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Proximity, equality and difference: The evolution of the Norwegian-Swedish boundary landscape

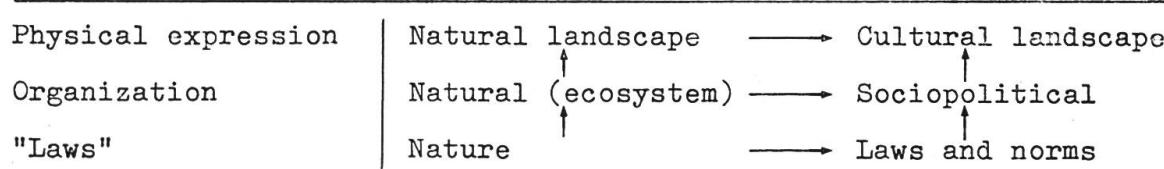
THOMAS LUNDÉN

1 Introduction

Studies of boundaries and studies of cultural landscapes have one problem in common: Causes and effects cover a wide field ranging from international politics to everyday household behaviour. When put together in the study of landscape evolution as a result of its partition between two state systems, analysis is inevitably characterized by second, third and n^{th} order effects and a mixture of obvious notions and vague relations.

The physical landscape is the outcome of processes that can be attributed both to «natural» forces and to human creation¹. The laws that guide nature result in an ecosystem that finds its physical expression in the natural landscape. Man, being a creative animal, has invented his own system(s) of «laws» that, within the limits of natural laws, results in a cultural landscape (fig. 1).

Fig. 1 Relationships between nature, society and the physical landscape



The factors influencing the cultural landscape can be grouped into various categories. I have rather arbitrarily chosen the following labels (fig. 2): The starting point would be the *laws of nature* and the natural landscape, the limit and source of human existence. Human needs: food, shelter, reproduction are maintained and developed through *individual behaviour* with the help of *technology*, influencing the landscape. Over history, technology eventually facilitated and necessitated specialization, barter and the exchange of values. This, in other words, is an *economic system*, capable of extending further than the reach of individuals, through the use of *transport and communications*. All these features can ideally be seen as different types of *voluntary associations*, requiring agreement and co-operation, and they can be termed *primary factors* influencing the cultural landscape. Their spatial pattern is characterized by net-

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Fig. 2 Landscaping effects of social organization

Factors and dimensions	Primary expression	Secondary Landscape effects	Tertiary landscape effects
Cultural landscape	Cumulative expression	Territorial homogenization	Boundary effects
Political organization	Territorial domains	Reinforcement	?
Voluntary organization	Network	Territory	
Communication & transport	Network & diffusion	Territory	
Economy	Householding systems	Territory	
Technology	Network	Territory	
Individual behaviour	Action & household systems	Territory	Trans-boundary optimization
Physical & biological laws	Action and ecosystems		

work patterns with links and nodes, decaying influence from centre to periphery and unclear boundaries. But with a growth in *political organization* follows a strengthening of ownership and domain territories² creating a mosaic of territories of specialized homogeneity that directly and indirectly steers the cultural landscape. A study of Swedish urban development (Améen 1964) has shown the enormous impact that the *geometry* and *type* of territorial ownership has made on land use patterns, i. e. on the cultural landscape. But political organization also encroaches into individual land ownership. A modern state is primarily a territorial entity, and its systems of rules, freedoms and preferences add another and partly different layer to that of land ownership. Taken together, these effects of political organization can be termed the *secondary landscaping factor*. This factor is partly intentional (defence installations, government buildings, national parks) but to a great extent it is an effect of regulations that have no conscious aim to pattern the landscape. It seems in fact as if few, if any, states have a policy of «landscaping» except for certain symbolic details (see below). The intervention of the polity into primarily non-physical spheres (technology, economy, communication and association) has thus resulted in patterns and artefacts that are far more visible in the real world than the physical manifestations of state power.

State policies and regulations often aim at a homogenization of conditions and opportunities within the domain, the state territory. At the boundary, this results in a «step», well-known from many studies. At an open boundary, this

step in turn enables and forces boundary dwellers to utilize and combine opportunities in both countries, like fringe dwellers in the animal world (*Nystuen* 1967). This «trans-boundary optimization» in turn leads to *tertiary landscaping effects*. Their pattern varies according to the type of states and their regulations, but it is typical for such effects to be short-lived, as the balance of boundary utilization may shift very rapidly due to the existence of two decision-making bodies and the general lack of co-ordination of boundary effects.

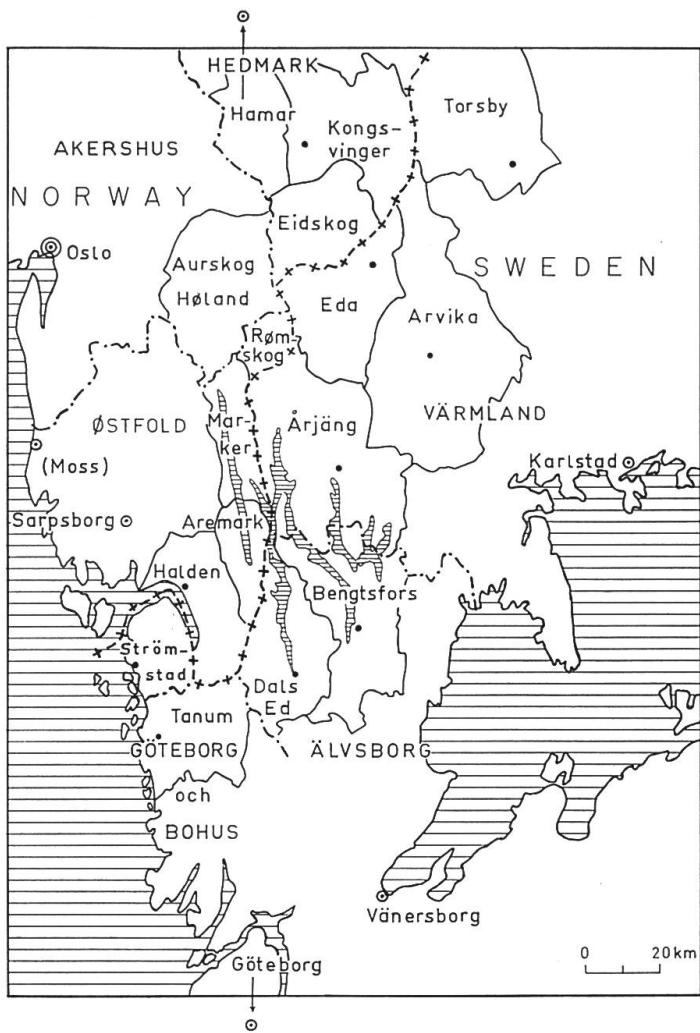
2 The test area: Norway, Sweden and their southern boundary zone

The examples below are taken from the area indicated on figure 3. In order to see which landscape traits are the outcome of decisions with state territorial implications and which simply reflect local differences occurring irrespective of political domains, some aspects of the countries as a whole must be taken into account.

Norway and Sweden are both large European states with a small, unevenly spread population. Culturally and linguistically there are no marked differences between the two countries. On deeper analysis, however, other differences are apparent. In Norway, flat land is as scarce as mountains are in Sweden. This, and other factors account for the greater amount of local variation *within* Norway than in Sweden, e. g. in culture and language (*Lundén* 1981a). Further, in spite of Norway's important western coastline its core area in terms of population and power is the Oslofjord area, close to the Swedish border, while Sweden has its historical and present centre in the trading and agricultural area around lake Mälaren and its outlet to the Baltic sea (see e. g. *Mead* 1981). This balance has not been changed in spite of Swedish annexations of land from Denmark-Norway (e. g. Bohuslän in 1658) and the loss of its eastern Baltic provinces (*Lundén* 1981b). Today, only about 8% of Sweden's population live within 100 kilometres' reach of the Swedish-Norwegian boundary, while circa 40% of all Norwegians reside within the same zone on its western side (*Lundén* 1973, p. 32).

Former wars and annexations have left no traces on the present landscape, including former Norwegian Bohuslän. It was not until the advent of industrialization and nationalism that state policies really made an impact on the landscape. The radical land reforms of both Denmark-Norway and Sweden in the 18th and 19th centuries (*Helmfrid* 1961) had little effect in this area, characterized as it is on both sides of the boundary by single farmsteads and small hamlets.

In 1814, Norway broke away from Denmark but was more or less forced into a union with Sweden. This was a rather loose union in which each country managed its own internal affairs (*Lindgren* 1959). The most marked effects on the landscape were in the field of transportation. Union railways were built and more were planned, but after the rather sudden separation in 1905, lines parallel to the boundary were favoured and built in Western Sweden,



- +--- State boundary
- Province boundary
- Municipal boundary
- ◎ State capital
- Provincial capital
- Municipal capital

Fig. 3
The southern Norwegian-Swedish boundary area

partly with the open intention to cut the hinterlands of Norwegian towns. During the German occupation of Norway 1940–45, the boundary was closed but there was a heavy illegal traffic along forest paths and across the border fjord, Idefjord.

Present Swedish-Norwegian co-operation with possible landscape effects occurs mainly within the framework of the Nordic Council, with its aim of integrating legal and regional policies in the whole of Norden (*Nordiskt regionalpolitiskt samarbete* 1978). My study area has only been slightly affected by one special project of industrial co-operation between the municipalities of Arvika (S) and Kongsvinger (N) – the ARKO-region. (There is also a liaison committee of municipalities and provincial authorities from Southern Østfold and Northern Bohuslän.)

Similarities and differences on the local and intermediate level are less easy to trace than those on the state level, as there is no definite scale of boundary

influences. The political system almost by definition puts the boundary in the periphery. The Swedish part is divided into three provinces, all with their capitals far away from the area. This also holds for the two northern Norwegian provinces of Oslo/Akershus and Hedmark. In the province of Østfold, however, the capital was recently moved from Moss to Sarpsborg, centrally located and close to Sweden. Even primary municipalities generally have their centres further away from the boundary than its geometrical centre (Lundén 1973, p. 29).

3 Primary landscaping factors in the boundary area

Even the mere description of the area is influenced by its partition into two states. «Local, international» statistics are almost non-existent, and the local statistics of each country with relevance to the landscape are to a great extent incommensurable. A Nordic commission trying to make a regionalization of the Physical Geographical landscape put the whole area into the same region, called «the hilly woodlands of southeastern Sweden and eastern Norway» (*Naturgeografisk regionindelning* . . . 1977, p. 81). In general, there is a gradual change from the rather fertile plains of central Østfold into a more forested, hilly and lakespotted landscape further inland and further north. Long, narrow lakes run parallel to the boundary, but as they used to ease transport they seldom define the boundary. In his 1899 study of the Swedish boundary, the famous geopolitician, Rudolf *Kjellén*, regarded this part as «unfitting», not following the water divide, but this inconvenience was somewhat mitigated by the facts of «historical tradition and sparse population» (*Kjellén* 1899).

Nature has no sharp borderlines. Men's activities are bounded only when delimited by superior or collateral forces. Before and during at least the 19th century, South-Eastern Norway was the leading economic area, dominating also the neighbouring Swedish areas. It is no wonder, therefore, that traditional peasant architecture, farming techniques and consequently the whole cultural landscape, show clear Norwegian traits (*Erixon* 1933). Halden, Oslo and Kongsvinger were the most important market towns and employment centres in spite of Swedish efforts to direct trade inwards. In the daily life of the population, the state simply made such little impact – apart from the wars – that traditional technology and economy as well as the spontaneous spread of innovations dictated household behaviour and thereby also formed the landscape.

4 Secondary landscaping factors in the boundary area: Agriculture and forestry

After the dissolution of the union and the development of banks and capital investments in farming, the separation of economic hinterlands started. It is difficult to estimate how much of this was intentional, but to a large extent

the development was a natural effect of growing state involvement into economy and, later, technology. Today, the economic position of two farmers with the same basic «natural» resources on each side of the boundary is very different. The reason for this must be sought on the state territorial level: Norway is a poor agricultural country with a substantial production deficit, especially of cereals (*Nordgård* 1975). Agricultural products have to be bought on the international market, often at low (but fluctuating) prices. Sweden, on the other hand, has a high self-sufficiency at high production costs. While Swedish agricultural policies have aimed at rationalizing production through the encouragement of larger mechanized farms and the abandonment of small, scattered farms and fields, Norway has chosen to encourage small scale farms and develop new farmland. These policies clash abruptly at the boundary. Østfold is really one of the best farming areas of Norway (*Thormodsæter* 1977). The adjacent Swedish areas, while being somewhat less suited for agriculture than Østfold, belong to those areas in Sweden where only few farms were deemed big and effective enough to be supported and to survive.

For historical reasons, agricultural regions often also contain the urban and economic core areas of a country. The agriculture of Østfold (like that of the fertile Swedish Mälardalen valley), is troubled by competition for land and labour by other economic activities. On the other side, in the less urbanized economies of forest Sweden (and in similar districts in Norway), mixed forestry and farming may be the only way of earning a living (*Helmfrid* 1966). This means that the goal of agricultural rationalization has not been attained. Peasants stay on until they die, in spite of economic difficulties, while large scale production becomes too specialized because of high investment and labour costs. This means that the *structure* of farming becomes increasingly different. Østfold is now mainly a cereal growing area where meadows and fodder acreage is rapidly decreasing. Fields are levelled out for mechanized working, trenches are dug and farmland is reclaimed both from bogs and forests. All this is being done with substantial government subsidies³. The lack of fodder in the milk-consuming Oslo region has also forced the government to subsidize hay transports. This has not had any effect on the decreasing hay production of Østfold, however.

With the same type of natural preconditions, Swedish fields are being converted into meadows or forests or just left to the weeds. The ownership structure is also different. Norway very strictly regulates ownership and leasing in order to have the land utilized effectively. In the Swedish boundary area the ownership pattern is very unclear because of informal leasing (without contract, often without fee) and because the estates of deceased persons are very frequently not divided (*Larsson – Olsson* 1979). In this area of forests, fields and lakes, many owners, especially if old, do not see the landscape as a source of annual income but more as a stock, to be used in times of need. Rationalization of production would involve huge investment, if possible at all, so remaining farmers resort to haymaking and small scale milk production, cutting and selling some wood when necessary for their own economy.

In forestry, differences are much smaller. Both countries prescribe cutting and planting. Big companies own large tracts of forest on both sides of the boundary and they use similar techniques. In both countries, but beginning in Sweden, there is a tendency towards Governmental restriction of the use of pesticides in forestry. This may result in different methods and in differentiation of the landscape.

The resulting second order landscape effects of primary production are obvious: In southeastern Norway a landscape adapted to (relatively) large scale mechanized production of cereals with large, geometrical and plain fields, with modern farmhouses but decaying cowhouses. On the Swedish side of the boundary, irregular, hilly fields with fodder crops, meadows, often with bushes and trees, decaying farmsteads often used for other purposes. As a corollary, farmhouses in the Swedish boundary areas often retain their traditional Norwegian style while in Østfold farming is becoming more international in outlook.

5 Secondary landscaping factors: Other activities

While primary production has a direct and large-scale impact on the landscape, other economic activities make point-wise or linear marks. Conditions for *handicraft* and *industry* do not differ in any landscaping effect, with one important exception. Swedish environmental protection has been leading in prescribing measures against water pollution. Legal action can of course only be taken if the source of pollution is within Sweden. The sawmills and cellulose factories of Halden (Norway) have almost totally destroyed water life and fishing in the border fjord of Idefjorden (Askholt *et al.* 1975). As a secondary effect, Swedish owners of summer cottages have left the area which is now partly being taken over by Norwegians as competition for recreation land is much higher in the Greater Oslo region than in Swedish Northern Bohuslän. After Swedish municipal and provincial complaints the matter was taken up in negotiations between the two Governments, and the Halden company has now implemented a program of purification that has already proved to be successful.

Also in *commerce* Swedish sanitary regulations seem to have been stricter than in Norway, forcing a shut-down of small groceries and general stores (other reasons for this will be discussed below under Tertiary effects). Communications and mass media information is taken from within the state territory (Lundén 1973, p. 81), thus strengthening the direct influences of homogenization. This is further enhanced in the field of transportation where physical artefacts are often made uniform in order to symbolize the nation and the state territory: railway stations, trains, letter boxes, telephone booths. In other cases this uniformity may be the outcome of mass architecture without any nationalistic pretensions. Municipal government buildings, hospitals, old age homes and schools are often designed by architects aligned to the national union of municipalities, health care authorities etc. This tendency is also strong in the private sectors of commerce, communication and transportation.

All factors presented hitherto act mainly through the homogenizing regulation of the production of food, goods, movement and knowledge. But the state also influences other aspects of human existence: dwelling, leisure and recreation. Housing regulations have a long history in both countries, due to e. g. the fear for large fires in the wooden towns. Starting in Swedish towns, municipalities have been both urged by law and encouraged through economic incentives to regulate housing and traffic, arrange sewage, water provision, water purification, energy saving and installations for the handicapped. Through two municipal reforms in the last 30 years Swedish municipalities have been amalgamated into rather powerful units with planning expertise and substantial building activities also in the field of recreation (*Khakee 1979*). With a slower growth in state and municipal building and planning and a voluntary municipal amalgamation, the «urban and public landscape» is not so regulated in Norway as in Sweden (*Hansson – Tofte 1968*). This also holds for traffic. While many Swedish agglomerations are by-passed by highways, similar places on the Norwegian side still have the highway right through the centre.

Building regulations and municipal organization do not follow very different patterns in the two countries. It is rather a question of a trend in which Sweden has been in the lead, except for the planning of the rural landscape where Norwegian regulations came earlier and were stronger in effect. In the balance between public access to rural land for recreational purposes on the one hand, and land-owners' rights on the other, the Swedish tradition is somewhat more open to the interest of the public than the Norwegian.

Homogenizing forces in each country thus produce very specific effects on a boundary zone with local «natural» similarities. A very rough and exaggerated description of this part of the Norwegian-Swedish border would be as follows: In Norway an open, linear production landscape with efficient farms but rather messy, old-fashioned urban agglomerations with few public buildings, and a lack of traffic separation. In Sweden, a decaying countryside with part-time farming, deteriorating farmland and farmhouses but with modern urban places, municipal facilities and a safe, but space-consuming traffic landscape.

6 Tertiary landscaping effects: Boundary restrictions and optimization

Political geographers often look at some of the most spectacular effects of the boundary: demarcation, customs stations and commercial installations.

The Norwegian-Swedish boundary area is probably one of the most undramatic ones in the world. The boundary is delineated through cairns with a stone mostly bearing the initials of the 1752-53 Danish and Swedish kings, and a boundary clearing five metres wide. Customs stations at small roads have been replaced by car patrols, and at highways only one station remains, manned by officers from that country but with authority on both sides.

There are probably fewer roads crossing the boundary than would have been the case without the state limit (*Lundén 1973, p. 105*).

The most spectacular boundary effects, however, are the result of the combination of the state's effort to homogenize conditions within the country and the individual's wish to maximize his personal profit or well-being by combining supply and demand, freedoms and restrictions in both states.

In agriculture, the equality in natural conditions and difference in actual economic and legal conditions has led Norwegian farmers to lease land on the Swedish side, or to use land belonging to them through inheritance. This land would otherwise have been left idle, and in many cases farmers pay no leasing-fee. The land is mostly used for hay-making, whereas subsidized efforts can be concentrated in the homeland (*Lie 1976*). Although limited in extent to the local boundary area, this development has helped to keep the Swedish landscape open. Swedish farmers have been helped in another way by the Norwegian subsidies. The subsidization of fodder transports, mentioned above, has started a «boom» in hay production in the Swedish boundary area. In 1981, the transport subsidy was cancelled, probably stopping this unexpected intensification of grass cultivation. In industry there is no significant physical boundary effect. In trade and commerce, however, national restrictions and price policies have created the typical agglomerations of specialized shops, markets and even tents on each side of the boundary. Norwegian products are basic foodstuffs of low centrality: margarine, bread flour and occasionally sugar when world market prices are low. Every local boundary road has at least one general store on the Norwegian side. In Sweden, the local store is often closed after a boom in plastic, stainless steel and preserves after the second World War. However, in the autumn of 1981, the devaluation of the Swedish crown and new internal agreements in farming has led to much lower pork prices in Sweden and a reverse flow of boundary trade. Generally, Swedish goods attractive to Norwegians are of higher centrality and are thus sold only at major highways: Imported textiles, used car parts and other equipment, and as long as Swedish censorship is more liberal than Norwegian, pornographic magazines and shows. Shops and tents line the roads, while junk yards occupy less conspicuous locations as the import of valuable goods is liable to customs duties.

7 Validity and generality of boundary landscape effects

Cultural landscapes are eclectic – they mirror various influences and times. It is therefore difficult to describe and explain them in a nomothetic way. Even if production statistics for agriculture were available (which they are) and comparable (which they are not), this would not explain, not even describe the geometry or the subjective image of the landscape. This certainly makes the validity problem very difficult.

Validity is related to generality. The area described is a small, but comparatively densely populated part of one of Europe's longest boundaries. In the northern part of my study area even Norwegian forest areas show rural depopulation.

Further north, the Swedish part of the Scandinavian mountain range is now being intensively exploited for winter and summer tourism right up to the boundary, while Norway has mountain resorts spread out almost all over the country.

The Sami minority's strictly regulated rights to pasture in each country is a special complication of this Scandinavian boundary. In the northern tristate area, the above-mentioned differences in public access to the land have created some problems as the picking of wild berries is an important source of income for the population.

On a larger scale, some of the *details* of boundary effects may seem to be particular to Scandinavia. But the *factors* operating will be the same all over the world, although operating with different intensity.

8 Conclusion

Proximity – this Southern Scandinavian boundary area is very open in terms of natural conditions, technical accessibility, cultural likeness and human interaction, both on the local and national scale.

Equality – Nature has endowed this area with rather homogeneous resources. But each side of the boundary belongs to a state, eager to equalize living conditions all over its territory. This is done through the redistribution of resources.

Difference – The result of this is a growing differentiation of resources available to local inhabitants of Sweden and Norway respectively. It is not so much a question of quantitative differences as of the mix. The cultural landscape is the physical expression of this unintentional differentiation.

Methodologically, an acceptable synthetic explanation of the differentiation of boundary landscape would require a very thorough analysis of the whole structure of conditions and regulations that constitute a modern welfare state. This would be an immense task for sociopolitical Geography, but also a rewarding one.

NOTES

¹ See e.g. the discussion in Natural Resources in a Cultural Perspective, 1981.

² Mårtensson's definition (1979, p. 20, based on Hägerstrand): The concept of a domain is used to refer to an entity within which things and events are under the control of a given individual or group. Domains are regarded here as social constructs and their purpose seems to be to protect resources and to form containers that promote an arrangement of bundles of paths which is efficient from the inside view of the principal.

³ For an annual survey of agricultural schemes with government subsidies in Østfold see Melding om Landbruket i Østfold.

LE PAYSAGE DES DEUX CÔTÉS DE LA FRONTIÈRE NORVÉGIENNE-SUÉDOISE

Trois genres de facteurs marquent le paysage d'une région frontalière: les facteurs naturels et culturels «spontanés», les facteurs internes, unifiants, de la puissance d'Etat, et l'optimisation entreprise par les habitants des frontières.

Dans le paysage humanisé, les facteurs déterminants sont mêlés, ce qui rend difficile le développement de modèles. Dans la région frontalière Norvège du sud/Suède, les différences les plus accentuées du paysage humanisé sont dues au fait que chacun des deux Etats suit sa propre politique agricole (effets secondaires sur le paysage). La Norvège soutient le développement et la modernisation des petites exploitations agricoles; sa région frontalière est une zone agricole d'assez bon rendement. La Suède, avec son autosuffisance agricole élevée, encourage la rationalisation des exploitations et l'abandon des surfaces peu productives (celles-ci l'emportent dans la région frontalière). En outre, la législation et la planification sont plus développées en Suède qu'en Norvège en matière d'urbanisme, de trafic, de récréation, ce qui est visible dans l'aspect du paysage.

Les effets tertiaires sur le paysage se traduisent par l'affermage, par des paysans norvégiens, de terres suédoises laissées en friche, et par l'intensification de la production de foin par les paysans suédois. Le foin est exporté vers la Norvège; le transport en est subventionné. Les différences dans le subventionnement et la législation du commerce et de l'industrie ont laissé leur empreinte sur la zone frontalière: les commerces qui vendent des denrées alimentaires de base dominent du côté norvégien (parfois en Suède), ceux qui tiennent des articles ménagers durables, ou des articles pornographiques, dominent en Suède.

Dans cette région de voisinage traditionnel et culturel, la politique des deux Etats, qui travaillent chacun en vue de l'uniformisation de son territoire, a mené à la disparité d'un paysage naturel homogène en soi.

UNTERSCHIEDLICHE ENTWICKLUNGEN BEIDSEITS DER NORWEGISCH-SCHWEDISCHEN GRENZE

Drei Faktoren prägen die Kulturlandschaft einer Grenzregion: «spontane» natürliche und kulturelle Faktoren, interne vereinheitlichende Faktoren der staatlichen Macht, und optimierende räumliche Tätigkeiten der Grenzbewohner.

In einer Kulturlandschaft sind die massgebenden Faktoren eng miteinander verknüpft, was die Entwicklung von Modellvorstellungen erschwert. In der Grenzregion Südnorwegen – Schweden gehen die stärksten Unterschiede in der Kulturlandschaft auf die unterschiedliche Landwirtschaftspolitik der beiden Staaten zurück (sekundärer Landschaftseffekt). Norwegen unterstützt die Entwicklung und Modernisierung kleiner Betriebe; sein Grenzgebiet ist recht ertragreiches Anbauland. Schweden, das sich mit landwirtschaftlichen Produkten weitgehend selbst versorgt, fördert Betriebsrationalisierungen und Brachlegung von ertragsarmen Flächen (die im Grenzgebiet überwiegen). Außerdem sind Gesetzgebung und Planung bei Städtebau, Verkehr, Freizeit in Schweden weiter entwickelt als in Norwegen, entsprechend sind auch die Auswirkungen in der Landschaft deutlich.

Tertiäre Landschaftseffekte zeigen sich darin, dass norwegische Bauern brachliegendes Ackerland in Schweden pachten sowie in einer Intensivierung der Heugewinnung durch schwedische Bauern; das Heu wird nach Norwegen exportiert, der Transport wird subventioniert. Unterschiede bei den Subventionen und in der Gesetzgebung für Handel und Gewerbe haben zu einer spezifischen Ausprägung der Grenzzone geführt: Geschäfte für Grundnahrungsmittel dominieren auf der norwegischen Seite (nur gelegentlich in Schweden), solche mit langfristigen Haushaltswaren sowie mit Pornographie in Schweden.

In diesem Gebiet traditioneller und kultureller Nachbarschaft haben die zentripetalen Kräfte der beiden Staaten, die auf territoriale Vereinheitlichung hin arbeiten, zu einer ausgeprägten Differenzierung einer an sich einheitlichen Naturlandschaft geführt.

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