

BOOK REVIEW

Farina A. : ECOLOGY, COGNITION AND LANDSCAPE (Linking natural and social systems) - Springer, Landscape Series, Volume 11, Munich 2010, 169 p., ISBN-978-90-481-3137-2.

Almo Farina belongs to the „second wave generation“ of landscape ecologists (following Z.Naveh, I.Zonneveld, R.Forman etc.) in the era of this explicitly defined stream of science. He is more and more excited by strongly evident phenomenon of recent time that our living system is changed by many more or less visible but in total very massive complex of stresses and disturbances of human origin. The main frustrating fact is that landscape function and its failures or collapses are weakly understood. Many terms used in common textbooks rather cover gaps in rational insight and empathy for living systems of our global home. Mechanisms of human impact causes linked spatio/temporal patterns and processes including all their discontinuities and retrogradations across the landscapes to remain often only at speculation level.

It is apparent that the author of earlier books „Landscape ecology in action“ or „Principles and method in landscape ecology“ is motivated to revise the well-known paradigms and he drives thinking towards epistemological, theoretical and philosophical emphases. The book consists of nine parts, epilogue (written by Jan Bogaert) and index.

The first part is introductory (The state of art of landscape ecology: 20 years of paradigms and methods) and a relatively brief text in comparison with the other parts. History of the main visions in landscape ecology has been perceived since the middle of the 20th century as differentiating field dependent on territories (USA, Europe, etc.). Links between ecosystem ecology and landscape ecology and related approaches are classified in an explicit part.

The second part (Toward the essence of the landscape: An epistemological perspective) finds reasons for self-determination of new scientific discipline about landscapes. Dominated argument is complexity, phenomenology and specific parameters such as spatial arrangement or landscape memory.

The third part (Toward a theory of the mosaic) asks questions how to map ways leading to different patterns in landscape heterogeneity. Related problem is then the way of structural features measurement such e.g. connectivity or patchiness.

The fourth part (Properties of ecological mosaics) is not so far from the previous topic, however, more „technically“ oriented. Hierarchy and scaling in landscapes determinates logically next interpretation level of ecological phenomena. Disturbances and responses of life on them correspond with spatial dynamics in wide extent of consequences.

The fifth part (Ontogenesis and change of the landscape: A probabilistic view) shows influences of functional circles on the globe and its landscapes with the all implications for life forms and human perception of changes.

The sixth part (The ecotones) signalizes the exclusive position of this entity within landscape science. Back to the general landscape assessment, the seventh part (Measuring and evaluating the ecological mosaics: General assumption) enumerates important quantitative variables which enable to characterize landscapes and their structural or functional features.

The eighth part (The cognitive landscape) underlines fundamental dynamic concepts of landscape dimension (ecological niche, habitat, eco-field, theory of resources). The new concept of cognitive landscape has its origins in zoological world of hierarchically organized signals and resulted perception of individual environments (One illustrating citation, p. 114:

“If a cognitive landscape is the space in which the life web is connected with all the possible relations and interaction of a collection of elements, the organism should have a holistic vision of such a landscape .“)

The ninth part (The landscape as a human agency) confronts the geographical and cognitive landscape in terms of eco-semiotic approach and connects sustainability, biodiversity and landscape ethics. Some of conclusions given by human intrusion to complex living system are derived from terms such as „therapeutic landscapes“ or „landscape as eco-semiotic interface“.

All parts of the book contains Suggested Reading and References separately which results in the character of practical textbook for a complete work. A combination of cognitive approach with information paradigms to study landscapes opens interesting perspectives in the interpretation of ecological complexity.

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