

DISCUSSION PAPERS

No Tragedy on the Commons

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The historical antecedents of Garrett Hardin's "tragedy of the commons" are generally understood to lie in the common grazing lands of medieval and post-medieval England. The concept of the commons current in medieval England is significantly different from the modern concept; the English common was not available to the general public but rather only to certain individuals who inherited or were granted the right to use it, and use of the common even by these people was not unregulated. The types and in some cases the numbers of animals each tenant could pasture were limited, based at least partly on a recognition of the limited carrying capacity of the land. The decline of the commons system was the result of a variety of factors having little to do with the system's inherent worth. Among these factors were widespread abuse of the rules governing the commons, land "reforms" chiefly designed to increase the holdings of a few landowners, improved agricultural techniques, and the effects of the industrial revolution. Thus, the traditional commons system is not an example of an inherently flawed land-use policy, as is widely supposed, but of a policy which succeeded admirably in its time.

INTRODUCTION

In 1951, Josephine Tey published her classic detective story, *Daughter of Time*. In this defense of Richard III, she coined the term *Tonypandy* which is the regrettable situation which occurs when a historical event is reported and memorialized inaccurately but consistently until the resulting fiction is believed to be the truth.¹ History is not the only field in which *Tonypandy* occurs. A prime example of *Tonypandy* in the field of economics is the "tragedy of the commons."

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¹ *Tonypandy* was a Welsh mining town where, in 1910, Winston Churchill sent unarmed London policemen to quell rioting strikers. The version popularly believed in Wales is that government troops shot Welsh miners who were striking for their workers' rights. In precise Tey-usage, *Tonypandy* exists when such a fiction is allowed to persist even by those people who know better. An example of *Tonypandy* in American history is the Boston Massacre. Josephine Tey, *Daughter of Time* (New York: Macmillan, 1951).

Academics are often too facile in labeling an article as "seminal," but Garrett Hardin's 1968 article, "The Tragedy of the Commons," deserves the accolade.² The article has been reprinted over fifty times,³ and entire books have been devoted to exploring the meaning and implications of Hardin's memorable title.⁴ The phrase "tragedy of the commons" has slipped into common parlance at colleges and universities and is rapidly becoming public property.⁵ Discussion of the inevitability of such a tragedy is the lawful prey of economists, sociologists, philosophers, and theologians. Certainly we cannot deny that the phenomenon exists: the ruination of a limited resource when confronted with unlimited access by an expanding population. Where, then, lies Tonyandy in the tragedy of the commons?

Although the tragedy of the commons may occur, that it regularly occurred on the common lands of medieval and post-medieval England is not true; the historical antecedents of the tragedy of the commons as developed by Hardin and others following the 1968 article, and as commonly understood by students and professors, are inaccurate.⁶

As a first step toward the development of an accurate understanding of the commons I contrast Hardin's definition with the traditional legal understanding of the term as it applies to medieval England. I then discuss the management of the English commons, the abuses to which they were subjected, and the factors which led to their inevitable decline. This decline was not the result of unlimited access, but rather was the result of the historical forces of the industrial revolution, agrarian reform, and improved agricultural practices.

"THE TRAGEDY OF THE COMMONS" DEFINED

Hardin credits William Forster Lloyd with providing the impetus to the commons concept. In 1832, in the midst of the Enclosure Acts, Lloyd published *Two*

² Garrett Hardin, "The Tragedy of the Commons," *Science* 162 (1968): 1243-48.

³ Gordon Foxall, "A Note on the Management of 'Commons'," *Journal of Agricultural Economics* 30 (1979): 55.

⁴ For example, Garrett Hardin and John Baden, eds., *Managing the Commons* (San Francisco: Freeman, 1977).

⁵ Who could mistake the content—or inspiration—of articles such as "The Use of the Commons Dilemma in Examining the Allocation of Common Resources" (R. Kenneth Godwin and W. Bruce Shepard, *Resources for the Future* Reprint 179), or "Legislating Commons: The Navajo Tribal Council and the Navajo Range" (Gary D. Libecap and Ronald N. Johnson, *Economic Inquiry* 18 [1980]: 69-86), or Hardin and Baden, *Managing the Commons*. See also basic American government texts such as Robert Lineberry, *Government in America*, 2nd ed. (Boston: Little, Brown, 1983), in which he identifies the tragedy of the commons as "a parable about sheep overgrazing a common meadow" (pp. 579-80).

⁶ This is not to imply that the tragedy of the commons *never* occurred in those centuries: records are incomplete and to assert positively that something never occurred is to court contradiction and exposure.

Lectures on the Checks to Population in which he describes the situation existing when a resource is held in common:

Again, suppose two persons to have a common purse, to which each may freely resort. The ordinary source of motive for economy is a foresight of the diminution in the means of future enjoyment depending on each act of present expenditure. If a man takes a guinea out of his own purse, the remainder, which he can spend afterwards, is diminished by a guinea. But not so, if he takes it from a fund, to which he and another have an equal right of access. The loss falling upon both, he spends a guinea with as little consideration as he would use in spending half a guinea, were the fund divided. Each determines his expenditure as if the whole of the joint stock were his own. Consequently, in a multitude of partners, where the diminution effected by each separate act of expenditure is insensible, the motive for economy entirely vanishes.⁷

Applying his description directly to common land, Lloyd asks "Why are the cattle on a common so puny and stunted? Why is the common itself so bare-worn and cropped so differently from the adjoining enclosures?" He answers as follows:

In an enclosed pasture, there is a point of saturation, if I may so call it, (by which, I mean a barrier depending on considerations of interest), beyond which no prudent man will add to his stock. In a common, also, there is in like manner a point of saturation. But the position of the point in the two cases is obviously different. Were a number of adjoining pastures, already fully stocked, to be at once thrown open, and converted into one vast common, the position of the point of saturation would immediately be changed. The stock would be increased, and would be made to press much more forcibly against the means of subsistence.⁸

Although Lloyd's language seems to point unmistakably to eighteenth and nineteenth-century British commons and enclosures, Hardin himself is careful in his initial article to avoid such a categorization. His language is relatively free of cultural phenomena:

The tragedy of the commons develops in this way. Picture a pasture open to all. It is to be expected that each herdsman will try to keep as many cattle as possible on the commons. Such an arrangement may work reasonably satisfactorily for centuries because tribal wars, poaching and disease keep the numbers of both man and beast well below the carrying capacity of the land. Finally, however, comes the day of reckoning, that is, the day when the long-desired goal of social stability becomes a reality. . . .

⁷ William Forster Lloyd, *Two Lectures on the Checks to Population, delivered before the University of Oxford, in Michaelmas Term 1832*, condensed, edited, and reprinted as "On the Checks to Population," in Hardin and Baden, *Managing the Commons*, pp. 8-15. The above quotation is from p. 9.

⁸ *Ibid.*, p. 11.

... the rational herdsman concludes that the only sensible course for him to pursue is to add another animal to his herd. And another. . . . But this is the conclusion reached by each and every rational herdsman sharing a commons. Therein is the tragedy. Each man is locked into a system that compels him to increase his herd without limit—in a world that is limited. Ruin is the destination toward which all men rush, each pursuing his own best interest in a society that believes in the freedom of the commons. Freedom in a commons brings ruin to all.⁹

Examples offered by Hardin of the tragedy in operation are the national rangelands in the western United States, American national parks, and environmental pollution; the purpose of his article is to dramatize the dangers of uncontrolled human reproduction.

Later references to Hardin's tragedy of the commons, however, reflect a more explicit historical perspective. In 1977 Hardin used allusions to the Enclosure Acts of the late eighteenth and early nineteenth centuries to explain how the tragedy might be cured.¹⁰ In 1969, Beryl Crowe wrote:

The commons is a fundamental social institution that has a history going back through our own colonial experience to a body of English common law which antedates the Roman conquest. That law recognized that in societies there are some environmental objects which have never been, and should never be, exclusively appropriated to any individual or group of individuals. In England the classic example of the commons is the pasturage set aside for public use, and the "tragedy of the commons" to which Hardin refers was a tragedy of overgrazing and lack of care and fertilization which resulted in erosion and underproduction so destructive that there developed in the late 19th century an enclosure movement.¹¹

Hardin included Crowe's article in his 1977 anthology *Managing the Commons*; a similar illustration is used in Robert Bish's article "Environmental Resource Management: Public or Private," anthologized in the same volume. Bish illustrates the commons dilemma through the "enclosure movement in medieval England" during which the "stronger lords and nobles undertook to exclude peasant flocks from what had formerly been common land," thus saving the commons from "overgrazing and destruction of the pasturage."¹²

⁹ Garrett Hardin, "The Tragedy of The Commons," in Hardin and Baden, *Managing the Commons*, p. 20.

¹⁰ Garrett Hardin, "Denial and Disguise," in Hardin and Baden, *Managing the Commons*, pp. 45-52. Hardin acknowledges the injustice of the Enclosure Acts but applauds the increase in agricultural productivity that they entailed.

¹¹ Beryl Crowe, "The Tragedy of the Commons Revisited," in Hardin and Baden, *Managing the Commons*, pp. 54-55.

¹² Robert Bish, "Environmental Resource Management," in Hardin and Baden, *Managing the Commons*, p. 221.

Perhaps the most extensive anglicization of the commons is found in *This Endangered Planet* by Richard Falk. He writes that Hardin "has evolved an effective metaphor of [the paradox of aggregation] from a historical experience, the destruction of the common pastures of English country towns in the 1700s and 1800s through overgrazing herds."¹³

Further examples can be found, almost *ad infinitum* and certainly *ad nauseum*. Moreover, questioning of graduate students in economics or planning or public administration elicits the same historical background on the tragedy of the commons as described by Falk. Such evidence suggests that there is a general impression among most people today that the tragedy was a regular occurrence on the common lands of the villages in mediæval and post-mediæval England—a belief which, despite its wide acceptance as fact, is historically false.

THE COMMONS DEFINED

In order to dispel the myth of the tragedy of the commons, we must first discover the definition of *commons* as it was understood in mediæval England. The legal right of common is "a right which one or more persons have to take or use some portion of that which another's soil produces . . . and is a right to part of the profits of the soil, and to part only, the right of the soil lying with another and not with the person who claims common."¹⁴ This right is an ancient one: "Recent archaeological and historical work indicates that in many places nucleated villages did not come into being until the ninth, tenth, or even the eleventh centuries. . . . But whatever their origins, the classic common field system probably developed with them . . ."¹⁵ These rights "were not something specifically granted by a generous landlord, but were the residue of rights that were much more extensive, rights that are in all probability older than the modern conception of private property. They probably antedate the idea of private property in land, and are therefore of vast antiquity."¹⁶ The right of common was a right granted to specific persons because these persons had some prior claim to the land or because the actual owner of the land granted them that right in return for their services.

Our modern-day notions of *common* as a public right does not accurately describe the mediæval commons. Gonner wrote in 1912:

¹³ Richard A. Falk, *This Endangered Planet* (New York: Random, 1971), p. 48.

¹⁴ E. C. K. Gonner, *Common Land and Inclosure*, 2nd ed. (London: Cass, 1966). The first portion of this quote is quoted by Gonner without attribution. This is not, however, an outmoded or esoteric definition: basic American college dictionaries provide the same definition.

¹⁵ C. C. Taylor, "Archaeology and the Origins of Open-Field Agriculture," in Trevor Rowley, ed., *The Origins of Open-Field Agriculture* (London: Groom Helm, 1981), p. 21. See also Della Hooke, "Open-field Agriculture—The Evidence from the Pre-Conquest Charters of the West Midlands," *ibid.*, p. 58: "land held in common by a community is clearly in evidence by the tenth century. . . ."

¹⁶ W. G. Hoskins and L. Dudley Stamp, *The Common Lands of England and Wales* (London: Collins, 1965), p. 6.

[Common] now is taken as denoting the claims, somewhat vague and precarious, of the public as against those holding the land and engaged in its cultivation. But this finds no sanction in a time when over very many, if not most, cultivated districts common was a result of claim to land, and formed a necessary condition of its proper management. . . . The early rights of common were anything but vague, and were invariably vested in those employed in cultivation of their representatives; they were anything rather than a general claim on the part of the public. . . . [Common rights] were a necessary element in the agricultural system, they were involved in the ownership and cultivation of the land, and they were largely the source of the profits obtained from the land and the means of rendering its cultivation effective.¹⁷

Clearly our use of *common* to describe public access to national parks or to deep-sea fishing is at variance with the original use of the term.

Gonner lists four primary types of common: common of pasture, common of estover, common of turbary, and common of piscary. The common of pasture, the type with which this paper is concerned, is divided into two kinds: *common appendant*, and *common appurtenant*.¹⁸

Common appendant is the right of the villagers who owned their own land within the manor to feed their animals used in agriculture upon the lord's "waste," i.e., that land within the borders of the lord's domain that was not under cultivation.¹⁹ This right was a right attached to the land the freehold tenant actually cultivated.²⁰ In strict theory, common appendant was limited to beasts needed for agriculture: oxen and horses to plow, sheep and cows to manure—in practice, beasts *levant* and *couchant* that the arable land could support in winter. The lord's waste was used for grazing during the growing season when the tenant's land was under cultivation. In turn, during the winter the tenant used his own land and the harvests of hay to support his livestock. Thus, he was not permitted to put more animals on the lord's land in summer than his own land could feed for the winter. To do otherwise would be to abuse the lord's pasture.²¹

Common appurtenant, in contrast, originated either from a grant by the lord to a villager or by "peaceful, uninterrupted and known usage."²² It could be granted to both tenants of the manor and to outsiders, and it was occasionally extended to include animals such as "swine, goats, and even geese."²³

¹⁷ Gonner, *Common Land*, pp. 3–4.

¹⁸ *Ibid.*, pp. 8–15. *Piscary* is the right to fish, *turbary* to cut peat or turf for fuel. Common of estover is the right to take wood from the forest or waste for the repair of farm equipment ("plough bote"), for the repair of gates, fences, and other barriers ("hedge bote" or "hay bote"), and for the repair of the house or for fuel ("house bote"). Other forms of common of pasture, such as common in grass, developed at a later period and do not concern us here.

¹⁹ *Ibid.*, p. 8.

²⁰ Edward Scrutton, *Commons and Common Fields* (1887; reprint ed., New York: Lenox Hill, 1970), p. 42.

²¹ Gonner, *Common Land*, p. 9.

²² *Ibid.*, p. 10.

²³ *Ibid.*

We thus have a picture of the legal status of a common. Either by common-law right as freehold tenant or through usage and grants, a villager was entitled to pasture limited numbers of specific animals on the lord's waste. It is important to note that even from the beginning, the use of the common was not unrestricted: "Common pasture of stubble and fallow was a feature of open-field husbandry from the start . . . and with it went communal control."²⁴ The English common was not available to the general public but was only available to certain individuals who owned or were granted the right to use it. Use of the common even by these people was not unregulated. The types and in some cases the numbers of animals each tenant could pasture were limited, based at least partly on a recognition of the limited carrying capacity of the land.

THE MANAGEMENT OF THE COMMONS

The earliest records for communal farming regulations are the manor court rolls of the mid-thirteenth century.²⁵ The earliest record for a village meeting is the fourteenth century. Joan Thirsk writes:

From these dates the evidence points unequivocally to the autonomy of village communities in determining the form of, and the rules governing their field system. . . . In villages which possessed no more than one manor, matters were agreed in the manorial court, and the decisions sometimes, but not always, recorded on the court roll. Decisions affecting villages which shared the use of commons were taken at the court of the chief lord, at which all the villages were represented. In villages where more than one manor existed, agreement might be reached at a village meeting at which all tenants and lords were present or represented.²⁶

Similarly, the author of a Northumberland survey of 1664, after naming the manorial fields, wrote of the regulatory process:

Which said fields, after the corns and hay are off, are laid open, and eaten, sometimes with, sometimes without, stint. But how many beasts and sheep everie tenement may keep is uncertain and left as ye Neighbors may agree among themselves; and that severall parcels of ye common fields have been enclosed.²⁷

²⁴ W. O. Ault, *Open-Field Farming in Medieval England* (London: Allen and Urwin, 1972), p. 17.

²⁵ *Ibid.*, p. 18. Ault gives 1246 as the earliest manor court rolls; the earliest manorial reeve's accounts are for 1208-9.

²⁶ Joan Thirsk, "Field Systems of the East Midlands," in Alan R. H. Baker and Robin A. Butlin, eds., *Studies of Field Systems in the British Isles* (Cambridge, England: University Press, 1973), p. 232.

²⁷ Northumberland County History, vol. 10, 1914, p. 140; quoted in R. A. Butlin, "Field Systems of Northumberland and Durham," in Baker and Butlin, *Studies*, pp. 122-23. The "stinting" referred to is a formal allocation of the number and type of beast that could be grazed on the waste and is discussed in more detail below.

Such agreements among the neighbors are recorded in the village bylaws. These bylaws "emphasize the degree to which . . . agricultural practice was directed and controlled by an assembly of cultivators, the manorial court, who coordinated and regulated the season-by-season activities of the whole community. Arable and meadowland were normally thrown open for common pasturing by the stock of all the commoners after harvest and in fallow times, and this necessitated some rules about cropping, fencing, and grazing beasts. Similarly, all the cultivators of the intermixed strips enjoyed common pasturage in the waste, and in addition, the rights to gather timber, peat and other commodities were essential concomitants of the possession of arable and meadow shares."²⁸ There was, however, an extraordinary diversity of bylaws among the various regions of England. In one Lincolnshire fenland village, for example, "strangers coming into the town but having no land could enjoy free common for their cattle for one year. After that they had to abide by the rules governing all other inhabitants. These were generous provisions that reflected the abundance of grazing."²⁹ In contrast, in 1440, the village of Launton decreed that "any tenant who has a parcel of meadow in East Brokemedede shall not mow there now or ever until his neighbors are agreed under pain of 3s. 4d.,"³⁰ a clear reflection of the need to conserve and to regulate. What is important to note here is the detail with which the open fields were regulated. Ault notes that bylaws covered such points as where field workers were paid (at the granary rather than in the field, where payment in kind might lead to accusations of theft) and at what age boys could begin to pasture sheep on the common (sixteen). The commons were carefully and painstakingly regulated, and those instances in which the common deteriorated were most often due to lawbreaking and to oppression of the poorer tenant rather than to egoistic abuse of a common resource.

ABUSES OF THE COMMONS

The commons were subject to several forms of abuse. Often the regulations governing the commons were broken, as when greedy farmers took in unauthorized animals, or when wealthy landowners or squatters took grazing to which they were not entitled because of lack of agreement among the tenants. The common thread in these abuses is their illegality.

One of the methods of controlling grazing was "stinting," allocating the number and type of beast that could be grazed on the waste. Stinting developed more from lack of winter feed when stock was pastured on the arable land than from a desire to

²⁸ B. K. Roberts, "Field Systems of the West Midlands," in Baker and Butlin. *Studies*. p. 199.

²⁹ Thirsk, "Field Systems," p. 251.

³⁰ Westminster Abbey Muniments, 1550; quoted in Ault, *Open-Field Farming*. p. 26.

protect the summer grazing. This summer grazing "was as carefully controlled as the manorial courts could make it."³¹ The quality of the waste and its size, which could vary from fifty to over three hundred acres,³² dictated in great part the size of the stints, although in some places other solutions to overgrazing were found. For example, in the 1570s, the grass on Holland Fen was overgrazed because "local people had started taking in large numbers of strangers' cattle, sheep, and horses with their own. . . . A stint was suggested but not adopted."³³ "Instead the manorial lord who had brovage rights—an acknowledged right appertaining to lords of manors of taking in strangers' animals—and who was probably among the worst offenders in overcharging the common, agreed to surrender his rights in return for an enclosure of 480 acres of fenland."³⁴ In Westmorland in 1695, "Occasionally these stinting rules were broken, resulting in the 'Townfield . . . being sore abused and disorderly eaten.' The remedy was to employ a pounder who had to make sure the stints were carefully maintained."³⁵ Hence, we have one abuse of the common: simple lawbreaking which was remedied by resort to the law.

A similar problem with a less happy solution occurred when the wealthier landholders took advantage of the poorer tenants. In the early sixteenth century, Fitzherbert noted that the rich man benefited from overcharging the common.³⁶ According to Gonner, it was "pointed out alike in the sixteenth, seventeenth and eighteenth centuries that the poor owning rights may be largely kept out of their rights by the action of large farmers who exceed their rights and thus surcharge the common to the detriment of all, or by the lack of winter feed in the absence of which summer grazing could be of little worth. Again, jobbers would hire cottages in order to obtain, as it were, a right of entry to the common and then proceed to eat up the common; or new cottages would spring up near the common, and though legally without rights, would encroach in practice on those to whom the common

³¹ G. Elliott, "Field Systems of Northwest England," in Baker and Butlin. *Studies*, p. 67. As an example, in Denwick in 1567 the stint of "each husbandland was 6 old beasts above two years old, 37 sheep above one year old besides lambs and other young cattle, four pigs above one year old, two geese and one horse or mare" (Butlin. "Field Systems," p. 138).

³² "Introduction," Baker and Butlin. *Studies*, p. 42.

³³ Thirsk. "Field Systems," p. 255. These fens had unique rights of common. Thirsk (p. 251) writes: "The great size of the fens created special difficulties in ensuring that all commoners had their fair share and none attempted to take more than the rest; so a special restriction applied here: everyone had a fixed place in the fen where he exercised his right of common. When he died, his place (or 'labour' as it was called) passed to his wife, if she claimed it, or if not, to the first man who 'manured' it, i.e. expended his labour upon it. No one could sell his 'labour' to another, but exchanges were permitted so long as public notice was given."

³⁴ *Ibid.*, p. 255.

³⁵ Elliott, "Field Systems," p. 83. The internal quote is from the Westmorland Record office. Musgrave D. P., Court Rolls 1695.

³⁶ Scrutton. *Commons*, p. 122.

really belonged."³⁷ There was little redress: "These abuses used formerly to be strictly observed at the Court Baron, but of late years [ca. 1727] have been little regarded, except in some manors where the steward would present them that offended, and the more when he found the substantial tenants had agreed together not to present one another, and to crush their poorer tenants that should offer to do it."³⁸ The unfortunate poor tenant was denied his remedy at law for the illegal abuses of the more powerful landowners. The ultimate conclusion was the enclosure of the common land, most effective in the parliamentary enclosure acts from 1720 to 1880.³⁹ Such change was perhaps inevitable, but it is social change and the perennial exploitation of the poor by the less poor rather than Hardin's tragedy.⁴⁰

A third problem arose on unstinted land. In the sixteenth century the "unstinted common was almost invariably overburdened. . . . This state of things was largely to the advantage of rich commoners or the lord of the manor, who got together large flocks and herds and pastured them in the common lands to the detriment of the poorer commoners, who, unlike them, could do little in the way of providing winter feed, and now found themselves ousted even from their slender privileges in the commons."⁴¹ Similarly in the seventeenth and eighteenth centuries in Yorkshire, "there were some townships (especially those bordering the moorlands) where at least part of the pasture was not stinted. Here the owners of common rights could legally depasture only those animals that could be supported in winter by the fodder produced on the farm, but this limitation was frequently ignored. Then the pasture became overgrazed and of little value. . . ."⁴² By 1800 in the East Riding, "there was a good deal of overstocking. Some of the commons were stinted but others were not, and it was here that overstocking occurred. Many of the commons were frequently waterlogged when a small expenditure would have drained them, but what was everyone's business was nobody's business."⁴³ Of course, by 1800 parliamentary enclosure was well under way and this report from East Riding was made by an employee of the newly formed board of agriculture, established in response to a "widespread campaign for the more effective use of the land-resources of the country, with particular reference to the large areas of remaining open fields and to the vast areas of common lands and

³⁷ Gonner, *Common Land*, p. 306.

³⁸ Edward Lawrence, *Duty of a Steward* (1727): quoted by Scrutton, *Commons*, p. 123

³⁹ Roberts, "Field Systems," p. 190.

⁴⁰ A classic example of exploitation is the Statute of Merton (1236) which allowed "chief tenants to assart land for their own or their villeins' exclusive use, provided that 'sufficient' common land was left for the needs of the village community." June A. Sheppard, "Field Systems of Yorkshire," in Baker and Butlin, *Studies*, pp. 176-77.

⁴¹ Gonner, *Common Land*, p. 103

⁴² Sheppard, "Field Systems," p. 157.

⁴³ Hoskins and Stamp, *Common Lands*, p. 55

wastes."⁴⁴ Sponsored by wealthy landowners, the land reform was frequently no more than a sophisticated land-grab, justified in part by the admittedly striking increase in productivity of enclosed common land.

THE INEVITABLE DECLINE OF THE COMMONS

The increased productivity was often touted by land reformers—wealthy or otherwise—as proof of the evils of the commons system. However, the change was the result of many factors, and not just of enclosure. Some of the increase would probably have occurred without enclosure, but enclosure hastened the process. The common land was not the best land. The lord's waste was often reclaimed land, cultivated from forest and marsh. Morton in 1712 wrote: "Many of the Lordships, and especially the larger ones, have a Common or uninclosed [sic] Pasture for their cattle in the Outskirts of the Fields. Most of these have formerly been plowed; but being generally their worst sort of ground, and at so great Distance from the Towns, the Manuring and Culture of them were found so inconvenient that they have been laid down for Greensod."⁴⁵ Enclosure took the better land and subjected it to the new and improved methods of agriculture which had been all but impossible under the common system, for the management of the common could not be changed unless all commoners agreed and, just as important, remained agreed.⁴⁶ Improved roads and transportation facilities made marketing easier, and of course, the land had fewer people to support. Economies of scale made it profitable to use improved stock. In 1760, Robert Bakewell, the founder of modern methods of livestock improvement, began selective breeding of farm animals.⁴⁷ Previously forbidden by ecclesiastical authorities as incest, inbreeding of animals with desirable qualities soon led to dramatic improvements in stock.⁴⁸ Planting the enclosure with nitrogen-fixing crops such as clover improved the soil; drainage improved livestock health. Animals were disturbed less by driving to and from land pasture. All of these factors combined to improve the productivity of the formerly common land.

⁴⁴ *Ibid.*, p. 54.

⁴⁵ David Hall, "The Origins of Open-Field Agriculture—The Archaeological Fieldwork Evidence," in Rowley, *Origins*, p. 27.

⁴⁶ Scrutton, *Commons*, pp. 120–21. For example, all the farmers might agree to let one field lie fallow against custom for two years. If, in the second year, one tenant decided to return to the customary management and to graze his cattle in the field, the rest were powerless to stop him, and of course, the result would be the use of the field by all the tenants.

⁴⁷ Victor Rice, Frederick Andrews, Everett Warwick, and James Legates, *Breeding and Improvement of Farm Animals* (New York: McGraw-Hill, 1957), p. 16.

⁴⁸ For example, between 1710 and 1790, the weight at Smithfield of cattle changed from 370 pounds to 800 pounds, of calves from 50 to 148, of sheep from 28 to 80, and of lambs from 18 to 50. This weight change is of course due to a multitude of causes. Scrutton, *Commons*, p. 121.

That enclosure improved productivity is neither a surprise nor a shame to the commons. The commons system "was falling into disuse, a new system was taking its place, and with the change the actual use made of the common or common rights declined. It might indeed have been retorted [to advocates of inclosure] that what was wanted was a stricter enforcement of the whole common right system."⁴⁹ A related view was expressed in 1974 by Van Rensselaer Potter:

When I first read Hardin's article [on the tragedy of the commons], I wondered if the users of the early English commons weren't prevented from committing the fatal error of overgrazing by a kind of 'bioethics' enforced by the moral pressure of their neighbors. Indeed, the commons system operated successfully in England for several hundred years. Now we read that, before the colonial era in the Sahel, 'overpasturage was avoided' by rules worked out by tribal chiefs. When deep wells were drilled to obtain water 'the boreholes threw into chaos the traditional system of pasture use based on agreements among tribal chieftains.' Thus, we see the tragedy of the commons not as a defect in the concept of a 'commons' but as a result of the disastrous transition period between the loss of an effective bioethic and its replacement by a new bioethic that could once again bring biological realities and human values into a viable balance.⁵⁰

CONCLUSION

Hardin writes that the "view that whatever is owned by many people should be free for the taking by anyone who feels a need for it . . . is precisely the idea of the commons."⁵¹ Why should it matter if this "idea of the commons" is historically inaccurate?

Any academic should feel an aversion to Tonyandy, but the issue is more important than a possible pedantic dislike of inaccuracy. It is beyond dispute that issues such as depletion of limited resources, environmental quality, fisheries economics, and national land management are of great and increasing concern. How those issues are dealt with depends in large part on our perceptions of the disposition of similar issues in the past. If we misunderstand the true nature of the commons, we also misunderstand the implications of the demise of the traditional commons system. Perhaps what existed in fact was not a "tragedy of the commons" but rather a triumph: that for hundreds of years—and perhaps thousands, although written records do not exist to prove the longer era—land was managed successfully by communities. That the system failed to survive the industrial

⁴⁹ Gonner, *Common Land*, pp. 306–07.

⁵⁰ Van Rensselaer Potter, *Science* 185 (1974): 813.

⁵¹ Garrett Hardin, "Denial and Disguise," in Hardin and Baden, *Managing the Commons*, p. 47.

revolution, agrarian reform, and transfigured farming practices is hardly to be wondered at.

Our reexamination of the commons requires a dual focus. The first is to search for the ideas and practices which led to successful commoning for centuries and to try to find lessons and applications for our own times. The second focus is epistemological: are our perceptions of the nature of humankind awry? Since it seems quite likely if "economic man" had been managing the commons that tragedy really would have occurred, perhaps someone else was running the common.

In 1968, Hardin wrote that "'ruin' is the destruction toward which all men rush, each pursuing his own best interest in a society that believes in the freedom of the commons. Freedom in a common brings ruin to all."⁵² But the common is *not* free and never was free. Perhaps in the changed perception of the common lies a remedy for ruin.

⁵² Hardin, "Tragedy of the Commons." in Hardin and Baden, *Managing the Commons*, p. 20

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The Hastings Center has just published a report *On the Uses of the Humanities: Vision and Application*; price: \$8.00. Although it makes only one mention of environmental ethics (p.3), it is an enlightening discussion of the current status of the "applied" humanities, with special attention to philosophy and applied and public history.

D. Reidel Publishing Company has announced the establishment of a new book series edited by Dr. Kristin Shrader-Frechette of the University of Florida. Reidel plans to publish two books per year. The books are intended for environmental professionals such as environmental lawyers, environmental impact assessors, city planners, and environmental engineers.

The Long Island Philosophical Society is sponsoring a conference on "Ethics and the Environment" at the C. W. Post Campus of Long Island University, 13 April 1985. For more information contact Dr. Richard E. Hart, Continuing Education, Long Island University, C. W. Post Campus, Greenvale, NY 11548.

The National Audubon Society Expedition Institute will host a major public symposium dealing with the question "Is the Earth a Living Organism?" on the campus of the University of Massachusetts, Amherst, 2 to 6 August 1985. Abstracts for papers, no more than three pages, double-spaced, should be sent to Dr. Jim Swan, Symposium Coordinator, National Audubon Society Expedition Institute, Box 637, Mill Valley, CA 94941. Other inquiries should be sent to the Institute for Expedition Education, National Audubon Society, N.E. Regional Office, R.R. 1, Box 171, Sharon, CT 06069.

Tom Dowell of Energy Exchange has just completed a paper for Ontario Hydro entitled, "Religious Organizations Debate Nuclear Energy: Background Paper." The paper, which reviews the history of the religious debate over nuclear energy, was used as a background document for the Interfaith Program on Public Awareness of Nuclear Issues Hearings held last fall. For more information or comments, write to Dave Hardy, Social and Community Studies Section, Corporate Relations Department, Ontario Hydro, 700 University Avenue, Toronto, Ontario, Canada M5G 1X6, or call (416) 592-3868.

Roman & Allanheld has published a book edited by Douglas MacLean called *The Security Gamble: Deterrence Dilemmas in the Nuclear Age* as part of the Maryland Studies in Public Philosophy; price: \$29.95, cloth; \$14.95, paper. The book which deals with U.S. nuclear deterrence policies and options and with the problem of the moral justification of such deterrence, grew out of a conference on the subject held at the University of Maryland in 1983.

Workman Publishing has just published *Out of the Cradle: Exploring the Frontiers Beyond Earth* by William K. Hartmann, Ron Miller, and Pamela Lee;

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