

Viking Landscape Regionality An Interdisciplinary Model for Regional Classification of The Cultural Geography in Medieval Scandinavia, C. 800-1300

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Abstract

When studies within the field of Historical Geography take a regional level of perspective, it is often worth identifying similar and differing patterns related to relevant features in the physical and cultural geography, both intra-regional and between different regions. Numerous scholars have developed various methods and models to do so, but usually adjusted to the region in question and the topic to be investigated, making it difficult for future studies on neighbouring regions and topics to reuse the model. In Scandinavia, a few attempts have been made to make more general classification models for the historical landscape geography, but then at best at a national level. This paper will present examples of such historical landscape models from Scandinavia, along with a newly developed attempt for an interdisciplinary model – involving both physical geography and a mixed set of sources for the cultural geography (in this case church buildings and place-names) – crossing the national borders for a regional-comparative study of the development of the cultural geography around the seas Skagerrak and Kattegat (i.e. in southern Norway, western Sweden and northern Denmark) in the period c. 800-1300.

Keywords: Historical geography, Middle Ages, Scandinavia.

Introduction

The physical landscape is an obvious starting point for studies of historical regionality. This has been a recognized view since the early historical geography as developed in nineteenth-century Germany and England, not least influenced by the German geographer Carl Ritter and exemplified in this quotation by his English colleague J.R. Green in 1881: »*History strikes its roots in Geography; for without a clear and vivid realisation of the physical structure of a country, the incidents of the life which men have lived in it can have no interest or meaning.*« Within the French *géographie humaine* focus eventually moved towards human response to the conditions given by nature. Lucien Febvre in 1922 argued in favour of replacing the deterministic physical-geographical positivism with a human-geographical *possibilisme*, which considered human choices within the range of possibilities offered by nature. It is mostly within Febvre's 'possibilistic' view that historical geography has developed in Scandinavia.

One of the first Scandinavian attempts to identify regional variation in the historical human geography was carried out for the province of Scania, the southern-most part of present-day Sweden (while the eastern-most province of medieval Denmark) by Åke Campbell (1928) and Sven Dahl (1942). Mainly based on variations in settlement structure and agricultural economy in the eighteenth century, they identified three types of cultural landscape based on either an open arable land ('*slättbygd*'), forest land ('*skogsbygd*') or a mixture of the two ('*ris- och mellanbygd*'). As shown by later studies, the distribution of these cultural landscape types correlates significantly with local variations in geology (Germundsson & Schlyter 1999, 22). A highly related classification model for the cultural landscape of pre-industrial Denmark was launched by Erland Porsmose and Per Grau Møller in 1997, mainly based on records about land

use in a national land register of 1688 and the first scientific maps from late nineteenth century, whereas a recent regionalization model for the pre-industrial Swedish landscape takes off in the size and farm structure of the settlements (singular farmsteads or villages) along with the adjacent agrarian field structure (Helmfrid 1994, 32). A different aspect of settlement structure was used as key parameter by H.V. Clausen (1916), who made use of the spatial distribution of place-name types dating from different periods (as explained in a later chapter of this article) to divide Denmark into three types of cultural landscapes cleared and populated either before, during or after the Middle Ages (which in Scandinavia traditionally covers the period 1000-1500).

I myself have on several occasions argued in favour of an interdisciplinary and comparative model based on a mixture of different source types to identify local variations in the cultural landscape of selected regions in medieval Denmark, from which tool box the most crucial sets of data will be presented in the following (e.g. Dam & Jakobsen 2008; Jakobsen 2012). For a symposium held in 2007 on historical regionality before 1500, I was asked to produce a regionalization model for the entire medieval Denmark based purely on the physical geography. The outcome was a classification that took off in soil types and terrain, dividing the country into three landscape types of either high, moderate or low economic potential for human use (Jakobsen 2008).

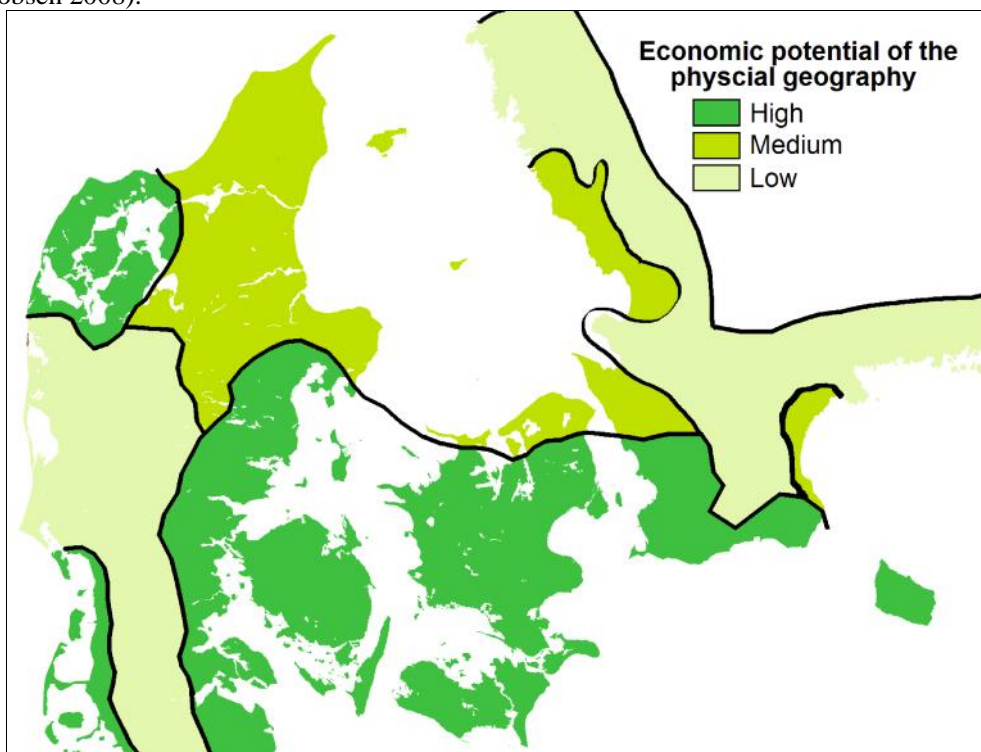


Fig. 1. Regionalization model for medieval Denmark based on the economic potential of the physical geography (mainly terrain and soil type). After Jakobsen 2008, 30, fig. 8.

This assignment launched the idea for a joined project with the Danish archaeologist Søren M. Sindbæk in developing a regionalization model for the entire south-Scandinavian area in terms of spatial variations of demography in the period c. 800-1300. It is the ideas, methods and observations of this still unfinished project that will be presented in the following.

Physical geography

A fundamental criterion for human settlement has at all times been the given area's ability to feed its inhabitants. Until the Industrial Revolution of the nineteenth century, the potential for long-term settlement in the rural districts outside the cities has almost exclusively depended on land use, going from agriculture (arable and husbandry) over foresting, hunting and fishing, to extraction of minerals. For most regions, agriculture appears to have taken first priority in the sense that if soil and climate allowed for it, the majority of an area's inhabitants chose to concentrate their efforts on arable and/or animal agriculture. In Scandinavia, a mix of three physical-geographical factors can be identified as determinant for an area's agricultural – and, thus, demographic – potential: climate, terrain and soil.

Climate and vegetation zones

No matter what kind of terrain and soil an area has to offer, its climate is determinant for how the land can be used and if people are at all capable of living there on a long-term condition. The school of physical geography distinguishes between different 'vegetation zones', identifying the dominant natural vegetation type based on the climate conditions. The most recent and generally acknowledged classification of this sort for Scandinavia is made by Asbjørn Moen (1999). Besides obvious climatic factors like temperature and precipitation, also the length of day and growing season are essential factors to consider this far north. According to this, the northernmost part of Scandinavia along with the mountain plateau covering most of the western part of the Scandinavian Peninsula down to the southern tip of Norway is classified as 'Alpine zone'. Here, the ground is situated north of or above the climatic timber line, where only the hardiest low plants are able to grow. On the fringes of this huge Scandinavian mountain plateau, especially on the inland side, a belt of 'Sub-Alpine' or 'North-Boreal zone' is situated, dominated by birch forest. The main part of Sweden north of the lakes Vänern and Mälaren, central Norway and the lowland district around Trondheim Fjord are classified as 'Boreal zone' dominated by coniferous forest, mainly pine in Norway and spruce in Sweden; the fallen needles in this zone produce a rather acid soil that prevents most other plants from growing there. The west and south coast of Norway constitute together with the Swedish landscapes of Götaland, Svealand and Småland a mixed 'Boreo-Nemoral zone' of coniferous and deciduous forest, the latter especially consisting of oak, ash, lime and hazel. The southernmost tip of Norway and the entire medieval Denmark are classified within the 'Nemoral zone', a huge temperate beech-dominated forest zone continuing far down in Central Europe. Historically, Scandinavian agriculture has primarily been concentrated to the Nemoral and Boreo-Nemoral zones, with special focus on arable in the former and pastoral husbandry in the latter. The birch forests of the Sub-Alpine zone in inland Scandinavia have traditionally been used for seasonal pasture. Hunting and fishing are the two main historical types of 'land use' in the Boreal forests and the Alpine mountain plateau of northern Sweden and Norway, mixed with scattered districts of mineral extraction. For a further general introduction to the physical geography of Scandinavia and its varieties, see Sporrøng (2008).

Terrain and soil

When the Alpine region extends so far south into Norway it is of course due to the terrain, which raises the ground surface so far above sea level that it climatically resembles more northern hemispheres. But also the terrain itself has a direct influence on land use potential, since a hilly and undulating terrain with steep slopes, regardless of climate and soil conditions, usually has been found so technically challenging to cultivate that it has been left for forest or pasture. One exception is moderate slopes facing south, where sun exposure and shelter offered by the

elevated hinterland under some conditions may result in a very productive arable land, a phenomenon best known from wine fields in Central and Southern Europe. Hilly and elevated terrain does, however, in most cases have a reducing effect on an area's land use potential, something which besides climate and practical workability derives from the fact that in Scandinavia, such zones are usually characterized by soil types less suitable for arable agriculture, either because the surface is made of pure rock with no or just a thin layer of soil, or, where the soil cover is more substantial, then it is often dominated by stones and/or infertile soil types.

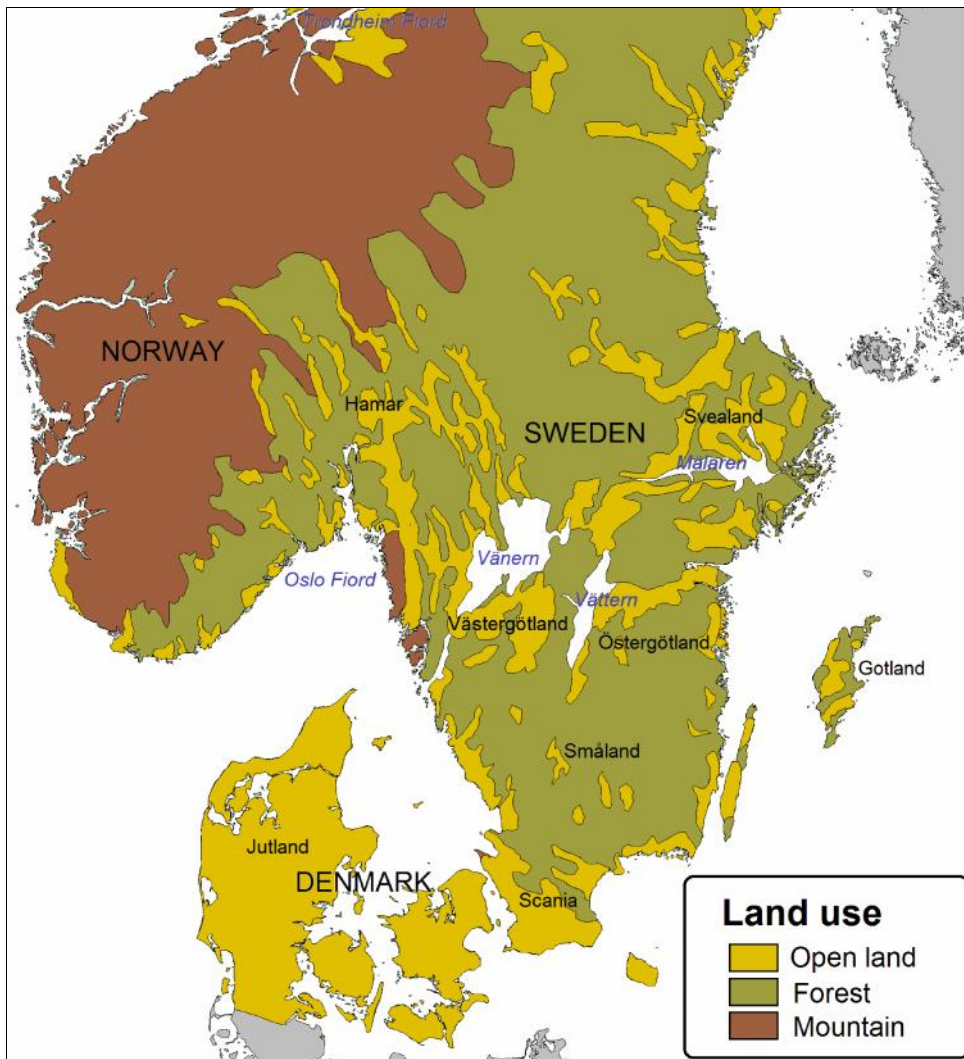


Fig. 2. Land use distribution in pre-industrial Scandinavia. The map includes names on countries and major landscapes referred to in the text.

Soil conditions are first and foremost a matter of the textural mix in the top layers of the soil. Depending on the mixture of grain size in the soil material, Scandinavian soil types differs from clayey (very small grains) over sandy (medium grain size) to gravelly (relatively large grains). While clayey soils often are quite fertile (due to high content of water and nutrition), they can

also be experienced as rather heavy and difficult to cultivate, whereas sandy soils are easier to work, but easily dry out of water and nutrition. The best-suited soils for arable agriculture in Scandinavia are the various types of 'moraine till', a calcareous mixture of clay and sand blended and deposited by the Scandinavian glaciers from 115,000 to 10,000 BC, and now especially to be found in eastern Jutland, the Danish isles, Scania, the west coast of Norway, central Sweden around the lakes, and on Gotland. Soils in the rest of Scandinavia are predominantly of a more sandy and gravelly texture, often too dry and infertile for intensive arable agriculture, but they can provide fine pastures. The soil can, however, also be too wet for arable use, especially around bogs and lakes, and along streams, rivers and the coast, but such lands can then be used for meadows suitable for grazing and hay harvest.

Land use

Put altogether the three physical-geographical factors have produced an overall land use-distribution in pre-industrial Scandinavia as shown in Fig. 2 with a classification in mountains (economically characterized by hunting and fishing); forest (characterized by hunting in the north, pastoral husbandry in the south); and open land (characterized by arable agriculture). It should be stressed that the shown distribution is highly simplified for a super-regional overview, as areas homogeneously classified as just one land use type may cover a considerable fragmentation on the local level. This is, for instance, the case with present-day Denmark, here completely classified as 'Open land', which partly has derived from a visual 'washing out' of numerous small wooded areas around the country, considerable by Danish scale, but insignificant by Scandinavian scale. Furthermore, the land use type 'Open land' itself can according to Fig. 1 be subdivided into subtypes of great regional and economical importance, for instance in 'Arable land' (especially on the Danish isles) and 'Open pastures' (especially in Jutland). A similar sub-distinction could be argued for the land use type 'Forest', for which the economic potential differs significantly according to the forest type (birch-, coniferous- or mixed deciduous forest), just as the most coast-near mountains of western Norway are in fact covered with a mixed forest.

Cultural geography I: Parish structure

The parish is one of the oldest known administrative units in medieval Scandinavian society. It was introduced in the early twelfth century as an administrative term within the Church to describe a fixed area in which the inhabitants had the right and obligation to seek one particular parish church, to which was allocated a parish cemetery and a parish priest. Since the majority of rural parish churches in medieval Denmark and Västergötland architecturally and/or archaeologically can be dated to an origin in the period 1100-1250, the parish formation process probably was more or less completed by the mid-thirteenth century. This partly had to do with the fact that the Church simultaneously introduced the 'tithe', a compulsory church tax, which in principle meant that all parishioners were to contribute with one tenth of their annual income to the running and maintenance of the parish church and salary to the priest. As soon as this system was settled, it caused financial difficulties to segregate new parishes from the old. Nevertheless, parish structure was never completely fixed, as merging and segregation of parishes, as well as adjustment of parish borders occasionally have taken place ever since. Fundamentally it was for the bishops to decide, which farmsteads and villages that were to seek what church, and thus deciding the form and size of the parish. There was no fixed standard to set the geographical size, but two considerations pulled in each direction. It was in everybody's interest that no household was given a road to church any longer than necessary.

On the other hand, since the daily support of the church and its priest solely fell on the parishioners, it also became crucial to make the parish big enough to include a sufficient number of tithe payers. Thus, size of medieval parishes reflects both demography and economy of the

local society at the time of the parish formation: in areas with low income and/or relative far distance between households, the parishes had to be made significantly larger than in richer and more densely populated areas. For Norway and Sweden, this correlation is best seen when comparing Fig. 3 with Fig. 2. Firstly, it should be noted that Fig. 3 is *not* a parish map, it is mathematically calculated map based on the distribution of medieval parish churches, whose exact locations are not shown in the map, which instead depicts the geographical areas closest to the individual churches. These so-called ‘Thiessen polygons’ thus, so to speak, show the ideal parish structure to derive from the given distribution of churches if horizontal distance was the only decisive factor to be considered. To use Thiessen polygons based on high medieval parish churches instead of the actual parishes not only relieves our lacking knowledge regarding the exact parish boundaries of the high Middle Ages, it also produces a less fragmented picture, where singular abnormalities are equalized for the benefit of regional comparisons. To highlight variations in the church density, the polygons are coloured according to a classification in five intervals of area size.

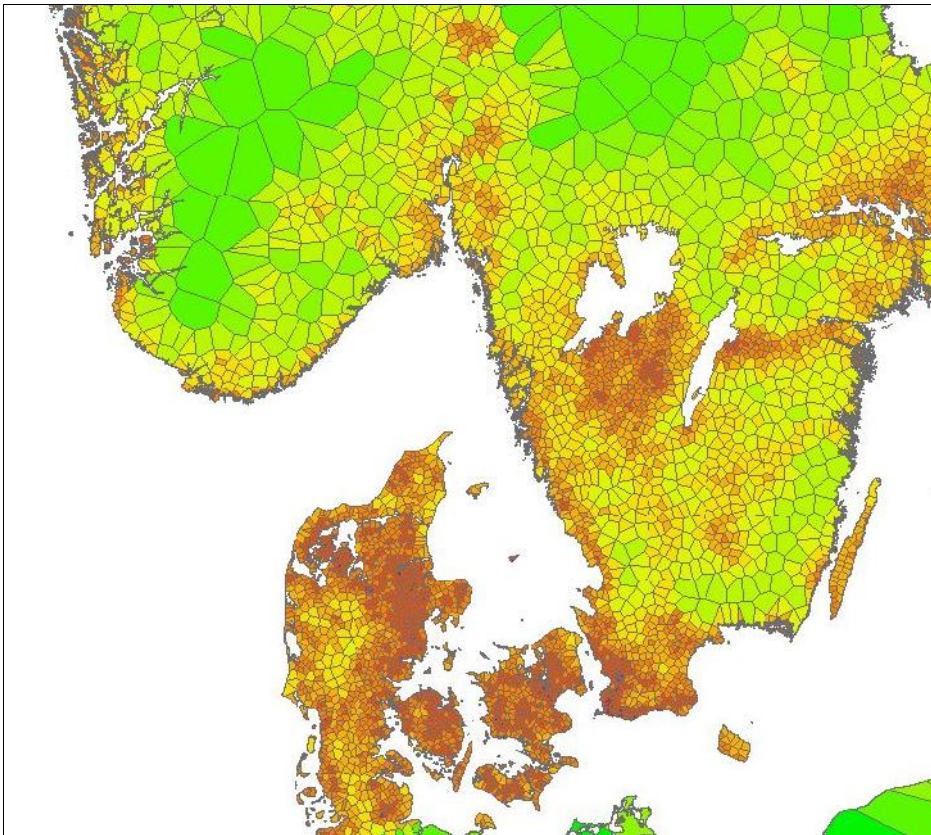


Fig. 3. Density of medieval churches in southern Scandinavia calculated and shown as ‘Thiessen-polygons’, where each polygon shows the area closest to the individual parish church.
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Especially in Sweden and around the Oslo fiord it is easy to identify a close correspondence between areas classified as ‘Open land’ and areas with a high density of medieval parish churches (shown as small polygons on the map). It is also possible to identify a potential demographic difference between Swedish woodland north of the lakes Mälaren and Vänern (coniferous forest) and to the south of the lakes (mixed and deciduous forest), as medieval parish

churches in the northern spruce forests were as distanced as in the central Norwegian mountain regions. Apart from Denmark, the main deviations are found around Hamar in south central Norway and along the Norwegian west coast, where the church density is significantly high in spite of a mountainous land use classification.

In the case of Denmark, soil conditions appear as the sole physical-geographical factor with influence on medieval demography as represented by parish church density. This can be seen from Fig. 4, where a transparent parish map is put upon a map of Danish soil types. In eastern Jutland and on the isles, dominated by mixed moraine soil types (FK3-FK5), the parishes are significantly smaller than in the western and northern regions characterized by more sandy soil (FK1-FK3). However, rational-economic considerations can never explain everything in any historical matter, and this reservation also has valid here, since studies have shown that areas with a density of high medieval magnate farms regardless of the physical geography tend to have a high density of parish churches as well, a correlation that could suggest that the bishop on some occasions may have been inclined to comply with wishes promoted by the local magnates at some point during the parish formation process to elevate their particular and private manor chapels to public parish churches due to the derived tithe income – and thus eventually establishing more parishes than what social demography and economy actually called for (Anglert 1995, 77 and 181-183).

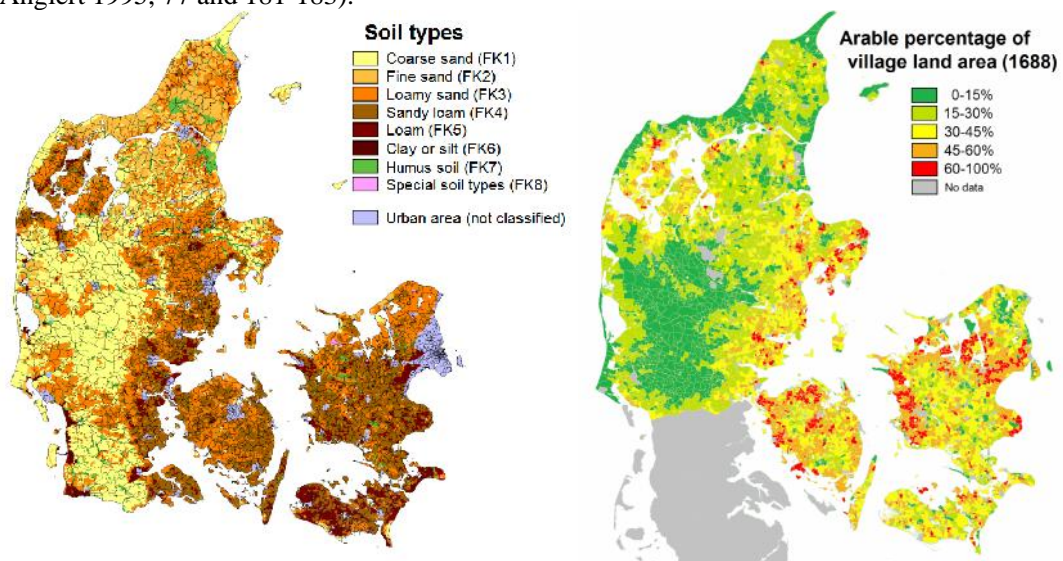


Fig. 4 (left). Present-day parishes and distribution of soil types in Denmark. Fig. 5 (right). Extent of cultivation in seventeenth-century Denmark shown as recorded sown acreage in 1688 as percentage of the entire village land area (after Dam & Jakobsen 2008, 96, fig. 2.24).

That the close correlation between soil conditions and parish size in Denmark not least derives from the land's potential value for arable agriculture is evident when comparing Fig. 4 with the extent of cultivation as recorded at a national land register in 1688, shown in Fig. 5 as the sown acreage as a percentage of the entire village land area. Once again it becomes evident that the moraine soils (FK3-FK5) generally have facilitated a more intensive arable cultivation than more sandy or wet soils (FK1-FK2 and FK7).

Cultural geography II: Place-names

Many Scandinavian settlements can be approximately dated from their names. The dating is partly based on linguistic considerations, such as the supposed age of the included elements and

their grammatical form. Another factor, which can be used for place-name dating in Scandinavia, is the use of pagan and Christian features and personal names. A Danish place-name like Odense (from *Odins vi*, 'the sacral site of Odin'), for instance, clearly must originate from when paganism still prevailed in Denmark (i.e. the tenth century at the latest), whereas names like Bispebjerg ('bishop's hill'), Pederstrup ('Peter's thorp') and Kirkeby ('church village') obviously date to the Christian period (i.e. from the tenth century at the earliest). Most Scandinavian place-names are constructed as two-element compounds, as in the case of the above-mentioned example Kirkeby, formed by a prefix *Kirke-* ('church') and a suffix *-by* ('village'). Certain suffix types are used repeatedly in vast quantities of place-names compounded with differing prefixes, and besides the abovementioned criteria, some of these suffix types can be additionally dated from the fact that they appear in regions outside Scandinavia, such as Normandy and Danelaw England, where they are believed to derive from the period of Scandinavian Viking settlement (800-1000). This is the case for such suffix types as *-by*, *-torp*, *-toft* and *-tved*, suggesting that place-names in these endings in Scandinavia too may date from the same period. Also within Scandinavia itself it can be observed that certain suffix types more than others seem to correlate with archaeological finds from the Iron Age (0-800) or Viking Age (800-1000).

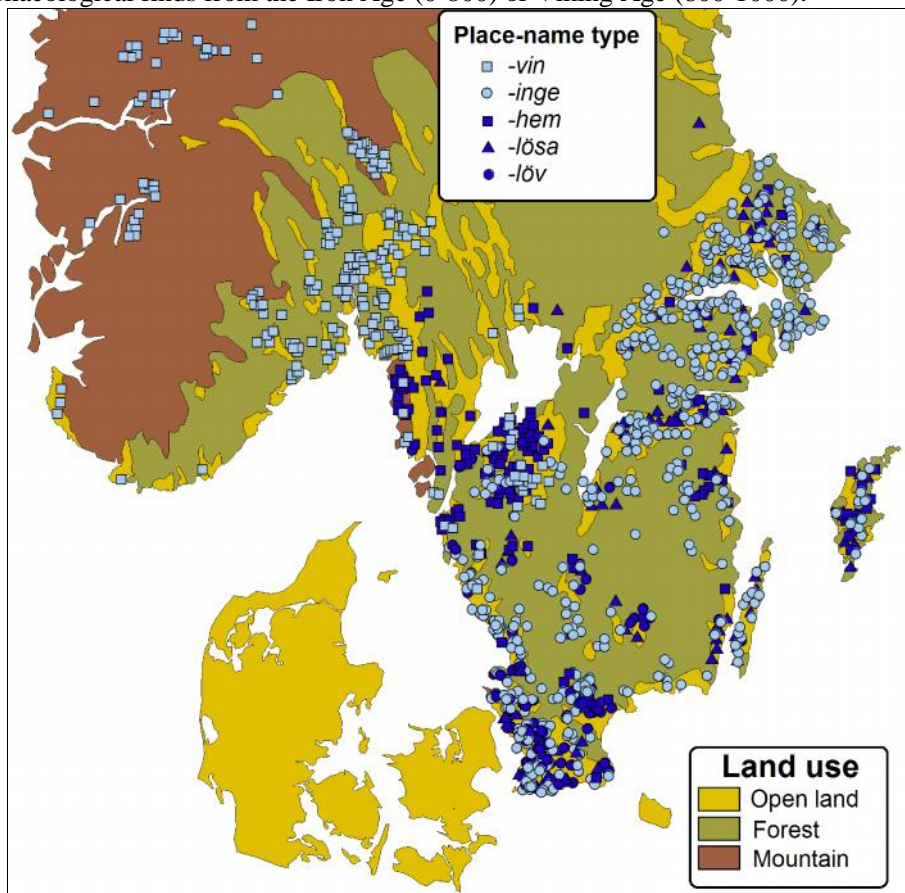


Fig. 6. Distribution of settlements with selected Iron Age place-name types in Norway (-vin) and Sweden (-vin, -inge, -hem, -lösa and -löv) compared to land use types. Note that whereas the name types -inge, -lösa and -löv are not represented in Norway, settlements with names in -hem are very widespread in Norway, but not included on this map. For Iron Age place-name types in present-day Denmark, see Fig. 7.

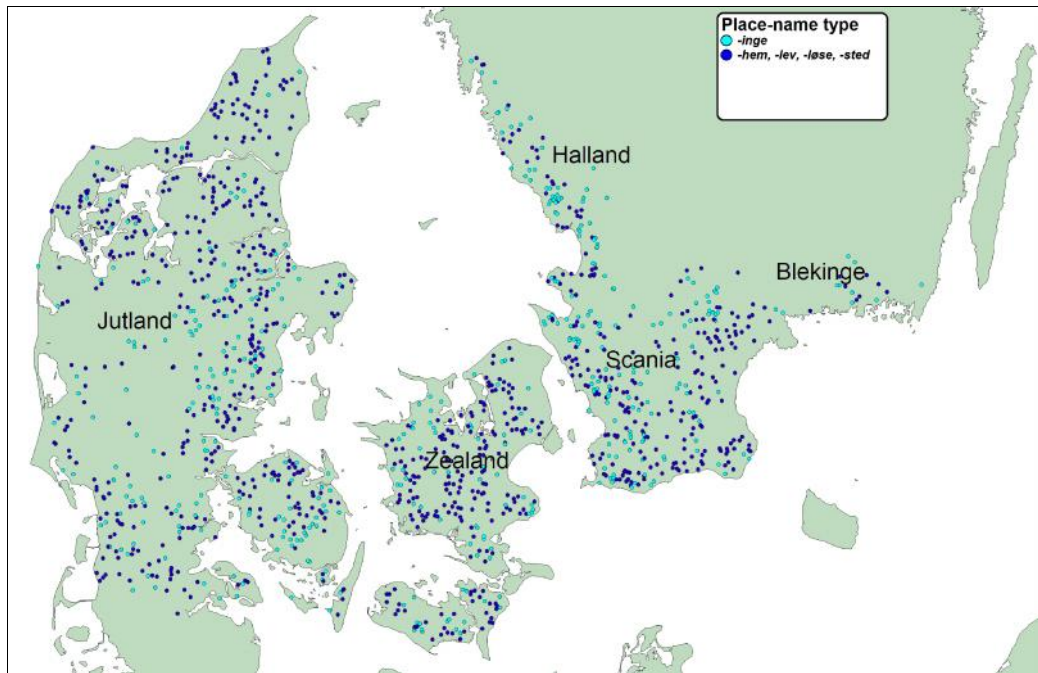


Fig. 7. Distribution of settlements with selected Iron Age place-name types in medieval Denmark.

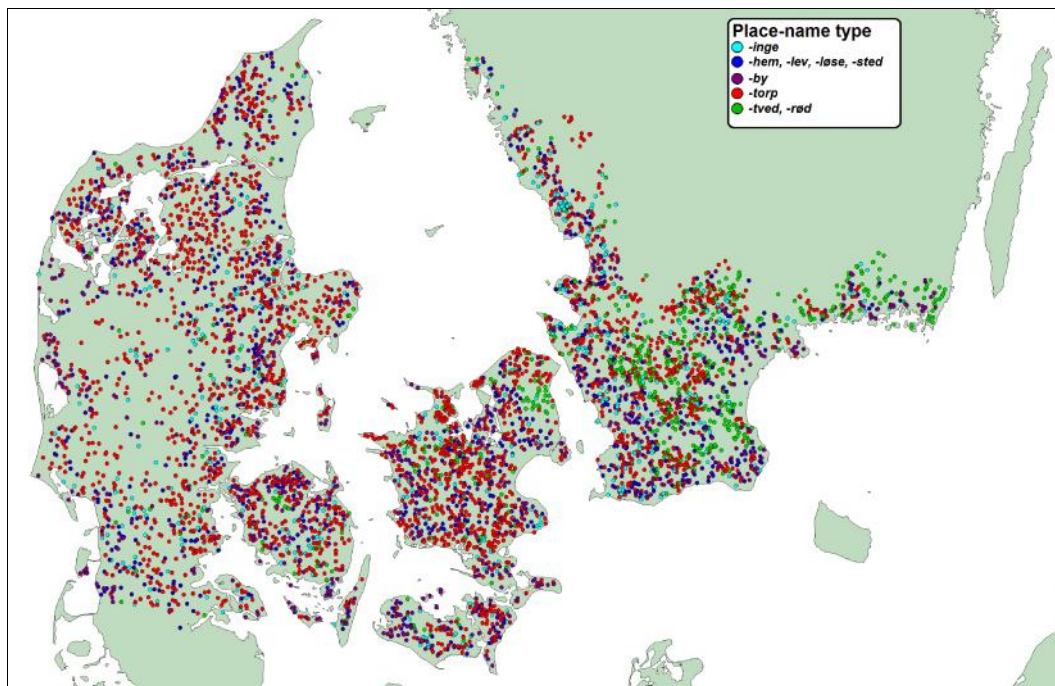


Fig. 8. Distribution of settlements with selected Iron Age, Viking Age and high medieval place-name types in medieval Denmark.

Based on these and other considerations, most Scandinavian name scholars today agree that settlements with place-name endings in *-vin*, *-inge*, *-hem*, *-löv* (*lev*), *-lösa* (*løse*), and *-stad* (*sted*) primarily originate from the Iron Age (0-800), possibly with *vin*- and *inge*-settlements in both the oldest and the youngest layer covering the entire period (0-800), *hem*-, *löv*- and *lösa*- from the centre of the period (300-600) and *-stad* mainly representing its latest part (600-800); some names in *-vin*, *-inge* and *-stad* may even have been generated as late as the Viking Age (800-1000). These old name types are far from being evenly distributed within Scandinavia, as seen from Fig. 6, but when looked at collectively they are likely to give a highly representative picture of demographic distribution in Iron Age Scandinavia. Both in Sweden and eastern Norway it is possible to identify a strong correlation between 'Open land' and Iron Age-settlements, while the deep fiords of western Norway have attracted several old settlements as well. The main exceptions from this relation is a band of *vin*-settlements in the north-western mountains of Norway, *inge*-settlements scattered around the forests of south-eastern Sweden, and an intensive concentration of *hem*-settlements on the small mountainous coastal strip west of Lake Vänern.

Seen from a Scandinavian perspective, Denmark is almost completely covered with settlements of Iron Age place-name endings, but when looked at from a closer angle (Fig. DP1), differing degrees of concentration are also found here. Especially Blekinge and the western and central part of Jutland appear sparsely inhabited around 800, along with minor areas on the islands and in Scania.

A great number of names in *-by* most likely date to the Viking Age (*c.* 800-1000), although the suffix has been continuously used for new settlements ever since. Something similar can be said for the suffix type *-torp*, the by far most widespread place-name ending in Denmark and Sweden, where it in present-day forms often has developed into *-rup*, *-strup*, *-drup* or *-arp*. Still, most Scandinavian names in *-torp* are believed to originate from the period 800-1300, especially used on new settlements either moved out from older adjacent villages ('outlying settlements') or founded in hitherto wasteland ('clearance settlements'). Settlements with names in *-tved* seem to date from the same period, whereas the etymologically related suffix type *-rød* (both are thought to indicate forest clearance) predominantly appear to origin from the high Middle Ages (*c.* 1100-1300). As seen from Fig. 8, settlements with names in *-torp* veritably covers the entire Danish landscape, both in areas also containing Iron Age-name types, then possibly as 'outlying settlements' representing a land use intensification, and in areas without preceding name types, then often in mix with clearance-names (like *-tved* and *-rød*), indicating a post-Viking Age colonization process.

A final criterion for place-name dating, with obvious connection to the interdisciplinary method promoted by this paper, is the endings' correlation with the distribution of parish churches. When looking at the proportion of settlements within each suffix type in which the first major series of parish churches was constructed, an event which in Scandinavia took place in the period 1000-1300, it soon becomes evident that settlement of certain suffix types were much more likely to house a parish church than others, probably indicating which settlements were the most prominent at the time. Such 'church proportions' will differ between regions, but for instance within Denmark it is possible to identify a distinct pattern of frequencies, establishing that 50-80 per cent of all Danish settlements with names in *-lev*, *-løse* and *-hem* have become parochial centres with parish churches, while the same can be said for 25-50 per cent of the *by*-settlements, 30 per cent of the *inge*-settlements, and 5-10 per cent of settlements with name endings in *-torp*, *-tved* and *-rød*. Thus, all these place-name types obviously existed at the time when high medieval parish churches were constructed, but they clearly differed in the degree to which they were able to attract such centres, most likely due to variations in seniority, just as the figures strongly indicate that especially many settlements in *-torp*, *-tved* and *-rød* probably only were founded subsequent to the major parish formation phase (*c.* 1100-1250).

Also when looking at the geographical distribution, there is a distinct correlation between parish church density and settlements with Iron Age names. Whereas areas with a high church density generally also have numerous settlements with old name types, the opposite is not always the case, since we can find high concentrations of Iron Age place-names in e.g. Halland, north-eastern Scania, Vendsyssel (the northernmost Jutland) and southern Jutland without a corresponding high concentration of parishes. This is especially the case where the old settlements are characterized by *inge*-names.

Conclusion

Above is presented mappings of three different themes based on physical geography and historical angles of cultural geography in southern Scandinavia. The first shows the historical land use and its correspondence with physical landscape features (climate, terrain and soil), the second and third map show variations in demography around 800-1300 as represented in the geographical density of parish churches and the distribution of Iron Age place-name types. Each mapping includes analytical problems and possibilities of its own, but the really interesting aspect in the present regard is that in spite of being based on non-related sets of data, one can identify a significant overlap of patterns in their spatial distribution. Where all three mappings show signs of intensive human activity (by open land use, high parish church density and many settlements of old place-name types), it seems safe to conclude that this was an area of demographic concentration in the studied time period. However, the collective use of all three mappings increase the validity of such interpretations significantly, as it is also possible to identify some inconsistencies, where the use of just one mapping would produce a perhaps erroneously biased picture. For instance, mountainous landscapes along the west-Norwegian coast and its fiords were quite inhabited in spite of the physical landscape, and open landscapes of Denmark varied considerably in demographic attractiveness in accordance with the present soil types. Some districts may have had smaller parishes than what the population actually justified due to socio-political interests, and some Iron Age-settlements seem to have been situated in areas otherwise sparsely populated by the time when parish churches were built. Moreover, analytical features of high demographical importance in one Scandinavian country for various reasons may have held less importance in other regions, which makes it difficult for Scandinavian scholars to project analytical methods and observations from one country to another with the unfortunate effect that we tend to look at our collective history from a narrow nationalistic perspective. The model is still not fully developed, as it is our plan to include mappings of settlement structure (towns, villages and singular farms) and archaeology (e.g. graves from different time periods) as well. Other themes could of course be chosen for studies of other time periods or different regions of the world. But the interdisciplinary use of physical- and cultural-geographical data might be of inspirational value to colleagues outside of Scandinavia as well.

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