5.
REGIONALITY AND SETTLEMENTS

by Lars Rydén

5.1 The character of human settlements

The distribution of human settlements in the landscape has certain striking characteristics. One obvious feature is of course its patchiness, the gathering of houses into villages, towns and ever-larger cities. A second one is its situation close to water, the coasts of seas or lakes, or by rivers. In fact a satellite picture of Earth from space during night hours demonstrates dramatically how city lights outline the coasts of seas and larger lakes in all parts of the world. This concentration of human habitation close to water is also threatening its sustainable management: coastal waters are too often the direct recipient of the waste from larger cities. Marine-food production close to the coastal zones is directly critical for billions of people, not least in south-east Asia, and is at the same time increasingly threatened by the population it should feed.

The 'instinct' of humans to live at frontiers is commonplace: we find settlements preferably where land and water, forests and fields, mountains and lowland meet. This pattern points to what a 'good' habitat, biologically, socially and culturally, should look like. It is clear that living on 'ecotones' - the border zones - was advantageous. It provided protection and a view over the vicinity; it gave rise to a larger variety of hunting and cultivation. Ecotones are typically biologically very productive zones.

Although human settlements in boundary areas still dominate, during the rapid expansion of large cities they are seen less often. Then physical expansion is accompanied by rapid economic development, and rapidly increasing land prices. Planners are forced to use green wedges and distant flat and easily developed land. Modernistic architecture is in itself characterized by large-scale standardized multi-storey buildings. The expansion during the sixties in Vienna, for instance, resulted in well-known social problems and massive criticism. Nevertheless, as the borders to the Czech republic are now opened, city planners again feel forced to build in a modernistic style with all its attributes and predicted future problems.

5.2 Regional development

The development of human settlements in a region includes both rural and urban settlements, the interaction between the two, and, very importantly, the transport infrastructure. There are various approaches to how a region might be defined:

- administratively: a region refers to an area that is governed as an entity, such as a county or a municipality.
- economically: an area within which there is great economic interaction and cooperation.
- labour-market-wise: an area where people have and seek job opportunities without considering moving; only commuting.

This last concept is close to how people conceive 'their every day region', the area in which one might easily move around, where one seeks services, jobs and social interaction. It is in this kind of 'functional' region that most companies recruit their workforce.

The concept of functional regions has been investigated over a long time. In Sweden, it appears that they are today mostly composed of more than one municipality and that they change with time. Originally, the administrative unit was set up to be equivalent to the functional one. Several hundred years ago the most important administrative unit was the parish; a unit of the church. There were about 3,000 parishes in Sweden. Their size corresponded roughly to the area within which it was possible to walk or travel by horse-drawn carriage to and from the church during a day. Only two generations ago there were still some one thousand such local labour markets - functional regions - in the country. The number is continuously decreasing. Between 1970 and 1994 their number went from 180 to 108. The number of municipalities was about 290 during this period. Obviously, administrative structures change more slowly than functional ones. In most countries in the Baltic region, there is a continuous fusing of administrative units to adapt to the changing realities of increased mobility.

The functional regions are the targets for classical regional development policies. The issues are, for example:

– Demand and supply of the labour force should match within the region. Matching is improved by, for example, economic development and educational initiatives.

– Economic conditions for enterprises should be optimized; if there are shortcomings in the region, it is again a matter for economic development to improve the situation.

– The transport infrastructure of the region should support ac-

cess to work places and services. If this is not so the task is to improve the physical planning and traffic options.

The opportunities in the region are very important for the well-being of the individual, especially the availability of jobs suited to interest, education and professional training. It is important to companies that the right kind of partnership, companies and markets are available in the region.

In addition to the economic aspects of regional development, there is also today a very clear political and cultural one. Within the European Union, the concept of a 'Europe of regions' has been put forward. The regions referred to here are smaller than nation states but sometimes are not within one nation state. These regions are characterized by a common culture, a common language or dialect, a common history or all of these. Thus, in the Baltic area Gotland would be one region as would, for example, Pomerania with parts in north-west Poland, north-east Germany and perhaps also southern Sweden. Another example is the archipelago region with parts within Sweden and Finland; in particular Åland. The EU finance transborder regional cooperation within the Interreg funds and thereby supports this perspective of regionality.

Finally, there are the larger, often multinational, regions that are defined on basis of, for example, a geographical feature. This is the basis for classical regional geography. Often a drainage basin is considered a region, for example, the Baltic region or the Mediterranean region. In particular, the Baltic region is today the subject of intense developmental efforts both within the region itself and with support from outside.

5.3 Regionality and transport

In pre-industrial society, farms were largely self-sufficient: all basic needs from food and shelter to clothes, etc. were provided at the farm. With the development of industrial society, starting in the

Figure 5.1 The innate human desire to settle near water has ample opportunities to be met in the Baltic region. This fishing village on the Coronian spit in the Kaliningrad District has two beaches, but the habitation is found on the lagoon side. Photo: Lars Rydén.

latter half of the last century, this general character was followed by specialization and distribution of work and competence among individuals and settlements. Specialization required that people were much more reachable than before; a requirement that was met by increased density, that is, urbanisation. This *physical urbanisation* continued unabated up to about 1970 in the Baltic region, and then at a slower pace.

At a later stage, mobility increased dramatically, especially after the Second World War when car ownership became a mass phenomenon. Increased mobility then replaced increased density, to achieve a *functional urbanisation*. Instead of concentration of settlements, mobility created an enlargement of functional regions.

The two phases described led to very different regional policies and habitation patterns. During the first phase of urbanisation, the cities were carefully planned to allow maximum interaction: exchange of goods, information, ideas and culture. With the car available to the majority, planning of habitation was influenced by the decisions of individuals and companies. A much more fragmented structure resulted. In the United States, where car ownership increased much earlier, this has led to so-called 'urban sprawl', with enormously

dispersed cities.

The car society resulted in integration of larger areas: cities are not growing at the same pace and the populations of surrounding smaller towns, villages and rural areas have increased (des-urbanization) especially when they are within comfortable reach of a larger city. These larger regions as a whole may economically be more robust and diversified, and at the same time the individual smaller towns have become less diverse, through loss of services only available in the city.

In the eastern part of the Baltic region, car ownership is now increasing at a rapid rate. In the west, this phase is abating. Instead, railway traffic is developing. In fact, it seems that railways are entering a new golden age; the construction of new railways is the largest since the turn of the century. The new trains are rapid, with speeds in the region of 200 or 300 km/h. The train-driven regional expansion is different from the car-driven ones. Train passengers may travel up to 200 km in one hour, but they need good local public transport or proximity to the railway stations when they arrive. The regional policy asked for becomes 'neo-classical', similar to development before the car society: high density and easy access to functions and good public transport to and from the train.

In fact the new pattern of mobility influences the concept of region itself. One of Sweden's more experienced planners, Carl-Johan Engström, has introduced the idea of 'mobile regions'. Those are the regions of interest to an individual; where he or she finds work, education and culture, accessible through the transport systems, and with telecommunication networks. Such regions might be very 'patchy' and do not constitute a continuous area.

5.4 The role of information technologies in regional development

Regional development will probably in the near future be influenced by some new factors:

- car travelling and individual mobility will decrease because of restrictions on the use of fossil fuels and for environmental reasons. In a long-term study of the future of car mobility in Sweden, the calculations were made that car traffic will decrease by 50 per cent over a 25-year period.
- regional train traffic will be important for travelling, especially in medium-sized regions, but not within the largest cities, nor in the very sparsely populated areas where there are not enough passengers.
- the development of information technologies.

It is clear that mobility, especially car mobility, in some situations is a burden rather than an asset. When commuting to work or travelling to find certain services, the journey itself is perceived as a negative feature, and rated as such in research on social well-being: so-called 'forced mobility'. A way to diminish forced mobility is, as mentioned, increased density; an alternative is offered by new information technologies, IT.

For so-called network-companies this is already a reality: staff may have a terminal at home or in a small office in the neighbourhood with the telecommunications capacity needed. For example, the Taxi Stockholm switchboard is situated on an island in the ar-

chipelago; people calling for a cab never notice. Many similar services, such as the ordering of tickets, goods in shops, etc., based on the telephone or telecommunications, are distributed to areas where labour is easily recruited. Local centres for IT-based work have been created where many services are available on-line through, for example, ISDN connectivity. Such centres compensate for the social isolation that otherwise would be

a negative consequence if all IT-based work were done at home. The staff may also pay a weekly visit to the company's main office for personal contacts. However, the extent of such use of IT is uncertain. A large proportion of jobs in the future will require face-to-face encounters. This is the case for a great deal, but not all, of education, health care, counselling ,etc.

In the countryside, IT provides

opportunities for a much more multi-faceted work situation. Even if agriculture or forestry only requires part-time and seasonal work, connections over IT may give rise to a series of possibilities if the proper professional competence is at hand. Publishing and production of printed material, economic management and auditing, selling services, etc. are examples of work tasks that already are carried out at individual farms in the countryside.

5.5   Rural-urban interaction

Few households receive their food from the immediate surrounding areas today, and this is even more so for cities. Resource recycling is absent or only partly local. This situation leads to costs that might be very high. Thus in Sweden the energy cost of the food we eat is only to some 10 per cent contained in the food itself. The 90 percent, which is 90 TWh, is production, storage, preparation and, most importantly, transportation.

The area needed to support a city, to provide its ecological services, turnover of resources, food, water, fibre such as paper, sinks for nutrients and carbon dioxide, etc., constitutes the *ecological footprint* of that city. Obviously a city makes an ecological footprint much larger than its own area. Calculations on ecological footprints in the Baltic region suggest that the footprint of a city is at least 1,000 times the area of the city itself (Folke et al. 1997).

These ecological costs may diminish through a closer cooperation between a town or city and the surrounding land. If a city buys food from farms in the region this also supports the countryside, and provides the opportunity for agriculture and other services to continue. Obviously the inhabitants of the towns or cities have the advantage of a living countryside in the area. A further step is to let agricultural land in the surrounding area use the nutrients in sludge, urine, compost, etc. from a city and thus close nutrient cycles. Such projects are underway in some cities in the Baltic region; for example, in Ys-tad in southern Sweden there is a systematic effort to recirculate nutrients in this way.

5.6   Sustainability and regional self-sufficiency

Self-sufficiency means that a region - or in general a unit - provides its own resources and cares for its own needs. In most cases, 'resources' in this context refer to basic requirements such as basic food, energy provisions, water, etc. The concept of regional self-sufficiency has a very clear meaning in the context of sustainable development. We may again illustrate by food production.

Transport of food from far away is always connected to a transfer of material, such as nutrients, and thus is a part of a material cycle. However, such long-distance transport tends to lead to linear material flows. For example, if food is taken from far away, nitrogen and phosphorus is imported into an area and contributes to, for example, eutrophication of lakes and waters, pollution of soils and the atmosphere. This is the case today in many parts of Europe that import food from other parts of the world. In the Baltic region specialization of agriculture leads to some areas having a concentration of animal production and others of grain production.

It is thus a question of avoiding the very large cycles that result from importing food from far away. Relying on the immediate region for food provides the opportunity to closing cycles by returning nutrients; for example as sludge.

The second reason for the decrease in sustainability linked to the transportation of food from far away is simply the ecological cost of such transportation. With the present large use of the non-renewable resource, fossil fuels, for transport this becomes even more clear.

Self-sufficiency also refers to the responsibility for resource management at a lower level: by individuals, households, neighbourhoods, municipalities, nations, and even the supranational regions, like the Baltic region.

Seen in this way, it is clear that self-sufficiency is an important principle of sustainability. We have all through this booklet stressed the importance of the more local levels, individuals and households (Chapter 8), neighbourhoods (Chapter 7). The importance of the local level, the municipality, is also stressed repeatedly in the Agenda 21 document.

In a comparatively new category of country-dwellers this tendency towards self-sufficiency is typical. These individuals choose a lifestyle where they, as in traditional societies, can provide many services within the household. They may still have a part-time job either within a nearby town or at least partly by means of IT. The motivation to live in the countryside comes, for example, from appreciation of aesthetic values in the landscape, outdoor life possibilities, etc., but more strongly from the feeling of being in control of one's own life (Forsberg 1996).

In fact from this point of view, one might ask what is the proper distribution of societal resources and competence? Resources then refer to power, in particular economic power, juridical competence, that is, the possibility to legislate and enforce the law, and competence in the sense of ability and knowledge. It might be argued that sustainability requires much more concentration of resources or competence at local level and thus a strengthening of self-sufficiency at this level. Of course this is contrary to the rather centralist policy in the old Communist system. On the other hand, the Nordic tradition is much more decentralistic and municipalities have had the power to tax their inhabitants (municipal tax is the largest proportion of the tax) since the last century. Sustainability will most likely lead to a strengthening of the local level.

Healthy cities indicators

The WHO Healthy Cities project is a long-term international development project that seeks to put health on the agenda of decision-makers in the cities of Europe and to build a strong lobby for public health at local level. Ultimately, the project seeks to enhance the physical, mental, social and environmental well-being of the people who live and work in the cities of Europe. The project is one of WHO's main vehicles for giving effect to the strategy of health for all (HFA).

The World Health Organization (WHO) Healthy Cities project (HCP) began in January 1986 with eleven cities initially selected for participation. A framework of Healthy Cities indicators was proposed as early as 1987. Subsequently a set of indicators was developed in Nancy and formally adopted at the Healthy Cities project business meeting in Stockholm in September 1990.

AIMS

The aims of this analysis are as follows:

1. to provide a description of health in the city

2. to provide a baseline of information to make comparisons over time

3. to identify those indicators which best characterize the differences between cities

4. to compare and contrast cities allowing for the various socio-economic and cultural differences between countries in the region

5. to identify associations between selected indicators

6. to provide a commentary on the strengths and limitations of the indicators.

The examination of the indicators of health has many dimensions. In order to provide a comprehensive picture of health, the indicators cover the areas of 'health' (to include the traditional indices of mortality), health services, environment and social and economic conditions. This work is important to a wide audience including scientific advisers, project staff, politicians, administrators and the public. The aim of collecting such data is to facilitate more rational policy-making and priority-setting in relation to health. The information is also intended to aid other aspects of Healthy Cities projects such as the development of city health profiles that would lay the foundations of specific city health plans to improve and sustain the health of the citizens.

Thus the indicators are part of a logical sequence

firstly of collection and use of information to outline those aspects of the city that contribute or detract from the population's health, then the use of this profile to stimulate political and administrative creation of healthy public policies and ultimately action towards these policies.

INDICATORS

53 indicators are used today. A few examples for illustration are:

4.1 Health indicators. Mortality; Cause of death; Low birth weight

4.2 Health service indicators. Existence of a city health education programme; Percentage of six-year-old children fully immunized; Number of inhabitants per practising general practitioner.

4.3 Environmental indicators. Atmospheric pollution; Microbiological quality of the water supply.

4.4 Socio-economic indicators. Number of square metres of living space per inhabitant; Estimated number of homeless people; Unemployment rate; Crime rate.
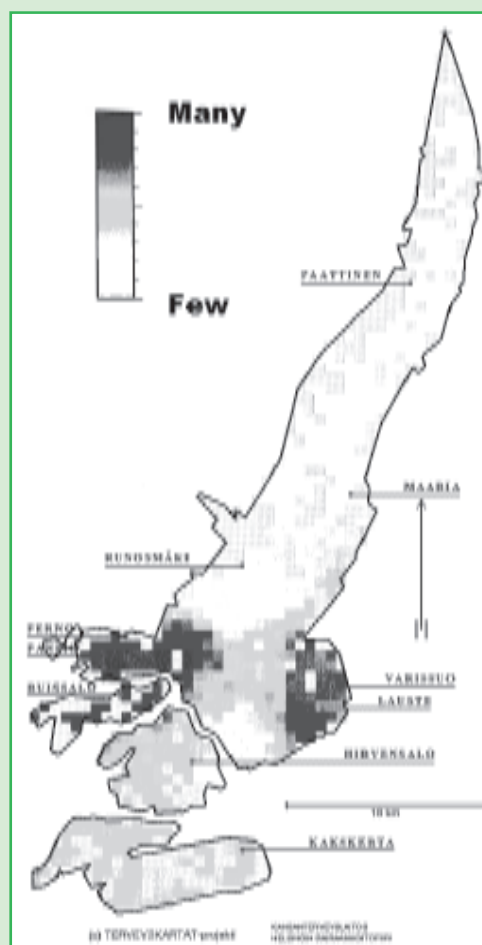

Figure 6.1 The city of Turku/Åbo, participating in the Healthy cities project, use GIS, Geographical Information Systems, to map the health situation of the city (See www.turku.fi/tervi/health_profile/index.html). The map, showing proportion of smoking men, was used for a directed recently started anti-smoking campaign.