication is crucial, i.e. how to conceive of experience, knowledge, truth, and norms. Nevertheless, according to Zierhofer (2002), language does not represent the one and only reality – to represent means to constitute discursively one of many possible realities.

There is a uniqueness of each individual's body, which makes a perfect communication and translation impossible and thus highlights the need to problematise language further. The universality of theories is challenged as well as the translation of concepts, meanings and experiences in a language-centred written form. Post-postmodernism proposes a multiple methodology and anti-universal methods that are not only deconstructing (see Derrida 1988; 1995) as in the earlier approaches. This is related to the broader reflection about ourselves (also) as non-representational inhabitors despite "many actors and institutions still act as though their oral, written, and visual productions are representational ones" (Castree & Macmillan 2004: 475).

In another article Simonsen (2005) points out the importance of the body as our mode to achieve social understanding – a body in history alienated in a decorporealised space and time leading into homogenisation, fragmentation and hierarchisation of the body. Feminist Braidotti (2005) links post-postmodernism to the critical signifying of situated and politicised body. The new notion of the body is crucial in the era of increasing fusion between human beings and technology and disposal of bodies to the global economy. The contemporary global neoliberal capitalism is bio-political controlling all that lives. Such development is turning into "bio-piracy" with the technologisation of human bodies aiming at exploiting the generative powers of women, men, animals, plants, genes and cells. The notion of cyborg is also important – a fusion between human beings and machines. "Late twentieth-century machines have made the difference between natural and artificial, mind and body, self-developing and externally designed, and many other distinctions that used to apply to organisms and machines thoroughly ambiguous. Our machines are disturbingly lively, and we ourselves are frighteningly inert" (Haraway 1991: 151-152). The sci-fi cyborg featured in the 1960s is becoming now an embodied human-technological reality. Also Zierhofer (2002) stresses the importance of non-human entities. He claims that "interobjectivity" does not separate human

interactions *a priori* from those nonhuman entities that are constitutive for geography, such as landscapes, resources, material infrastructure, settlements, means of transport, etc.

4. EVERYDAY AT THE UNIVERSITY

Everyday is the core of our life. Knowing about oneself and the world is achieved in the everyday. Meaningful relations determine who we are and how we come up with new interpretations, change or reproduce meanings (Ernste 2004). "I am not in space and time, nor do I conceive space and time; I belong to them, my body combines with them and includes them. The scope of this inclusion is the measure of that of my existence" (Merleau-Ponty 1962: 140; in Simonsen 2003: 165). Every human being experiences his or her "constitutive rootlessness" that makes him or her transcending the achieved and searching for the unreachable "home", a position of unambiguous fixation, a place in this world, and a clear identity for the self and the world around. This leads to a positioning in a counterfactual utopian home, a kind of "smooth place" (Deleuze & Guattari 1987) or "non-place" (Augé 1995).

I as a human being am used that my presence is constrained by time-space. I have to adapt to natural and social rhythms. The use of time-space is significant as related to my intentions and performance in particular contexts. The material spatial infrastructure and technology play a significant role in any action and action plan. Leaning on the action-theoretical approach, Ernste (2004) states that every action must be interpreted in the context of the social circumstances in which it occurs. Obviously, not every goal is admissible or feasible in a specific context. It depends upon power relations and the potential for changing them. The subjective perception of sanction or incentive related to intended and unintended consequences of the action make the actor learn about the scope and possibility of actions. Social practices are important in the constitution of meanings (Laclau & Mouffe 1987). Words are important but also other senses and feelings. Instead of language one should pay more attention to non-verbal performance.

I am in the conjunction of bodily simultaneous *somewhere* and *sometime*. Obviously, *somewhere* changes because I move a lot and often to locations distant between each other. More than locations these are places for me – meaningful locations within a locale with a sense of place (see Agnew 1987, see also Callon & Law 2004). Spaces and places are constituted and applied by agents pursuing particular projects by using their specific (semantic) competences (Zierhofer 2002). The passing of time means that I cannot go

twice to the same place – both I and the socio-material place change. However, the recent development of work-related ICT means that a person shares simultaneously and continuously the same "creative" space with others. The idea is to loosen the time- and space-bounded realms of the working environment. The modern division of time (24 hours) and space (location) into temporally and spatially distanced work, home and leisure is melting into an undividable continuum. The bodily experiences of natural and social rhythms change (see Davies 2001; Brown & O'Hara 2003). Such time-space integration is evident, for example, in the design of the everyday university environment inviting and forcing people to meet, interact and develop innovations from these encounters. In addition, the mobile and wireless ICT means that the employed should be flexibly reachable all the time and everywhere, enhancing the continuity of these encounters.

I generally agree on Simonsen's (2003) earlier observation about intersubjectivity in practice and the significance of the body (Simonsen 2005) – again in relation to other bodies and social practices (see also Butler 1991; Grosz 1995; Braidotti 2005). We do not live alone as solipsists but in relation to other persons – therefore the importance of language. Every speech act offers a possibility for argumentation and every action can be seen as intentional (see Zierhofer 2002; see Ernste 2004 for the analysis of action between voluntarism and determinism). However, I see a problem to limit the action mostly to the language-based and linguistically expressed modes. A meaningful everyday social action is also possible outside the language-centred meaningfulness. I find too simple the claim for collectively understood concepts, which can be translated from experience to language and from one language to another. In fact, the theorists of actor-networks claim that language is just one of the several sensible means for humans to express themselves (Latour 1999).

Post-postmodernism is sceptical towards the possibilities of translation and representation by linguistic expressions. Translation of feelings and experiences into a collectively understood and conceptually clarified language is not possible. In fact, "we do not translate, we do not represent, and we do not bind. Instead of that we listen, we feel, and we open landscapes in multiple ways" (Jauhiainen 2003: 405). The story does not end up with a closing synthesis of general commonalities despite this has often been seen as the strength of geographical analysis of places. Nevertheless, many geographers still possess an unquestioned faith in science in describing time-space contexts with a language-centred written form. This written text should be universally understandable regardless of the time-space contexts of writing and reading (see also Derrida's 1988 notion about nothing outside the context). However, a "body-language" is another possibility. Experiences and feelings are important in the "diagnosis" of the passing moments

(loosely connected to the German Social Science tradition of *Zeitdiagnose* – see Noro 2000) in one's life. In research this means to integrate the moment, the observations and the empirical context. Grasping, understanding and uncertainty through the body are significant. The emphasis against the theoretical purification of practice (Thrift 1996: 9) permits one to "see" how spatio-temporal practices (of urban landscapes, for example) become contextualised in local micro-settings. As a practical action the researcher has openly committed viewpoints on which s/he grasps on, in and under the skin (Jauhiainen 2005).

The connection and participation support the relational notion of urban landscape. Every landscape is a product of practices, trajectories and interrelations. Like space, the landscape is also relational, internally complex, essentially unbounded in any absolute sense and inevitably historically changing (see Massey 2004). Always when we think, talk or write about something we make space – and we do it bodily in practice, somewhere. This is the methodology of landscape as a way of performing: the necessity of "sometimewhereness". Landscape is created through interactions, connections and embodiments. The performing approach, used in its colloquial sense, on landscape regards practices with the non-representational aspects of human life and the embodied non-cognitive activity. The interest is caught up with the world of emotions, desires and imagination, with embodied practical knowledge and with the infinitude of sensuous real-time encounters through which we make the world and are made in turn. However, in the embodiment of the urban landscape the body has been too often thought of as the individual body, rather than an intersubjective body occupying a space with other bodies (Thrift 2000). Each identity and every discursive object are constituted in the context of an action.

In applying a post-postmodern approach to study the spatio-temporality in urban landscapes I rely on practices as expressed in the non-representational theory (see Thrift 1996; 2000; Gren 2001). This theory is concerned with the performative presentations, showings and manifestations of everyday life in a relationally embodied world continuously in process (Thrift 1996). It multiplies questions and finds new relationships between thought and life in a world of an endless set of contingent, practical and incomplete encounters between multiple corporeal and inorganic entities (Thrift 2003; Castree & Macmillan 2004). Thrift & Dewsbury (2000) argue that the non-representational theory emphasises the flow of practice in everyday life as embodied, as caught up with and committed to the creations of affect. It is contextual and in the contemporary world inevitably technologised. The individual subjects do not have an *a priori* belief system in their mind, but understanding is social, embodied, expressed and

relational through the contacts between the subjects – the bodies. The knowing about oneself and the world is achieved through connection and participation. We are always situated in continuously processual practice. In an increasingly and fundamentally technologised world each of us individually and collectively become cyborgs (see Haraway 1991; Braidotti 2005; Jauhiainen 2005), so intersubjectivity means to be in human-non-human networks.

Such landscapes of performance, the bodily presence and absence, lean on the non-representational theory in a flexible way. Following the ideas of Thrift, Smith (2003) claims the emphasis of human geography on practices, on their reproduction and the production of new practices. The practices rather than (only) representations are at the root of the geographies humans make everyday. One has to be aware of practical intelligibility and inarticulate understanding because these form the background through which we make the representations comprehensible. Also Cresswell (2003: 280) states the importance of lived and directly embodied landscapes: "The challenge for cultural geographers of landscape is to produce geographies that are lived, embodied and practiced; landscapes which are never finished or complete, not easily framed or read. These geographies should be as much about the everyday and unexceptional as they are about the grand and distinguished".

As an academic worker the most immediate material environment for me is the room, the building and the campus of the university in and around which I contact other people besides the virtual connections around the world. However, also broader connection, disconnection, participation, non-participation, emotions, desires and imagination are important in the everyday work environment besides the more functionally designed material and social environment with immediate job-related activities (see Lorimer 2005 for discussion about work, home and mobility from the perspective of the non-representational theory). Increasingly, academic workers move and change their location, which leads into a particular reciprocal relationship between practice, place and time. For such mobile workers ICT helps to organise, manage and manipulate spaces through technology. However, in many ways the (academic) work is still corporeal as ever (Brown & O'Hara 2003).

The three examples discussed here are from my everyday at the universities of Oulu ("case campus"), Helsinki ("case department") and Tartu ("case room") in 2000-2005. I share this environment with other bodies and networks. I constitute spatio-temporally meanings and identities with my colleagues, students, administrative-political organisations, machines, technologies, virtual realms, etc. (see Callon & Law 2004). The integration of ICT into my surroundings means that I am simultaneously co-

present in the human-non-human networks (see Urry 2004). As expressed by Castree & Macmillan (2004), inhabitation is a quotidian, dialogical process in which multiple actors and actants encounter one another. Today this intercorporeal situating takes into account not only human bodies and social structures but also machines and technology-mediated networks. The cybernetic organisms are naturalised as hybrids, which blur the division between machines and organisms. Intersubjectivity means the relations between human beings and also between human and non-human actants in the everyday practices.

The following cases illustrate briefly the time-space intertwining, rhythms and seasonality in the everyday environment reflected bodily. At the university I am all the time somehow involved in my surroundings and reflecting about space-time. My method is "reflective living" (see de Certeau 1984 and walking as a critique and resistance and Lefebvre 2004 as "seeing from my window") or observant participation (see Thrift 2000), listening and learning rhythms and seasonality in-between my body and the external rhythms and seasonality in the urban landscape as expressed in my working environment. Simonsen (2005) illustrates that the body as a producer of difference through rhythms, gestures and imagination has an inherent right to difference formulated against forces of homogenisation, fragmentation and the hierarchical organised power (see also Grosz 1995). A linguistic translation of my life and environment is never fully possible. However, I highlight some aspects of the rhythms, seasonality, immediate environment and human-non-human networks of my everyday urban landscapes in a written form.

4.1 Case campus: the University of Oulu

The first case regards the University of Oulu, established in 1958, with today about 16,000 students and 3,100 employed. The case is about the academic everyday environment in which the university is considered to be an organism, a body, a tree with trunks and leaves. The idea for an expandable university campus originated from the 1960s' practices in Northern America, the United Kingdom, West Germany, Sweden and Denmark. Following the structuralist ideas of town planning the result was an anthropomorphic entity, continuously changing megastructure and total institution. The main building and the campus were built in the early 1970s in a swampy forest six kilometres from the central square of Oulu in northern Finland. The young Finnish architect Kari Virta won the international competition for which the state was mostly responsible as the site constructor. The campus became famous in Finland and also attracted attention abroad due to its overlapping chiasmatic structure between

architecture, zoning and planning of the material and social space (Kivi 1969/2005; Raudaskoski 2001; Vuorinen 2005). Since then the university has expanded seven times and new buildings have been added around the main structure in accordance with the societal changes (Fig. 10-1). Today Oulu is among the most important towns to develop ICT in Finland. The largest technology park in Finland and a large state technological research centre are attached to the campus.

Socio-physical engineering is used to organise and socialise the spatio-temporality of the academic life in the campus. The university is mostly under one roof creating one body, a large covered space on three floors. Such an academic tree lives like a human body with its diurnal rhythms and societal seasons. Along the main corridor, or the "artery" of over one kilometre long, circulate daily the "academic blood cells", i.e. over 10,000 students and staff. Various corridors leading into hundreds of class-rooms are the "blood vessels" of the academic body. The flows of the staff and students pass daily the main square and this "heart" is meant to pump the interactive social capital further in every part of the academic body. The functionality is guaranteed by a short spatio-temporal distance between all parts. The students and teachers reach any lecture hall within the 15-30 minutes break between the lectures. In the body/building several restaurants and cafeterias are inside to allow the diurnal physical and mental nutrition, including a wireless access to the internet. The brick walls of the corridors, or the artery and the blood vessels around the skeleton, are painted. The different colours indicate the scientific belonging of the departments to faculties and also make it easier to orientate in this complex network (Fig. 10-2). The "lungs" of the university are the buildings next to the main building providing the accommodation for students and the staff.

Natural seasons are barely noticed inside. In fact, the building purposefully erases the natural and emphasises the social seasonality. Every early autumn a new portion of students is swallowed by this anthropomorphic giant and after every spring others released. The autumn semester starts around the second week of September and lasts until the end of December. The spring semester starts in the second week of January and lasts to early June. The daily rhythms follow the pattern of lectures from Monday till Friday between 08:15 and 15:45. Almost all the staff and students stay every weekday inside the same building. In the evenings they go out and return every morning. Regular social rhythms and cyclical time exist.

At the University of Oulu one finds three hierarchic socio-spatial realms of activities. The first one is private in the office since most staff have their own office for work, and most professors even a second room for small meetings and the student tuition, for example, at the Department of

Geography. The second realm is departmental because there are staff meeting rooms and coffee rooms inside the department, which are regularly used. In addition, the students have various meeting places in the restaurants, cafeterias and student union premises. The third realm is collective through the movement in the university as explained above. In the endless corridors I among others, almost lost, make the academic body (for contemporary possibilities to get lost, see Thrift 2004). The same personal body produces and receives different meanings when moving along the physical infrastructure, even without saying a word.

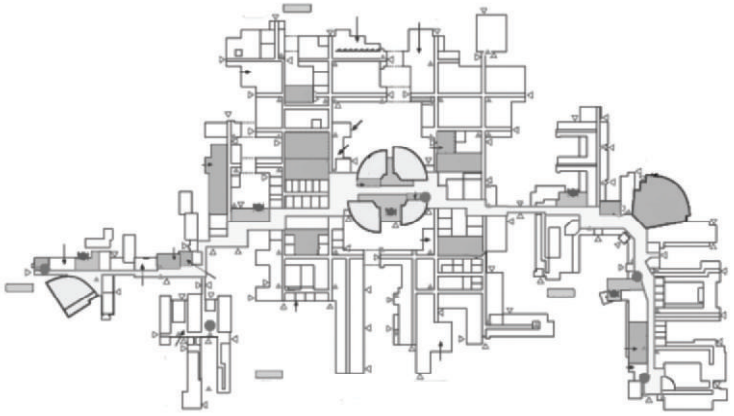

Figure 10-2. Campus of the University of Oulu: the main building, corridors, lecture halls, and entrances in the ground floor. The distance from left to right is 800 m, but the meandering corridors make the walk from one end of the building to the other 1.5 km long. Source: University of Oulu (2005).

4.2 Case department: University of Helsinki

The second case is about the University of Helsinki in southern Finland and the exposure of the bodies (see Jauhiainen & Niemenmaa 2002). In the early 2000s the University of Helsinki was reorganised into various campuses clustering the scientific fields. In 2001, the Department of Geography with about 50 staff members moved to the campus of Kumpula and to the new Physicum building 4 km from the central square of Helsinki. The three-storey metal, glass and steel building represents contemporary technological and scientific progress. The Senate Properties, a government-owned enterprise for managing, developing and letting the property assets of the state, organised the architectural competition for the building. On the selection committee there were also representatives of the university as the

building's end user. The committee selected *The Architects Lahdelma & Mahlamäki*, a famous Finnish architect bureau, whose leader is also professor of architecture in Oulu.

Physicum has four departments, one large laboratory, a small canteen and a library. The building should encourage open, multidisciplinary and technology-intensive interaction with the staff, students and the society. The entrance to Physicum leads to a large open semi-public space, which extends across the whole building. The openness should invite people from departments to interactively share the same space. Around this "agora" the departments are by the external walls along long narrow corridors on three floors. The Department of Geography is on the ground floor on the left from the main entrance. By the external wall there are the rooms of the staff and on the internal side the mainly small seminar and lab rooms (Fig. 10-3).

Efficiency is underlined in the visual, physical and social organisation of the academic spatio-temporal rhythms. The internal design is influenced by the contemporary private sector, which emphasises continuous interaction, mobility and immediate responses to on-going issues. The emphasis is on open working space, transparent physical presence and flexible physical structures. There are barely seats for every person employed because all the time someone should be "on move", i.e. lecturing, conducting research in a laboratory, exercising a field work or interacting with the society. The assistants and lecturers share the rooms between two to four people. Their rooms were designed fully open and without a wall to the corridor to increase the communication and open interaction. For the researchers of all departments, a common open space was designed. It accommodates over 40 people each having a desk, small shelf and Internet access. In the departments the individual rooms, mostly for professors, are 10 or 15 square metre "boxes" with transparent glass doors and easily movable walls. The bookshelves are small because of continuous access to virtual libraries and e-journals.

The move to Physicum demanded from the staff new bodily practices of presence, openness and visibility. As response some members of the staff started to work more at home. However, soon many demanded privacy and some walls were erected. In addition, social spaces were constructed inside the departments converting some staff rooms into a meeting places for the "own people". Nevertheless, I among several others, were not able to accommodate to the continuous physical, social and visual exposure of our bodies, new rhythms and the surrounding space of presentations, showings and manifestations. We left the department for other working environments, everyday rhythms and bodily performances (Niemenmaa & Jauhiainen 2001; see also Butler 1991; Thrift 2004). Curiously, in the early 1970s at the new University of Oulu, a German professor demanded a quite similar open office space for the chemistry and the biophysics departments (Vuorinen 2005).

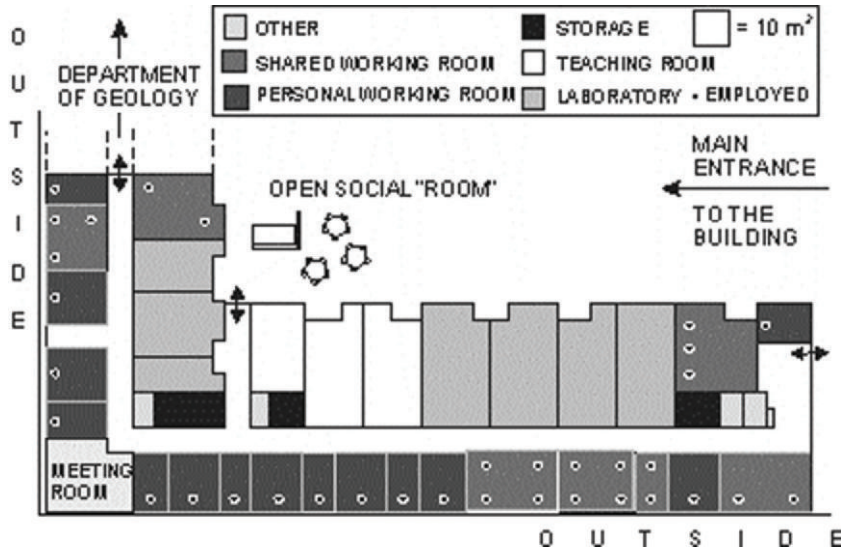

Figure 10-3. Department of Geography, University of Helsinki. Modified from Jauhiainen & Niemenmaa (2002).

4.3 Case room: the University of Tartu

The third case is about the bodily presence, absence and human-non-human networks in the Institute of Geography at the University of Tartu in south-eastern Estonia. The Faculty of Biology and Geography uses a 19th century building, renovated in 2004 and used by the university for about 80 years. Outside there are two parks and various buildings for administration, business and housing but no university campus. The building is about one kilometre from the central square of Tartu, a town of 100,000 inhabitants.

The building has two main and a cellar floor hosting various departments and lecture halls. The Institute of Geography is located in various parts of the building due to particularities over the pre-Soviet, Soviet and post-Soviet decades. Of the staff, only very few have their own office and most share them with three or four people. It is a result of rigid physical structures and a shortage of rooms – no rhetoric of social capital, innovations or openness has been used. The rooms are extensively high, for example, the head of the institute has built a second floor in his office. Most departments are without own social space and there is only one canteen in the building. However, the

staff birthdays are held regularly in different rooms or some members of the staff occasionally walk to the town centre to have a meal together.

Every day a continuous flow of people goes up and down the corridors – only selected people because the building is inaccessible to the physically challenged. Furthermore, very seldom any other language than Estonian is heard. Some bodies are and others are not able to produce themselves in space and space producing them (see Simonsen 2003). The students make an irregular crowd along the corridors since all lecture halls are closed between the lectures. A few students sit quietly in the small department library, which is also used sometimes for the staff birthday celebrations.

Figure 10-4. Working room at the Institute of Geography, University of Tartu. Photo: Jussi S. Jauhiainen.

I share the working room with three other people, who all work part-time. According to the University of Tartu regulations a part-time worker does not necessarily have to be in the office but accessible somewhere 20 hours per week – in my case often through the ICT. Within shared rooms there is no

privacy when discussing with the students or over the phone. Therefore the student guidance and staff discussions take increasingly place in virtual space, which thus becomes a particular spatially embedded human-non-human network (see also Brown & O'Hara 2003; Urry 2004).

In the room we each occupy one corner (Fig. 10-4). In fact, there is normally one person – sometimes nobody and seldom more than two. The door is closed all the day and from the outside nobody notices whether or not there is someone in the room. The rhythms and space-time practices are irregular. The central electronic surveillance means that the first person entering to the room has to sign the arrival at the building entrance desk as well as the last leaving the room. Many rooms are signed between 07:30 AM and 08:00AM in the mornings and often the last person leaves after 07.00 PM or even later in the evening. Curiously, in the deep Soviet period a plan emerged to reorganise the university into a new campus with a reference to the new University of Oulu (Kivi 1969/2005). In 2005, an idea of a new campus has emerged again but now with a reference to flexible physical structures and open spaces fostering the continuous multidisciplinary co-operation.

5. CONCLUSIONS

I have three conclusions from this article about seasonality, rhythms and post-postmodern everyday urban landscapes. They start from the empirical observations of the everyday at the university, go through the political positions of my body and reach the ontological standpoints about language. Each living affected body is space and has its space. A rhythm analyst listens to one's body and learns rhythm from it to appreciate external rhythms (Lefebvre 2004). The everyday is the site of suffering and joy showing the limits of personal resisting and resistance through the body, even physiologically. My body is the reference according to which I am and perform – no more, no less.

The everyday at the university is a mixture of rhythms in-between natural changes of seasons, soci(et)ally imposed spatio-temporal practices and technologies of domination, unexpected instant disruptions and the small bodily tactics of presence and absence making a difference. The silent dissonances in the practice of everyday rhythms are roots of my everyday geographies. The work takes place in a relationally embodied world continuously in process and becoming. The three cases emphasise how the body is central to social understanding. Each living body produces itself in space and produces that space. My body is always somewhere (as location) and sometime (as chronological point) in a time-space, in specific contextual

lived moments. But the mind, in its expressive silence, is less constrained. I perform in the everyday activities in various ways – words are not the main and only sensible means to get along in the affected everyday.

The first conclusion is the empirical-contextual. By working in three universities I have experienced many similarities in academic life. The universities of Oulu, Helsinki and Tartu illustrate how, despite the different location and history, the design (ideas) concerning the academic body crossed the borders even before postmodernism. Today trends travel fast and are imposed irrespectively of traditions creating repetitive linear rhythms instead of cyclical and irregular eruptions, breaks and moments in places. The time-space compression of rhetoric and persuasion transform the academic everyday into an increasingly similar physical, social and rhythmic environment. Some faster or slower rhythms and encounters are promoted, others erased. On one hand, the decorporealisation of time-space does not take into account the differences in bodies. On the other, the recorporealisation introduces the interactive body visibly in the productive processes at the university. The technologisation of the body through various human-non-human networks blurs the earlier so taken-for-granted rights and possibilities for presence and absence. My cyborg body notices interesting moments of conflicts and integrations between natural seasons, societal rhythms and universally conceivable made space and time.

The second conclusion is methodological-political. Earlier I emphasised that the challenge of language, translation and embodiment must be taken seriously in research about landscapes. Repetitive and irregular rhythms as well as linear and cyclical tones of time-space/space-time emphasise the need for a profound contextualisation of the everyday. The everyday is an unlimited and underused source for broader reflections and making the life meaningful. The academic world is still mostly about linguistic expressions but maybe they are no longer so central as unique modes of communication. Nevertheless, if the unifying policies towards the measurable, countable and predictable become the first and foremost criteria to guide the academy, the possibilities for post-postmodern methodologies are limited. Thinking, performative non-verbal expressions and performances cannot, luckily, be integrated into the Google Scholar and other measuring machines of the academic behaviour. Again, the bodily presence and absence, strategies and tactics matter – of mine and of each of us – to free the body from the linguistic prison.

The third conclusion is…

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