

## The population of Denmark

By Aage Aagesen

### Abstract

*The population geography of Denmark to-day is dominated by the urbanization. The cultivation of the former heath-areas was accomplished about 1920, and the agricultural population is decreasing in almost all parts of the country. The economic structure of the population and the various types of employment in the Danish towns and urban agglomerations are further dealt with.*

According to the latest estimate Denmark has 4.565.054 inhabitants, out of which a number of 28.298 lie in Greenland, 32.456 in the Faroe Islands and 4.504.300 in Denmark proper. The average density of the population is as follows:

Denmark proper .....	103.3	inhabitants per sq. km.
Faroe Islands .....	22.7	inhabitants per sq. km.
Greenland: .....	0.01	inhabitants per sq. km.

The following text only deals with Denmark proper.

In Jutland, inclusive of the neighbouring isles, the number of inhabitants is 1.902.093 (44% of the total population), out of which 205.167 live in North Slesvig. The Danish isles have a total population number of 2.379.182, out of which 1.800.176 live in Zealand and in the neighbouring small isles; 395.535 live in Funen, 135.337 in Lolland-Falster and 48.134 in Bornholm. Denmark proper comprises in total 100 inhabited and 348 uninhabited isles.

No less than 3.070.318 of the Danish population live in towns or in other urban agglomerations. Copenhagen proper (not identical with the municipal-administrative Copenhagen) has 1.227.126 inhabitants = 27.6% of the total population. Other big towns are: Århus (165.522), Odense (120.525) and Ålborg (111.726). In Jutland should further be mentioned the following towns: Randers (53.314),

Esbjerg (52.877), Horsens (38.720), Vejle (37.619), Kolding (34.211) and Fredericia (27.910). In Zealand the predominant position of Copenhagen prevents the development of other big cities. However, Roskilde (29.556) and Helsingør (28.973), which must be considered as remote suburbs of the Capital, are of a certain importance. In Funen, the town of Odense, with has a central position, plays the same role as does Copenhagen in Zealand. The second largest town of Funen, Svendborg (24.058), has part of its hinterland in the isles situated to the south of Funen. Neither Lolland-Falster, nor Bornholm have towns with more than 25.000 inhabitants.

The great average density of population (251.0 per sq.km.) in Zealand and in the neighbouring small islands is a natural consequence of the fact that Copenhagen is situated in this area. In the regions outside the influence of the sphere of the Capital, however the density in Zealand is not greater than elsewhere in East Denmark.

In Bornholm the average density is 82.8 inhabitants per sq.km., in Lolland-Falster 74.5, in Funen 116.2 and in Jutland 66.4

Map no. 1 shows *the average density in the smallest units: the parishes, based on a census of 7th November 1950.*

This map gives a striking impression of the distinct difference between the isles and East Jutland on one side and Central Jutland and West Jutland on the other side.

In the eastern part of the country the extremely varied densities compose a very disturbed picture. Outside the towns only a few big urban agglomerations have densities of more than 200 inhabitants per sq.km. The influence of a big number of small agglomerations situated in close proximity to the traffical junctions causes big differences in the density. The total picture of the western part of Denmark is much more stable, the country districts having generally a density of between 20 and 40 per sq.km.

The frontier zone between these two regions is, for the greater part, identical with the ice-border of the last glaciation (Würm). Thus, the region of East Denmark with the heterogeneous, though mostly rather great density, is almost completely coinciding with the extent of the young morainic areas.

The smallest densities are found in the dune area along the western coast of Jutland and, further, in the diluvial heath plains to the west of the main stationary line of the ice from the Würm glaciation. Along the most important arterial roads the density increases, for instance between Copenhagen and Roskilde, in Funen

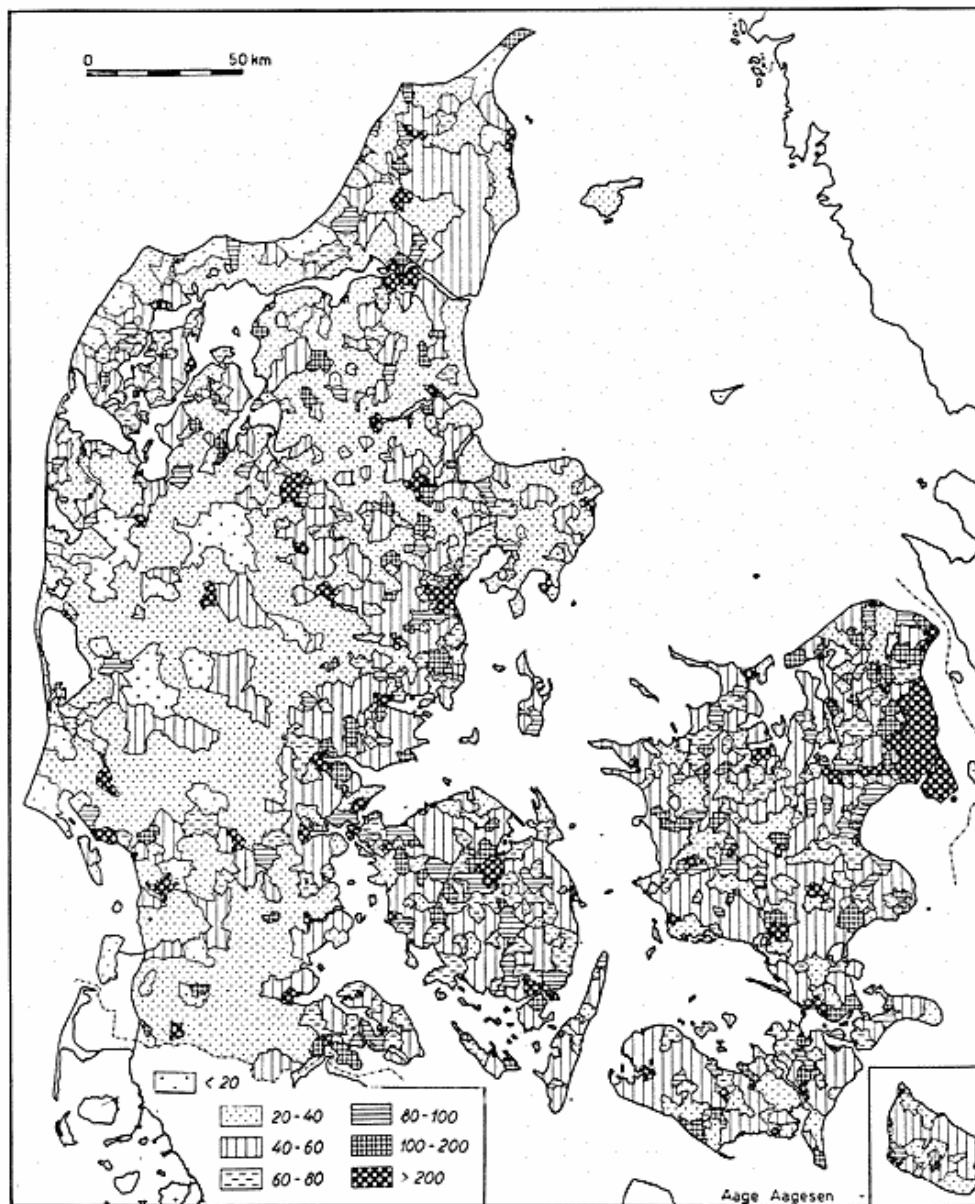


Fig. 1. Density of the population in Denmark 1950. Inhab. per square km. in each parish.

between Odense and Middelfart and in Jutland between the towns situated at the eastern firths.

From a geographical point of view the population of Denmark has undergone so great changes during the last hundred years, as never before; the causes of this are chiefly to be sought in the alterations of the economic structure.

From 1860 to 1880 the Danish population grew from 1.608.362 inhabitants to 1.969.039 = 22.5%, and from 1880 to 1901 it grew to

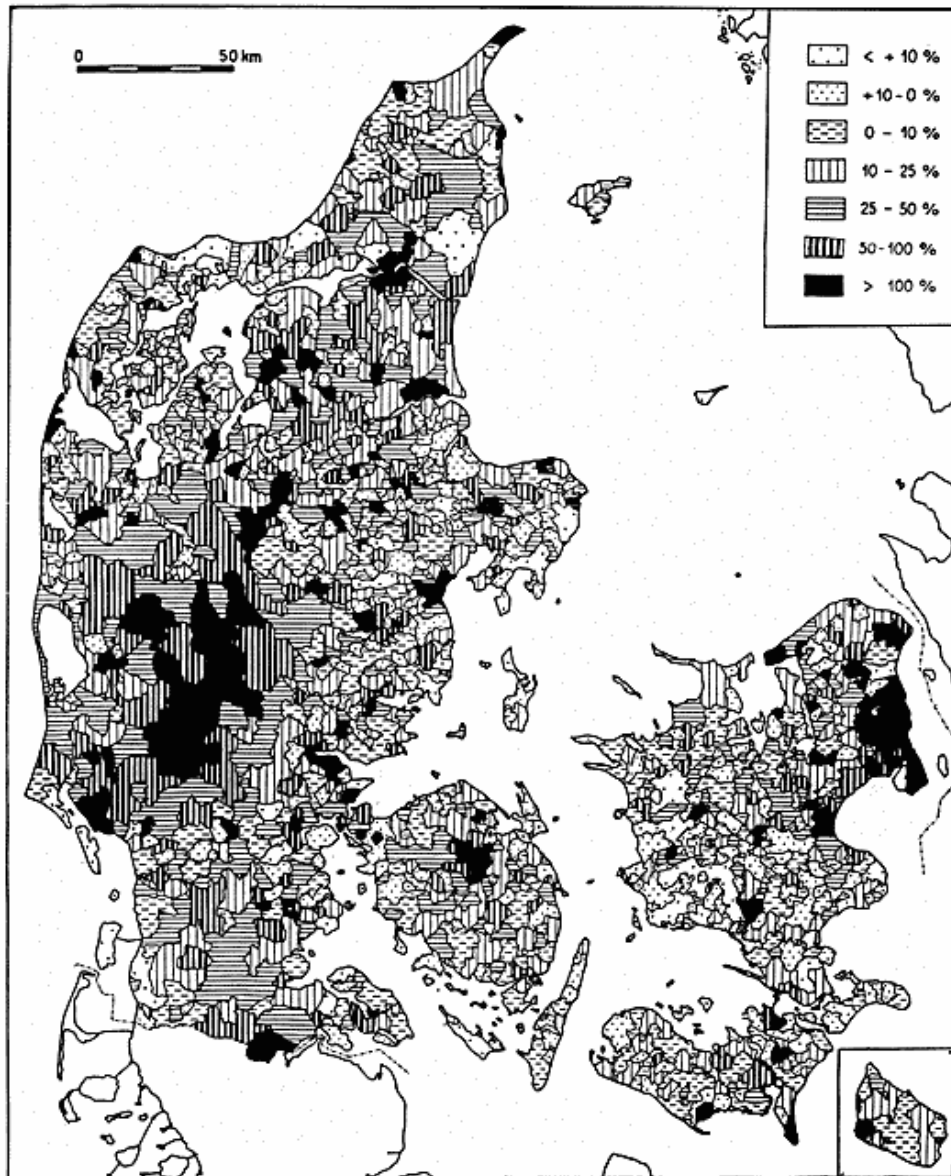


Fig. 2. Net population-increase or -decrease 1901—1950 in Danish parishes.

2.449.540 = 24.4%. However, this growth was not uniformly spread; Copenhagen increased by 60% in the first period and by 74% in the second; for the other towns the corresponding figures are 36% and 66%. This considerable increase of the population in the towns is primarily a result of the industrial development, which was first perceptible in the Capital, later on in the small towns. During the period from 1860 to 1880 the improved economical conditions also resulted in an increase of the rural population, particularly great on the heath in Jutland (about 50%). This growth must be attributed

to the activity of Det danske Hedeselskab (the Association for the Cultivation of the Heath). However, several parishes in East-Denmark have in this period a decreasing population as a consequence of the mechanization of agriculture, the adoption of new commercial and industrial lines in the towns, the agricultural crisis in the transition period from export of grain to export of milk products and, finally, the emigration to overseas countries. This tendency was intensified during the subsequent period, where the majority of the parishes in the isles and in East Jutland showed a decreasing population figure, whereas the cultivation of the heath conditioned a continued growth of population in Central Jutland and partly in West Jutland.

Map fig. 2 shows *the population changes in the period 1901-1950*. For each parish the net increase or the net decrease is represented. The regions marked in black have, during the first half of the century, more than doubled their population. This is true of Copenhagen inclusive of its suburbs, the greater part of the big towns and of Central Jutland, where the cultivation of the moorland has developed agglomerations of a certain importance. An increase to more than the double of the population has also taken place in various rural parishes, especially in those which in their capacity of junctions in the railway network offered particularly great possibilities of economic and industrial activity. The new agglomerations which have arisen at these junctions have gradually developed as local centres for the commerce and for the small industry and, as a natural consequence of this, have been charged with certain urban functions. However, the fact that these new urban agglomerations are densely situated and the restricted size of their hinterland set a natural maximum limit to their number of inhabitants. The increase of their population figure gradually comes to a standstill, first in the islands and in East Jutland, where the growth could be noticed already about 1860-1870, and now also in the other parts of Jutland.

Meanwhile, in some of these agglomerations various industries have risen, the products of which are sold in the whole of Denmark and even for export; in such cases the rise of the population figure is bound to continue. Thanks to their growing industrial importance, some of these new agglomerations have now advanced to become towns (Herning, Silkeborg, Brønderslev, Skjern, Struer); others are now town-like agglomerations with 3.000 to 5.000 inhabitants (Brande, Grindsted, Hadsund, Ikast, Odder, and Vejen in Jutland, Haslev and Hundested in Zealand); 19 others have reached 2.000 to 3.000

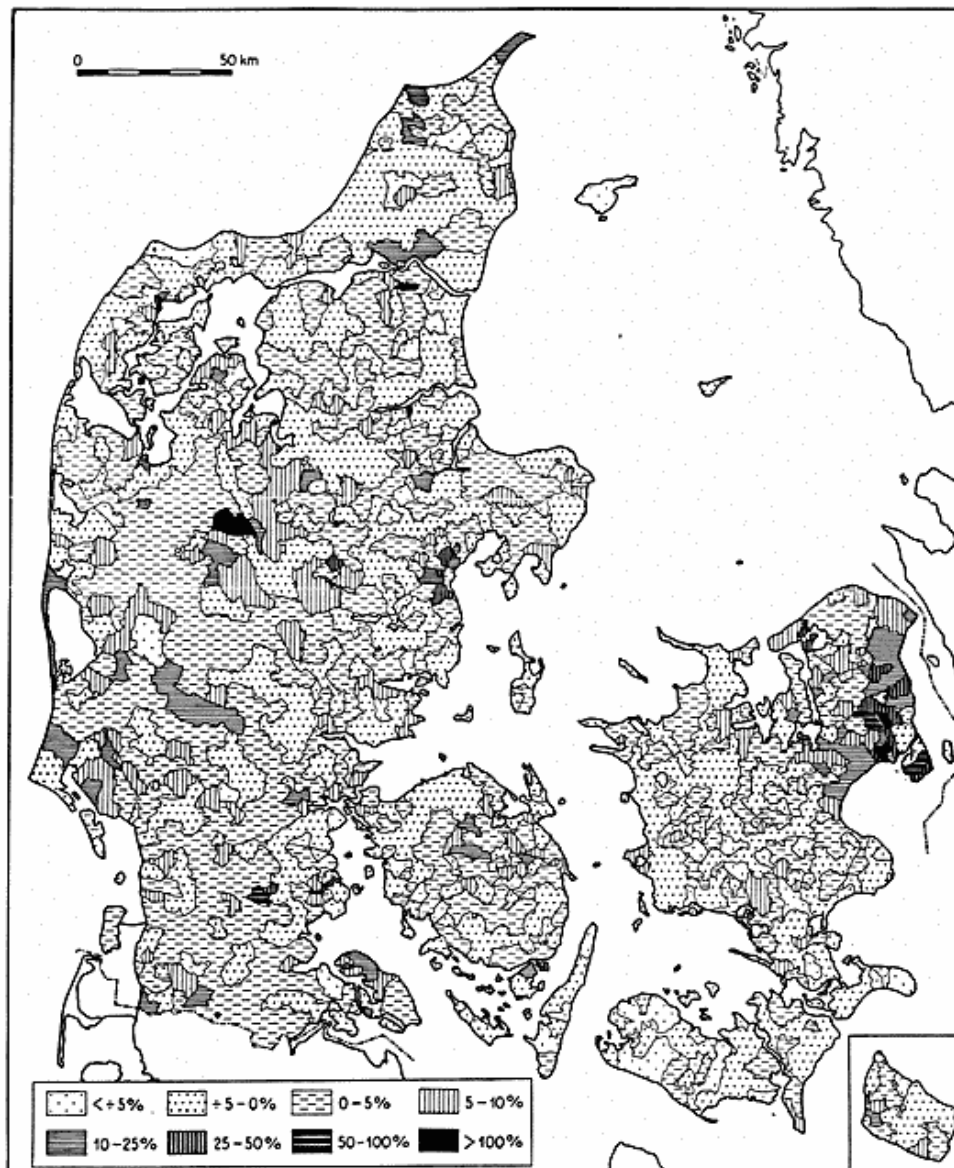


Fig. 3. Net population-increase or -decrease 1950—1955 in Danish parishes.

inhabitants, and 90 of these agglomerations now number 1.000 to 2.000 inhabitants.

Map fig. 2 further shows *the growth of the population at the German-Danish frontier*, where, after 1920, the increase of the number of civil servants occupied in the frontier services and the new employment possibilities have brought about this augmentation of the population figure.

An interesting factor is *the decrease of the population in the greater part of the small islands, peninsulas and certain other coastal*

zones, where the traffic conditions are poor. This reduction is, at places, very important, for instance in the North Frisian Islands (Fanø and Mandø 18%; Rømø 17%); in Ærø 15%, (in the town of Marstal 37%). This decline becomes even more noteworthy when compared with the augmentation of the total population from 2.4 millions in 1901 to 4.3 millions in 1950. The above-mentioned tendency has been encouraged by the mechanization of agriculture, which makes the youth in the rural districts available for other activities — especially the industry — concentrated along the traffical roads and particularly in the junctions. The majority of the small islands, the peninsulas and many coastal regions have very modest traffic facilities and do not play any part — anyhow only a small — in the general commercial and industrial progress in the twentieth century. In Denmark the rural exodus often has character of a *flight from the coast*. An increase of the coastal population is only noticeable at places situated in proximity to the ports and in connection with fishing hamlets or other commercial centres.

The increase of the population in the heaths of Central Jutland, which has still been going on, also in the twentieth century, is only to a small extent attributable to immigration from other parts of the country; it is rather a question of a considerable reproduction of the local population, of which the youth had so abundant commercial and economic possibilities at their home place that the majority of them stayed there; therefore, it is evident that this part of the population has not contributed to the rural exodus. However, since about 1940 the growth of the heath-populations seems to be gradually coming to a standstill. This fact allows to suppose that the future development of the population living on the old heath plains will hardly differ from the other agricultural regions.

This assumption is confirmed by the development which has been going on since 1950. Map. fig. 3 shows the population changes in the period 1950-1955. During these five years the total population of Denmark proper increased by 3.9% = 167,126 persons. Some municipalities have more than redoubled their population in this period: Herlev and Brøndbyerne in *the outer suburbs* of Copenhagen, and Grove, with a military airport, on the heath plains in Central Jutland. Other regions showing a considerable increase are those around the Capital and other big towns, such as Århus, Ålborg, etc., while the town-districts proper are stagnating or decreasing. Other regions with increasing population figure are found in localities with an economic activity of a certain importance, such as the northern part

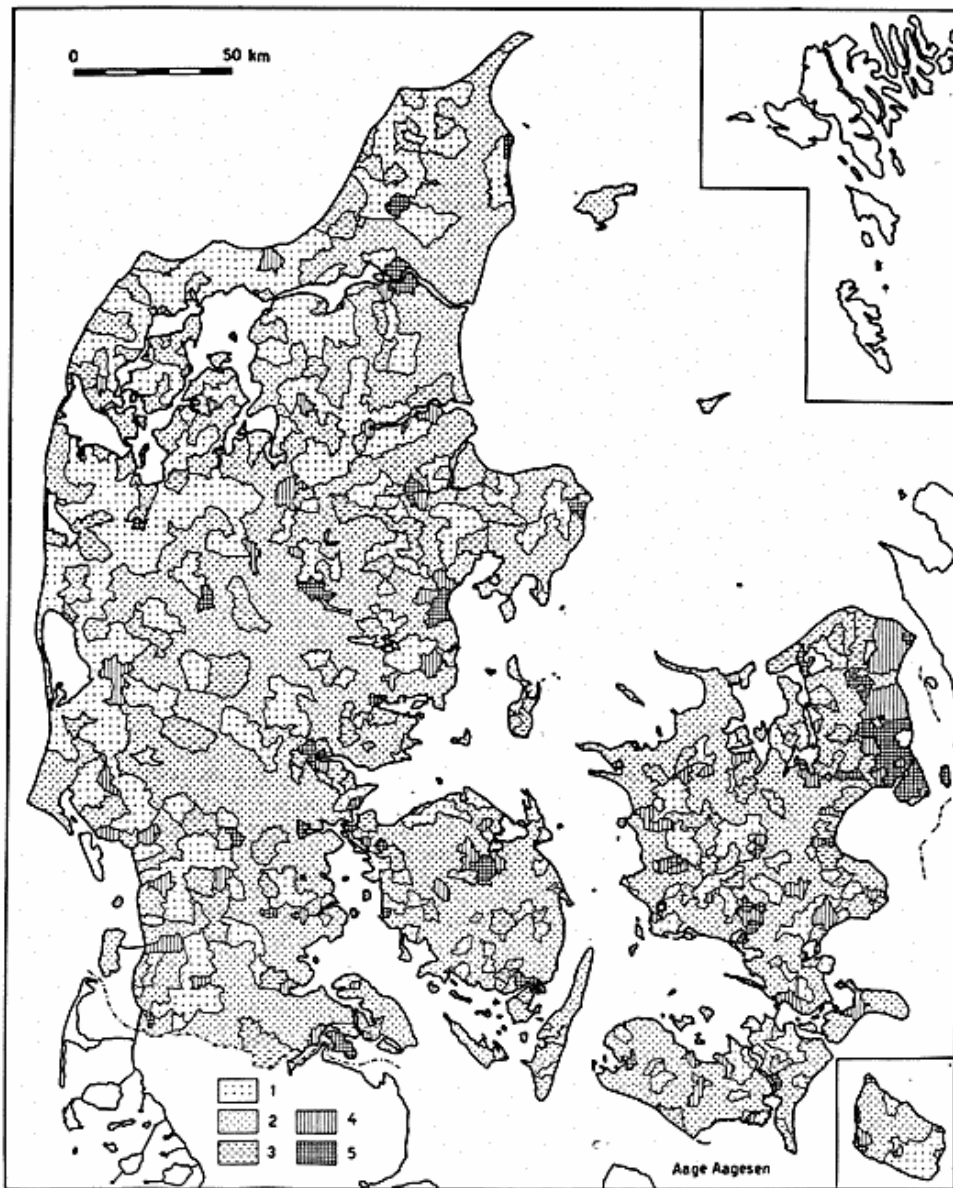


Fig. 4. The economic structure of the population in Danish communes.  
Signatures: see the text page 171.

of the islands of Als, around Grindsted, and at other places. The districts which are essentially rural have a rather stable population figure, sometimes a slow decrease. Those which, from a traffical point of view, must be regarded as remote, such as small islands, peninsulas and some coastal regions, very often show a decrease of more than 1% annually. It is typical of the population changes 1950-1955 that in a given region the development is common to a number of parishes and municipalities, because the modern transport fa-



cilities make the choice of the place of dwelling rather independent of the place of work. The construction of a new factory, harbour or airport inevitably causes an increase of the population, not only in the municipality in question, but also to a great extent in the surrounding area.

Denmark is often, among foreigners, cited as a typical example of an agricultural country; this statement is correct in so far as about 60% of our export is composed of agricultural products. However, if we regard the compositions of the Danish population under economic and commercial aspects we get quite a different impression. In 1950 the distribution of the population in the various branches was as follows: Only 23.7% were employed in agriculture (inclusive of gardening, forestry and fishing), whereas 34.7% were occupied in industry (inclusive of building activity 7.7%), 13% in commerce, 7.1% in traffic and 8.5% in the Administration or in private enterprises; 11.4% are »unemployed«; i.e. they live on their fortune, on their pension or on government subsidy.

This economical structure is new in the classical agricultural Denmark. As late as in 1901, 40% of the population earned their living in agriculture, and as late as in 1930 the figure of the agricultural population (31.2%) was higher than the industrial population (28.6%). In 1940 this picture had changed to such a degree that only 27.7% of the total population were employed in agriculture, whereas 33.4% worked in industry. At the same time the farm-population, which in 1930 had reached a maximum (1.109.093), began to decrease, giving a figure in 1950 as low as 1.013.800.

*Map fig. 4 shows the economic structure of the population with the commune as a basis:*

Sign 1: parishes of a pronounced agricultural structure, where more than 75% of the active population are employed in agriculture.

Sign 2: parishes of an agricultural structure, in which 50-75% of the active population work in agriculture.

Sign 3: mixed agricultural parishes, in which agriculture still plays the predominant role, though it only employs less than 50%.

Sign 4: mixed industrial parishes, where industry has the predominance, though only employing less than 50% of the active population.

Sign 5: industrial parishes with more than 50% employed in industry.

No sign: other types, such as commercial-traffic parishes (for instance the navigation parishes in Fanø, the ferry-towns Korsør

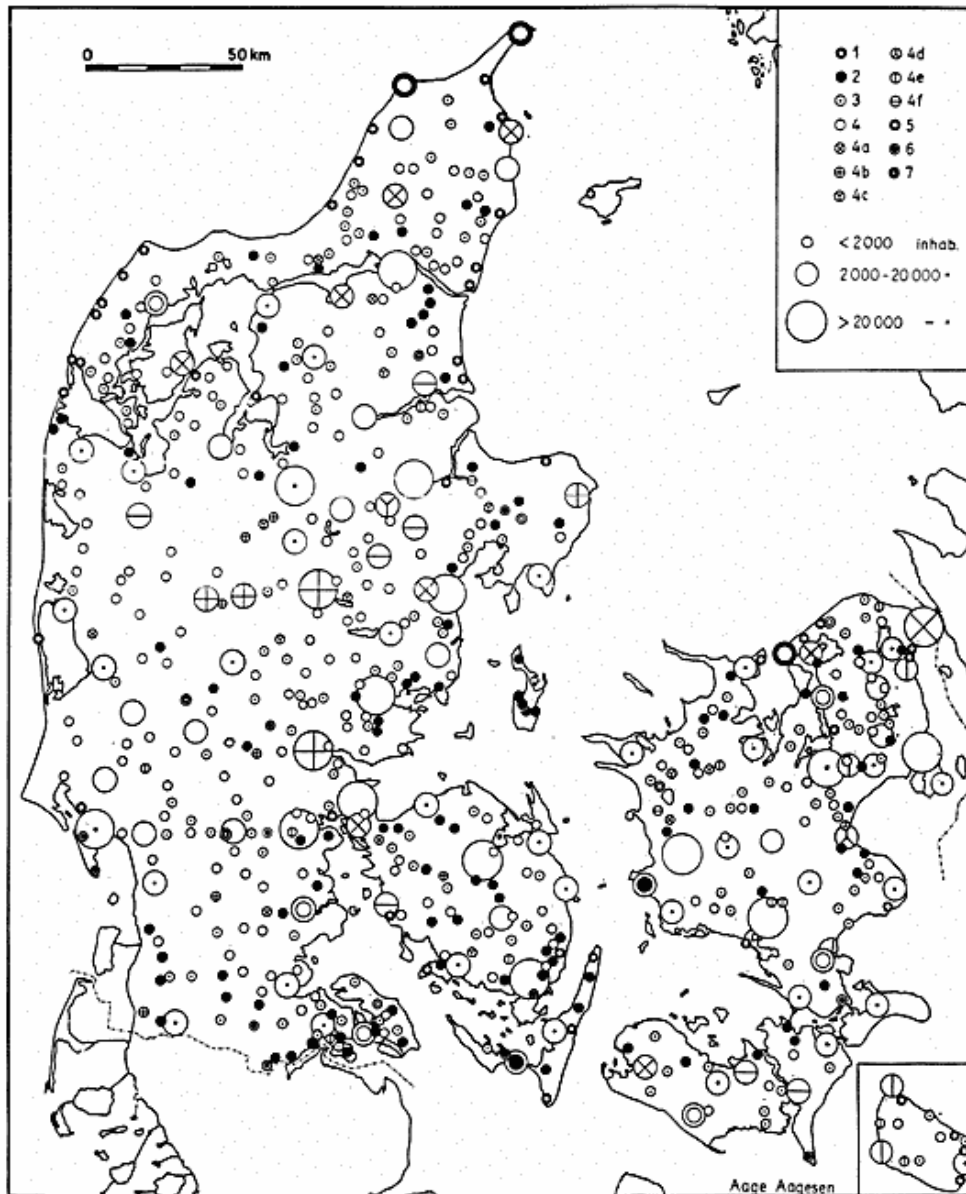


Fig. 5. The economic structure in Danish towns and other urban agglomerations. Sign. 1: fishing towns, 2: agricultural towns, 3: mixed towns, 4: mixed industrial towns, 4a: iron-industrial towns, 4b: textile-industrial towns, 4c: wood-industrial towns, 4d: chemical-industrial towns, 4e: stone and clay-industrial towns, 4f: foodstuff-industrial towns, 5: commercial towns, 6: traffical towns, 7: administrative towns etc.

and Nyborg at the Great Belt; the commercial commune Gentofte, a suburb of Copenhagen), or administration-parishes.

The predominantly agricultural parishes are found first of all in West Jutland, in particular to the north of the Limfjord and in the old cultivated land along the west coast, where there is a certain

tendency of preserving the traditional working methods; this tendency, however, is less common in the former heath plains.

The degree of industrialization is greatest in parishes with favourable traffic conditions, whereas a big number of small isles, peninsulas and other parishes with poor traffic facilities and with a resulting decrease of the population figure only have reached a modest degree of industrialization.

*Map fig. 5 shows the types of economic structure in the Danish towns and in other urban agglomerations.*

Most of the fishing towns (sign 1) are small; (they are found at most coastal localities).

The towns characterized by agriculture and gardening (sign 2) are rather small too; they are rare in the old heath-areas, where the farms are scattered, whereas they are frequent in East Denmark, a region with many villages. It is mostly former farmers' villages, which in their capacity of traffic or railway-junctions have acquired an urban-like aspect without having lost their agricultural structure.

Sign no. 3 shows mixed agglomerations, in which no special employment is predominant. This type of agglomeration comprises first of all middle-size towns in the parts of the country where the industry is less developed, for instance in West Jutland and in North Slesvig.

In industrial agglomerations more than half of the active population is employed in trade and industry.

Sign 4 represents mixed industrial agglomerations, where no industrial group is dominating, contrary to the one-sided industrial agglomerations (sign 4a-4b), in which one particular industry employs more than 50% of the industrial workers. All the Danish big towns and the greater part of the middle-size towns must be reckoned among the mixed industrial agglomerations. The most important types of employment in the one-sided industrial agglomerations are: metal, textile, chemical, wood, and food industries.

In Denmark the agglomerations where commerce and traffic or the Administration and the schools are predominant are rare. Among the agglomerations which owe their existence to the traffic, Korsør at the Great Belt and the old »skipper towns« in Fanø and in the isles to the south of Funen are standing out.

Finally, to complete the picture of the Danish population, a few supplementary particulars are given: In Denmark there is an excess of women (1955: 101.5 women for each 100 men). However, while

this excess of women is of a considerable size in the towns (111.2 women for each 100 men) the situation is opposite in the country, where the number of women only amounts to 93.2 for each 100 men. The migration tendency from the country to the towns is greater among the young women than among the young men, partly because the industrial development within agriculture offers less possibilities for the women than for the men, whereas the opposite is the case in the towns, where many industries prefer the cheaper female labour.

The size of the household is, as an average for the whole country, 3.04 persons. There exists a distinct difference between the urban population (2.83 in each household) and the rural population (3.62 persons in each household). In North-West Jutland there are parishes with an average of 4.30 persons in each household. Since the beginning of the industrialization in the last decades of the nineteenth century the average size of the households has undergone an appreciable decrease.

In the period 1952-1954 the average number of liveborn children for each 1.000 inhabitants was 17.7 with 9.0 deaths; this means that the excess of births amounts to 8.7 ‰ or more than the double of the corresponding figure in Great Britain. After considerable oscillations during the latter decades it seems as if the excess of births, until further, is stable. The infant mortality is low: 2.7‰ die within the first years.

For each 1.000 inhabitants the marriage figure is 8.1, while the corresponding number of divorces is 1.6 yearly.

The emigration, which before the first World War was very extensive, has had a revival since 1945, though it is far from having reached its former size. During the latter years the Danes have especially emigrated to Sweden and to Canada. At the same time immigrants are coming to Denmark, especially from Scandinavia and from Central Europe. During the decade 1945-1954 the number of immigrants was 200.428, while 235.526 persons emigrated.

---

#### LITERATURE

- Aagesen, Aa.* (1945): *Oprindelsen af Esbjergs Befolkning*. (Summary: The Origin of the Population of Esbjerg). *Geogr. Tidsskr.* 47. København.
- Aagesen, Aa.* (1949): *Geografiske Studier over Jernbanerne i Danmark*. (Summary: Geographical Studies on the Railways of Denmark). *Kulturgeogr. Skr.* 5. København.
- Aagesen, Aa.* (1956): *Die Bevölkerung Dänemarks*. *Geogr. Rundschau*. Braunschweig.

this excess of women is of a considerable size in the towns (111.2 women for each 100 men) the situation is opposite in the country, where the number of women only amounts to 93.2 for each 100 men. The migration tendency from the country to the towns is greater among the young women than among the young men, partly because the industrial development within agriculture offers less possibilities for the women than for the men, whereas the opposite is the case in the towns, where many industries prefer the cheaper female labour.

The size of the household is, as an average for the whole country, 3.04 persons. There exists a distinct difference between the urban population (2.83 in each household) and the rural population (3.62 persons in each household). In North-West Jutland there are parishes with an average of 4.30 persons in each household. Since the beginning of the industrialization in the last decades of the nineteenth century the average size of the households has undergone an appreciable decrease.

In the period 1952-1954 the average number of liveborn children for each 1.000 inhabitants was 17.7 with 9.0 deaths; this means that the excess of births amounts to 8.7 ‰ or more than the double of the corresponding figure in Great Britain. After considerable oscillations during the latter decades it seems as if the excess of births, until further, is stable. The infant mortality is low: 2.7‰ die within the first years.

For each 1.000 inhabitants the marriage figure is 8.1, while the corresponding number of divorces is 1.6 yearly.

The emigration, which before the first World War was very extensive, has had a revival since 1945, though it is far from having reached its former size. During the latter years the Danes have especially emigrated to Sweden and to Canada. At the same time immigrants are coming to Denmark, especially from Scandinavia and from Central Europe. During the decade 1945-1954 the number of immigrants was 200.428, while 235.526 persons emigrated.

---

#### LITERATURE

- Aagesen, Aa.* (1945): *Oprindelsen af Esbjergs Befolkning*. (Summary: The Origin of the Population of Esbjerg). *Geogr. Tidsskr.* 47. København.
- Aagesen, Aa.* (1949): *Geografiske Studier over Jernbanerne i Danmark*. (Summary: Geographical Studies on the Railways of Denmark). *Kulturgeogr. Skr.* 5. København.
- Aagesen, Aa.* (1956): *Die Bevölkerung Dänemarks*. *Geogr. Rundschau*. Braunschweig.

- 
- Atlas of Denmark. Editor: The Royal Danish Geographical Society.  
*I* : Schou, Axel (1949) : The Landscapes. København.  
*II* : Aagesen, Aa. (1960) : The Population. København.
- Kampp, Aa. H. (1959) : Landbrugsgeografiske studier over Danmark.  
(Summary: Some Agro-Geographical Investigations of Denmark).  
Kulturgeogr. Skr. 6. København.
- Statistisk Departement, København:  
The census-population (various ed.).  
Data of industrial geography from the population census 1950.  
Statistical Yearbook (various ed.).  
The migration of the Danish population (various ed.).
- Trap: Danmark (Denmark, a topographical handbook). 4 ed. and 5 ed.  
København.
- Unpublished materials on the Geographical Institute of the Copenhagen  
University.
- Vahl, M. (1933) : The Urban Settlements of Denmark. Geogr. Tidsskr.  
36:1-2. København.
-