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**LANDSCAPE SYNTHESSES AND THEIR ROLE IN SOLVING THE PROBLEMS OF ENVIRONMENT**

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A présent les synthèses du paysage se déplacent de nouveau au centre de gravité de la géographie, ce qui est la conséquence de l'agissement sur la géographie de la révolution scientifique et technique qui advient. Cependant, sous son influence les synthèses du paysage acquièrent une orientation nouvelle. Elles ont un modèle anthropocentrique marquant. De ce point de vue le paysage est compris comme le domicile de l'homme et l'objet de son travail. La condition des synthèses du paysage sont les analyses profondes, qui dévoilent les liaisons compliquées parmi les éléments du paysage et permettent de reconnaître les structures du paysage. Les synthèses du paysage consistent du diagnostic et du pronostic du paysage. Le but des recherches diagnostiques est la connaissance des propriétés utilitaires du paysage, surtout son potentiel, en tant que condition fondamentale de son utilisation. Les pronostics du paysage ont le caractère de la délimitation fonctionnelle du paysage, qui résout la question de l'utilisation rationnelle du paysage.

As already described in the introductory contribution [12] landscape syntheses are a traditional focus field of geography, even when, as a result of a specialization trend in the first half of our century, they were displaced on the margin of its interests. At present they are moving again in the centre of its attention (see also [8, [16]], which is caused before all by radical changes in the subject of geography—in the landscape and in the socio-economic system. A great role is played also by the social mission of the science—the solution of complicated man's problems. It is pressing especially to-day, in the time of considerable ecological crises. A different impulse results from the development of the science and concretely in geography from the modernization of its theoretical-methodological apparatus, which permits to overcome the gnoseological stumbling-block in solving the problem of relationship man-environment.

The landscape syntheses are acquiring at present an extraordinary importance, for they are a means of geography to know complexly the object of its study—of the geographic sphere and to accomplish its fundamental task: an integrated study of landscape systems (geosystems) and socioeconomic

systems in their mutual relationship on the earth surface. The landscape syntheses bring complex facts on the subject of geography from the systems point of view, i. e. on the landscape system, its potential, stability, homeostasis, charging capacity and its behaviour under the influence of man's action. And they are the key approaches to the solution of ecological crises, and crises in general, which result from the unsolved relationship between man and nature. What is important, apart from the diagnoses of the present state and knowledge of systems properties of the landscape, they permit to state prognoses and above all prognoses having for objective man's necessities, i. e. scientifically based suggestions for the use of environment on a preventive basis. By it is accomplished at present the social mission of geography.

#### THEORETICAL-METHODOLOGICAL BASES OF LANDSCAPE SYNTHESSES

As already outlined in the introduction, the landscape problematic character to-day is actualized by impulses, which result from two sources:

1. From the requirements of the society addressed to the science, to solve the problems of her environment,

2. from the proper development of the science, i. e. from its present theoretical-methodological level.

The society's demands on the science are a primary source of actualization of the landscape syntheses. These demands result before all from the fact that old forms of coexistence of the society and the landscape have been overcome. New forms resulting from the expansion of the technical civilization and consequently from the changes in the style of living, which are connected with the requirements and new demands for dwelling, transport, production and rest creating a new relationship between man and landscape. This relationship with regard to the disproportional landscape filling with technogenous objects, which overburdens and even damages the landscape systems, requires at present a conscientious management of the relationship of the society to the landscape, an indispensable condition of which is the scientific knowledge of the landscape, its structure, its organization.

The second source of development of landscape systems is at present the achieved level of the science. The science at present and therefore also the geography have gathered gigantic quantities of analytical facts, which permit to set up an information bank and an exact processing of data by means of the progressive techniques. A fundamental condition was also created for this task — a modern theoretical-methodological apparatus drawing from the systems theory, mathematics, logics, cybernetics, topology, physics, biology, sociology, theories of information and from the methodology of sciences in general.

The said moments permitted to develop a new approach to the landscape as a system, called today in general a geosystem. In contrast to notions on the landscape in the past as a certain physiognomic unit of the earth surface, delineated according to criteria of homogeneity is today under the landscape understood a dynamic spatial system of phenomena of a natural and socioeconomic nature, which links to the earth surface. Its aspect is

synergetic, choric and chronologic. New approaches to the landscape as a notion and object, therefore to the object of landscape syntheses is dealt with in detail in the preceding study [15].

A characteristic mark of approach to the landscape research at present is also the fact that the landscape research has an expressively anthropocentric model, therefore, its objective are the needs of the society.

#### ANTHROPOCENTRIC AIM OF LANDSCAPE SYNTHESSES

The landscape as an object exists objectively and independently from man, for it took origin and developed into the present physico-geographic form before the origin of the value reproducing human society. Man developed as a result of interactions of elements of a highly organized landscape system. It is a resulting phenomenon in the landscape, which does not condition the existence of natural elements, but depends on them. The landscape can exist without man. Related to man, however, it is his existential base, it is the source of his life. Man inhabits, uses it, he is its inhabitant and user.

Landscape and man. This relationship has two sides:

1. The landscape is an objective reality, it is one of the forms of existence of the surrounding objective world. Its development is regulated by various natural and socioeconomic laws. Natural laws (physical, chemical, biological) relate to synergetic, choric and chronologic sides of the landscape.

2. Man is also forming part of the landscape. He is one of the elements of the landscape system. He is under the influence of laws, which act in the landscape. Their influence, however, depends also on the degree of development of the society. Man has a biological and social substance. Each of these two substances incorporates him into the landscape by a different way. By the biological substance man is incorporated into the sphere of action of natural laws, which act in the landscape. It is a relationship, from the viewpoint of which man, similarly as other organisms, appears as an element dependent on the landscape. On the other hand, however, man by his social substance is linked to the sphere of socioeconomic laws. It is a linkage, which in contrast to the biological linkage does not make man explicitly dependent on the landscape. Through the social linkage man appears as an exceptional element in the landscape, which differs from the others. Man as a social being adjusts conscientiously the landscape through work, cultivates it, changes it. From this view point the landscape is man's object of a working action and a product of his work.

The landscape is a biogenosphere, therefore that sphere, linking with the earth surface, where living beings took their origin, among them even man. Man is linked to this sphere. It is a place where he lives. His interests go even beyond the boundaries of this sphere, into the microcosm, into the macrocosm, even in the interior of the planet. However, man did not inhabit these worlds, his life is not linked to them. So far as man leaves the landscape (in a cosmic ship, diving-suit, submarine, etc.), he simulates his conditions, as are in his original home-landscape.

The two above said sides of man's relationship with the landscape and his synergetic, time and spatial linkage to the landscape make that the lands-

cape is of an existential weight to man. From it results that to deal with the landscape is important before all from the views of man's interests. Only the view point of society's needs gives the landscape a proper sense. From this anthropocentric view point the landscape is man's home and according to this it is necessary to approach also to its research. Man continuously interacts with the landscape and each change of the landscape, considerate, or inconsiderate, acts more or less on the landscape system. The aim of landscape syntheses, therefore, is the knowledge of the landscape as a home, as an object of human work. This view point determines simultaneously criteria of the landscape research. Here the aim is no longer the division of the landscape in typological, or individual units, etc. It acquires the character of a starting point for the research of the landscape systems properties, which are relevant from the man's interaction view point with it.

The landscape as an object is not a shapeless matter, but a structuralized substance. Its properties are given above all by chaining the elements of matter. The landscape is an entire system. There act in it the three mentioned kinds of laws in the form of composition principles — synergetic, choric and chronologic laws. A concrete landscape is determined by the synthesis of the three mentioned kinds of laws.

The anthropocentric approach to the landscape requires an evaluation, search for and uncovering of the landscape values. The landscape in itself, as an objective reality, has no value. It acquires value only through its function for man. Man as its user and inhabitant sees in favourable, unfavourable, suitable, unsuitable, useful, useless, positive, negative properties, etc. Man evaluates the landscape and his activities in the landscape and realizes its potential. This evaluating aspect determines simultaneously the approaches to the landscape research and aim of landscape syntheses. The landscape syntheses from the anthropocentric view point represent an integrated process of diagnosing those properties of the landscape, which are applied in man's intentions with the landscape and prognosticating further use of the landscape and its resources from the view point of its properties and needs of the society.

## LANDSCAPE SYNTHESSES AND THEIR SUBSTANCE

The landscape syntheses are nothing new in the geography. Already traditionally they represent the culmination of geographical researches. In the period of domination of the specialized geography, represented by a set of physico-geographic and economic-geographic disciplines the landscape syntheses represented regionalizations (physico-geographic, economic-geographic, or even entire geographic), which as a rule were a concise complement of detailed, deep analyses of individual, systematically arranged physico-geographic and economic-geographic elements. Specialized branch researches in the present situation do not lose their significance. On the contrary, they gain an important role to deepen the individual sides and facts of the landscape syntheses.

Grossly from the middle of our century in the European geography, probably under the influence of the tradition of geographic syntheses beside analyse

in the form of specialized branch researches, syntheses are intensely developing, either in the form of landscape, or socioeconomic syntheses. A particularly strong expansion of syntheses can be registered in the Soviet, German, British and recently also in the French geography. They developed in the Australian and the Philippine geography. Analyses are of a fundamental role in the elaboration of syntheses, for they are their condition. However, their expressive aim was the knowledge of synergetic bonds of elements in the topical dimension. To the analyses link proper syntheses, i. e. the delineation of spatial, choric structures and taxonomies of various hierarchical ranks. The classification questions of the landscape taxonomies are the objective program of research.

Since the sixties of our century geography has for a more and more expressive objective the needs of the society and renews its anthropocentric model. In the USSR this trend formulates explicitly in a synthesis constructive geography, in the British geography applied researches are living through the revolution. In the landscape syntheses these trends appear in an expressive anthropocentric aim. Even in this most recent period analytical operations are a condition of the syntheses. Indispensable also is the knowledge of the natural landscape structure and its anthropogeneous modification. However, the classification phase is not objective, but has functions of the basis, starting point for unwinding further researches, which are markedly of a diagnostical character. They are researches of system properties of the landscape, which bring to man guidances for a scientific management of his relation to it. Even the landscape diagnosis is neither an end, but solely a very important phase in the research, representing the basis for the aim of the landscape syntheses — for prognoses on the landscape. In this conception the landscape syntheses are the centre of gravity of the landscape researches and their sense. The landscape analyses have a function solely as an auxiliary means, operation, which is indispensable for the delineation of landscape systems as such.

Under landscape syntheses we understand a set of complex facts on the landscape seen and evaluated by man's „eyes“ — an inhabitant and user of the landscape. Properties that are relevant for the man's aims in the landscape are called utility, or even value properties of the landscape. They result and are derived from the landscape fundamental structures — natural and anthropogeneous. The fundamental purposeful property of the landscape is the potential, as a complex condition of the landscape for its use. It expresses the capacity of the landscape to accomplish functions, which man requires from it. The knowledge of the purposeful properties of the landscape is the basis for landscape prognoses, as a scientific suggestion for a spatial organization of the landscape functions.

Landscape syntheses have two parts, i. e. the diagnostical and the prognostical.

## LANDSCAPE DIAGNOSIS

The landscape diagnosis is the process of knowing and arrangement of facts on the structure and purposeful properties of the landscape, which are important from the man's needs view point. It has 3 parts, i. e. the

basic, gnoseological, which represents the knowledge of the landscape natural and antropogeneous structure, then the evaluation, value part, which represents the knowledge of the landscape potential and its limit values, and finally the comparing part, which represents the analysis of relationships between the present use of the landscape and its potential.

The research of the natural and antropogeneous structure of the landscape is a fundamental step in the diagnostical research of the landscape. It is a condition of knowledge of the landscape potential, its limit values and properties, which are determining it. The knowledge of the landscape natural and antropogeneous structure enables the research of further properties of the landscape.

The aim of the geocological research of the landscape is to uncover its structure, which forms under the influence of natural factors. In the present cultural landscape it is „masked“ with the antropogeneous structure, from which it is to be abstracted. The knowledge of the natural structure is therefore important, for it forms independently from man's will. Its development and properties are ruled by natural laws. Man must therefore take it into consideration in his intentions with the landscape. In the cartographic model it is interpreted by a spatial mosaic of types with various properties.

The research of the antropogenous structure has for objective the various sides of man's action on the natural structure of the landscape. Anthropic actions in connection with the landscape space are the object of research of the landscape functional structures. The aim is the delineation of spaces with a certain utility function, i. e. also with a certain antropogeneous action.

The knowledge of the antropogeneous structure is therefore beside the knowledge of the natural structure a basis for further researches, aimed at the landscape values, for man intervenes in the landscape system and changes also the landscape conditions for the accomplishment of the utilitarian functions.

The substantial part of the landscape diagnosis is the set of facts on the landscape potential, which results from the landscape natural structure and is influenced also by the antropogeneous action, by which the cultural landscape is formed. As a landscape potential we indicate in accordance with D. Graf [7] the capacity of the landscape to provide a certain quantity of possibilities and conditions for a various use with the aim to satisfy the needs of the human society. These possibilities and conditions relate to the production of material estates, their circulation, consumption and reproduction, to man's recreation and to the satisfaction of his needs in general.

The landscape potential is a complex condition for the landscape to accomplish various functions for the society, to become the society's „home“ functioning spatially without conflict. The functional structure of the landscape is formed by its realization. If this realization had for a result the rational use of the landscape, i. e. a well functioning spatial function structure, it is indispensable to discover the limit values of the potential, which determine the measure of charging the landscape by antropogeneous interventions, in which the stability of the landscape structure is not altered yet. The limit values of the potential are determined by various physicogeographical and also socioeconomical factors.

Under the conception of landscape charging by anthropogeneous action we understand the capacity of the landscape system to bear a certain kind and intensity of anthropogeneous action without altering the landscape structure. A rational realization of the landscape potential is conditioned also by other properties, as the landscape stability, its resistance, homeostasis, productivity and others. Their study has sense solely in connection with the problems of the potential.

The landscape resistance against the anthropogeneous acting expresses the capacity of the landscape to act against such kinds of anthropogeneous action, which could lead to negative changes of its structure. Closely related to it is the sensibility of the landscape to anthropogeneous interventions. It is the aspect of the landscape resistance and expresses the landscape structure unstability.

The landscape stability indicates the strength of the bonds of the elements in the landscape system, i. e. of the structural organization of the landscape. The higher the landscape is organized, the more unstable it is. The looser the bond of the elements, the lower degree of the landscape organization is reflected in its higher stability. Under the homeostatis is understood the state of the landscape system, in which the mutual bonds of its elements are maintained by autoregulation processes in a quasi static stability. Irreversible changes do not take place in this state. The landscape productivity is the capacity to provide matters and energy, which are necessary for ensuring the existence of the human society.

The mentioned properties are closely connected with the landscape potential, because they influence the possibility of its realization. They express the capacity and ways of the landscape system reaction to man's influences.

The last part of the landscape diagnosis is the comparative one. Its object is the comparison of the present functional structure of the landscape with its potential. It is the detection of the ways and suitability of use of the potential. The results are a basis for the prognostical processes.

## LANDSCAPE PROGNOSIS

In geography the prognostication is already a lasting part of the researches. The most frequently it is used in the economical geography to foretell the future growths of residences, inhabitants, production of material estates, etc., according to the trend from the past and according to assumed actions of causal factors. Elaborated on are also the geographic prognoses of the environment, which are of a synthesis character. According to J. Demek [3] the prognosis of the future must be based on reliable data and knowledge of the past and the presence and must give an entire picture of the followed phenomenon for 15, 25, 50, and even for 100 years ahead. For the prognosis of a future possible development of spatial relations among the elements and the components of the environment, according to the mentioned author, it is necessary above all to know

— the direction and speed of the natural development of individual elements and components of the natural part of the environment,

- the changes as of individual components, as well as of the entire nature under the influence of the society's economic activity,
- the development of the social system as of a unit, as well as of individual socioeconomic systems.

The present approaches, as is proved by the given example on geographic prognoses, are in substance limited to a verification of a future development in the form of a non-participating statement. Meanwhile no consideration is taken of the scientific-technical progress, which cannot be foretold exactly. Such geographic prognostical documents are passive, they are meant for practice, which handles them arbitrarily. Geography in this process has the function of a service and not of a decisive item.

The scientific-technological revolution, however, changes the science, changes also the function of the geography in knowing the landscape and changes even the approaches and methods of the landscape and geographic prognoses.

### FUNCTIONAL DELIMITATION OF THE LANDSCAPE

We have already stated that in the present process of changes in directing the science and therefore the new looks at the object of the research, changes also the aim of the geographic prognoses, among them prognoses on the landscape. These prognoses relate to the landscape as the home of man and the object of his work. The landscape prognoses trace out and scientifically motivate the ways of the landscape use, based on the knowledge of the landscape potential and of the all-social requirements for the landscape function with relation to man.

To landscape prognoses is subjected the whole research of the landscape. The landscape analyses are aimed so as to form the basis for the landscape diagnoses, which are a base and a condition for the prognoses.

The landscape prognoses have the form of a functional delimitation of the landscape (first time E. Mazúr [9]). It is indicated also in accordance with the German geocological school authors as an optimization of the landscape functional structure. The functional delimitation of the landscape is a process of spatial division of the anthropogeneous activities, therefore assigning functions to individual structural surfaces in the landscape according to their conditions to accomplish the functions. We distinguish multifunctional, bifunctional, trifunctional, polyfunctional surfaces (E. Mazúr [10]).

The process of the functional delimitation of the landscape is not inductive. We cannot begin it by assigning functions to individual structural small surfaces in the space of the landscape, but on the contrary, first it is necessary to evaluate the whole landscape unit according to the global potential, from which results its fundamental dominating function (water economy, touristic-recreational, agricultural, productional-residential, etc., or their combination). From the view point of this fundamental function, or functions then the whole area is evaluated and the individual functional surfaces are delineated. To the fundamental function, or functions are subjected all the other functions. In the national parks there is, for ex., a primary and dominant function the protection of nature. Its partner function can be the function of the water economy, the medical treatment, etc. To these fundamental functions



must be subjected the function of the touristic activity, of the settlement, communication, etc. In the agricultural areas the protection of the soil reproduction potential must be the dominant and other functions must be judged from its point of view—settlement, production, communication, and others.

An important criterion is also the supranational economic integration, within which some areas acquire an expressive function of an international importance, for ex., the function of tourism, protection of nature, exploitation of raw materials, etc.

The all-social view point, which is equal to the criterion of the landscape potential and is not inconsistent with it, but on the contrary the protection of the landscape reproduction capacity is in the organic connection. This means such a burdening of the landscape in accomplishing all indispensable social functions, which does not cause the destruction of the landscape system. By the loss of reproduction capacity the landscape loses namely the capability to accomplish the functions, which are required from it by the society.

Assigning functions to the individual structural surfaces in the landscape is not mechanical. The anthropogeneous activities are unusually varied and overlap. In delineating them spatially, however, it is necessary to start from the mentioned properties of the landscape. In judging the anthropogeneous activities it is necessary to weight the technological aspects, the scientific-technical achievements and the possibilities of the anthropogeneous restriction of unfavourable influence on the landscape system. Progressive technological processes permit a great charging of the landscape by the most varied functions. It is necessary to state also that charging of the landscape is not a question of filling the landscape space by anthropogeneous works, but it is a question of kinds and intensities of their influence on the landscape system. Charging of the landscape presents various sides. It may concern wastes, overcrowding the space and damage of the landscape scenery by interfering constructions, which plays a role in the protected and touristic areas.

With the functional delimitation of the landscape, as a realization output of the geography, corresponds the landscape plan, which developed in the non-geographic area [2]. It was elaborated originally by the garden architects who began to apply themselves to the non-urbanized and urbanized landscape. The landscape plan first had for objective the esthetic shaping of the landscape with the verdure, later were considered in a smaller or larger measure also the ecological view points and facts, or the larger ones of the natural sciences. This acceptable and suitable term as a whole related therefore to the objective, arbitrary explanation of the landscape [15] and not to the landscape in the conceptional form in the systems notion.

According to the outlined approach to the landscape in this contribution the landscape plan should have an integrated character and should be called the integrated landscape plan. The methodological base of an integrated landscape plan is the landscape synthesis and indispensable is the diagnosis of the landscape potential. We indicate it consequently as integrated, because it considers the branch, functional plans of an economic use of the landscape potential, such as water economy, agricultural, forestry, urbanization, etc., which would exclude eventual mutual disproportions between the branch in-

terests, but also the disproportions between them and the landscape potential. It integrates also the biological plan, which shapes the biological component of the landscape.

The task of the geography in an integrated landscape planning consists of determining its methodological base — landscape synthesis, leading into the fundamental functional landscape division, which considers purposeful, harmonic use of the landscape potential by the human society. Integrated landscape plan is an important base for the landuse plan, giving it functional bases on the landscape system for solving the relations between the socio-economical system and the landscape space.

#### REFERENCES

1. BARTKOWSKI, T.: Zastosowania geografii fizycznej. Warszawa—Poznań 1974.
2. BUCHWALD, K., ENGELHARDT, E.: Handbuch für Landschaftspflege und Naturschutz. I—IV, München 1968.
3. DEMEK, J.: Geografická prognóza životního prostředí. Život. Prostr., 3, Bratislava 1977.
4. DRDOŠ, J.: Geografia a jej úlohy pri ochrane a tvorbe životného prostredia. Geogr. Čas., 30, 3, Bratislava 1978.
5. DRDOŠ, J.: Geografia a riešenie problematiky produktivity krajiny. Geogr. Čas., 31, 2, Bratislava 1979.
6. GERASIMOV, I. P.: Konstruktivnaja geografija. Moskva 1967.
7. GRAF, D.: Ökonomische Bewertung von Naturpotentialen und Naturressourcen. Mitteilungsblatt, 13, Thesen zur 5. Arb. Geographische und ökologische Grundlagen der Landschaftsplanung. Leipzig 1976.
8. MAZÚR, E.: Geography of Today's and Its Perspectives. Geogr. Čas., 20, 2, Bratislava 1968.
9. MAZÚR, E.: Osnova Národného Atlasu SSR. Geografický ústav SAV, Bratislava 1970.
10. MAZÚR, E.: Delimitácia reliéfu z hľadiska hospodárskeho využitia. In: Metodika typizácie a delimitácie reliéfu pre hospodárske využitie na príklade SSR. Geografický ústav SAV, Bratislava 1978.
11. MAZÚR, E.: Funkčná delimitácia krajiny SSR. Mapa mierky 1:500 000. Atlas SSR, Bratislava 1978.
12. MAZÚR, E., DRDOŠ, J., URBÁNEK, J.: Geography and the Changing World. Geogr. Čas., 32, 2, Bratislava 1980.
13. MAZÚR, E., DRDOŠ, J., MARGIC, D., URBÁNEK, J.: Krajina vo východnej časti Zvolenskej kotliny a jej ochrana. Čs. ochrana prírody, 19, Bratislava 1979.
14. SCHMITHÜSEN, J.: Grundlagen der Landschaftskunde. Allgemeine Geosynergetik. Berlin 1976.
15. URBÁNEK, J., MAZÚR, E.: Landschaftskunde. Allgemeine Geosynergetik. Berlin 1976.
16. URBÁNEK, J., MAZÚR, E.: Physical Geography in the Netherlands. Erdkunde, 33, 1, Berlin 1979.

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#### KRAJINNÉ SYNTÉZY A ICH ÚLOHA PRI RIEŠENÍ PROBLÉMOV PROSTREDIA

V súčasnosti sa do centra pozornosti geografie znovu dostávajú krajinné syntézy, čo spôsobili predovšetkým veľké zmeny v predmete jej výskumu — v krajine a v socioekonomickom systéme, vo funkcii vedy pod vplyvom vedeckotechnickej revolúcie a v teoreticko-metodologickom aparáte geografie. Veľký vplyv na rozvoj krajinných syntéz v geografii majú požiadavky spoločnosti na riešenie konfliktových situácií vo vzťahu človek—príroda.

Krajinné syntézy v geografii nie sú ničím novým, boli prirodzeným vyvrcholením

geografických výskumov krajiny. Predstavovala ich typológia a regionalizácia krajiny a vôbec otázky klasifikácie krajinných taxónov.

V súčasnosti pod vplyvom vedeckotechnickej revolúcie, ktorá mení vedu na bezprostrednú výrobnú silu, zameranie i poslanie krajinných syntéz sa mení. Získavajú výrazný antropocentrický model a stávajú sa prostriedkom spoločnosti na riešenie zložitých a náročných problémov racionálneho využívania krajiny i predchádzania konfliktovým situáciám vo vzťahu človek—príroda.

Podmienkou krajinných syntéz je hlboká analýza väzieb medzi prvkami krajiny, ktorá dovoľuje vyčleniť taxóny topickej i chorickéj dimenzie a ich priestorové štruktúry. Analýzy tiež prehľbujú poznatky o jednotlivých syntézových záveroch o krajine.

Krajinná syntéza sa skladá z 2 operácií, a to z diagnózy krajiny a z prognózy o krajine.

Diagnóza krajiny je procesom poznávania a usporiadania poznatkov o štruktúre a účelových vlastnostiach krajiny, ktoré sú významné z hľadiska potrieb človeka. Má 3 časti, a to základnú, gnozeologickú, ktorá predstavuje poznanie prírodnej a antropogénnej štruktúry krajiny; evaluačnú, hodnotovú, ktorá predstavuje poznanie potenciálu krajiny a jeho limitných hodnôt, a napokon porovnávaciu časť, ktorá predstavuje rozbor vzťahov medzi terajším využívaním krajiny a jej potenciálom.

Rozbor prírodnej štruktúry krajiny je prvým krokom v diagnóze, pretože z nej sa odvodzuje potenciál krajiny. Keďže človek je najvýznamnejším faktorom zmien krajiny, teda aj jej štruktúry a účelových vlastností, je nevyhnutné odhaliť aj stupeň antropogénnej premeny krajiny. Základnou diagnostickou časťou je poznanie krajinného potenciálu, ktorý je základným predpokladom krajiny na jej využívanie. Jeho realizáciou sa tvorí funkčná štruktúra krajiny. Aby výsledkom tejto realizácie bolo racionálne využívanie krajiny, je nevyhnutné objaviť limitné hodnoty potenciálu, ktoré určujú mieru zafaženia krajiny antropogénnymi činnosťami, kde sa ešte nenarúša stabilita krajinnej štruktúry.

Na krajinnú diagnózu nadväzuje krajinná prognóza, ktorá vytyčuje a vedecky zdôvodňuje smery využívania krajiny na základe poznania krajinného potenciálu a celospoločenských požiadaviek na funkcie krajiny vo vzťahu k človeku. Krajinná prognóza má podobu funkčnej delimitácie krajiny. Je to proces priestorového členenia antropogénnych aktivít, teda priraďovania funkcií jednotlivým štruktúrnym plochám v krajine podľa ich potenciálu. Krajinná prognóza je realizačným výstupom geografie, ktorým spĺňa podmienky kladené vedeckotechnickou revolúciou na súčasnú vedu.