## Private Property Fantasies vs. Public Ecological Reality

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Within the context of rights and responsibilities to the environment, the concept of private property denies the ecological reality that our human activities are fundamentally public. This is true whether you think of the "public" as only humans or whether you think of plants, wildlife, humans, air, water, and soil as legitimately the "public."

In his paper entitled "Political Rights and Policy Wrongs," Karl Hess speaks of the need for humans to manage western public lands with "locally appropriate," yet democratically set, standards. These standards would allow private extractive and commodity activities to be exercised on public lands "without impairing the essential ecological processes that are integral to habitat potential and associated life." Oversight and management of these public lands would devolve to local, self-governing councils. He admits a "large probability of localized mistakes," but argues that "environmental errors that are constrained in time and space are clearly preferable to the infrequent yet predictable failures of all-encompassing ecological policies" (emphasis added).

Hess's proposals defy several ecological realities. First, we continually underestimate ways in which our human activities "impair essential ecological processes." Most of us, for instance, are unaware of the multiple roles microbiotic crusts (lichens, mosses, algae, and fungi) play on arid and semiarid western lands, and bow vulnerable these crusts are to trampling by livestock and off-road vehicles. These crusts can reduce erosion, fertilize surrounding vegetation, and provide a critical barrier against invasion of alien weeds (Kaltenecker and Wicklow-Howard 1994). Likewise, we are only now realizing that many of our locally sprayed herbicides disrupt the hormone balance of human and wildlife embryos as they develop, causing reproductive and neurological degradation that may not be detectable until years later (Colborn et al., 1996). Essential ecological processes, then, can be harmed cumulatively and indirectly by human activities we currently regard as insignificant.

Secondly, many "localized mistakes" are not constrained in time and space, but instead have regional or global consequences. The heating of stream water in the Imnaha River of northeastern Oregon because cattle have removed riparian vegetation might prevent the successful reproduction of salmon returning from the Pacific Ocean hundreds of miles to the west (Winegar 1977: Platts 1981). Likewise, the removal of this vegetation by these cattle might remove critical habitat for songbirds migrating seasonally between South America and Hells Canyon (Andelman and Stock 1994). An electric transformer leaking polychlorinated biphenyls (PCBs) from a local

dam's powerline can poison a developing infant inside an Inuit woman more than a thousand miles **north** in the Arctic (Dewailly et al. 1989).

The thoughts of Robert Keiter, Carolyn Merchant, and Alan Randall are more congruent with ecological reality than are those of Karl Hess. Robert Keiter clearly recognizes the potential for Congress and the judiciary to either protect or restrain local private or agency activities that threaten wider ecosystem functioning and biodiversity.

Carolyn Merchant notes that standards for western fisheries based **on** either maximum sustained yield or optimum sustainable yield presuppose that nature is fixed in time and space and that we can determine what is a sustainable level for our extractive activities.

Alan Randall notes that private property is too fragmented to address ecological realities such as endangered species. He points out that we must develop human, problem-solving institutions that are problem-scale.

Let us consider one livestock permittee **on** westem public lands. Individually, that rancher can alter her livestock management so that birds, salmon, and microbiotic crusts can continue to exist near her. Local problem-solving entities that include all legitimate interests can set public goals for better local rancher cooperation with ecosystem needs and develop incentives and procedures by which these goals will be met. State or federal-level task forces can look at the cumulative, regional impacts of livestock on western arid public lands and fmancially support long-term restoration efforts. National efforts can be taken to examine and protect the critical, unduplicated roles that both public lands and local, ecologically sustainable communities play in the ecological and cultural life of our nation. International restraints on chemical industries are necessary to restore the ozone layer that chemicals have depleted over that rancher, the salmon's oceans, and the southern hemisphere home of the songbirds she enjoys each spring in Hells Canyon (United Nations Environment Program 1993).

The concept of private rights of land "owners" or any other citizen or corporation to degrade the local environment is not adequate to the ecological realities that all human activities on Earth are public. It is not possible for us to be walled-off humans degrading only our "own" property. Therefore we need what Karl Hess calls an "all-encompassing ecological policy." This policy must acknowledge that we are interdependent members of a diverse Earth Community, with responsibilities to give to this community as much as we take.

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