The Scientific Legacy of V. B. Sochava, and Future Prospects of Cultural Geography

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Abstract—This paper is concerned with the main statements of V.B. Sochava's theoretical legacy which are currently central to the advancement of modern cultural geography. Among them are the geographical science studies: metageography and geographical tectology, structural-dynamical approach to culture and landscape, and the concept of the geosystem and its invariant. The study brings out the importance of systems approach to culture and landscapes as well as the significance of the theory of geosystems, a catalyst for the emergence of new cultural-geographical knowledge. The problem of geographical tectology as stated by V.B. Sochava is implemented by adjusting the methods and knowledge of related disciplines for the particular purposes of geographical investigation. An outline is given of the specific character of methodological development of cultural geography in circumstances where the postmodernism world outlook platform is dominant as well as of the "drift" of the interests of the scientific community from the material aspect of man-environment interaction to the postmodern "dematerialization" of social geography. These processes which are progressing more intensely in Western science have influence on national geocultural research. Furthermore, the key characteristics of postmodernization, i.e. recognition of the equivalence and uniqueness of cultural-geographical phenomena, the equality of research standpoints, and refusal from the search for a "metanarrative" unfairly push to the methodological periphery the issues related to evolution, hierarchy, and interobjective connections of culture and landscape. The dominant emphasis on the nonmaterial aspects of cultural-geographical phenomena and processes does not imply that their systems side has lost value. V.B. Sochava's theoretical developments provide a meaningful potential source for a further advancement of cultural geography. Moreover, even the international science has recently shown an enhancement in the tendency toward the "restoration of materialism" in cultural geography. This paper is built upon an integral approach to demonstrate an avenue for a harmonious combination of the "material" and "nonmaterial" sides of the discipline.

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INTRODUCTION

V.B. Sochava's theory of geosystems was instrumental in shaping today's physical geography. Viktor Borisovich founded the Institute of Geography of Siberia and the Far East, Siberian Division of the USSR Academy of Sciences (currently V.B. Sochava Institute of Geography, Siberian Branch, Russian Academy of Sciences) became a large scientific center, a cradle for the birth and growth of the Siberian scientific schools of exogenous geomorphology, landscape geochemistry, landscape hydrology, geography of economic development, population geography, medical geography and cartography [1].

The 110th Anniversary of the birth of V.B. Sochava was celebrated on June 20, 2015; his ideas laid the seminal groundwork for the growth of national physical geography and biogeography and had a beneficial effect on scientific schools in other countries.

In national cultural geography, V.B. Sochava's ideas are as yet too insufficiently known and recognized; they are treated in the context of natural-scientific approaches to cultural landscape [2, 3]. At first glance V.B. Sochava's ideas are very much apart of the subject field of modern cultural geography. At the time when the theory of geosystems was being elaborated, almost no research in cultural geography was undertaken in the USSR.

Culture, treated as the superstructure above the economic basis, left the geographical discourser during the 1930s–1970s, giving way to the demographic and socioeconomic aspects of the study of population. In the geographical literature, Man was portrayed primarily as the transformer of nature, the producer and consumer of material wealth, the element of population distribution systems. In the post-perestroika years, when cultural geography was "rehabilitated" and its subject field was expanded, the system approaches of

the 1960s–1970s were relegated to the background. We believe that given their "nature-centricity" inherent in geography of the Soviet era, the ideas of V.B. Sochava may well serve as the source of inspiration for natural cultural geography.

This paper seeks to achieve the following goals: to identify the elements of the scientific legacy of V.B. Sochava having an important significance for the cultural-geographical theory, to correlate them with the traditions of integral approach, and to outline the future prospects of these ideas with an emphasis on methodological deepening of cultural geography and a further development of its cross-disciplinary relationships.

CHARACTERISTICS OF SYSTEM APPROACH IN CONDITIONS OF CHANGE OF SCIENTIFIC PARADIGMS

The 1960s were marked by an intense ecologization of geography. According to D.R. Stoddart [4], the indirect criteria of systemacy of geographical phenomena include: the priority of research into the internal structure of a system; emphasis on the functionality and qualitative aspect of intrasystem exchange; the manifestation (in the geographical system) of the properties of all general systems, and a possibility of implementing system approach at any hierarchical and taxonomic level.

There are differences in the inclusion of the system paradigm in cultural and social geography in European and American scientific schools. In Europe, this occurred through linkages of social geography with climatology, geomorphology, demography and history; in America, through its contacts with the economy, the study into transport and, only later, with sociology and psychology [5].

The Russian physical-geographical school was primarily focused on the substantiation of system ideas. On the basis of the notion of the "ecosystem", V.B. Sochava suggested in 1963 the term "geosystem" that included the broader content as well as the landscape geosphere (or the Earth's physical environment) [6]. In this case, the natural environment was represented as a sequence of hierarchically organized geosystems. Geosystems are natural-geographical unities of all possible categories ranging from global (or planetary) to elementary; they are "a material expression of integrity of the landscape geosphere and its components" [7, p. 62].

The purpose of the system concept as formulated by V.B. Sochava is to prepare landscape science for the perception of system ideas. He expected from socioeconomic geography a countermotion and the solution of related issues but the level of theoretical study into the system ordering and the hierarchy of territorial-production complexes (TPC) lag behind the achievements of physical geography, whereas the problems of the cultural components of social geography were never raised.

System approach became an alternative to the "nature-specific" statement in social and scientific consciousness. Opposition of Man and Nature, and the "culturing" of the modern civilization with the idea of an individual "I" implies that the natural systems and balances necessarily go "awry" where the basic errors of thinking are supported by myriad cultural details [7].

According to V.N. Vernadskii, "...it is only because of the conditionality of civilization... that the inextricable and intimate linkage of mankind with the other living world is consigned to oblivion, and Man tries to consider separately from the living world the existence of civilized mankind. But these attempts are artificial and necessarily "fly asunder" when we arrive at the study of mankind in the general linkage with the whole of nature" [9, p. 313]. As a result, the system paradigm came to be a vehicle for an integral treatment of nature and society.

National geography showed a thematic asymmetry: based on the theory of geosystems, the physical-geographical issues were explored more thoroughly, and a system quest was begun in social-economic geography (the notion of TPC, anthropo-ecosystems, and territorial systems of population). On the other hand, a geographical study into cultural processes in terms of system approach was not undertaken.

In the late 1980s, a new scientific paradigm, postmodernist geography, emerged as an alternative to scientism theories. The interdisciplinary character, a multitude of explanations, a deviation from the search for common regularities in explaining the material world, and a focus on interpretations are its main features [10]. The interest of most foreign geographers shifted from quantitative methods, system analysis, spatial analytics and functional approaches to the area of social construction of the subject, qualitative investigations, interpretations of spatial discourses and theoretical deconstruction.

The significance of postmodernist cultural geography is great: the objective and interobjective aspects of research incorporated the analysis of "invisible forces", i.e. the social and cultural processes of designing the space, values and worldviews. For instance, cultural landscape began to be treated as a holistic system that included the spatial, mental and natural-cultural dimensions [11].

Criticism of the "cultural turn" is focused on its onesidedness: an increase in the influence of postmodernist human geography with emphasis on textuality and texts, deconstruction, criticism and interpretation led geography to the theoretical base where its practitioners go increasingly away from current issues. The fact that postmodernists refuse the notions of science, truth, objectivity and strict empirical analysis and prefer interpretation and deconstruction gives rise to a new political, economic and social relativism which gives little value to system empirical analysis [12].

The scientific discourse incorporated the term "dematerialization of geography" implying the replacement of the focus on the objective reality by interest in culture, intersubjective systems of values, textual metaphors of space, and construction of identities [13].

P. Claval [14] observes that one of the main results from investigating the cultural landscape over the last several decades was the process of "transformation" of landscape to the notion and image. But the culturalgeographical investigations cannot all be reduced to identities and images and, according to the "pendulum effect", there is an increase of interest in materiality that was termed in a number of publications the rematerialization of geography which is based on different styles of understanding the subjectiveobjective relations [15]. In our opinion, an important role in "re-materialized' cultural geography might be played by V.B. Sochava's approaches when used in investigating geocultural processes.

METAGEOGRAPHY. GEOGRAPHICAL TECTOLOGY AND SYNTHESIS OF DIRECTIONS OF CULTURAL GEOGRAPHY

A.A. Bogdanov, the founder of organization theory [16], reasoned that the transfer of methods from one discipline to another could lead to a qualitative jump to reach a new level of cognition. V.B. Sochava, his follower, maintained that one of the goals of geographical science studies is to "borrow methods and concepts from other sciences as well as to unify them in the various geographical disciplines" [7, p. 28]. He argued that geography is not a system but an association of sciences, because the system implies a component structure, a complex of direct links and feedbacks, and "geographical sciences, taken together, still do not form a single whole consisting of organically correlating parts, or a set of interconnected elements arranged in a certain order" [17, p. 480].

The autonomy principle in investigating the population, nature and economy implies coordination and reconciliation of its theoretical bases. Originally, V.B. Sochava conferred this role to theoretical geography which would create a general methodological platform. "We are to deal with the theory, on the basis of which the individual geographical disciplines that study nature, economy and population come into play, i.e. this association. In this case, the issues of methodology and strictly geographical issues (from different geographical disciplines) "interbreed" and, in this context, are the object for study by theoretical geography having an auxiliary role as regards the entire association of geographical sciences" [6, p. 51].

One and a half centuries later V.B. Sochava changed his viewpoint, believing that since the treatments of theoretical geography are contradictory, the metatheory of geographical disciplines and the issues of systematization of knowledge should be assigned to a special direction: geographical tectology [7]. He argued that metageography, like geographical tectology, represents research on research as regards geography. V.B. Sochava had to refuse the term "metageography" because of serious contradictions in understanding the key problems of this discipline.

According to I.R. Spektor [18], metageography studies the logical structure of geographical theories and is engaged in the development of their deductive systems; therefore, it can be regarded as a metatheory of geographical science. A.M. Smirnov [19] focused attention on the development of the conceptual framework and the place of geography amidst the other sciences. V.M. Gokhman, B.L. Gurevich and Yu.G. Saushkin [20] oriented metageography to the study of the prospects of geography in the scientific picture of the future.

D.V. Nikolaenko [21] argues that metageography is a necessary condition for the development of the theory of geography, and the former does not replace the latter and does not mix with it, playing the role of a peculiar kind of "self-consciousness" of geography. Their fundamental difference implies that the theory of geography is focused on an understanding of logic of development of nature and society, whereas metageography aims at logic of scientific cognition.

The present is dominated by a humanitarian treatment of metageography. According to D.N. Zamyatin, "...metageography is an interdisciplinary area of knowledge at the junction of science, philosophy and arts (in a broad sense) which studies the various possibilities, conditions, methods and discourses of geographical thinking and imagination" [22, p. 22]. The synonymic row as provided by the author permits us to understand more accurately his thought: the philosophy of landscape, existential geography and the philosophy of space correspond to metageography.

A search according to the keyword "metageography" using the Russian Science Citation Index (RSCI) (http://www.rsci.ru, accessed July 12, 2015) provided 14 publications, and all they are devoted to the spaces of "humanitarian imagination". The occurrence frequency of the term "metageography" in the text of publications in RSCI implied 145 publications, and 142 of them deal with the figurative, geophilosophical, geoethical and geopolitical aspects of the picture of the world and spatiality of culture. Most of them are authored by D.N. Zamyatin or by authors who share his views. D.N. Zamyatin's metageography (but this, according to RSCI, is almost the whole of modern "metageography") focuses on conscience, identities and culture. D.N. Zamyatin observes that "...the notion of metageography emerged by analogy to the Aristotle's separation of physics and metaphysics and carries an about the same logical and substantive meaning... The rationalism and scientism approaches to this notion focus the subject of metageography on the study of general (generalized) geographical laws" [22, p. 22]. Since Aristotle's metaphysics implies the search for the supraempirical principles of existence [23], and metageography, according to the author's logic, carries "an about the same" meaning, it is unclear how its subject could focus on rational geographical laws and what are the reasons why the author includes the scientism approaches within the framework of the content of the term. The new metageography has nothing to do with the objective sphere, and with the network and system aspects of its functioning; it operates with their reflections in consciousness and culture. In the scientific literature, the scientism metageography of the 1960s–1980s was thoroughly analyzed by D.N. Nikolaenko [21].

The present situation of comprehending the general geographical theory is similar to the one in which, because of the semantic burden, V.B. Sochava preferred geographical tectology instead of the term "metageography". During the 1960s–1970s the legacy of A.A. Bogdanov was almost not used, and geographical tectology became one of the first attempts to develop further his ideas. Regrettably, science studies along this line of research were almost not continued. RSCI (http://www.rsci.ru, accessed July 12, 2015) provides 52 publications with the keyword "tectology", largely focusing on the sociological, philosophical and economic issues, and not a single one of them refers to geographical sciences.

Tectology is treated by V.B. Sochava as a metatheory of geographical sciences that analyzes their structure, methods and interrelationships [7]; its function implies active integration, and a theoretical-methodological synthesis. "Tectology is a scientific direction in the association of geographical sciences that studies the optimal forms of geographical research, specifically the issues related to coordination of efforts of separate geographical disciplines when exploring comprehensive geographical problems" [7, p. 298]. The unifying role of tectology emanates from a separate study of nature, population and economy.

V.B. Sochava believed that geographical tectology is the missing link by using which it would be possible to ensure a coordination and reconciliation of geographical investigations which combine into a single whole the study of the natural, economic and social elements [7].

Insisting upon a separate investigation into the aforementioned different-quality principles, V.B. Sochava concentrates attention on the integrative topic, i.e. the "missing link", which, when developed further, would make possible a joint investigation of society and nature, and a search of mutual correlations in the processes of their development. He outlined a critical problem of synthesizing geographical knowledge. A current importance of efforts along this direction is confirmed by a rapid sophistication and growth of information flows and kinds of geographical theoretization. All this is a serious challenge to geographical theory. An appropriate response to it could be the striving to a unification of competing and heterogeneous directions within a broader theoretical frame. It is this goal, in our opinion, that was assigned by V.B. Sochava to geographical tectology.

A step forward can be made in this direction, based on K. Wilber's development of integral theory [24]. His theory is capable of providing the picture of jointly evolving processes, phenomena and their theoretical reflection in four domains, "quadrants" which were arbitrarily called by K. Wilber "I", "We", "It" and "Its". "I" is the upper left sector embracing interpretation of the reality through the filters of personality consciousness. "We" corresponds to the lower left sector where subjectivity in the plural form and specifies an intersubjective space of the divided values, worldviews and traditions. "It" forms the upper right, objective quadrant where objects and phenomena can be measured and explained by means of naturalscientific paradigms. "Its" occupies the lower right, interobjective processes combining socium and nature, culture and territory by a set of linkages (see figure).

The distribution of processes and phenomena in natural, cultural and social spheres of attraction is not a new one; however, the contribution made by K. Wilber implies that he suggested that the difference and mutual irreducibility of four domains should be considered and emphasized their close linkage, equivalence, mutual conditionality, and joint evolution "tetra-evolution").

Integral theory became a powerful tool in the process of cross-disciplinary exchange of knowledge. It seeks to achieve a complete picture of development of natural and social-cultural aspects in the spotlight of research, and to construct mutually complementary relations between different approaches, exhibiting the value of each of them in its context.

Like K. Wilber, V.B. Sochava advocated mutual irreducibility of large domains of research and, rather than mixing them together in a single subject of hybrid discipline, he defended the idea of mutual correlation

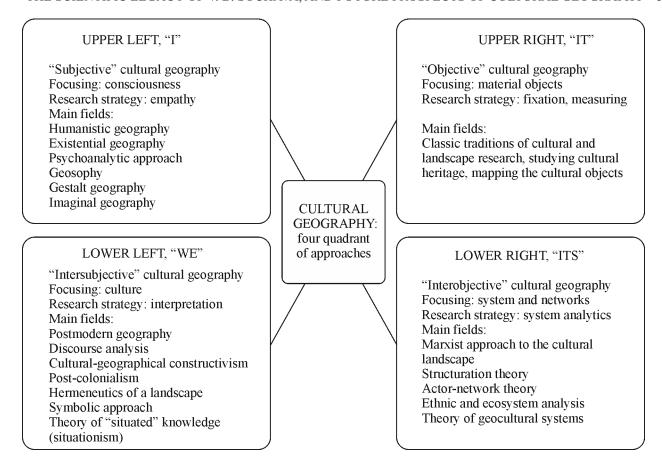


Fig. Four quadrants of cultural geographical approaches.

of the regularities and manifestations characteristic for each of them. While pointing out that the issues of nature-interaction have been and are central to geography, he chose a separate treatment of the theories of geosystems, territorial-production systems and territorial population systems. "Experience shows that the interaction of autonomous geographical directions and clearly distinguished problems would yield a larger effect in the sense of integration and correlation of solutions than a "nondifferentiated complex" such as unified geography" [7, p. 10].

A strong point in favor of such a line of demarcation is provided by the "uniqueness" of the natural, demographic and economic principles, each of which is dependent on the others via direct and inverse linkages. and by a different gnoseological of the natural and social regularities [23].

V.B. Sochava suggested that it would be advantageous to correlate the natural factors and the economic objects, pointing out a rough correspondence between the areal characteristics of geosystems and territorial-production systems but insisted upon an independent study of them. "At present the determination of the possible association of the theory of geosystems with TPC problems is retarded by many factors caused by an inadequate degree of development of a number of relevant statements. Most authors... recognize the existence of a hierarchy of these complexes (they refer to nodes, foci and other taxa but, as far as our knowledge goes, an integral scheme of a full hierarchical series is still unavailable). As soon as these issues are resolved by economists and economic geographers, fresh opportunities will be opened up for contact with the theory of geosystems" [7, p. 290].

THE STRUCTURAL-DYNAMICAL IDEAS OF V.B. SOCHAVA IN THE CONTEXT OF CULTURAL **GEOGRAPHY**

Structural-dynamical landscape science is defined as a "working direction which concentrates its attention between processes and phenomena within integral units of geographical environment" [7, p. 5]. V.B. Sochava established a strict line of demarcation between dynamics and evolution: "Dynamical manifestations in the units of natural environment (in other words, the dynamics in the landscapegeographical sense) should be distinguished from the movements determining the development of geographical systems in the historical context. These mark the processes of formation and mutual transformation of structures, whereas the dynamics represents the movement within a certain structure which is per se, a dynamical system. ... Dynamical manifestations are the result of the interaction between landscape components. They are governed by the currently operating factors, and many of them are cyclic. They can be exemplified by the regime of natural systems, a typical arrangement of processes, and a seasonal rhythm" [7, p. 47]. A treatment of the geosystem as terrestrial space emphasizes a system linkage of the components, and their ability, as a single whole, to interact with the cosmic sphere and human society [7].

It is instructive to correlate these concepts with the notion of the cultural system and the dynamics of culture. The cultural system is defined as the "set of cultural features and forms that have historically established in the practice and consciousness of some human community... is a concrete historical culture of some people, estate, confession, etc." [25, p. 150]. Because of insufficient rigor of this definition, the likening of the cultural system to culture, and the vagueness of the hierarchical links between elements, a significant part of its possibilities is lost.

The dynamics of culture, according to A.Ya. Flier, implies "a temporal change in the status of cultural systems and objects as well as standard models for the interaction between human beings and their social groups" [25, p. 260]. The dynamics can be divided into the "social microdynamics (within the life of 1 or 2 generations, and the historical macrodynamics (at a larger time scale as long as the general history of mankind); the dynamics of internal processes (the interaction between elements and subjects of local culture and its adaptation to the conditions of the enclosing landscape), and the dynamics of external interactions (with its social environment)" [25, p. 261].

For instance, any change in cultural processes and phenomena is interpreted as dynamical. Assuming this methodological scheme, a researcher obtains a confusion of the dynamics and evolution, and a complexity of recognizing the stages of evolutionary development of natural-cultural systems. This is also likely due to the fact that in the theory of culturology and cultural geography there are no analogues of the notion of the "invariant of the geosystem". V.B. Sochava used it to mean "the set of properties inherent in the geosystem, which remain unaltered; a transformation of a particular category of the geosystem is accompanied by a transformation of the invariant under the influence of the evolution rather than as a result of the dynamics" [7, p. 293]. In the presence of constant transformations there remain some properties which, together, represent an invariant with respect to certain shifts across time and space [7].

An analogue for the invariant of the geosystem in integral cultural geography could be provided by key characteristics, the quintessence of development stages. They are considered to mean the evolutionary stages reflecting qualitatively different levels of complexity. The evolutionary process implies the deployment of this complexity with the ascent and inclusion of the lower-lying structures in the overlying ones. Each development stage has its own combination of four quadrants: the subjective quadrant (self & consciousness), the intersubjective quadrant (culture worldview), objective (material environment) and interobjective (system and network interactions in the material world), or, according to K. Wilber [24], self, culture, and nature. As mentioned above, the postmodernist paradigm rejects evolutionary approaches in humanitarian knowledge. In Russia, an additional factor responsible for the popularity of evolutionary ideas is the long-standing supremacy of Marxism as an official ideology where the doctrine of socioeconomic formations as the pivotal structure run not only through science but also through all education levels, including the school level. And historical materialism had the attributes of "sectoral absolutism" striving to explain phenomena and processes within the remaining three quadrants (conscience, culture, and objective environment), based on its own interobjective logic (method of manufacture, and socioeconomic formations).

Thus, even in the post-perestroika years it was noted that culturologists "fear geographical determinism, an explanation of everything by the influence of a territory as well as the dessicating effect of natural-scientific thinking, rigid schemes, including regionalization schemes. The regionalization networks can be used for the description of primary material rather than for the analysis of the meaning, which is the preoccupation of adherents of humanitarian culturology" [26, p. 136].

According to the suggested integral approach, the "rigid schemes" and system analytics are applicable in the contexts of understanding the material world without having a claim on the role of the exhaustive explanatory tools. And the issues related to the formation of meanings, geosymbolism and territorial and cultural identities are investigated on the basis of the respective approaches of the intersubjective and subjective sectors (see figure). The four sectors are all combined due to their joint development, and to their mutual correspondences, and the importance of taking them into consideration was repeatedly pointed out by V.B. Sochava [7]. Hence, the notion of the invariant, measured and recorded in the right-hand quadrants, becomes the expression of the divided depth of the meanings in the left-hand sectors.

CONCLUSIONS

The theoretical legacy of V.B. Sochava is multifarious; it contains many ideas which, in accordance with the principles of geographical tectology, are capable of enriching related branches of geographical science. Cultural geography at the present stage of development would require not only a steady advancement but also a careful science-based interpretation of the legacy from the latter half of the 20th century.

The postmodernist paradigm was a substantial step forward when compared with the scientismbased objective and interobjective (system) view of the world as a balanced mechanism. This paradigm imparted the "depth of thought" to the world outlook by involving in the geographical discourse the consciousness, the identities and the active role of subjects in the creation of this world. The negation of system thinking, theoretical a priori schemes, the hierarchy and evolution are the reverse side of the postmodernist methodological "medal". The humanities have already experienced its negative effects, which is attested by the opinion of P. Rubel and A. Rosman: "Today many anthropologists ask whether anthropology has a future. Others see the discipline in a stage of disintegration and fragmentation into myriad subdisciplines and uniqueness rather than what they have in common. Perhaps only the foolhardy would try to contemplate the future of anthropology. Whether anthropology has a future depends to a large extent on whether the parts into which the discipline is fragmented still have some common epistemological base" [27, p. 335]. In national cultural geography, the tendencies of postmodernization and the associated "branching" of the discipline are only in the primitive stage of development, because there is a substantial temporal backwardness with respect to Western science. Of significant importance in this context is the as yet unrealized call of V.B. Sochava to develop geographical tectology as the general theoretical-methodological base of the discipline permitting all its representatives to "speak a common language", or, at least to possess the means of "translation" for a mutual understanding between its rapidly growing branches. Postmodernist criticism showed the unsoundness of the scientismbased concepts of cultural-natural processes used as a universal explanation. Due to the fragmentation of the directions, the disciplines studying culture have now been posed with the task of integrating the scattered parts of classical anthropology, comprehending its scope and objectives, and transforming and involving criticism in related research efforts in order to enhance a scientist's flexibility and mastership [28]. The similar goals of carrying out a theoretical synthesis of cultural investigations raise the question as to the need for

science with a focus on the study of the objective cultural as well as mental meanings in their interrelationship [29]. In cultural-geographical theory, as shown above, the goals of integration are similar but their spectrum is much broader, because the natural unit and the environmental aspects of cultural manifestations are present in this case.

V.B. Sochava's ideas concerning geographical tectology, structural-dynamical landscape science, and a separate treatment of the natural, economic and demographic principles, adapted to the study of geoculture, are of significant importance for today's cultural geography. And, finally, system methodology, advocated by V.B. Sochava, coupled with the current postmodernist interpretative approaches, is acquiring a mutually complementary character.

REFERENCES

- 1. Plyusnin, V.M. and Korytny, L.M., The 55th Anniversary of the V.B. Sochava Institute of geography SB RAS. Geogr. Nat. Resour., 2012, vol. 33, issue 4, pp. 263–269.
- Lyubichankovskii, A.V., The Problems of Understanding Cultural Landscapes in Modern National Science, Vestn. Orenburg. Univer., 2007, no. 10, pp. 28–34 [in Russian].
- Livinskaya, O.A., The Notion of Cultural Landscape in National Geography, Pskovskii Regionol. Zhurn., 2012, no. 14, pp. 120–128 [in Russian].
- Stoddart, D.R., Geography and Ecological Approach: The Ecosystems as a Geographical Principle and Method, Geography, 1965, vol. 50, no. 3, pp. 242–251.
- Buttimer, A., The Practice of Geography, 1983, London; New York: Longman.
- Sochava, V.B., Definition of Some Notions and Terms of Physical Geography, Dokl. Instituta Geografii Sibiri i Dal'nego Vostoka, 1963, issue 3, pp. 50–59[in Russian].
- Sochava, V.B., An Introduction to the Theory of Geosystems, Novosibirsk: Nauka, 1978 [in Russian].
- Bateson, G., Form, Substance and Difference, in Steps to an Ecology of Mind: Collected Essays in Anthropology, Psychiatry, Evolution and Epistemology, Chicago: Univ. Chicago Press, 1972.
- Vernadskii, V.N., Living Matter, Moscow: Nauka, 1978 [in Russian].
- 10. Soja, E., The Postmodernization of Geography: A Review, Ann. Assoc. Am. Geogr., 1987, vol. 77, no. 2, pp. 289–293.
- 11. Tress, B., Tress, G. and Fry, G., Defining Concepts and the Process of Knowledge Production in Integrative Research, Chapter 2, in From Landscape Research to Landscape Planning: Aspects of Integration, Education and Application, B. Tress, G. Fry, G. Tress, and P. Opdam (Eds.), New York: Springer, 2005, pp. 13-26.
- 12. Hamnett, C., Contemporary Human Geography: Fiddling While Rome Burns? Geoforum, 2003, vol. 34, issue 1, pp. 1–3.
- 13. Czepczyński, M., Cultural Landscapes of Post-Socialist Cities: Representation of Powers and Needs, Aldershot: Ashgate Publishing Group, 2008.

- 14. Claval, P., New Strategies for Managing Landscapes and Strengthening Identities as Tools for a Sustainable Development, *Proc. PECSRL The Permanent European Conference for the Study of the Rural Landscape, 23rd Session: Landscapes, Identities and Development (Lisbon and Óbidos: September 1–5, 2008), 2008.*
- 15. Anderson, B. and Tolia-Kelly, D., Matter(s) in Social and Cultural Geography, *Geoforum*, 2004, vol. 35, issue 6, pp. 669–674.
- Bogdanov, A.A., General Organizational Science (Tectology), Pt. 2, 3rd Edition, Leningrad; Moscow: Kniga, 1927 [in Russian].
- 17. Sochava, V.B., Problems in Modern Theoretical Geography, in Harvey, D., *Scientific Explanation in Geography*, Moscow: Progress, 1974, pp. 471–481 [in Russian].
- 18. Spektor, I.R., Logical Problems in Geographical Science, *Vestn. Mosk. Univer., Seriya Geogr.*,1971, no. 1, pp. 28–36 [in Russian].
- 19. Smirnov, A.M., General Geographical Notions, *Voprosy Geografii*, 1971, sb. 88, pp. 29–75 [in Russian].
- 20. Gokhman, V.M., Gurevich, B.L. and Saushkin, Yu.G., Problems in Metageography, *Voprosy Geografii*, 1968, sb. 77, pp. 3–14 [in Russian].
- 21. Nikolaenko, D.V., Problemy v Metageografii (Problems in Metageography). URL: http://2dip.ru (Accessed 08.09.2015) [in Russian].

- 22. Zamyatin, D.N., Metageographical Axes of Eurasia, *Polis. Politicheskie Issledovaniya*, 2010, no. 4, pp. 22–47 [in Russian].
- 23. Metaphysics. New Philosophical Encyclopaedia. URL: http://iph.ras.ru/elib/1869.html (Accessed 07.24.2015) [in Russian].
- 24. Wilber, K., Introduction to Integral Theory and Practice: IOS Basic and the AQAL Map, *AQAL: Journal of Integral Theory and Practice*, 2006, vol. 1, no. 1, pp. 1–40.
- Flier, A.Ya., Culturology for Culturologists: Handbook for Master's Degree Students and Postgraduates as well as Teachers of Culturology, Moscow: Aklademicheskii Proekt; Yekaterinburg: Delovaya Kniga, 2002 [in Russian].
- Annenkov, V.V., Geography and Culture, *Izv. Akad. Nauk, Seriya Geogr.*, 1998, no. 4, pp. 134–136 [in Russian].
- 27. Rubel, P. and Rosman, A., The Past and the Future of Anthropology, *J. Anthropol. Res.*, 1994, vol. 50, no. 4, pp. 335–343.
- 28. Barth, F., A Personal View of Cultural Problems and Priorities of Cultural and Social Anthropology, *Etnograficheskoe Obozrenie*, 1995, no. 3, pp. 40–49 [in Russian].
- 29. Lurye, S.V., *Psychological Anthropology: History, Present, Future: Handbook for Higher Educational Establishments*, Moscow: Akademicheskii Proekt; Yekaterinburg: Delovaya Kniga, 2003 [in Russian].