ON THE SYNTHESIS IN MODERN GEOGRAPHY

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During the last decades geography has undergone far-going transformations. First of all while conserving its broad field of interest and the synthetizing approach to the variety of facts and processes, which in the period of the growing specialization and fragmentation of sciences has become its asset rather than liability, geography has undergone specialization.

At the same time the descriptive character which in accordance with its name dominated in geographical studies for a long time, gave way to a more comprehensive and more exact approach to problems under investigations. Also the application of geography in solving various practical problems has become more and more widespread.

In fact all those transformations were closely interrelated. First of all in order to make the geographers’ contribution both understandable and acceptable, the common language had to be found with its users. As those applications required a deeper insight into the nature of individual investigated phenomena and a measurable way of presenting results of those investigations, stylistic description ceased to be satisfactory and a more thorough going and thus more specialized approach and more accurate methods of research became a necessity.

The use of quantitative methods and techniques has enabled geographers to discover, formulate, test and prove more responsible generalizations in the form of various locational and network models, regionalizations, classifications, typologies, often of practical importance (Chorley and Haggett 1967).

The need for a deeper insight in to the investigated problems required in turn the elaboration of more accurate methods and techniques. This led to the growth of specialization within the field of geography. In consequence, whether one likes it or not, at present the term “geography” does not mean anything more than either a school subject or a traditional, general name covering the whole family of more or less independent disciplines or else is often used to define a spatial approach to the investigated problems. Within this system of geographical sciences

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individual physical disciplines concentrate their investigations upon particular elements or components of a natural environment, in their spatial arrangement and transformations, including the study of the impact of Man's various activities on his environment. On the other hand, individual disciplines of human (or economic) geography investigate various forms of human activities in their spatial arrangements and transformations, including the assessment of natural conditions and resources from the viewpoint of their importance for Man. To remain geographical, each of those disciplines ought to examine its subject matter broadly, in relation to other elements of natural environment and other forms of human activities. In result not only the term "geography" but also that of "physical" or "human" or "economic" geography is gradually becoming less and less relevant as at the same time each of specialized disciplines becomes physical, biotic, social, economic, cultural etc., to the extent that it is necessary to solve problems under investigation and to draw sound theoretical and practical conclusions.

As spatial distributions or arrangements of various natural or human phenomena are not always beneficial to Man's welfare modern geography not only investigates and explains causes of those spatial distributions but also attempts to find ways and means of their transformation for the benefit of Man. Here lies the practical aspect of geographical research.

Transformations and recent trends in geography are often subject to criticism. While some of those criticisms are based on misunderstanding or come out from old, antiquated ideas about geography, it is also true that together with advantages those transformations brought about some disadvantages.

What is often criticized is an excessive quantification of geographical investigations. Undoubtedly, there is much exaggeration in the application of highly sophisticated mathematical methods either to problems simple enough to be solved without using them, or to data which are not sufficiently reliable or accurate enough.

Even when properly applied, quantification tends to reduce any field of investigation to measurable phenomena, ignoring those that are not quantifiable or for which quantitative data are lacking, irrespective of their intrinsic importance. There are numerous cases of deformations resulting from disregard of this fact. On the other hand, the use of quantitative methods is essential whenever comparisons in space or time are involved that are extremely important for any synthesizing studies or for practical purposes.

Specialization within geography is also often criticized. Though as has been stated above growing specialization makes for more thorough studies, it is also true that broader syntheses, covering larger areas are thereby more difficult and therefore rare. Several remedial measures have been put toward to counter these disadvantages.

The solution which for many years, has been traditional manner of integrating geographical studies — regional geography — does not seem very promising any more. With growing specialization it is getting more
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and more difficult for regional geography, considered by many as either a foundation or a "crown" of the entire discipline, to produce competent research on manifold problems of larger areas or even to select, interpret and combine properly data from studies carried on by individual by various geographical disciplines.

Collective studies by specialists, published in the form of regional monograph are another proposed remedy. While some successful examples can be found, most of them are collections of studies rather than collective studies connected by hardly more than introduction, summary and covers.

Some geographers also believe that certain theoretical concepts rather than regional monographs may now serve as the integrating element.

The regional concept, which has exercised the minds of numerous geographers for many decades and been considered a key problem or even final objective of geographical investigation by many, deserves special attention.

What is a region? The traditional general definition is an area homogenous in terms of specific criteria selected to delimit it from other areas.

The notion that space consists of a mosaic of regions and that the geographers' task consists only in their identification was long dear to many, but a more sophisticated approach has revealed that reality is much more complex. The discovery is not recent that, while it is relatively easy to delimit a set of regions on the basis of a single element, it is much more difficult to do so when more than one element of the natural environment or more then one form of human activity are brought into focus. Regionalization based on the natural environment as a whole or on all human activities is even more difficult. Since the spatial differentiation of the natural environment and of human activities seldom coincide, attempts to offer an over-all regionalization have failed.

Although the boundaries of constituent elements of the natural environment seldom coincide and their weighing is hardly possible owing to the insufficient knowledge of their impact on natural environment as a whole, a pragmatic system of physical regionalization has been carefully elaborated particularly in the Soviet Union (Kalesnik 1961, Isachenko 1965, Preobrazhenskii 1966) and applied to certain countries. Recently however doubts have been expressed as to the real meaning of the identified units, are they actually regions or rather kinds of taxonomic units (Preobrazhenskii et al 1961, Kondracki and Richling 1972).

For long the economic region was also understood as a uniform, homogenous areal unit either of a single or multiple nature, reflecting the distribution of one or several forms of human activity.

A concept which developed much later, mostly from the models elaborated within urban geography: zones of influence, central places, urban fields etc. (Christaller 1933, Dickinson 1947, Smailes 1947, Chabot 1948 and others) is based on mutual interrelationships between the central core (usually an urban centre) and the surrounding territory called an urban and subsequently a nodal or polarized region.

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Many controversies about the nature of regions as well as disagreement on methods of their delimitation have arisen. While some geographers have insisted on the importance of economic regions and their objectivity (Saushkin 1960, Alampiev 1962) the other have criticised validity of the entire regional concept, while others, though accepting the usefulness of regionalization as a method of inquiry and a device of segregating areal features, have regretted the prominence given to the region within the discipline (Kimble 1951, Whittlesey 1954, Juillard 1962, Chorley and Haggett 1967, Claval 1969 and others).


It would seem that the principal achievement of the Commission do not so much lie in the accomplishment of what had been the original target, as in the work which made it possible to reveal the deficiencies and limitations of the regional concept and to pave the way for formence going far beyond the regional concept (Kostrowicki 1975 ab) toward either the typological concept (Berry in IGU Commission… 1968, pp 27—35) or toward the concept of spatial structure (Wróbel 1962, 1964; Boustedt 1967) general field theory (Berry 1966), economic or economic-time space (Dziewoński 1967, Dziewoński in IGU Commission… 1968, p. 12—18).

In fact some scholars believe that the typological approach, voided by the many deficiencies of the regional concept, can lead to better understanding and interpreting reality and be applied more usefully in spatial planning.

What then is a typology? According to the theory of classification it is a kind of a classification ordered according to certain system in which, for various reasons sets of individuals are not distributed into a priori categories but are grouped according to their similarities around sets representing the most common (typical) occurrences. Unlike normal classifications there may be gaps between these sets or overlappings for transitional individuals, who are equally close to two or more types. It is also felt that, unlike classification typology should try to take into account all significant characteristics of the investigated individuals, to cover all possible variants of the objects under study (Domański 1965, Kostrowicki 1968, 1971, 1975, 1976, IGU Commission on Agricultural Typology 1970, 1972, 1973, 1975). Although both concepts of are based on the entirely different thought processes typology has often been confused with regionalization (Byfuglien and Nordgard 1973). Nonetheless under different names the typological concept is widely used in biogeography, agricultural geography, physical geography as well as in urban and industrial geography (Kostrowicki 1975).

With some exceptions the typological approach has mainly been applied in human geography to studies concerned a single forms of
human activity. It does not mean however that like in physical geography it could not be extended to cover together all human activities over a given territory.

Unlike regionalization which is essentially a static concept, typology may be used not only to study in a synthetic way differences in space but also differences in time. Indeed the distributional pattern of types as units similar in terms of their essential characteristics may lead to the identification of underlying causal relationships which it would otherwise have been difficult to discern. They can be interpreted in the assessment of both past transformations and anticipated action, affecting programmes by determining the steps necessary to attain desired ends.

Since types are models constructed on the basis of the similarities of individuals, possessing highly interconnected characteristics, the typological approach is close to systems approach. Several attempts have already been made to apply the systems approach to geography (Chisholm 1967, McDaniel and Hurst 1968, Chorley and Kennedy 1971, Hurst 1972) and the results are promising. The application of the systems approach would be in a way a return to the holistic functionally oriented view, always prominent in geography, elevated to a higher degree of objectivity and precision.

All elements of natural environment and all human activities and what results from them are localized and therefore occur in space, yet because of the differences in their distribution, space is seldom uniform, an array of objects of different kinds being usually intermingled. Elements of natural environment and human activities do not appear in space arbitrarily and since their dispersal over space is not haphazard, principles and models of spatial distribution can be established (Béguin 1964, Domasński 1965). Human activities whether interconnected or not, occur in space in certain concentrations, which led to the concept of spatial structure (Berry and Marble 1967, Domasński 1972, Johnston 1973) widely used since a number of years. Like that of region, this concept, however is static and needs to be supplemented by considerations of spatial processes, there being causal relationships between spatial structure and spatial processes. "People generate spatial processes in order to satisfy their needs and desires and these processes create spatial structures, which in turn influence and modify spatial processes" (Abler et al 1971, p. XIII).

Spatial structures and processes combined form spatial organization an increasingly accepted concept both on the West and on the East which can utilize all the achievements of the former theoretical approaches such as regional approach, typological approach, systems approach and various spatial theories. As such spatial organization is considered by some authors as reflecting the best the subject matter of modern geography which can be defined as "an explanatory, predictive and prescriptive science concerned with the location of things and people in space (Abler et al 1971 p. 573). Although the concept has mostly been applied in the study of human activities in space, the present writer is of opinion that it could also be applied in physical geography.
The concept of spatial organization could also be of value for planning not only because as a dynamic notion, it helps to explain past and present spatial structures and processes, but because it also implies organizing i.e. transforming existing spatial structures into more desirable ones.

“Geographers are expected to rectify existing spatial incongruities and to take preventive action against possible spatial incompatibility in the future” hence “understanding and manipulating space and spatial distribution will be the geographers’contribution to human welfare” (Abler et at 1971, p. 28 and 21).

Bibliography — Bibliografija


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**O SINTEZI V MODERNI GEOGRAFIJI**

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(Povzetek)