

Space, Economy and Settlement Systems (Summary)

From the analysts' point of view, space is different from the space defined by Pearson, with three dimensions, more exactly being a hyperspace, consisting of a lot of characteristic subspaces, among which there are independence and interconnection relations. The geographic space, as a space for geographers, is continuous, but it isn't homogeneous. The numerous discontinuities divide space into specific spaces, defined by the characteristic element which outlines them.

Due to the fact that almost all sciences which are connected to space have defined their own subspace, named economic space, geographic space, sociological space, mathematical space etc, it seems that there is no science which studies **space as a whole**. Therefore, it is analyzed in detail, with pro and against arguments, for an entire claim of space by geography. This can be named a **science of space**, in general, and from here derives its significant constitutive character.

The science of space and especially the science of organized space may contribute more significantly to the development processes, having in view a field systematically unexplored yet and whose understanding may emphasize the use of regenerating resources, the consumptions optimization at elementary units of 'burning' and the interactions structure, promoting innovation and its application.

The economic space is defined by Perroux by means of specific relations, which exist between economic elements and which can be met at the level of a company, a region, a country or a supranational assembly. The three types of economic spaces identified by Perroux remained classical within the spatial economy: the homogeneous space, the space as a field of forces, the space defined as a plan. The first two types of economic spaces are clearly inspired from the division of geographic regions in two categories: homogeneous and functional (heterogeneous), the latter being, in fact, the result of some spatial crossing points of territorial streams.

Territory, as a particular subspace, is made up of two subsystems: a natural and an anthropic one. The natural subsystem is structured according to the laws which are characteristic for the dynamic of natural component parts, and the anthropic subsystem is based on the capacity of human communities of structuring it, by themselves or in networks, in a manner as pragmatic as possible, in order to ensure a lasting development of the society. The cumulative effects of the two subsystems' dynamic, which interrelate, are materialized into forms of territorial structures which are characterized by human communities' experience and option.

Territory can be interpreted as an interface of the balance between nature and society. In all definitions, **the interface integrates two remarkable ideas**: it supposes, on the one hand, the existence of some discontinuities, of some breaches, and on the other hand, the existence of some regularities and even the existence of a whole. Unlike the discontinuity, the interface is in close connection with the function, as the functioning of the assembly cannot be accepted without the interaction between the two subsystems. Spatially, the interfaces between the different types of territorial systems have got very different complexity degrees. The complexity degree is very well correlated to the structure and the level of anthropisation of the territorial subsystems which interfere.

Territoriality is a process which takes place on an economic and political basis, meaning that a certain space 'belongs' to a community. Places are elevated by means of the territorialisation and they become more complex. The concept of territory is essential for the system of human settlements for the human settlement itself. If the latter represents a concentration of population and activities in a relatively limited space, the territory which is administrated by that community was fundamental for ensuring its process of historical evolution. No matter the dimension of the settlement (hamlet or big city), the associated territory represents 'the lung' of its development.

The idea of **discontinuity** has its origin in the work of the French geographer Camille Vallaux who, in contrast with the generalized opinion of the time according to which space is only surface, notices the fact that space can be characterized by diversity and contrast. The space unity is ensured by means of subspaces articulation processes, which give certain configurations to it. These configurations are the result of a process of interaction between the space's component parts, vertical but especially horizontal interaction. By analyzing the type of synergy and the coherence of the spatial component parts, we could assert that: **territorial synergy ensures the articulation of spatial structures** and it is expressed by means of a certain way of spatial structure.

Discontinuities, especially the dynamic ones, are taken into consideration during all the three stages of the process of space structuring. Thus, in the first stage of elaborating the structure project, the communities often start from certain discontinuities which have been noticed within the development process. A too fast interchange of discontinuities means a permanent dynamic instability with effects on the status of the respective space. Consequently, dynamic breakings must follow a certain limit, so that the permanent component parts of space should be preserved and should ensure the coherent frame for the forecasted future configurations.

The evaluation of the existent spatial discontinuities represents the basis for the future options of a community. If a certain process of space structuring is sustained, this is because of the strong discontinuities which lead to spatial

segregation. A strong segregation can be against life quality within the respective space, leading to discrepancies between its different areas. Usually, the objectives established within the process of space structuring refer to the diminishing or removing of the discrepancies regarding development or certain characteristics of development.

The way of intervention correlates to the type of objective, but it takes into account the integration of some discontinuities or even producing some new ones. The latter can be of qualitative type, referring to the need of differentiating certain areas in order to facilitate the maximizing of the creative or contractive spirit, for example, or of quantitative type, meaning emphasizing other discontinuities.

Even the simplified approach of **the relation between actors and territory** must lead to the individualization of the infrastructures role and especially of the new technologies regarding the shaping of the territorial development types. The technologies became the main elements within territorial structure, within the fundamental change of the way of geographic analysis of the economic reality. Going on in describing some post-factum phenomena and not getting into their essence in order to trace out future evolution tendencies, it means sentencing economic geography to description, to explanations regarding **what it is**, without involving it into **what it will be**.

Regional and local development represent two concepts included in the territorial development, strongly revitalized lately, especially in Europe. The integrated development of the European Union cannot be achieved by projects of regional development in which states are partners. The experience regarding the diminution of territorial discrepancies in Italy and Greece in particular, have showed that the using of the state as an instrument for achieving a sustained regional development is not a solution. This is why **region is reconsidered** at Europe level, being regarded as an adequate operational space.

When speaking of regions we refer to limits, to discontinuities which individualize them and changes them into operational entities. From this perspective, **region** is nothing else but the result of the interference of a discontinuities system. **Region is born by means of discontinuity processes, it lives by means of a dynamic found within qualitative ruptures, spatially projected, and it is 'killed' by discontinuities, too.** Region cannot be spoken about without referring to spatial and temporal discontinuities, no matter the policies adopted at different levels, from the local to the global ones.

Discontinuities within contemporary development do not disappear, but on the contrary, they become central. To them, an important characteristic is added, referring to quality and to instability augmentation. Under the impact of new technologies and the capitalism's reconfirmation as a society able to ensure territorial justice inclusively, **new discontinuities generate new**

habitats which become, from problem areas, propelling areas and the vice versa.

Theoretically, by regional development one follows the discontinuities' translation towards the outskirts and their lapping over the limits (borders) of the analyzed spaces. There are four essential problems identified within regional development: *finding out the regional resources and identifying the means, identifying and analyzing the barriers, choosing the strategy of regional development, choosing the methods and models in elaborating the programs of regional development.*

The conclusion would be connected to the way in which the discontinuities as a concept could be useful within regional development. In our opinion, **discontinuities can change into real instruments for regional development**, if they are generated and monitored, so that they do not bring about a new regionalization. In conclusion, **the risk of discontinuity production** must be mentioned, if the discontinuity doesn't refer to certain objectives and if it isn't combined with diffusion processes.

The dynamic of the present society makes us notice at least **three extremely complex phenomena**: the unprecedented development of the technologies regarding the information generating, communicating and storing, the considerable expansion of market relations and the revolution within management field. All these lead us to the idea of an a-spatial development, in this period of economy detaching, based on knowledge. Unlike new technologies which can be relatively easily transferred, becoming entrance points for different companies, regions or nations, knowledge cannot have the same route and cannot progress with the same speed. Knowledge is the result of a much longer learning process, and reality demonstrates that those localities, regions or countries which learn better and faster win the competition on the international markets. For a lasting supremacy, these must permanently change their targets, so that they should be obliged to learn unceasingly.

As a result of the changes within the level of real economy, we assist at a permanent process of the space adapting to the population's new demands, to the economy's new requests, to the needs of ensuring the streams' fluency, not only in a regional or national context, but in a world context, too. **The process of space structuring is not done chaotically, but it comprises all the good practices regarding adapting and organizing**, so that its resources should be used accordingly the principles of a lasting development.

In an economy based upon knowledge, the universities' mission goes beyond the previous one, having more and more connections to participating into the production of knowledge. The competition between universities is not only qualitative, a-spatial, but it is also a competition for students' recruitment space. A strong university is one with a very large and discontinuous

recruitment habitat, especially if we consider the universities which are well ranked within world hierarchies.

The education and knowledge production is not seen as some real inputs in the process of urban and regional development yet, even if it's got more and more evident a-spatial and a-temporal tendencies. This is because investing in education means financial efforts, ideas, evaluation, action etc, before the product becomes a new input for processes with cumulative effects of further development. Moreover, investing in education is extremely insecure, because the local effects in case of such an investment can be more diminished by the "brain-drain" process.

By means of its research potential, the university may contribute to the more exact individualization of the needs, to the coherent formulating of the needs systems and to finding out new solutions for their satisfying. **The orientation of the university's research towards the real needs of the town or of the region** where the higher education institution is situated is beneficial for the researches' progress inclusively, taking into account the possibility of concrete validation of the results of a fundamental type approach.

The second part of the book is centred upon **the analysis of the economy from a geographic perspective**. There have always been interference relations between economic geography and spatial economy, one charging the other and the vice versa. At the same time, each of them tried not to drift away too much from the mother science; economic geography has got many connections to the space resources and it analyzes the space influence upon economic systems, whereas spatial economy touches the quantitative, the pragmatic side of the economic phenomenon in spatial projection.

Among the forms of social organizing and cooperation, the best known are in the economic system. This represents, in fact, a coherent entity, which ensures the society's supply with the goods and the services requested by it. At the world level, there are three categories of economic systems: traditional systems, centralized economy and market economy.

A special type of the market system is the capitalist system. A capitalist system is an economic system in which the resources distribution is not determined only by price. The engine of the capitalist system is the **profit**, for which the producers make efforts to sell their products more expensively than their production have cost.

The economy geographers do not have a unitary point of view regarding the economic systems. Their points of view are closely related to the way of approach, but also to their philosophical line or their ideological orientation. Along the entire evolution of the economic geography, from the middle of the XIXth century up to present, a central point of view can be noticed, a special set of problems, which differentiates geographers from economists. This central

point of view refers to **space**, a concept which have suffered more changes compared to the initial dimensions which have been attributed to it.

A science without theory is blind, it is a simple book of observations, methods, practices and events. Without theory, information remains indistinct, an incoherent mixture of fragments. In this case, only a theory can methodize and structure observations, it can facilitate the launching of assumptions and actions for their validation, it can direct research towards certain well defined targets. This is why a large part of geographic research is dedicated to the **models and theories' building**. Thus, two goals are achieved: a) the world complexity can be better understood, by changing reality into essence; b) extrapolating individual tendencies can lead to anticipating future models of spatial structuring.

The importance of **systemic analyses** within geographic literature is high. The reason is connected not only to academic attraction, but especially to the need of interdisciplinary communication and to the need of placing geography in solving some present problems related to the economic-social and cultural development.

Discussing about economic geography and analyzing its present state one can conclude that most part of the works have got a **descriptive-educational character**, taking more into account the productive dimension of economy and less the commercial dimension. But economic geography can be **normative and applied**, these being valences less encountered in recent works.

The chapter finishes with the presentation of the model of social use of space as an instrument within the economic geographic research. Depending on the type of complexity regarding the use of space, one can distinguish: *the singular use and the multiple use*.

In the previous chapters it was showed that there are many categories of assumptions launched in order to explain the localization in space of the economic activities. Among these assumptions there were the micro- and macro-analytical assumptions, the static and the dynamic assumptions. The present analysis will focus on **the series of economic sectors** (primary, secondary and tertiary), emphasizing the main models and theories that have spatial implications in their development.

Consequently, firstly these analyses regard **the primary sector**, showing one of the oldest models. This starts from the theory elaborated in 1826 by J. H. von Thuenen and it explains the localization of an important sector of economic activities, regarding the fields' use.

The spatial structure within **the secondary economic sector** is based on the analysis of industrial activities. This is done by a micro-analytical or economic one-dimensional approach (a single enterprise), as well as by a macro-analytical approach (several enterprises).

By means of *micro-analytical approach*, the geography of industry justifies the localizing of industrial activities, trying to elaborate some models of localizing the individual enterprises. In this respect, Weber's model of localizing industrial enterprises, with its limits and valences, is presented in detail. *The macro-analytical approach* regards big enterprises, made up of several production units, which associate a functional and spatial work division to their organizational structure. The type of division depends on the organization structure, and it could be functional (by functions, vertically divided), divisional (by products, horizontally divided) or regional (complex localizations with central management).

There can be identified four main sectors within economy: primary, secondary, tertiary and quaternary. This exception from Clark's ternary division starts from the strong development of the *tertiary sector*, which was extremely different. This doesn't mean that the four sectors do not continue to develop. It isn't about a successive, but a synchronic development, which doesn't eliminate intra-sectoral differences.

The spatial structure in the **tertiary economic sector** takes into consideration the numerous models and theories which are used. From among these, Christaller's theory of central places can be noticed, showing the many aspects regarding its using within urban development, territorial planning, in countries having different development stages. Also, its limits are shown, as well as the subsequent development which this theory registered in its effort of adapting itself to contemporary realities.

The theories of regional development try to explain how the economic development happens in certain territorial entities, called regions. One of the fundamental questions can be considered the one related to the way of approaching economic development. Thus, there can be identified two types of approach: *the analysis of the economic structure's modifying* from a region, referring to a long term modifying of this structure, respectively *the reflection of this economic growth in statistical indicators*.

There can be noticed the fact that there isn't a clear and comprehensive theory, explaining the regional growth processes. This is why in this paper many theories are analyzed, among which the *neoclassical theory*, *the postkynesian theory*, *the exports' basis theory*, *the economic steps theory*, *the poles and growth centres theory* can be noticed.

The dynamic of present economy depends on **scientific research**, starting from the premise that science multiplies by means of inventions and discoveries, with a direct effect upon economy. For the economic processes to become dynamic, science must be spread, and implicitly the growth of knowledge production in general must be spread. The spread of scientific knowledge takes place by accepting and applying the solutions offered by science. The special term for accepting is "adopting", and for applying is

“**innovation**”, sometimes “application”, too. The term of innovation becomes, in these conditions, a sort of “super-term”, which we find in numerous development stages and which means introducing something new.

The decisive engine for spreading an innovation, for its diffusion, is **information**, and more exactly informal institutional and informational relations. Informal relations are sooner a result of adjacency effects, and institutional relations are the result of hierarchical effects. The slower adopting of innovations in the late stage of distribution and in the saturation stage is explained through the fact that innovators are less connected within informal and as well within institutional information networks.

The detailed analysis upon the way of coming out and diffusion of enterprises at the border between some contact lands between the two former “Germanies” led to the conclusion that **the informal system on information and communication** the investors used didn’t contribute in a special way to the differentiation of the model of spatial diffusion of new enterprises in the three districts. This can be associated to the fact that in the marginal spaces of the former democratic Republic of Germany there were still large deficiencies regarding infrastructural endowment, so that, generally, informal contacts played a more and more important role.

The second part of the book closes with theories regarding the regional technological conversion, and it explains a part of the concepts in fashion today and it gives more examples for understanding the processes of innovations genesis, their diffusion, *the theory of the products’ life cycle, the theory of long waves as theory of spatial development.*

The last part of the book is dedicated to **the analysis of settlements systems** in terms of the space role and the economic development within their evolution. The territorial complexity of economic activities, the dynamic of this complexity and the extremely varied relations with the space where they are located lead to the idea that the most indicated barometer of all changes can be considered **the settlements system**. These are spatial, functional entities based on direct and indirect proportions between settlements, on the relations which exist between each settlement and the space where it inserts.

From the multitude of relations which can be individualized within a settlements system we can mention the **economic** ones. The structure of economic relations is very complex, referring both to goods and to services. Usually, **these relations’ intensity and orientation are given by the functional complementarity of a settlements system**. The surplus of resources, products and services of certain types, as well as the proximity elements, combined with accessibility were essential elements for contouring the settlements systems from different levels. The accessibility was extremely evident, especially at the local and inter-local system level.

The formality of settlements systems' dynamic wasn't made on an empty field, but by developing, on the one side, the experience accumulated within the management of settlements networks from a territory, and on the other side, the results obtained from the academic approach of the relations between them. From practical reasons, most of the researches were based on finding some regularities in placing the settlements on different hierarchical levels, on the way a settlement imposes within a territorial context, on the way the innovation diffusion takes place within the territory, on the way the economic basis is structured, especially the urban centres' economic basis.

A part of the essential theories regarding the coming out and the dynamic of the settlements systems were analyzed in the second part of this paper (the theory of central places and the theory of polarization and of the development poles). Others, even if they have a lower economic impact, are important in terms of the economic relations between a system's settlements (the theory of urban attraction, the theory of economic basis and the theory of diffusion). Their knowledge proves to be extremely useful for the detailed analyses regarding the settlements systems. In fact, we could assert that **the settlements system is a product of the economic-social flows, polluted by political, historical or cultural elements.**

The historical experience within the resources' economic change, to which it is added the services' production and delivery are elements which bring large differentiations within the dimensions and the coherence of the settlements systems. As the settlements system is an intellectual construction trying to define a territorial reality, it is based on **principles** which detach it from other similar constructions. Our objective from this chapter is trying to show the way *the economy elements are found within the defining of some of these principles*. There are analyzed in detail only three principles considered relevant for their relation with the local or regional economy: **hierarchization, centrality and specialization.**

The conclusion which detaches is that the place held by the economic activities within settlements systems does not decrease, but increases and diversifies. The specialization, encouraged by the more and more consistent competition and cooperation and sustained by the scale economies, create a large variety of the settlements within a system, inclusively aggressions regarding the initial order within a system, **breaking up hierarchies and centrality.**

A settlement's economy represents the heart of the entire functioning process of a settlements system. The degree of integration of local economies within a territorial assembly reflects in the stability of settlements systems. Many arguments contribute to the demonstration that economy is the engine of a settlements system.

The reconfiguration of a settlements system is normal, following some **differentiated economic development processes**. The rapid development of an innovation by its materializing in contractive initiatives or implementing major projects can affect the relations within a settlements system, generating new configurations. For sure, these configurations, in most of the cases, are the result of the local or regional economic behaviour.

Among the processes with a direct impact on the settlements systems we can mention *industrialization, des-industrialization and the tertiary process*. These are synthetically analyzed, providing some examples in order to show the impact they have on hierarchies and centralizations within the different settlements systems.

The territorial economic differentiations, the settlements' demographic evolution and the settlements systems' configurations were the effect of some economic, territorial and sectoral development policies, *excessively centralized*, in the second half of the last century. Analyzing the Romanian settlements system's dynamic, the direct relation between economic policies and individual evolution of each settlement corroborate. Although **fractured in two stages** (before 1989 and after), the analyzed interval proves that no matter the types of economy, human settlements have got extremely delicate sensors and they react according to external aggressions and to their own internal evolution. The examples provided emphasize this conclusion.

The background changes which took place during the last decades bring into discussion the new valences that can be held by **the regions in the globalization context**, starting from the way of functioning and structuring of the settlements systems. The enlargement of the world market and the development of the interactions between sub-national spaces, the regional settlements systems respectively, show a graduate decrease of the states' role and the descending of the decision level regarding the development at some sub-national entities level, frequently identified with regions. It isn't about natural or historical regions, but especially about **functional regions**, some of them having juridical-administrative personality, others without, but with a significant identity at the production/services clusters level.

The structure of a settlements system, which forms **the skeleton of a functional region**, emphasizes the proportional importance of each settlement within the dynamic and the development of the regional space. We say proportional, because there are big differences between the impact force of a settlement situated at the inferior level of the respective system's hierarchy and another one, placed at the superior level.

The settlements system individualizes at regional level by means of the interdependencies which appear between the regional pole and the other localities. The relations are not only horizontal, but also vertical, meaning a certain successive approach, from the locality having the least goods and

services to offer, up to the regional coordinator centre. In fact, there is **a field of forces with centripetal configuration**, a field which experiences not only the pulsations from the centre, but also those of some of the nodes situated on the outskirts. If these nodes do not succeed in ensuring a sufficient polarization of the coordinated space, then we will assist at fragmentation processes. These processes are frequent and they end with readjustments of the regional settlements systems.

The new thinking of the processes of endogenous development at regional level takes into account a new independent variable, represented by the **knowledge capital**, which is very alike what is called a public good. By means of this knowledge capital, by the resources it holds, the settlements system can be considered **a vector of endogenous regional development**.

The last chapters emphasize the importance of **the contractive initiatives** within the space dynamic, inclusively the importance of a settlements system, and of the **use of the settlements system** from inferior levels **within the treatment of the profoundly affected areas**.

Finally, we can conclude that the present work represents an attempt of approaching separately, but correlatively, three main component parts of a geographic system: space, economy and settlements system. The three component parts are found in each of these, but in the same whole, too, proving that they can make up the object of a research paper, with a significant theoretical character.