Evolution of Property Rights: Discussion

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Barry Field is clearing old ground in his unusual review of common land use in the three centuries before 1900 in New England. The best indication of the paper's uniqueness is the difficulty in categorizing the analysis. It is not clearly economic theory because it is without mathematics[1]; it is not agricultural history, nor economic history, nor history. It is, as Field says, a study of property rights in agricultural commons. I should like to see a proper label, and more work of the same type.

My interest is in providing a contemporary context for Field's analysis. First, however, a definition of common lands: land used jointly by two or more households for cultivation, pasture, or wood. Field emphasizes the continuum of common ownership. He sees it as a spectrum, a continuous sequence of ownership types. At the common end of the continuum, a pioneer community has no private land and common fencing of its fields and pasture. An intermediate form would be a town primarily with private cultivation but certain common pasture or wood lands with defined individual proprietors. Approaching the private end of the continuum would be a woodlot owned by two families and managed through mutually agreed cutting. This would be a land ownership which would be more private than common. Finally, private ownership without constraints on use would define the private end of the spectrum.

If Field's descriptive continuum of Colonial New England is generalized to include natural as well as agricultural resources, it is seen as the basis for the modern concept of common property resources. The economic characterization of a common property resource is a commodity (either production factor or consumer good) which has value (either monetary and/or nonmarket), and, in the absence of rules regulating use, would be used in amounts exceeding a defined optimal value.

National parks, historic areas, endangered species, and air and water resources are well known examples. External effects are closely linked to common property resources, as these environmental commodities indicate. However, certain production factors are also common resources: oil and gas fields, fisheries, and national forests and grazing lands. Field's study of colonial agriculture makes use of this same concept as do Dasgupta and Heal in their exposition of resource theory.

Field reports that the common land managers faced familiar problems. Fencing, stinting, commonage rights sale, overuse, and selectmen's problems in fixing herd membership have been generalized in economic theory as exclusion cost, use quotas, licensing and fees, common property externality, and transaction costs.

Implicitly, the paper raises other questions about that era. What role did common land practices play in New York's Dutch manors, in the New Sweden and German communities on the Delaware River, in French New England? In Amish, Mennonite, and Mormon agricultural communities? Why did the single-household farm of New England become the basis for expansion in the U.S. rather than the manor or the slave plantation?

When Johnny "Appleseed" Chapman left Massachusetts with a company of Ohio Valley settlers, they took nothing of the commons with them, and the Ohio Valley pioneers developed a wholly private set of land rights (Hillis). Why?

What effect did Indian agriculture have on New England agricultural practices and ownership? The early settlers at first abandoned European crops and methods. They adopted Indian practices of burning and girdling to clear, fish for fertilizer, and hoeing. The settlers adopted Indian corn, beans, squash, pumpkins, strawberries, maple syrup, and grapes. Where were Indian communities on the Field continuum of Colonial New England property rights?

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Several persons contributed to my agricultural education: Lee Day, Kenneth Robinson, William Tomek, and others noted in the text.

[1] Field is best known (at least to date) for his mathematical and quantitative work, as in Field and Orebenstein; Berndt and Fietd; and Brown and Field.

Since the Indian cultivars in each of these crops were all advanced from the wild varieties of the same species, it would seem that American Indians were the first plant breeders in North America. This plant breeding seems particularly true for our most important Indian crop, corn, since no wild variety now exists in New England (Shannon, p. 50).

Another problem is the interaction of technology and geography with ownership rights. In harvesting wheat, the historic sequence was sickle-scythe-cradle-harvester-combine. Animal power displaced human energy, and animals have been displaced by combustion engines. The acreage which can be efficiently cultivated by a household has risen from a few acres to hundreds of acres. The sequence of tural commodity. How does technology and geography interact with ownership?

Social structure is not part of Field's work. Can sociologists and historians give us a picture of colonial households, family size, and life expectancy? Were women's rights recognized legally? Could women be proprietors in common fields and lands?

In contemporary resource economics, interest rate is a crucial variable which can make either exhaustion or sustained use the optimal solution for a potentially renewable resource (Clark, for example). In optimal control applications, forestry and fisheries are usual topics. However, Richard Norgaard and Peter May have given me Brazilain data. The Brazilian government clears jungle which is bought by large investor groups. The investor group operates a large cattle ranch, or may rent to small ranchers. Typical grazing on a