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## The Sphere of the Mind: Reviving the Noösphere Concept for Ecological Anthropology

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## CRIB NOTES

## The Sphere of the Mind: Reviving the Noösphere Concept for Ecological Anthropology<sup>1</sup>

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As we enter the 21st Century with the words “globalization,” “world development” and “global extinctions” ringing in our ears, it behooves us to revitalize a concept that has lain dormant for a while. The “noösphere,” broadly interpreted, is the world transformed by humans and human thought. It is produced and maintained by increasing complexity of human interaction in cultural, social, biological and physical environments. It is often defined as 1) the biosphere transformed by human knowledge and action, and 2) the (quasi-spiritual) intermeshing of human thought and belief into a unified whole.

Though historically these two uses of the term noösphere have developed along somewhat separate paths, for ecological anthropologists a great part of the utility of the noösphere concept is precisely in this dual definition. By oscillating between a materialistic and an ideational interpretation of human thought we gain insight into the fundamental relationships between humans and the non-human world. It is through consensus and ever-increasing networks of structured belief systems that we manage to impact the non-human world in such pervasive ways. This sets up a dialectical or feedback relationship between our collective thoughts of the world and our collective action in the world. In other words, it takes increasing organization of consciousness to affect the world as we do. Of course this is not a novel insight; an-

thropologists, sociologists, political economists, geographers and historians have been investigating the nature of sociality for decades and a select group of these have focused on the relationships between social groups and biophysical environments. The novelty of the noösphere is in its scope of reference. It encompasses the globe.<sup>3</sup>

The noösphere concept is explicitly anthropocentric. It provides an heuristic tool for navigating the awkward transitions between individual human cognition and coarser scales of human aggregates: the kin group, the community, the tribe, the nation, the world community. The noösphere concept sits at the top of this scale and it explicitly asks us to view humans and their environments in an holistic, global perspective. The noösphere is necessarily emergent: it is more than the sum of individual human consciousnesses. It only exists through *relationship* between consciousnesses. Bateson and Bateson (1987:105) play with the idea that consciousness itself “...has to do with relationships between subsystems” at the level of the mind and communities of minds. Using this definition, the noösphere represents the most inclusive of related subsystems, a kind of emergent consciousness itself. This kind of (admittedly ambitious) conceptual development is useful to us in ecological anthropology because we suffer from a poverty of concepts that express holism, emergent properties, complexity and connection, yet we are asked increasingly to deal in

<sup>1</sup> Many of the ideas discussed in this essay originated in collaboration with H. E. Kuchka and seminars in Information Ecology and Complex Systems at the University of Georgia. Thanks to C. Peters, R. Zarger, D. Casagrande, R. Stepp, M. Zuckerman, E. Jones and S. Joseph.

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<sup>3</sup> The noösphere's scope of reference is its greatest strength and its greatest weakness. The noösphere is nebulous and difficult to grasp conceptually; it is nearly impossible to test empirically. Nevertheless, it pushes our boundaries of understanding complex systems. Once grasped conceptually, it is hard to dismiss, like one's first look out of an airplane window.

realms at the global level and with issues that require just such conceptual tools.

The word “noösphere” was developed in a meeting of several exceptional minds in France during the 1920s (Samson and Pitt 1999). Pierre Tielhard de Chardin, a Jesuit priest and scientist, the philosopher Edouard Le Roy and the Russian geochemist Vladimir Vernadsky were inspired to search for an interdisciplinary, globally oriented conceptualization of human relationships after witnessing the horrors of the First World War. From Greek, “noösphere” is literally the “sphere of the mind.” Tielhard de Chardin described the noösphere in his *Phenomenon of Man* (1959:202) as “a new layer, the ‘thinking layer’, which since its germination at the end of the Tertiary era, has spread over and above the world of plants and animals. In other words, outside and above the biosphere there is the noösphere” (Figure 1). Both Tielhard de Chardin and Le Roy invested a spiritual significance in the noösphere, using the concept to try to reconcile the old split between the material and the ideational, the body and the mind, the physical world and human consciousness, science and religion (Samson and Pitt 1999).

Vernadsky used the concept in a less radical but perhaps more scientifically defensible way, as the physical manifestation of human thought on the biosphere, the world transformed by human consciousness. He writes,

“[m]ankind taken as a whole is becoming a mighty geological force. There arises the problem of the *reconstruction of the biosphere in the interests of the freely thinking humanity as a single totality*. This new state of the biosphere, which we approach without our noticing it, is the *noösphere*.” (Vernadsky 1997:36 quoted in Samson and Pitt 1999)

We can all imagine this kind of noösphere, in the bulldozed wastelands of mining fields, the fully domesticated landscape of the Dutch, hydropower dams, agricultural expanses and highway corridors. These landscapes are all intrinsically connected to systems of human knowledge past and present, and fundamentally, irrevocably altered as a result.

Though the word noösphere has fallen into some obscurity in the past few decades, explorations of the relationships between mind and biosphere have persisted in the literature in such works

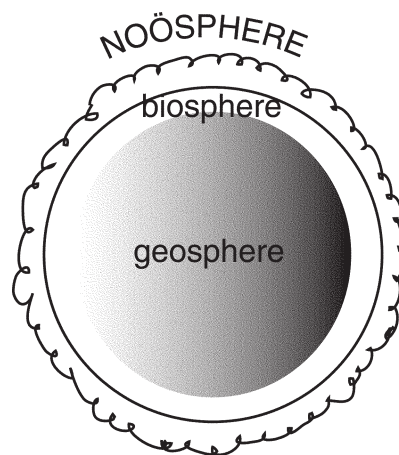
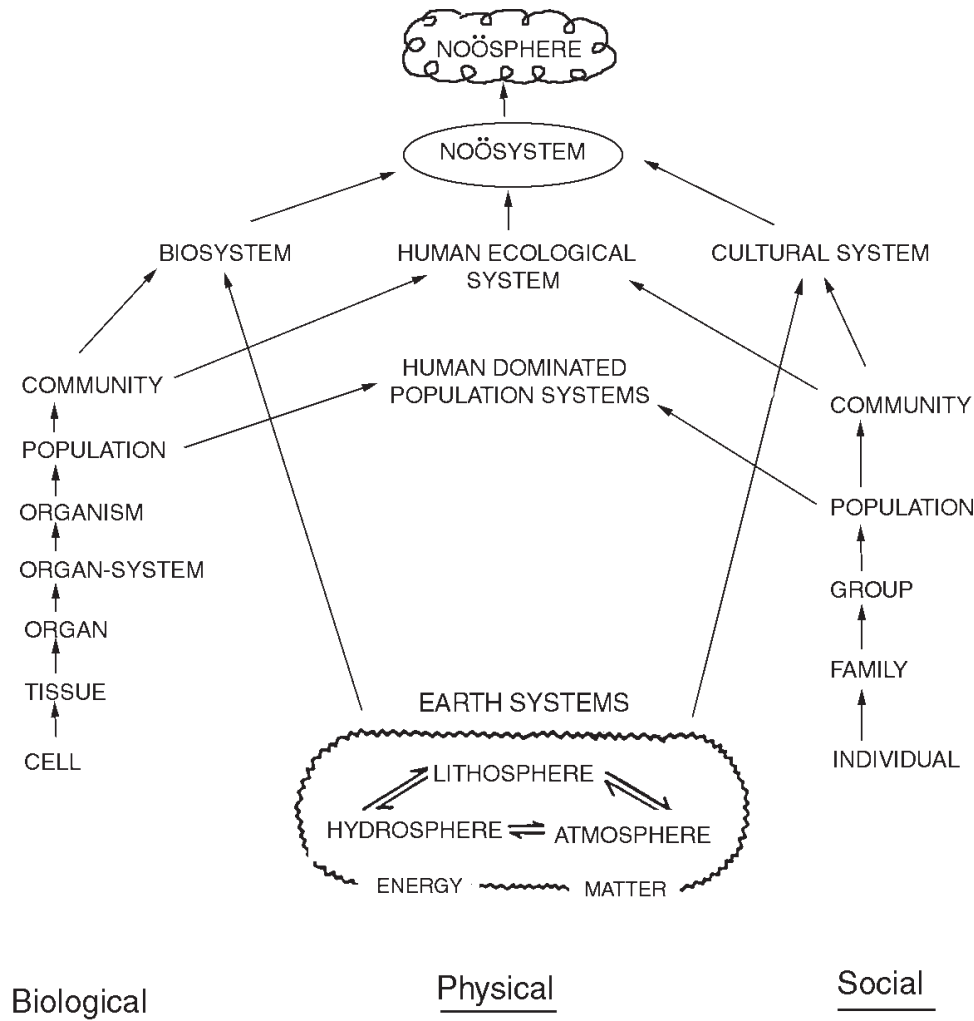


FIGURE 1. THE GEOSPHERE, THE BIOSPHERE AND THE NOÖSPHERE.



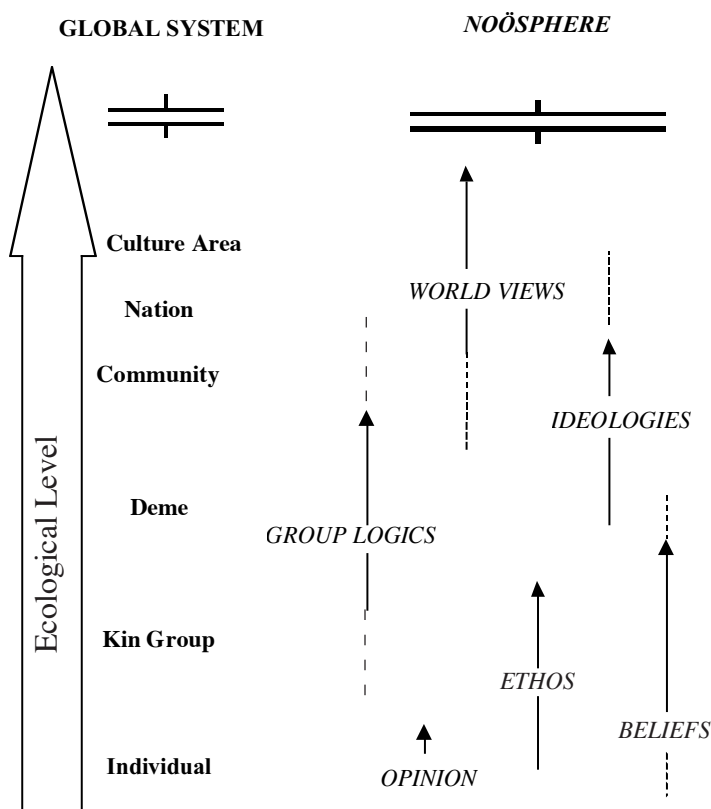
**FIGURE 2. THE NOÖSPHERE AS A PRODUCT OF INTERACTION BETWEEN BIOLOGICAL, PHYSICAL AND SOCIAL SYSTEMS** (Adapted from Barrett 1985:424).

as the Gaia hypothesis in the 1970s (Lovelock 1987), Bateson's *Mind and Nature: a Necessary Unity* (1988) and *Steps to an Ecology of Mind* (2000). In the 1990s a seeming revival is imminent, growing from the works of Stokes' (1992) *Man and the Biosphere*, a political economy perspective on the evolution of the noösphere, and in the increasing fascination with 'globalization' of cultures, transglobal economies and informational networks. In applied ecology the noösphere (or noösystem), as the landscape of interaction between social and biological systems (Figure 2), has been identified as the basic unit of study (Barrett 1985).

For ecological anthropology, the noösphere is perhaps most productively seen from a systems perspective as the emergent property of systems of systems, or, as Gregory Bateson put it, "patterns of patterns that connect" (Bateson 1988:11). Thus we are less likely to reify the concept and are more able to access the roots of noösphere genesis, production and reproduction. We can locate the noösphere in a scaled hierarchy of belief systems, from the individual mind (which itself is made up of differentiated parts) through community consciousness, consensus, group logics, shared concepts and worldviews, to a global consciousness which

only emerges from a unified planet.<sup>4</sup> Figure 3 depicts a hierarchy of world-views that culminate in the noösphere. By recognizing the importance of belief systems and associated information flows in human ecosystems we may approach a more complete understanding of the strange and new globalizing forces of our present day. We are thus able to make that most valuable conceptual link that Teilhard de Chardin and his colleagues wished: an analysis of human interaction with the world that

includes consciousness, spiritual and religious beliefs *along with* the biological and the geophysical. Surely these play important roles in human ecosystems. Surely we should try to understand them, at all scales, particularly the global. In ecological anthropology today the noösphere concept may serve at least as impetus for thinking large, for holistic ecological analysis and for a reappraisal of complexity and mind.



**FIGURE 3. A SPATIAL/ORGANIZATIONAL HIERARCHY OF WORLD VIEWS.**

This figure shows some cognitive components of the noösphere, arranged on a continuum of human ecological levels, from individual to global system. The solid and dashed arrows indicate approximate range of influence. There is a disjunct in the vertical continuum, marked by the solid parallel horizontal lines, in recognition of our inadequate understanding of how subcomponents of the system interact to produce (emergent) phenomena such as the noösphere.

<sup>4</sup>The noösphere in this sense was made possible in the 20th century with the advent of weapons of global destruction and by travelling off the planet. These provided an unprecedented unity among humans as all inhabiting a world of shared future while allowing an 'us *vs.* them' perspective within the larger universe. The increasing pop culture fascination with alien attack is a symptom of our evolution towards seeing ourselves as one *global human ecosystem* (c.f. Wilkinson's discussion of the principle of adversarial human ecosystems).

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