dungsgebiete sind keineswegs wertvoll; sie liegen auf steilen Flächen und haben eine schlechte Bodenqualität. Sehr oft treten Rutschungen auf, da nur eine dünne Schicht von Schuttmaterial auf der Mergel-Unterlage liegt, die nach der Zerstörung der früheren Walddecke nicht mehr stabil ist und daher oberflächlich in Bewegung gerät.

Dort wo sich die Rodungen um einen schon älteren Kern ausbreiten, erstrecken sich die älteren Parzellen gewöhnlich entlang einer Isohypsenlinie, während die jüngeren Ausdehnungen ohne Rücksicht auf die Geländeneigung entstanden. Die Lage, Form und Ausdehnung dieser Flächen wurden durch die Besitzverhältnisse des schon vorher verzwergten Besitzes bestimmt. Bei den „wilden" Rodungen wurde keine Rücksicht auf die Folgen genommen, die durch das Abspülen der Humusdecke entstanden, so daß in dieser Phase der Agrarlandschaftsentwicklung die schädlichen Auswirkungen noch schwerer sind.

Die Parzellen sind gewöhnlich größer als die älteren, die sich neben den Siedlungen befinden, doch bestehen auch Unterschiede in der Form. Die jüngeren Rodungen, die zur Zeit der Pflugbearbeitung entstanden, sind Parzellen von quadratischer Form und keine Langstreifen, was für die älteren Parzellen, die sich n e b e n den Siedlungen befinden, typisch ist. Die quadratischen Formen bedeuten nicht, daß sie auch mit dem Pflug bearbeitet wurden. Des steilen Geländes wegen wurden sie oft auch mit der Hacke bearbeitet.

Die jungen Rodungen sind meistens nicht unmittelbar an den Dorfraum gebunden, und es gab ursprünglich in deren Nähe auch keine Siedlungen. Erst zur Zeit der vorgeschrittenen Aufteilung von älteren bearbeitungsfähigen Flächen entstanden auch hier abgelegene Gehöfte. Ihr Besitz ist klein mit nur bescheidenen Häusern; neben dem kleinen Wohngebäude befindet sich gewöhnlich der Stall und eine Vorratskammer. Obwohl die betreffenden Betriebe getrennt stehen und abgelegen sind, ist ihr Besitz doch nicht arrondiert, weil sie einzelne Grundstücke auch innerhalb des Gebietes des alten Flurverbandes neben den Siedlungen haben. So können diese abgelegenen Betriebe auch nicht der Kern von neuen Siedlungen werden, wie es die Einzelhöfe mit Einöden aus der feudalen Zeit wurden. Es ist wahrscheinlich, daß sie solange im jetzigen Zustand bleiben werden, bis die Industrieentwicklung des Landes die Beschäftigung einer größeren Arbeiterzahl ermöglicht. Dann werden solche Betriebe als unrentabel aufgelassen werden können.

Ich habe nur die wichtigsten Elemente der Entwicklung der agrarischen Landschaft und der agrarischen Struktur im Hrvatsko Zagorje beschrieben. Viele Details jedoch, die die angegebene Entwicklung beweisen, mußten des begrenzten Raumes wegen fortgelassen werden. Doch schon das hier gebotene Material beweist, daß das Problem der Entstehung und des Verschwindens von Einzelhöfen mit Einöden und der Zadrugas von anderem Standpunkt aus betrachtet werden muß, als es bisher üblich war.

THE AGRICULTURAL GEOGRAPHY OF MØN

A Survey and Examples

Aa. H. Kampp

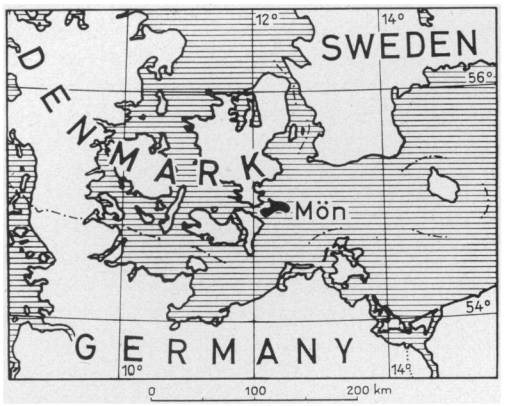
With 15 Figures and 1 Picture

Zusammenfassung: Mön im Lichte der Agrargeographie. Die Insel Mön verdankt ihre heutige Gestalt im wesentlichen der Weichsel-(Würm-)vereisung, die auch hier ein flachwelliges, kuppiges Grundmoränenrelief entstehen ließ. Dieses ist vom Borre-Moor, einer früher vom Litorina-Meer, heute von Mooren und Wiesen eingenommenen Vertiefung, in zwei Teile geteilt. Die Basis der Insel bildet der weiße Kalk, doch leiten sich die Böden fast ausschließlich von glazialen Ablagerungen her, was auch die unmittelbare Nachbarschaft ärmster und reichster Böden erklärt.

Die Einwohner leben bereits seit der Eisenzeit vornehmlich in geschlossenen Dörfern, doch waren diese noch bis tief ins 18. Jahrhundert hinein durch ausgedehnte Sümpfe, Moore und Heiden voneinander getrennt. In dieser Zeit kam es jedoch zu einer ausgesprochenen kulturlandschaftlichen Metamorphose, als die Einfriedungsbewegung das bisherige Ödland unter den Pflug brachte und die bäuerliche Dorfsiedlung zugunsten einer über die ganze Gemarkung verteilten Streusiedlung auflöste. Auf Mön begann diese Bewegung um 1765 und dauerte bis 1822. Typische Beispiele werden von ihren Anfängen bis zur Gegenwart verfolgt. Um der gegen Ende des 19. Jahrhunderts aufkommenden Landflucht zu begegnen, kaufte der Staat ab 1900 zahlreiche Parzellen an, auf denen er landwirtschaftliche Arbeiter als Kätner ansiedelte. Als diese Maßnahmen jedoch nur geringen Erfolg zeigten und die Landflucht weiter andauerte, verfügte die Regierung 1919 die Aufteilung der Pfarrhöfe und teilweise auch der Güter, um so lebensfähige Betriebe mittlerer Größe zu schaffen. Als Beispiel wird hier die Aufteilung eines ehemaligen Pfarrhofes geschildert. Seitdem hat die Produktivität der Landwirtschaft einen großen Aufschwung genommen, der durch den Ausbau des schon länger bestehenden Genossenschaftswesens stark gefördert wurde.

Die landwirtschaftlich genutzte Fläche hat von 1939 bis 1960 um 1 1/2 % abgenommen, doch konnte die Ertragslei-

stung beträchtlich gesteigert werden. Besonders durch das eine von den genannten Beispielen (Dalmosegaard) ist gezeigt, wie die Bewirtschaftung von der ursprünglichen Getreideproduktion nach und nach das Hauptgewicht auf Molkereibetriebe, Zuckererzeugung und Samenzucht gelegt wurde, mit steigerndem Ertrag zur Folge.



This is a study of a small region of Denmark, because the study of a small region makes a more comprehensive picture of the whole and the better control of the sources which is possible ensures accurate detail.

1. Geology and Terrain

Excepting Bornholm, the little island of Møn is the southeasternmost part of Denmark. Like the whole of East Denmark as an agro-geographical region (13), it consists mainly of a gently undulating moraine area from the last Ice Age (Würm-Weichel). The island falls naturally into two different parts, divided by the Borre depression, now moor and meadowland, but submerged in the high water periods of the Litorinasea. For about two thousand years it was a salt water inlet, but by 500 B. C. or thereabouts a sufficient raising of the seabed had taken place that it was closed by a bar. This bar was, however, frequently penetrated and the last inlet phase was in the Middle Ages, coinciding with the medieval town of Borre. In the 1500's the bar was finally closed making Borre moor. As late as 1763, however, boats came up to Borre which stands on a small islet of moraine clay, barely two metres above sea level.

The western part of the island is an undulating moraine landscape. Its highest point is 44 metres. Locally the countryside consists of low hills with small lakes, having no outflow, and extensive moraine plains. The north-west peninsula consists mostly of marine deposits.

The eastern part of the island is hilly. The ridge in the woods rises to 143 metres at its maximum point. From the highest point of Dalmosegaard (fig. 7), looking across the Borre depression towards Høje Møn (High Møn), the skyline appears almost like a mountain landscape. The jagged outline which is mostly due to horizontal ice pressure in the Ice Age is increased by the formation of sinkholes. These are usually dry, despite the fact that rain water runs into them from all sides, due to the good drainage of the underlying chalk. Where the underground drainage is clogged up, however, they form lakes. The water level in these lakes is as much as 100 metres above sea level.

The numerous underground outlets on Høje Møn means that surface watercourses are almost totally absent and soil drainage, as a rule, is unnecessary even from the valleys. The east coast is framed by high, pointed chalk cliffs. Their chalk-white parts rise to 128 metres above Baltic sea-level. At the top the cliffs are clothed in beech-woods, running in strips down the white chalk. They keep light green from spring towards autumn because of the shallow underlayer of chalk. The chalk soil is also responsible for the rich orchid flora of the forest floor. For more than seven kilometres the cliffs form the beautiful scenery of "Møns Klint".

2. The Soil

Sandy, poor soil lies side by side with the richest and most fertile soils. The main soil type is the strongly local moraine clay. It gives way to larger parts of melt-water deposits along the Borre depression and in the valley from the southern part of the depression through Stege Nor (Stege Cove) and lengthwise through western Møn. Melt-water sand and melt-water gravel are also found in an esker, towards the south. A little to the east there is a large plateau of stratified clay. On the hills north of the "Cliffwood" steep pressed gravel and sandstratum are to be seen (5). The moraine layer on Høje Møn is locally so thin that white patches are often to be seen in the fields where the mouldering surface of the chalk has been ploughed up. Large parts are therefore covered with woods which are more extensive than in 1779 (see fig. 1—2). White chalk forms the substratum of the whole of Møn mostly at considerable depths.

3. The Agricultural Area

The arable land is a synthesis of elements so numerous and often so varied that systematization on scientific principles is impossible. The general formation and conditions of the terrain, the physical and chemical conditions of the soil, the climate and the water economy together make, it is true, the natural basis of the soil; but the biological conditions, the period and the degree of cultivation the soil has received, the economic and social structure of the area, all greatly affect the

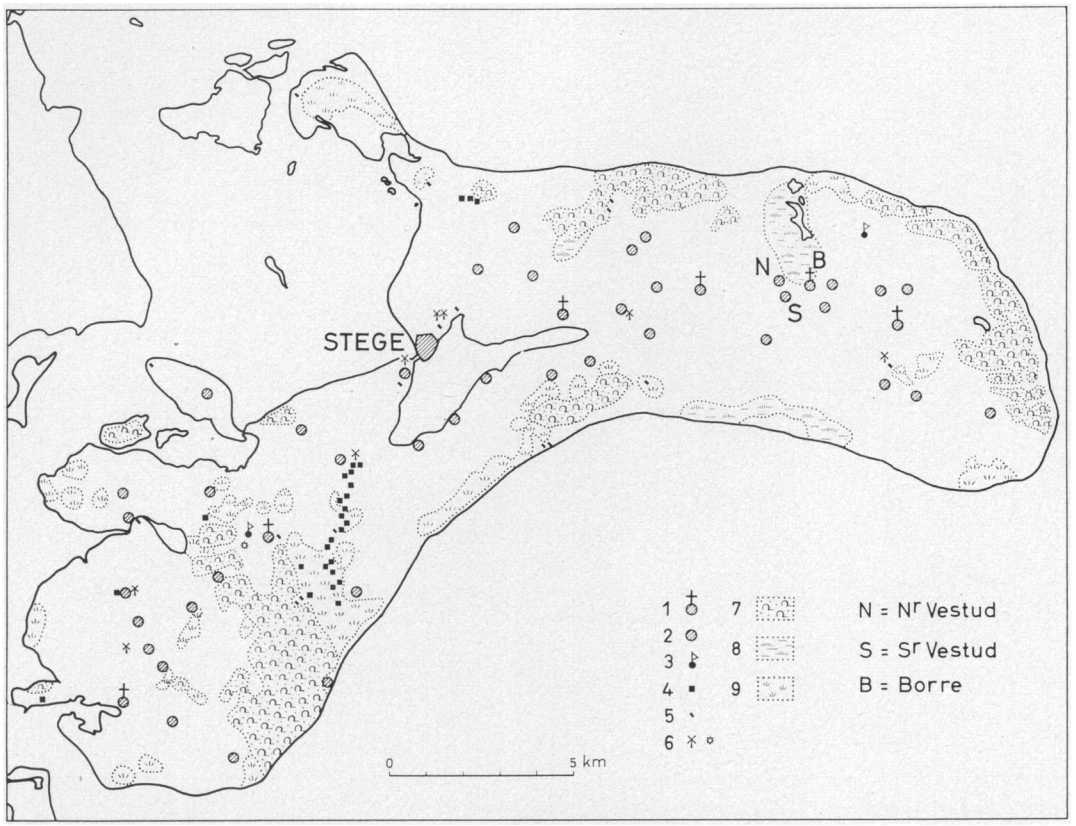


Fig. 1: Mön 1776 (from Vid. Selsk. Kort). 1. Village withchurch, 2. Village without church, 3. Manor, 4. Single farm, 5. Single smallholding, 6. Mill and water mill, 7. Wood, 8. Bog, 9. Heath. White: arable land.

1. Kirchdorf, 2. Dorf ohne Kirche, 3. Gut, 4. Einzelhof, 5. Einzelhaus, 6. Windmühle und Wassermühle, 7. Wald, 8. Moor, 9. Heide. Landwirtschaftsfähiges Land ist weiß.

situation and call forth differences, even if the basic natural conditions are the same.

Fig. 1, which is based on Videnskabernes Selskabs Kort 1776 (21), shows the contemporary areas of woodland, moorland and water and the town Stege. The white parts of the map show roughly the distribution of the agricultural area at that time. A corresponding map has been drawn for comparison with to-day (fig. 2). It will be noted that land not used for agriculture has decreased, as was to be expected, although, as mentioned earlier, the woodlands have spread over certain chalk hills of Høje Møn.

It is estimated (18) that the ratio between cultivated and uncultivated land in 1789 was 34:9. To-day it is 34:2; which means that 89 % is cultivated.

4. Land Utilization

The arable land is decreasing because of the utilization of land for building sites, schools, sportgrounds, road improvement etc. and on the southern shores of Møn erosion by the sea is a serious factor. In 40 years, on one single farm, 40 hectares of rotation land have been lost to the sea. Part of the land has also been given over to more intensive use as orchards and market gardens. The agricultural land has, in fact, decreased from 16,785 hectares in 1939 to 16,545 in 1960, and market garden and orchard areas represent only 47 ha (1953). Private gardens for Stege alone amount to 79 ha, and the increase in these all over the island has absorbed part of the agricultural area. In these cases the land has not gone out of production. In spite of the decrease, the agricultural yield has increased because of 1. plant improvement and the use of better yielding strains, 2. the use of artificial fertilizers and of chemicals against weeds and plant diseases, and 3. soil improvement by draining and marling the existing arable land, quite apart from reclamation activities.

Cereals are far less important in Danish farming than in most European countries. Grain areas represent less than half the arable land. The major part is under rotation grass, green fodder and roots. On Møn, however, cereals are 55 % of the rotation.

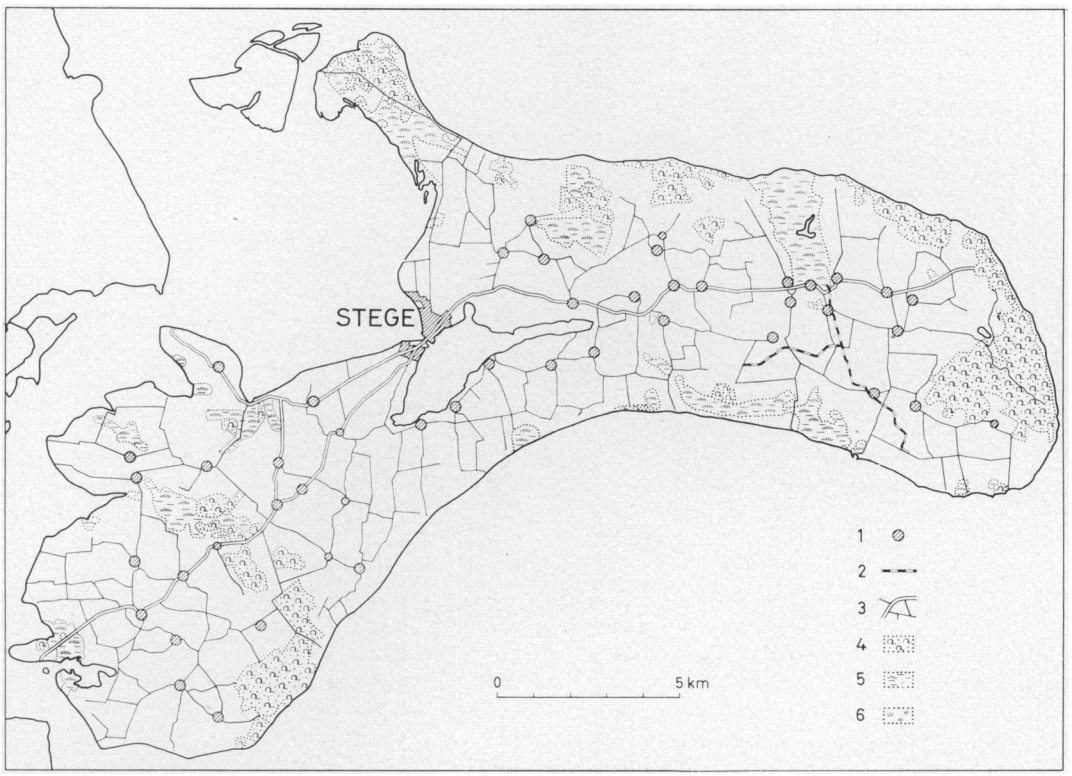


Fig. 2: Mön today. 1. Village, 2. Sugarbeetrailway, 3. Highways, 4. Wood, 5. Bog, 6. Heath. Scattered buildings are not shown. White: arable land.

Mön heute (nach Geodät. Inst.) 1. Dorf, 2. Zuckerrübenbahn, 3. Straßen, 4. Wald, 5. Moor, 6. Heide. Zerstreute Bebauung nicht mitgenommen. Weiß: Landwirtschaftsfähiges Land.

The arable land is intensively cultivated and fallowing has been abandoned. As a rule, the crops in each field alternate in a fixed succession and if all the fields were of equal size each crop would occupy the same area every year.

The 8-field rotation is the most common over the greatest part of Denmark. It is highly representative of the whole country: barley, oats, mixed grain, rye or wheat, grass and roots. The two last mentioned are often grown in two fields, or seed crops may be grown.

Fertilizers and manure are applied and better use is made of the nutrient by changing the crops from year to year. This does not exhaust the soil by always growing the same crop and drawing upon the same combination of nutrients year after year. Once or twice in the rotation, in the root fields, there is thorough weeding and, in the grain fields, weeds are chemically destroyed. In this manner the fertility of the soil is preserved, the farm work is spread as evenly as possible, and parasites do not get a hold.

The total area on Møn growing human foodstuffs, in the form of vegetables, the products of orchards and market gardens, wheat, rye and potatoes represents only 7 % of the land under rotation and a large part of the wheat and the potatoes is actually used for the stock. About the same area is used for seed crops (8 %) and for permanent grass out of rotation.

The average size of a farm for the whole of Denmark is 15.2 ha. On fertile Møn it is 13.5 ha and the family farm is predominant.

In 1959 there were only 228 horses in the two easternmost parishes of Møn, but there were 185 tractors. In the whole of Møn there were, 1,085 horses and 757 tractors. The figures for Denmark were 212,000 and 96,000 respectively. Møn has, in fact, given up the horse for the tractor to a greater degree than the rest of the country.

Year	No. of horses	No. of Cows	No. of Sheep	No. of Pigs
1684	1,642	1,195	1,151	763
1939	2,713	9,016	281	18,408
1953	2,599	8,692	200	17,729
1959	1,085	7,019	164	33,716

The figures for 1684 include two small distant islands, but they indicate sufficiently the relation between the number of the stock. The comparisons, particularly with pigs and sheep, show the increase in intensive agriculture.

Maps drawn by the writer show the distribution of crops and stock. They show a completely even distribution over the agricultural area, apart from a greater concentration of rye, potatoes and mixed grain on sandy soils.

Barley is the dominant crop in East Denmark. On Møn it represents 29 % of the rotation area which is 53 % of the cereal area. Next comes sugar beet with 16 %, rotation grass 15 %, seed crops 8 % and then oats and wheat. As 80 % of the beet crops and 100 % of the tops are used for fodder, either fresh or as silage, it is clear that here, as in Denmark generally, the greatest importance is attached to cattle and dairying, with the by-products, especially skimmed milk, used for feeding pigs.

5. Land Tenure

For over four thousand years agriculture has been the leading industry of Denmark. Farming has been the predominant form of economic activity and as long as Danish land has been cultivated there have been different sizes of farms.

In the Middle Ages several Danish nobles owned land on Møn. There were also Crown lands. In 1370 the Bishop of Roskilde was a large landowner, but after the Reformation the Bishop's possessions went to the Crown. The small medieval manors seem to have disappeared at the close of the Middle Ages. The Crown acquired by exchange of land in other parts the scattered estates of the noblemen and came to own the whole island. Following the introduction of the absolute monarchy (1660) Møn was mortgaged to a Dutch merchant in 1664. In 1684 the mortgage was redeemed, and the next year the Royal Horse Guards were transferred to the island. Some land was taken from the farmers for grazing the Guards' horses. The Guards pillaged the island and had to be transferred 1697.

After the introduction of the absolute monarchy the island was administered as two manors. These were extinguished when the Guards left the island. The eastern manor was parcelled out in peasant farms and in Stege the farmers were released from villeinage. In 1769 the Crown lands on Møn were offered for sale, divided into five manors in which 257 farmers became freeholders and 280 farmers were villeins by tenure. It was not until the 1800's that farmers bought most of the copyhold to become freeholders.

As in most parts of the country nucleated rural settlements were characteristic. In 1776 the map shows (fig. 1) 46 villages, two manor houses, 27 dispersed farmsteads and 15 isolated houses. How many farms and houses there were in each village cannot be seen from the map, but in 1682 there were on Møn one manor house, 642 farms and 70 houses, a total of 713. On many farms, however, the new copyholders accommodated the former tenants and the cottagers, so that the number of households was possibly at least double this figure. In 1950 there were 3,440 households outside Stege, which had 834.

a) The Enclosure Movement. Ever since the Iron Age Denmark's inhabitants have to a great extent been domiciled in nucleated villages. The village societies were organized on the communal open field system with scattered strips of land in the common fields held by the individual villagers in feudal tenure. In 1767 the farmers were allowed to have their strips consolidated and this made it possible for them — thanks to the high prices in cereals — to become freeholders. In the prosperous years around 1800 many farmers who were copyholders became freeholders by buying their land.

Between the villages, the open land was covered with rough woodland and swampy stretches, heathland, bogs, meadows and rough grazing (Commons Allmende). In spring the cattle from the village were taken to the common for free range grazing as soon as there was a little grass. Late in May they were moved to the meadows, and, on Møn, at any rate, the pigs were put out to range the common land.

The topographical consequences of enclosure in a country with as large an agricultural area as Denmark inevitably changed the character of the landscape so that it is justifiable to speak of a metamorphosis. The fields extended over the former commons, the outlying farms came to occupy an outstanding place in the landscape (fig. 3), and the houses of the villages were now occupied by rural craftsmen and workers, as the character of the economic life gradually changed. Rarely can so striking a change have taken place as when the farms of the old village economy moved out into the surrounding country onto enclosed farms (fig. 3). Swampy land was drained to makè meadows, and on the enclosed fields the soil was cultivated as never before.

The character of a landscape is decided by the nature of the trades carried on there and their development. Manufacturing industry and fishing tend to gather the houses in groups, and agriculture, which before the enclosure movement had the same effect, had now developed the opposite characteristic.

Every village has its individual character determined first and foremost by the topographical conditions. As in most parts of Denmark, the villages around the Borre depression are edgeorien-

Fig. 3: Part of ordnance survey maps 4129, 4130, 4229, and 4230, showing the present buildings in Sönder Westud. Ausschnitte der Meßtischblätter 4129, 4130, 4229 und 4230 mit der gegenwärtigen Besiedlung von Sönder Westud.

tated. The houses lie on the higher ground so that inundation is avoided, but the village does not lose contact with the low-lying meadows, which were so important when agriculture could provide sufficient food for the cattle only with difficulty (8). Sønder Westud is a typical edge village with the old fields lying in the west and the meadows to the east. The village street was originally on the lower ground while the farms lay a little higher on the former Litorina slope.

A comparison with other twin-villages in Denmark leads to the conclusion, that S. and N. Westud (South and North West – out from Borre) may have been laid respectively on the south side and north side of a watercourse. This is now only to be seen as a roadside ditch and it can hardly ever have been large, but probably it was the largest in this region and large enough for a horizontal mill (or two). The flow could not have been violent, and it took an easy winding course particularly near the outflow in Borre fjord. This may be the explanation of the winding character of the township's borders and the contours do not seem to make this explanation impossible. Any such windings must, however, have been straightened artificially more than 150 years ago, for the writer of a paper in 1923, who was born in 1857, and had spoken with people who were born in the 1700's, was not able to find any explanation (16).

Before enclosure, the land of the village was divided into large fixed fields. Each farmer had to sow his strips with rye in the ryefield of the village, with barley in its barleyfield, and so on. Each cereal was in this way together in one place, and all the farmers had to do the same work at the same time.

Enclosure began on Møn probably in 1765. This was at Haarbølle, one of the first villages in Denmark where strip holdings were exchanged for compact holdings and in 1822 the last two villages on Møn were enclosed.

The change in the village landscape took place partly through enclosure and the building of new farmhouses on the enclosed land, partly through combining the existing farms. In 1682 the number of farms in S. Westud appears to have been 19, but only 14 came under enclosure in 1803.

The peasant farmer now owning his land and free to exploit it as he wished did so in different ways. On Møn, as a rule, he divided his land into four fields; three for cereals and the fourth for grazing until 24th June and then ploughed for sowing winter cereals. Geese and sheep were put on the ploughed fields after harvest and left to shift for themselves. Meanwhile, the cows were on the meadows. The rotation of crops was, as a rule, 1. rye and wheat, 2. peas, 3. barley and a little oats, 4. grass, ploughed up at Midsummer and manured if possible, to lie fallow for the rest of the summer.

There were many variations, but always a "long strawed" crop came only in alternate years on any field. The system did not allow a farm to carry many head of stock. A 20—30 ha farm usually had no more than four or five milking cows. Frequently such a farmer, even as late as the 1880's had periodically no cows in milk on his farm at all (3).

About 1820 the farmers began to grow vetch for green fodder in the fallow field.

Without going into the details of the change in the economic-geographical structure of the village, — inevitable though gradual after the land had been re-distributed and farms established — the section of map (fig. 3) shows how the enclosure of S. and N. Westud had been a partially "stellate enclosure". To avoid making the parcels of land too narrow, here as in many other places in the country, the more distant lying land was made into separate holdings. The 14 farms were to be of equal size; but every farm — indeed, every field on the moraine formations of East Denmark contains differing soil types with extraordinarily wide differences in quality even in closely adjoining patches of land (figs. 4, 6, and 10). The conditions were too complicated for division by area so the division was made by valuation. Each got the same land valuation (6 Tønder, 2 Skæpper Hartkorn*)) and were therefore unequal in size. The quality of the soil was, of course, at its best near the village (fig. 4) where the soil for centuries had been most manured and cultivated.

b) The Subdivision of Agricultural Land. With the breakdown of the centuries-old communal system of the villages, the smallholder lost the right to graze his cow in the village fields. Some of the smallholders got small allotments (Kätner-Stellen), which were inconvenient for the farmers, or they were allowed a piece of the common (Allmende) for reclamation. During the enclosure period, the landowners established thousands of holdings as a source of labour. Many of the smallholders paid for their copyhold tenure (Lebenspacht) by working for the landowner. The conception of independent smallholders in the

*) Hartkorn is a Danish standard of land valuation. It is based on the normal yield of the soil and 3.575 hectares of the most fertile soil constitute 1 Td. Htk. On average, however, Td. Htk. require 5.995 ha. in the islands, 14.630 ha. in Jutland and 9.900 ha. in the entire country. Up to 1903 that was the basis of State taxation, and until 1920 partly the basis of local taxation. (1 Tønde = 8 Skæpper).

Fig. 4: Soil quality map 1809

A number of soil evaluations hav been made from time to time for taxation assessments. The two earliest were in 1664 (peasants' land only) and in 1671—88. No maps exist. The third, made under an act from 1802, began in 1806, was completed 1826, and was put into force 1844. That of Sønder- and Nørre Westud was completed in October 1809. A piece of land of the best agricultural quality was selected and given the maximal rate of 24, while land of no agricultural value was given the rate of 0. According to yield capacity, the rates were fixed from 24 to 0. As seen from the map (1809) the fields nearest to the village had the highest ratings because they were tilled first and thus got more manure making better soil.

Taxationskarte von 1809. Der beste Boden Dänemarks hat die Taxe 24 bekommen, der schlechteste 1 [Boden ohne agrarischen Wert = 0]. Der beste Boden in Sönder Westud hat die Taxe 18

sense of small farmers is essentially a product of the relatively recent agrarian reforms.

State subsidized smallholdings (Siedlerstellen der staatlichen Aussiedlung) are a characteristic feature of the 20th century. The partition of lands for these purposes now has a legal framework which gives it continuity, with the State subsidizing the establishment of new holdings. Lack of labour in the country districts in the 1890's, following extensive overseas emigration, is the background to the first smallholdings Act, State Smallholdings Act of 1899, fixing the maximum size of holdings at 1—4½ ha, according to the quality of the soil. It was revised in 1904 and 1909, when the independent smallholding became a set policy and purpose. These Acts, with the complex of Acts in October 1919, provide for the State to buy land for partition to be held by smallholders as State copyhold with a rent fixed on the basis of periodical reassessments for the land. The Acts of October 1919 deal, for example, with the sale of church lands for partition. The size of the holdings was fixed as sufficient for a family to earn their living on it. By 1958 8,000 State subsidized smallholdings had been established, 1,500 on former church lands, 16 of the latter being on Møn. To form these, the lands of three vicarages were partioned. On one of them, however, no independent smallholding was established, only supplementary allotments. Smallholders regarded as being in the greatest need of land had the opportunity to buy a supplementary allotment when the State sold land nearby or they could obtain it on land-rent conditions.

The church lands attached to vicarages comprised originally 2 % of the hartkorn in each part of the country.

c) Partition of a Church Farm. The average size of State smallholdings in Denmark was 7 ha. in 1920—30, 10 ha. in 1930—40 and 17 ha. in 1940—58. For State smallholdings on former church lands the average was 7.2 ha. as the clergy always had some of the best land in the part of the country in which they lived. In the example from Møn in 1926, the 14 holdings got, on average, 5.5 ha.; but the quality of the soil is far higher than for the country as a whole or for region 7 (13). In addition to the 14 smallholdings supplementary allotments with an average area of 2.8 ha. (northwest in the map) were granted to three smallholders outside the colony.

The two small woods on the map and the parcel of land marked "1" were conveyed to the widow of the vicar.

Differences in the size of holdings within the new colony are mainly due to differences in soil quality and to a lesser degree to the shape imposed

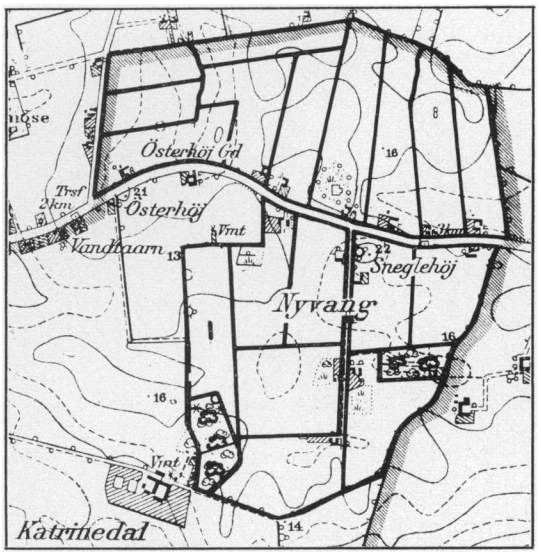


Fig. 5: Subdivision of a vicarage
Die Aufteilung eines ehemaligen Pfarrhofes

by the terrain conditions, watercourses, roads (which it would have been too expensive to change), the woods and the parish border, which bounds the colony on three sides.

During the enclosure period, the farmers who moved out of their village placed themselves, for practical reasons of internal haulage in the middle of their fields and roads were of secondary importance. In establishing colonies of State subsidized holdings, however, it is of primary importance to place buildings on a road.

By the time the village fellowship of the common field system ended the farmers had moved away from the village to a large extent. The partition of the former church farm, because the lands were continuous, caused the smallholdings to be situated in colonies, making a modern form of village which is not only a housing feature in the landscape but, topographically, gives the district a changed appearance because of the smaller and more numerous fields.

6. Typical Examples of Holdings

a) Dalmosegaard. Fig. 6 shows the lands of Dalmosegaard (see fig. 3) before 1803 with the swampy, uncultivable regions marked. The area within the 25 m. contour line (fig. 7) was far into this century a swampy meadow and could not be cultivated until it was effectively drained. So was the little valley in the south edge of the map. In August/October 1960, precipitation was so high (378 mm against the 169 mm mean) that the water constantly reached the 25 m. line. The buildings were placed approximately in the

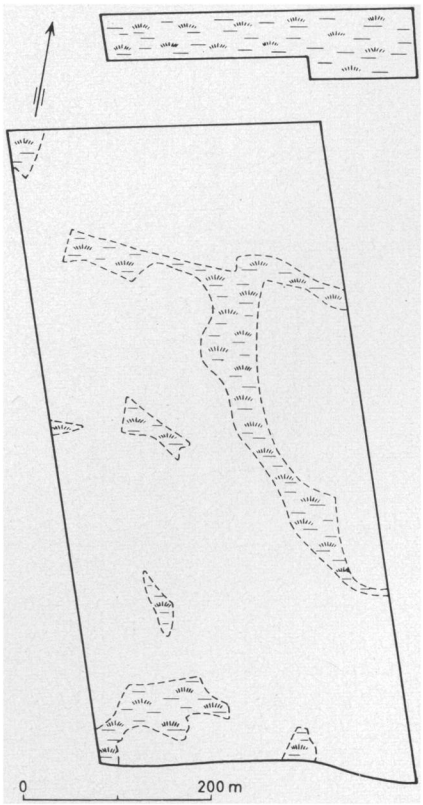


Fig. 6: The swampy parts of Dalmosegaard 1803
Die Sümpfe Dalmosegaards 1803

middle of the fields for haulage reasons; but their position was partly decided by the needs of drainage and good drinking water. Drinking water was first taken from wells near the buildings and later from a well to the immediate west of the buildings and half way of the western border of the fields.

Apart from a peat bog lake in the south-western corner, the whole area is now under cultivation, thanks to an effective system of drainage (see fig. 7).

The farm is 25.4 ha. of which 0.3 ha. is lake and bogland, 0.7 ha. buildings and 1 ha. ditches and roads leaving 23.4 ha. arable land. This is mainly clay mull overlying boulder clay, but southwest of the farm there is a sandy hill, which was 1960 under barley and wheat (fig. 8).

An overcrossed line on the enclosure map of the area must have a meaning. It may be the border of the common (Allmende) at that time. The owner's father, however, was of the opinion that this must be farther to the east (16). Nevertheless, the border line must be marked somewhere on a map that was drawn before the enclosure. Furthermore, the pH figure for the land outside the line seems still to be very low. Perhaps the

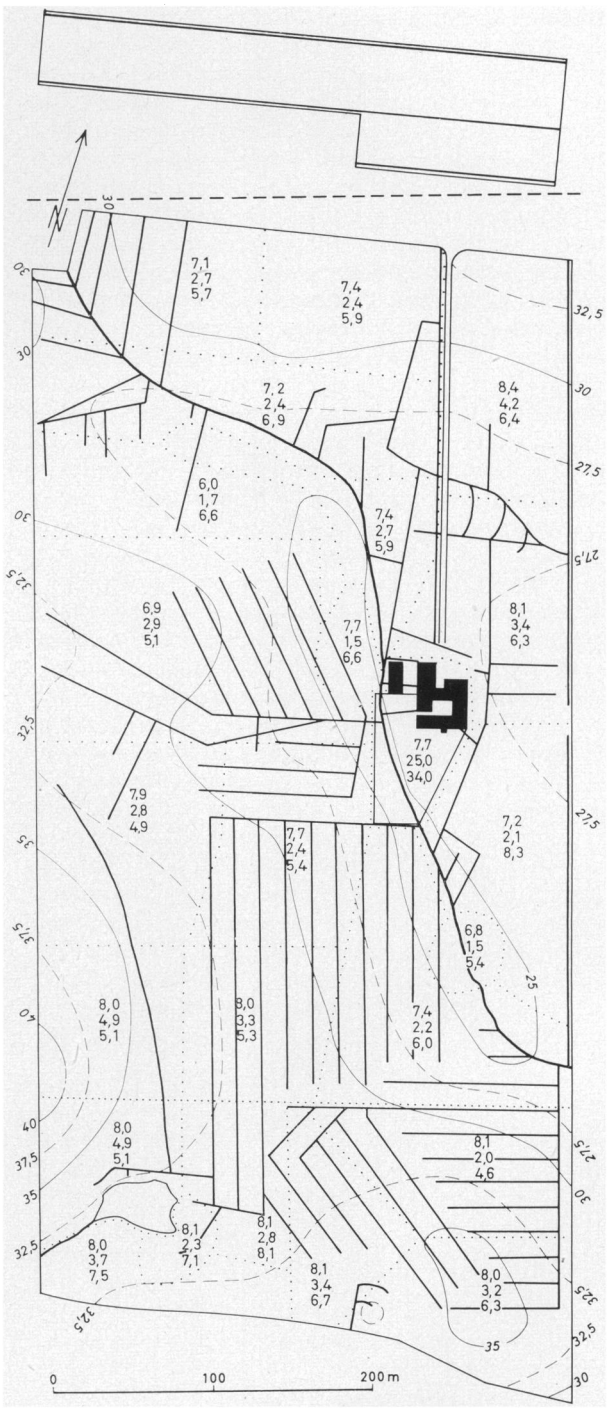


Fig. 7: Dalmosegaard. Micro-relief (elevation outside the area), acidity, phosphates and potash figures, drainage map

Höhenlinien: Zahlen außerhalb des Areals; Reagenzzahlen: Sauerkeit, Phosphorzahl und Kalizahl. Drainierungsplan.

commonland will someday be identified by pollen analysis. The highest Phosphor figure east of the lake *may* be due to a very early habitation as the author found here about 45 years ago more than 20 Neolithic stone implements. About 100 m from this place lies a barrow. As a whole an immense amount of primeval relics are found on Møn, in the fields, the commons, and the woods.

When the pH, potash, and phosphoric acid figures in fig. 7 have been measured and the effects of marling and artificial fertilizers have been added, the figures are increased. The pH figure on clayey soil should be over 7; on sandy soil it should be under 7; and cultivated plants have different degrees of toleration towards acidity. Draining in S. Westud was first carried out in 1820 (16). The drainage map for Dalmosegaard is indicative of the soil conditions.

The very clayey fields are fulldrained; the sandy regions less so. The most clayey areas are the hill towards the south-east and the hill slope west of the main drainage canal — the thick, uneven line running from NW to SE. On the 1803 map it begins on the neighbouring land to the east, from where it probably was a natural outflow, and it absorbed through the earth layers the water from the swamps on the fields of Dalmosegaard.

The age of the drainage system can be seen to some extent from the map. Apart from the main channel, which may have been dug about 1803 and was an open ditch until 1924, the oldest known underground drain is the one that drains off the small swamp in the middle of the western border — originally into the lake. At that time a drain was made by placing stones at the bottom of a long, narrow trench and covering them with soil. This is to-day the only drain on the farm, which is with certainty known to have been made during the years 1855—1892, but deepening of the main channel may have taken place several times.

This ditch was laid with pipe drains by the present owner, who has also relaid all the parallel main drainage, partly replacing old and incomplete systems. All the subsidiary drainage was laid with tile pipes between 1892 and 1926. The earliest drainage was empirical, simply using the natural lie of the land; the latest draining operations have been carried out with modern equipment and levelling instruments.

Dalmosegaard was, of course, originally copyhold. The copyholders since 1660 are known. The great-grandfather of the present owner took over the copyhold in 1804 on enclosure. His son bought the freehold in 1856. The present dwelling house was built in 1860 and the newer farm buildings in

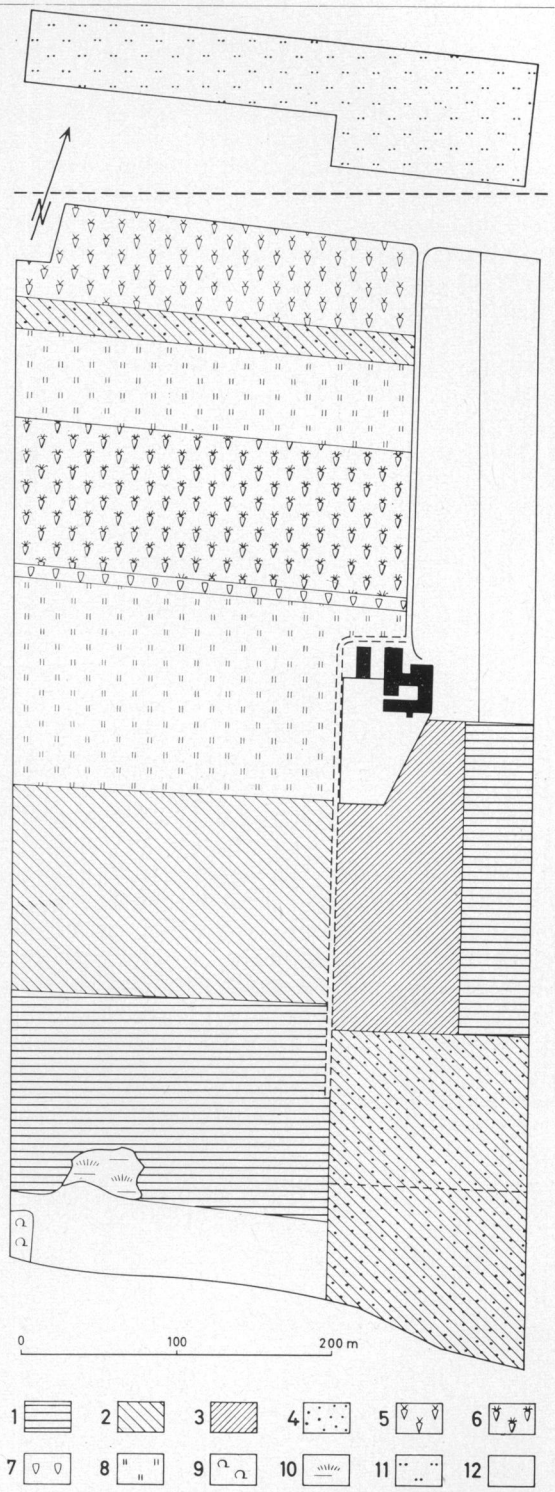


Fig. 8: Dalmosegaard. Field crops 1960. 1. Wheat, 2. Barley, 3. Oats, 4. Ley, 5. Swedes, 6. Sugar beets, 7. Fodder sugar beets, 8. Rotation grass, 9. Decideous forest, 10. Bog, 11. Meadow, 12. Seed crops.
Feldfrüchte 1960: 1. Weizen, 2. Gerste, 3. Hafer, 4. Zwischenfrucht, 5. Steckrüben, 6. Zuckerrüben, 7. Weiße Rüben, 8. Gras im Fruchtwechsel, 9. Laubbäme, 10. Tiefmoor, 11. Wiese, 12. Saatfrucht.

1933—1951. A silo has been built in the northern wing.

Until 1928 a six-field rotation system was used with half a field and the meadow outside the rotation. The farmer then became a seed-grower, and since then there has been no fixed rotation; but great skill and practical experience go into the cultivation and preparation of the fields from one year to the next.

The two seed fields north-east of the buildings are red clover (to the east) and white clover; the southern seed area is lucerne. The ley in the northern barley field is grass with clover, which in 1961 was joined with the adjoining field, in 1960 under first-year grass and not to be ploughed up until 1962. Directly west of the farm buildings is second year grass which was ploughed up in 1961. In the southern barley field is a ley of red clover (to the south) and white clover for seed.

The average yield for 1955—1960 is given as 24 hkg. per Töndeland (0.55 ha.) for wheat, 25 hkg. for barley and oats, 175 hkg. for sugar beets.

The meadow, about 3 km. east of the farm, is hedged and is used for grazing heifers.

The farmstock is as follows: 15 cows (machine milked since 1937; artificial insemination) and 12 young stock, all Red Danish Dairy Cattle (RDM), six sows; 70 bacon pigs and 70 hens. The milk production is about 50 thousand kg. yearly or 4,039 kg. per cow, calculated on 12.9 annual cows. The fat content averages 4.05 per cent equivalent to 183 kg. of butter per cow per year. There are in total 62 stock units which is 2.5 per ha.

The farmer has a tractor and the usual tractor implements. He shares a combine harvester with a neighbour. Two men manage the routine work and the harvest. In the 1880's it was usual for the farm to have, additional to the farmer himself, two farm hands, two housemaids, supplemented for the harvest by two labourers and two women (3). About 1900 the first reaper was bought and in 1910 a binder, which is still used with the combine, bought in 1959.

The owner's father, who farmed the land from 1890, kept a precise account of the cereal harvests 1890—1926 when a co-operative threshing machine went from farm to farm.

	Td. pr. Td. Ld. 1890–1900	1901–10	1910–20	1920–26	Hkg. per Td. Ld. 1955–60
yield per area unit of wheat	14	13	19	14	24
do. of rye	13	12	12	14	—
do. of barley	13	14	16	15	25
do. of oats	16	20	19	20	25

The first four columns represent tønder, and the last column hkg. For wheat, rye and barley it does not make any difference, but as tdr. is volume and hkg. weight the figures for oats in the first four columns must, for the comparison, be multiplied by 0.85.

As with the national figures for Denmark, there is a considerable increase in yields for the reasons mentioned before. A corresponding increase would not have taken place with rye, however. Consequently rye is not cultivated on soil of that quality any more.

For the dairy cattle the account is as follows:

Dairying	1893–95	1896–1900	1901–05	1906–10	11–15	15–18	26–28	59–60
Average no. of annual cows	about 13	ab. 13	ab. 14	ab. 17*)	ab. 18*)	15	13,2	12,9
Average milk production, kg.	1834	1988	2089	2556	2402	1938	2688	4039
Maximum yield per cow in kg.	2735	3859						4488

Stock general	Horses	Cows	Bull	Young stock	Pigs	Sheep
1697	8	5	—	—	5	13
1772	7	1	—	2	4	9
1776	7 (+ 3)	2	—	1	4	4
1804	7	1	—	—	?	?
1866	5	8	1	4	2	10
1960	0	15	0	12	76	0

Crops	Rye	Wheat	Peas	Barley	Oats	Vetches	Seed	Roots	Clover + grass	Meadow
1866	1.65 ha	2.2 ha	2.2 ha	4.4 ha	2.75	1.1 ha	0	0	0	?
1960	0	4.0 ha	0	6.0 ha	1.5 ha	—	3.0 ha	3.5 ha	3.5 ha	1.8 ha

In 1866 the rest may have been fallow and grass.

Price of the farm 1865: 9.400 Danish Kroner
1892: 23.700 Danish Kroner
1926: 51.000 Danish Kroner
value 1960: 250.000 Danish Kroner

*) In the years 1907—1917 the farm had 10 Tdr. Ld.(= 5.5 ha) more than at present.

Fig. 9: Airfoto of Dalmosegaard.
Luftbild von Dalmosegaard.

b) Knud Pedersen's smallholding. This smaller holding on sandy soil serves as a counterpart to Dalmosegaard. The holding has 6.6 ha. The circle south of the buildings on the plan is a silo. Field No. 1 has good, clayey sand soil, the content of sand increasing eastwards, so that fields 7 and 8 are exposed sand mull drift. The degree of acidity increases generally to the east. Draining is not necessary in the pure diluvial sand area; but the more clayey land which includes a valley, has been drained. Perhaps this lack of drainage is one of the reasons for the more acid soils in the eastern part of the holding.

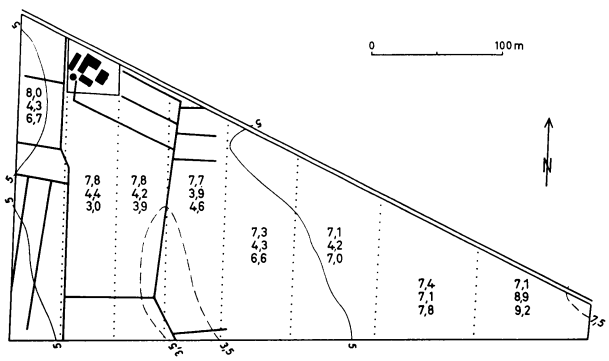


Fig. 10: Knud Petersen's smallholding. Micro-relief, acidity, Phosphates and potash figures, and drainage map.
Schichtlinien, Sauerkeit, Phosphorzahl und Kalizahl, Drainierungsplan.

A 7-field rotation is used. Field No. 8 is not in the rotation which simply runs so that in 1961 crop No. 1 will be grown in field No. 2 and so with crop No. 7 in field No. 1.

The ley in field 1 is grass with clover, in 3 "green fertilizer" (lucerne), in 6 first-year grass, in 7 second-year grass. Seed is not grown; seed-growing is commonly on larger farms with clayey soils.

The yield per ha. for cereals is 26 hkg. towards the west and 15 hkg. to the east 15. For roots it is 300 and 200 hkg. respectively, which is more than for Dalmosegaard. It is a common phenomena in Denmark that smallholdings have the largest yields because they are farmed more intensively. A few years ago potatoes went into the rotation on this holding, as is common on sandy soils in Denmark.

There are six dairy cows, which since 1952 have been machine milked, five young stock, 10 calves (all RDM), four sows, 30 bacon pigs and 30 suckling pigs, two horses and 100 hens.

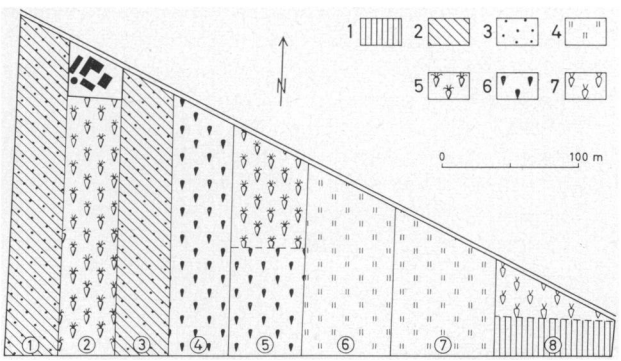


Fig. 11: Field crops 1960. 1. Rye, 2. Barley, 3. Ley, 4. Grass, 5. Sugar beets, 6. Mangels, 7. Swedes. The encircled figures show the rotation.
Feldfrüchte. 1. Roggen, 2. Gerste, 3. Zwischenfrucht, 4. Gras, 5. Zuckerrüben, 6. Runkelrüben, 7. Steckrüben. Die Zahlen in den Kreisen zeigen die Fruchtfolge.

Milk production is about 30 thousand kg. or five thousand per cow with 4.30% butterfat which means 275 kg. butter as an average per cow per year. The pigs are recorded at 3.2 fodderunits per kg. growth. The stock totals 33 stock units representing 5 per ha. which is, again, more than Dalmosegaard. The increased stocking is based on more purchased fodder. It is characteristic that the number of stock units per area unit is inversely proportional to the size of the holdings. On average, the stock unit per ha. is double on holdings under 10 ha. compared with farms of more than 20 Tdr. Htk. The number of pigs, however, varies greatly with the variations in the prices.

7. The Co-operative Movement

The cooperative movement has a strong hold in Denmark, partly inspired by the Danish Folk High Schools.

The basic rules for all Danish cooperative societies are: 1. that the profit is to be divided

among the members according to their production or purchase. 2. that the members themselves elect their committee on the principles of "one man one vote" irrespective of the size of his production or purchases, and 3. membership is always open to new members from the region specifically covered by the association.

The work of some of the movement's most important export organisations, local cooperative societies and national federations has made the agricultural cooperation of Danish farmers well known in other countries, and the quality of Denmark's export products may be attributed to the cooperatives started by the producers themselves on a voluntary and democratic basis. Household supplies, the purchase of feeding stuffs and other requisites for agriculture, and the production and sale of agricultural products are predominantly conducted through the cooperative societies.

The cooperative slaughter houses (bacon factories) are of special importance as they handle 88% of all slaughtering. There is no slaugtherhouse (bacon factory) on Møn, however. Animals are sent to a South Sealand cooperative slaughter house.

Sixty per cent of the Danish butter export passes through the cooperative Butter Export Associations; and 28% of the total egg export through Danish Cooperative Egg Export, which has a packing station in Stege.

The Danish Cooperative Fertilizer Society handles 40% of the total consumption of artificial fertilizers (store in Stege); 40% of the Danish export of meat and cattle goes on through the Cooperative Cattle Export Societies (South Sealand).

Cooperation between the seed-growers and consumers of agricultural seeds covers about 45% of the seed used. The headquarters of the organization are at Roskilde, with a seed cleaning depot in Stege. Over half – 52% – of all foreign feeding stuffs are bought through the Cooperative Feeding Stuff Societies and in Stege there are silos owned by the South Sealand department.

A cooperative cement factory exists, as well as a cooperative bank, cooperative bakeries, breweries, housing associations in the towns, restaurants, the Sanatorium Association associated with the Cooperative Societies etc. The Farmers' Societies and the Smallholders' Associations, both of which are represented on Møn, influence the economic life. They employ advisers who have in total more than 450 agricultural units to attend to on the island. The associations also arrange the sale of seed and purchase of seed-corn and potatoes, and instructional activities form a most important part of their work.

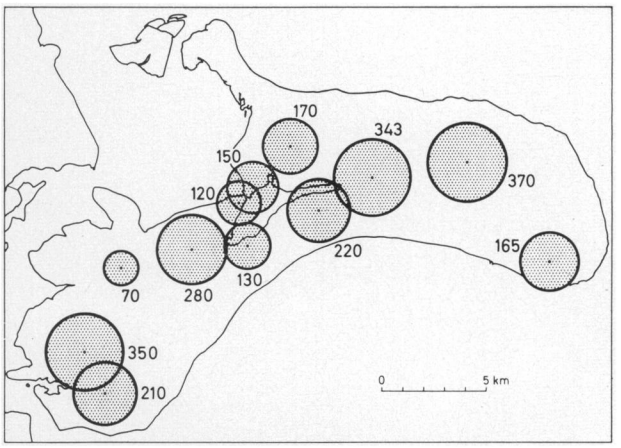


Fig. 12: Membership of the different consumer co-operatives in 1960.
Zahl der Mitglieder in den verschiedenen Konsumvereinen 1960.

It should also be remembered, that the first cooperative cow-stable in Denmark was set up on Møn in 1951 on the principle that the work per cow in small stables is much greater than in larger ones. This cooperative has three members and 28 cows.

a) Cooperative Retail Stores. The earliest surviving retail cooperative society in Denmark was founded in 1866 in Jutland. Fig. 12 shows the distribution of the cooperative retail stores on Møn and the number of members in each one. The total number of members is 2,428 in the country districts and 150 in the town of Stege. This means that 18% of the households in Stege are members and 60% of all the households on the island. The country members alone represent 71% of the households outside the town. It has been estimated that 45% of all the inhabitants of Denmark are members of one or more cooperative societies; for Møn, the figure is clearly much higher.

Membership does not oblige members to buy exclusively at the cooperative. Fig. 13 show that private shops of different kinds thrive all over the island, even if it is, of course, impossible to see how many customers they have or how much turnover.

The cooperatives do not only sell provisions. They sell agricultural feedingstuffs, stationery, books, drapery, shoes, ironmongery and even furniture. Most of the inhabitants buy from the private shops as well as the cooperatives.

The co-operative societies' retail shops all over Denmark have a very large membership and the Copenhagen Society (Hovedstadens Brugsforening) is also in vigourous development.

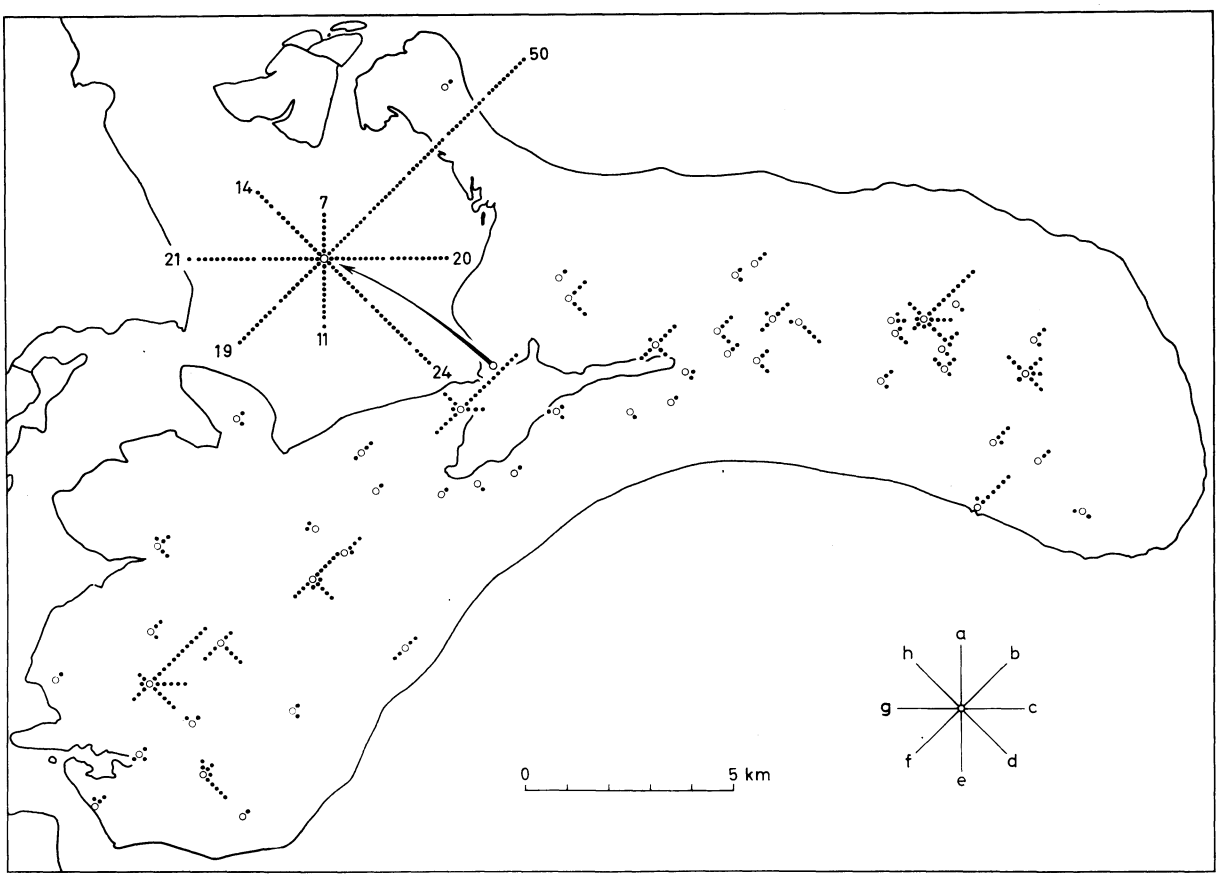


Fig. 13: Private firms: a. Wholesale dealers, b. food and drink, c. clothing and textiles, d. building materials, e. household wares, f. machinery, g. optical equipments, books etc., h. personal services (such as cleaners, hairdressers etc.) One dot = one firm.

Einzelhandelsbesatz: a. Großhändler, b. Nahrungs- und Genußmittel, c. Textilien und Bekleidung, d. Baubedarf, e. Haushaltswaren, f. Maschinen, g. Optik, Rundfunkempfänger, Bücher usw., h. Perönlicher Kundendienst. Ein Punkt = eine Firma.

b) Cooperative Dairies. The first Danish cooperative dairy was founded in 1882, but the number grew quickly. Within eight years, in 1890, there were 679 of which three were on Møn. By about 1900 there were more than 1000 with seven on Møn – the six existing dairies and Vollerup. The total reached its highest in 1935 with 1,404. Since then the number has decreased because of rationalisation by the amalgamation of dairies. At present there are about 1,250 cooperative and 250 private dairies in Denmark.

Fig. 14 shows the six existing cooperative dairies on Møn, the year of foundation, the amount of milk brought to each, 1957–58, and the quantities used for butter, cheese, and dried or condensed milk. Each dairy is situated in the centre of its circle except for Rødled, for which the correct position is indicated by an "R" as the centre of the circle, for reasons of space, is placed too far north-west.

"V" shows the position of Vollerup Cooperative Dairy (1895–1942). "S" indicates Stege private dairy, founded in 1878, but in 1941 bought by Lendemark Cooperative Dairy and turned into an ice cream factory. "M" represents Marienborg private dairy, (1915–47) and, finally, "B" Bøgebjerg private dairy (1895–1927). All dairies on Møn are, as the map shows, now cooperative.

The milk for dried or condensed milk manufacture goes from the dairies on Møn to the condensed milk facory at Lendemark. It was started together with other similar factories on cooperative basis in 1920; but when the depression came they were caught with large stores of dried milk which it was impossible to sell. The factories were wound up, and the cooperative dairies that had financed them lost a lot of money. The factory at Lendemark was offered to the dairies on Møn, but they did not dare to buy, and it was transferred to a private owner at the beginning of the

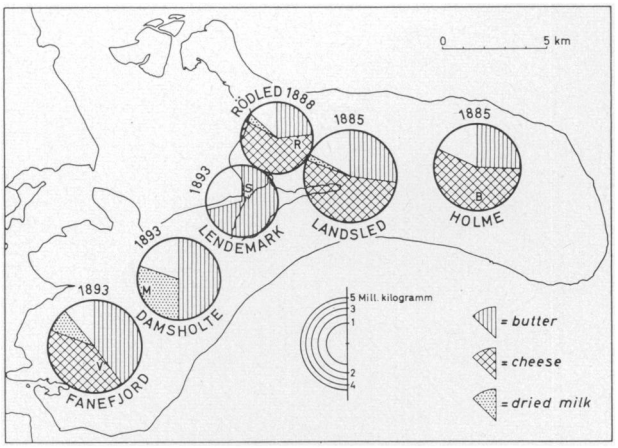


Fig. 14: Co-operative dairies, year of foundation and production October 1957—Oktober 1958. R: where Rödled in reality is placed. V: Vollerup 1895—1942, S: Stege 1878—1941, M: Marienborg 1915—1947, B: Böjebjerg 1890—1927. The three last mentioned were private dairies.

Genossenschaftsmolkereien. Gründungsjahre und Produktion Oktober 1957 — Oktober 1958. Cheese = Käse, dried milk = Dauermilch (Trockenmilch). R: Rödled, V: Vollerup 1895—1942, S: Stege 1878—1941, M: Marienborg 1915—1947; B: Böjebjerg 1890—1927. Die drei letzten waren Privatmolkereien.

20's. In 1938 it became a limited company and was sold to Ø.K. (The East Asiatic Company) in 1949. Originally, the factory bought milk only from Møn, but it now also gets supplies from 18 Sealand dairies.

The dairy production figures for the whole of Denmark were in 1958 in terms of milk in 1,000 metric tons

Butter	Cheese	Liquid Milk for consumption	Cream	Export in bottles
3,221	663	385	228	25

Dried and condensed milk

225	(Lendemark only) 5.1

An Example: Holme Dairy. Fig. 15 shows Holme dairy, its 14 milk collection routes and the amount of milk from each of the 195 suppliers with 1,324 cows in 1957–58. The vehicles, now mainly motor-lorries or tractor-drawn trucks, come to the dairy at intervals of about 10 minutes. Each supplier has his own mark on his milk cans. The cans are immediately weighed, and samples are taken to establish fat percentage and durability (reductase method) on the basis of which payment is made.

"K" on the map means Klintholm, a manor which with one of its home farms, Søndergaard ("S") supply liquid milk for Copenhagen like several large farms on Møn.

The two black circles indicate Dalmosegaard and Knud Pedersen's holding. The dotted line shows the western border for the two eastern parishes. Two suppliers live west of this borderline and, on the other hand, about 20 farms in Borre parish are supplying milk to Landsled, partly a matter of convenience in communications..

If the two farms from the neighbouring parish, which supplies Landsled are added, there are 213 milk suppliers in the two easternmost parishes. They have 168 milking machines in total which is 79% compared with 70% for the whole country, but, as the large farms in particular, have milking machines, it is estimated that at least 90% of the cows are milked by machine.

All the suppliers are members of a milk recording society, an official of which checks each cow's milk yield at fixed periods and advises on feeding.

The milk supplied is, in the main, separated for butter-making and the skimmed milk is returned to the farms to be fed to the pigs, as a rule.

8. Sugar Production. It is characteristic of the farms on Møn and for all farming in East Denmark to put the main emphasis on cattle breeding for dairying and in association with this, on pig production.

At the same time a large sugar beet area is characteristic of Møn (16% of the rotation area). Sugar beet growing in Denmark began about 1880 and on Møn the sugar factory at Lendemark was built in 1883 as part of "De Danske Sukkerfabrikker Ltd." Only one of the Danish sugar factories is cooperative.

In the final years of the 19th century four juice plants were built on Møn, from which the juice was pumped through pipe lines to Lendemark and in 1902 to another factory in South Sealand. In the period 1929–50 the four juice plants became uneconomic compared with using lorries and such plants are now found only in Lendemark and South Sealand, from where the juice goes by a 19.3 km. pipeline to Lendemark.

In the early years of sugar production the individual farmer undertook the transport of beet and beet pulp using horse-drawn vehicles. Later, in some of the most important sugar beet regions, light railways were built to transport the beet from field to factory and return the pulp. The gauge was only 70 cm.; they had no permanent way and it was removable. The only light railway on Møn is shown in Fig. 2. It was at first horse-drawn and therefore stopped at the eastern hills. Later on it was drawn by locomotive. It closed down in 1940, and the farmers again transport the beet to the factory either by horse-drawn

Fig: 15: Holme co-operative dairy (black quadrangle) and its 14 milk collection routes from the two easternmost parishes+2 farms from Elmelunde parish. The figures indicates hundreds of kilo milk from each farm 1957—1958 (505 from Dalmosegårdand 294 from Knud Petersen). K: Klintholm, S: Söndergaard. The arrows in the S—W area indicate farms that deliver the milk to Landsled dairy (fig. 14).

Holme Genossenschaftsmolkerei (das schwarze Viereck) und ihre 14 Milchrouten. Die Zahlen an den Kreisen geben Milch in 100 kilo an. Die kurzen Pfeile in SW sind Höfe, die ihre Milch zur Landsled Molkerei liefern.

vehicle or, much more often, by tractor-drawn trucks, or a haulage-contractor takes the beet to the factory and brings back the pulp.

In 1884 18.9 thousand tons of beets were delivered from 680 ha. (277 hkg. per ha.). In 1953 the figures were 278.3 thousand tons from 6,975 ha. (399 hkg. per ha.).

Conclusion. The population on Møn has shown a normal increase at the beginning of this century, which in Stege has continued though there is now a decrease in the country parishes.

	1901	1850	1901	1930	1950
Stege	917	1,808	2,245	2,549	2,697
Borre parish	715	1,118	1,260	1,256	1,143
Møn	7,466	12,296	14,534	14,621	14,160

The Danish railway system never extended to Møn and Møn consequently lacks a feature otherwise characteristic of Denmark – the "Station-village". Ten per cent of the Danish population live in villages that grew up round the railway stations in the country.

Until a few years ago each parish on Møn had a school for 10–14 year-old children, and a school for 7–10 year-old children. East Møn has a private school for 12–17 year-old children and in Stege there is a school for 7–17 year-old children. At the moment the school system is under reorganization so that a single school for children from 7–17 years will serve an educational unit of two or three parishes. No more advanced education is found on the island than evening schools, a commercial school and a technical school in Stege and an elementary training school for nurses in Lendemark. There are no 5th, upper 5th or 6th forms, no training colleges, no folk high school or agricultural high school. There is a public library in Stege as well as in each parish.

Stege has a hospital and six homes for the aged are found over the island. There are six doctors not including the three at the hospital, a midwife, four visiting nurses, two public health nurses and three dentists (in Stege). There are four veterinary surgeons – two of them for the artificial insemination service.

The island administration is conducted partly by the individual parish and partly by a central administration office in South Sealand.

Since 1943 Møn has been connected with Sealand by a bridge, 750 m. long, 26 m. high with a auseway of between 350 and 400 m. at each end toreach the land.

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SOME ASPECTS OF LAND USE AND OVER POPULATION IN THE NGONI RESERVES OF NORTHERN RHODESIA.

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With 5 Figures and 8 Photos.

Zusammenfassung: Landnutzung und Überbevölkerung in den Ngoni-Reservaten von Nord-Rhodesien.

Nord-Rhodesien, Teil der zentralafrikanischen Föderation, hat einen kritischen Punkt der Entwicklung erreicht: bisher haben sich Naturalwirtschaft und Geldwirtschaft für sich entwickelt; in manchen Gebieten löst sich die Struktur der Stammesgesellschaften auf, weil die arbeitsfähigen Männer abwandern; zugleich fällt es der kapitalintensiven Industrie der Föderation schon schwer, bei den gegenwärtigen Löhnen genügend Arbeitskräfte zu finden. All dies verlangt nach grundlegender Änderung oder Stillstand droht.

Von den Reservaten sind besonders die von Interesse, in denen die Bevölkerung eine im Verhältnis zu ihren primitiven Anbaumethoden kritisch hohe Zahl erreicht hat. Überbevölkerung bei Mensch und Tier verursacht Raubbau, dieser Verarmung und Erosion des Bodens.

Dieser Aufsatz beschäftigt sich mit den Ursachen der gegenwärtigen Probleme in den Ngoni-Reservaten. Besonders hingewiesen wird auf die Gegenmaßnahmen der