The common law, of which property law comprises a substantial branch, claims as its chief advantage the ability to adapt to changing circumstances. But the rules of property law that courts develop, argues Theodore Steinberg, are inherently incapable of “master[ing] nature in all its complexity, 100 percent” (p. 7). Converting everything into property does “not just confuse[,] but impoverish[es] our relationship with the natural world” (p. 10). Steinberg recounts five entertaining parables that question the meaning and extent of the institution of property.

Steinberg approaches the problem of universal commodification from an angle foreign to mainstream legal scholarship. Rather than couching his argument in moral or efficiency justifications, Steinberg attempts to prove his point on “silly” grounds. He contends that it is fatuous to determine who owns shoreline on the basis of its adjoining body of water (pp. 52–81) or on the basis of how a river changes course (pp. 21–51). Therefore, Americans should abandon attempts to force natural resources into their system of property law. Although Steinberg succeeds in his narrow mission of exposing the limits of property law, disappointingly, his argument-by-parable fails to propose any alternatives that would ameliorate the shortcomings he reveals.

Steinberg commences with the claim that “[t]wentieth-century America is a society obsessed with mastering nature technologically, a society bent on redesigning the natural world, no matter what the cost” (p. 6). As a prefatory illustration of nature’s refusal to comport with property law, he recounts Mark Twain’s tale of a quiet title action against a downhill plot of land onto which a mudslide had caused an uphill tract to slide (pp. 3–4). Steinberg then
chronicles a series of property disputes, beginning with the concrete (determinations of land boundaries altered by rivers, pp. 23–51) and concluding with the exceedingly ethereal (the transferable “air rights” created by New York City’s zoning scheme, pp. 135–65). Property law distinguishes between “common” and “exclusive use” property. Disputes over land boundaries, shoreline (pp. 52–817), and air rights fall into the latter category, while conflicts over underground water rights (pp. 82–105) and weather rights (pp. 106–349) fall into the former. Through each of these case studies, Steinberg reiterates his refrain that, although “[p]roperty law transforms nature into ownable things[,] not everything on earth is equally ownable” (p. 18).

Steinberg submits that the problem of owning nature derives from the twin forces of a “culture so dedicated to control, so obsessed with possession” (p. 23) and the development of technology that allows Americans to “control” further and thereby commodify nature (pp. 107–09). He makes his point about

although the uphill owner acquired the downhill plot, the downhill owner maintained title to his buried tract and “had a right to dig it out from under there.” Id. at 709.

4. Whether the Omaha Indians continued to own a piece of land ceded to them by treaty would be determined by whether it slowly eroded into the Missouri River, with the sediment accumulating on the opposite shore, or whether the river had suddenly changed course. Property law distinguishes between the former kind of change, called an accretion, and the latter, an avulsion. Slow losses (and gains) of land are borne by (or redound to) the shore’s owner. See Gifford v. Yarborough, 130 Eng. Rep. 1023, 1024 (H.L. 1828) (finding that land that forms slowly upon shoreline would “remain for years, perhaps for ever, barren” if owned by King). In contrast, avulsions leave title to the land with the original owner.

The Supreme Court is no stranger to such boundary disputes. See, e.g., Louisiana v. Mississippi, 116 S. Ct. 290, 293–94 (1995) (holding that island now bordering Louisiana nonetheless remained within state of Mississippi because “rule of thalweg”—which makes main navigational channel the boundary between states—has “island exception,” which leaves island in hands of originally owning state, even when channel shifts to opposite side of island), decree entered, 116 S. Ct. 560 (1995).

5. He recounts several transfers of air rights that raise issues germane to the book, including the one that led to the well-known case, Penn Central Transportation Co. v. New York City, 438 U.S. 104 (1978).

6. Herman Melville characterized all property as either a “fast fish” or a “loose fish.” See HERMAN MELVILLE, MOBY-DICK 331–34 (Harrison Hayford & Hershel Parker eds., W.W. Norton & Co. 1967) (1851) (“I. A Fast-Fish belongs to the party fast to it. II. A Loose-Fish is fair game for anybody who can soonest catch it.”). Steinberg recalls this dichotomy: “As Mark Twain might have said, Show me a fast fish and I’ll show you a fish that is a lot looser than you think” (p. 19).

7. Ownership of new shoreline in Louisiana depends upon whether the body of water is a lake—for which new shoreline accrues to the adjacent landowners—or a river—the shores of which escheat to the state by statute. The Louisiana Supreme Court set forth a multifactor test to determine that Six Mile Lake was aptly designated, and that the oil-rich land under its shores did not belong to the state. See Louisiana v. Placid Oil Co., 300 So. 2d 154, 175 (La. 1974). Steinberg contends that a multi-factor analysis cannot “succeed in totally capturing and appropriating a physical reality 100 percent” (p. 81).

8. Arizona employed the rule of prior appropriation—which entitles a person to take water in the amount of his initial claim, so long as all earlier claimants have been satisfied in their like entitlements—for surface water. The statute, however, did not apply to subterranean water, which became a problem with the improvement of pumping technology. Bristor v. Cheatham, 255 P.2d 173 (Ariz. 1953), the culmination of the ensuing disputes, remedied this statutory lacuna by establishing a reasonable-use standard, which restricts landowners to taking only water from under their land that they will put to beneficial use on that land. Id. at 178.

9. A group of Pennsylvania orchard owners sued cloud seeding to reduce damaging hailstorms. A group of farmers sued, alleging that the seeding reduced rain over their fields. The court ruled that clouds and the moisture therein are common property not subject to the orcharders’ private appropriation. Pennsylvania Natural Weather Ass’n v. Blue Ridge Weather Modification Ass’n, 44 Pa. D. & C.2d 749, 759–60 (C.P. Fulton County 1968) (“We hold specifically that every landowner has a property right in the clouds and the water in them.”).
a culture of property most forcefully through his portrayal of the conflicts that develop when two cultures disagree over the concept of "owning" a particular natural resource. To wit, when the United States directed the Omaha not to occupy land the tribe thought available for its use, the tribe objected, reasoning that there can and should be no ownership of land. Similarly, a group of farmers who sought to enjoin orcharders from altering the weather to their advantage wished not to control the weather but rather merely to allow nature to take its course. Thus, suggests Steinberg, imposing a property regime upon a property-chary culture can destroy that culture.

Technology that facilitates the capture of natural resources likewise fuels the growth of property rules. The use (and potential overuse) of these technologies to claim resources exclusively, posits Steinberg, ultimately leads to the destruction of the natural resources. For example, improved pumps enabled Arizona farmers to possess and exploit greater quantities of water, which not only depleted the resource but also increased ground subsidence (pp. 89–91). Likewise, only upon the invention of skyscrapers and complex cantilevers did air rights truly matter (p. 140). Technology enables a culture "obsessed with possession" (p. 23) to expand greatly the set of ownable things. As ownership expands, the more preposterous that ownership appears, and the more inevitable the destruction of natural resources becomes.

Indisputably, the market—and its attendant rhetoric—pervades American society. Steinberg's failure, however, to advance an alternative cultural system that satisfies his objections leaves the reader muttering "yeah, but so what?" Indeed, he never acknowledges that, although property has the shortcomings he identifies, it nonetheless likely reigns supreme in the world of second best. Presenting only objections, Steinberg leaves no clew

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10. The Omaha wondered how "one person [could] own land to the exclusion of other men" (p. 27). See also Tecumseh, quoted in John Bartlett, Familiar Quotations 370 (Justin Kaplan ed., 16th ed. 1992) ("Sell a country! Why not sell the air, the clouds, and the great sea, as well as the earth? Did not the Great Spirit make them all for the use of his children?").

11. Steinberg phrases the question as whether people should control weather or weather people (p. 122). One farmer stated that he "feel[ed] that if there has to be a talking to a—what I call the rainmaker—. . . I would rather do it on my knees, not on the telephone" (p. 127).


13. Steinberg concedes that the culture of air rights perhaps "saved" New York's historical landmarks. The skyrocketing value of real estate and the ability to build vertically inevitably destroy landmarks, typically by the erection of buildings thereabove. See Jesse Dueminier & James E. Krier, Property 1205-06 (3d ed. 1993) (depicting architect's proposals to build skyscraper atop Grand Central Station). The ability to transfer these rights—useless to a preservation-oriented landmark owner, but valuable to a developer—enables a landmark to remain undisturbed on its plot of land (pp. 148–49). Steinberg tempers his slight praise for this form of property, however, with the claim that, although air rights "solve some problems, they force the ideology of exchange further into the marrow of daily existence" (p. 154).


15. See Garrett Hardin, The Tragedy of the Commons, 162 Science 1243, 1247 (1968) ("An alternative to the commons need not be perfectly just to be preferable. . . . [W]e put up with [property]
indicating a more desirable path to be followed by a culture obsessed with property. His analysis of technology's role in the development of property is similarly wanting. While technology indubitably has fueled the increased pervasiveness of property, Steinberg fails to point in any direction with his evidence. Is he a neo-Luddite, wishing that Americans abandon technological progress? Or does he just reject particular uses of technology?

In a world of plenty, no market need form; moreover, because use of a resource is costless, no one will dispute ownership. Scarcity, therefore, drives Steinberg's conflicts, a fact that he fails to give more than passing acknowledgment. Although Steinberg meets his goal of "rais[ing] questions about the limits of private property" (p. 8), these questions only beget more difficult (and stimulating) questions: What alternatives to exclusive property exist? What makes those rules more effective? Even an allocation that places some resources outside the market is a property allocation in some sense. The resource is then "owned" by all, the state, or those best able—by strength or guile—to expropriate it for themselves.

16. See Posner, supra note 12, at 35; see also Robert A. Brightman, Conservation and Resource Depletion: The Case of the Boreal Forest Algonquians, in THE QUESTION OF THE COMMONS, supra note 15, at 121, 129 (finding that technology "significantly lowered costs of pursuit and capture and increased rates of capture" of game in one Native American tribe). Steinberg never addresses whether technology causes the increased use of property rules, or whether only cultures that implement property responses to improved technology survive. See Anderson, supra note 15, at 334–35 (arguing that government's failure to solve commons problem led to destruction of fishing culture); see also Brightman, supra, at 129 (positing that new technology but old traditions led to depletion of game and decline of hunting culture); Patricia Neslon, He's Last in a Fishing Line—Down to the Sea No More, BOSTON GLOBE, Oct. 12, 1995, at 25 (describing how overfishing of George's Bank has led fishing families to abandon their trade).

17. The Luddites destroyed manufacturing machinery, believing it would otherwise leave all workers unemployed. For a modern-day version of a similar philosophy, see, for example, Equipment is Sabotaged at Logging Site, SEATTLE POST-INTELLIGENCER, Oct. 20, 1995, at B5 (reporting destruction of logging equipment to halt harvesting of old-growth forest). See also Unabomber Manifesto, WASH. POST, Sept. 20, 1995, Special Section, paras. 125–35 ("[W]hile the industrial system is sick we must destroy it. If we compromise with it and let it recover from its sickness, it will eventually wipe out all of our freedom.").

18. Restricting the use of particular technologies in taking a resource can reduce the strain upon it. See Carol M. Rose, Rethinking Environmental Controls: Management Strategies for Common Resources, 1991 DUKE L.J. 1, 19–21.

19. He notes that "opposition" to cloud seeding was "inversely proportional to rainfall" (p. 121), and offers the more general proposition that, "[w]here there is money to be made by controlling nature, it is a safe bet that there will be conflicts over property and ownership" (p. 84).
Several alternate allocative rules might satisfactorily replace the exclusive-possession tradition that troubles Steinberg. Margaret Radin argues that a rule of "market inalienability" which "places some things outside the marketplace, but not outside the realm of social intercourse" may reduce the problems of universal commodification. For example, although cloud seeding has beneficial uses, when made available to private parties, its misuse is virtually assured. Market inalienability resembles placing exclusive control and distribution of a resource in government. To wit, New York City holds the right to distribute all unappropriated air space according to its zoning plan, granting builders use of its air only on certain conditions. This rule has the advantage of allocating the resource outside the market; unfortunately, it has the disadvantage of allocating the resource outside the market. Although this allocation may have the force of principle, it can often lead to worse consequences for the resource itself. Furthermore, it allocates resources to those best able to operate through the political system rather than the market.

Steinberg laments the decline of the system of estates and landholding used before capitalism converted land into a commodity (pp. 11–12). In this system, possession was for a limited duration, not eternity, and holders had a duty to protect subsequent holders' interests. Owners held "life estates" in

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20. See Radin, supra note 1, at 1853. Radin opposes markets in such items as babies, sexual services, and bodily organs, see id. at 1862–63 & 1863 n.51, because the mere existence of a market leads people to consider these goods in monetary terms, id. at 1925–26. Allowing the transfer, but not sale, of such things avoids the complete commodification inevitable in a market while preserving the benefits of transfers, id. at 1932–33.

21. See, e.g., Slutsky v. City of N.Y., 97 N.Y.S.2d 238, 239 (Sup. Ct. 1950) (holding resort had no right to enjoin cloud seeding undertaken to induce rain for reducing drought in New York City).

22. Susan Rose-Ackerman proposes prohibiting sales in order to reduce strain on a resource. See Rose-Ackerman, supra note 1, at 942–43. Carol Rose suggests limiting access to the commons to the original users. See Rose, supra note 18, at 18–19. If these insiders are too numerous, however, both solutions lose their efficacy.

23. See Joseph L. Sax, The Public Trust Doctrine in Natural Resource Law: Effective Judicial Intervention, 68 MICH. L. REV. 471, 484–85 (1970) (listing three justifications for keeping some resources available to all on equal terms); see also U.S. CONST. art. IV, § 3, cl. 2 (Congress has power to regulate and "dispose of . . . Property belonging to the United States.").

24. See also United States v. Causby, 325 U.S. 261, 265 (1946) (Congress may declare "air is a public highway" but low approaches to airport may nonetheless constitute a taking); Hinman v. Pacific Air Transp., 84 F.2d 755, 758 (9th Cir. 1936) ("The owner of land owns as much of the space above him as he uses, but only so long as he uses it. All that lies beyond belongs to the world.").

25. See Richard L. Stroup & John A. Baden, Natural Resources: Bureaucratic Myths and Environmental Management 45–50 (1983) (comparing destructive Bureau of Land Management policies to environmentally astute management of marshland owned by Audubon Society). People in a system acclimated to property may act according to their recognized greater stake. Steinberg tacitly acknowledges this when he quotes a would-be purchaser of property on the moon: "It will really make me enjoy our lovely moon 10 times more if I know I own two acres up there" (p. 168).

26. See RESTATEMENT OF PROPERTY § 138 cmt. d (1936) (life estate holder has duty not to "remove for sale" minerals, timber, or other resources); see also Dukeminier & Krier, supra note 13, at 231–33 (discussing application of waste doctrine). Waste doctrine, however, revolves around maximizing the market value of an estate more than establishing a caretaker relationship between holder and the held. See Posner, supra note 12, at 73.
natural resources, entitling them only to reasonable use during life. This rule might preserve the petroleum wealth underneath the disputed shores of Six Mile Lake. The estate holder's obligation to preserve for future holders the same bundle—including oil—that came to her may thus create an ethos of stewardship and preservation, replacing incentives to despoil the environment.

Granting natural resources rights unto themselves might most please Steinberg. Rather than considering nature exclusively through a human lens—how best can humans use certain water; which person may control the weather for her benefit—we could ascribe to resources their own rights.

Each time a person appropriates a natural resource, a court could enjoin that taking or require compensation for the full value of the resource. Despite its moral illumination, this approach merely proposes to reallocate the right from one interested human to another.

Although Steinberg's examples capably support his claim that "not everything on earth is equally ownable" (p. 18), he fails to take the obligatory next step and suggest a method by which society may leave resources "unowned," while restraining people from using them unreasonably. Far more interesting would be the sequel in which he portrays innovative solutions to problems like those in Slide Mountain, solutions that both remedy the allocation problem and avoid his criticisms of commodification.

—Andrew Jackson Heimert