
ARTICLE

THE PROPERTY STRATEGY

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INTRODUCTION

My objective in this Article is to offer a description of property as an institution for organizing the use of resources in society. There are several strategies for deciding how valued things will be used, and by whom. “Might makes right” is one approach: we can let a strongman decide these questions. Bureaucratic governance is another: we can create a hierarchical organization and adopt rules and procedures for allocating resources. Group consensus is a third: questions about resource use can be resolved through meetings and discussion among those most closely involved.¹ The claim advanced here is that property is a distinctive strategy for determining how resources will be used and by whom. It is worth trying to figure out what differentiates it from other strategies for performing this function.

All organized human societies use the property strategy to one degree or another. Preliterate societies, with the possible exception of the most primitive hunter-gatherers, follow the property strategy with respect to certain resources, like tools, baskets, and crops. The most resolute communist states, such as Stalinist Russia or North Korea, give individuals unique rights to control certain resources, such as clothing and toothbrushes. Even within small and informally organized social groups like households, a version of the property strategy typically prevails with respect to certain objects such as toys, books, articles of clothing, and even bedrooms. My effort here is to unearth the common denominator that characterizes formal and informal uses of property in a wide range of social settings as a means of organizing the use of resources.

¹ These descriptions of alternatives are skeletal and are not meant to be exhaustive. With respect to bureaucratic governance, for example, what I principally have in mind are government bureaucracies, such as the Bureau of Land Management, state highway commissions, and municipal public housing authorities. Obviously, there are many other types of hierarchical organizations that manage resources, including business corporations and nonprofit organizations like universities. See generally HENRY HANSMANN, *THE OWNERSHIP OF ENTERPRISE* (1996). I do not explore the many distinctions among different hierarchical organizations here, nor do I deny that from the perspective of an organization, its assets are typically held as a form of private property. Group consensus also covers a variety of subtypes, ranging from preliterate hunting clans to Israeli kibbutzim to cooperative apartment houses.

Once we have uncovered the common denominator of the property strategy in its different manifestations over time and place, certain implications follow for the law of property. Property law is highly complex, and all of its details cannot be reduced to the elemental features of the property strategy. Nevertheless, the law of property builds upon and grows out of the property strategy. The features of the property strategy can be seen as the base of a pyramid, the upper reaches of which are occupied by highly refined and often arcane doctrines, such as the law of future interests, common-interest communities, patent and copyright law, and asset securitization. Rather than seeking to understand the institution of property by generalizing from one or more of these refined legal doctrines, I submit that a better approach is to consider what makes property work in its most elemental applications. We can then better understand the reasons for, and limits on, the property strategy that we find in the law of property.

I. THE BASIC ELEMENTS OF THE PROPERTY STRATEGY

The general form of the property relationship has long been recognized. Broadly speaking, the property strategy is one of decentralized control over resources. Specific resources are assigned to designated persons who have unique prerogatives in dealing with the resource relative to all other persons in the relevant normative community. As Huntington Cairns once wrote, “The property relation is triadic: ‘A owns B against C,’ where C represents all other individuals.”² Nonetheless, we can still ask what it means to “own” something. What does it mean to hold something “against” all other individuals? We can be more specific about each of the three components of this triadic relation: owner, object, and the concept of ownership.

Let us begin with the objects organized under the property strategy. The property strategy applies to “things”—discrete resources.³ To call something a “resource” is to indicate that it has value to people. It is something desired by human beings and it is scarce in that there is not enough to satisfy everyone’s desire for it. When things—such as mosquitoes—are not desired by human beings, they will not be governed by the property strategy. Or if something is valuable but so plenteous

² HUNTINGTON CAIRNS, *LAW AND THE SOCIAL SCIENCES* 59 (1935).

³ See Henry E. Smith, *Property as the Law of Things*, 125 HARV. L. REV. 1691, 1700-16 (2012) (discussing “the modularity of things and by extension the legal relations defined in terms of them”).

that there is no perceived scarcity—like oxygen in the air—it will not be governed by the property strategy.

The resource must also be discrete. There are many values that are not discrete or “thing-like” enough to qualify as objects of the property strategy. Some resources are too abstract to be regarded as discrete, such as ideas or cultural knowledge.⁴ Other values are too closely connected to persons to be regarded as discrete resources, such as an individual’s reputation⁵ or (perhaps) his or her body parts and fluids.⁶ The Takings Clause applies only to interferences with specific assets and not to reductions in net worth due to the imposition of general liabilities.⁷ An interesting question debated by contemporary English philosophers is whether something that has exchange value and nothing else, such as a bank account balance, should be regarded as “property.”⁸

Different societies recognize different resources as being eligible for treatment as property. Many primitive societies recognize property in tools, weapons, and foodstuffs, but not in land. Communist nations recognize property in personal possessions, but not in factories or apartment buildings. Western capitalist societies once recognized property in other persons, but slavery is now universally outlawed on moral grounds. There is significant variation among different countries today in the degree to which they enforce intellectual property rights. A variety of contingent social circumstances influence what is eligible for treatment as property, including the relative scarcity of the resource, limits imposed by the costs of delineating a resource so as to make it

⁴ Both ideas and cultural knowledge are excluded from intellectual property regimes. See, e.g., 17 U.S.C. § 102(b) (2006) (“In no case does copyright protection . . . extend to any idea, . . . concept, principle, or discovery . . .”); Russel L. Barsh, *Grounded Visions: Native American Conceptions of Landscapes and Ceremony*, 13 ST. THOMAS L. REV. 127, 141 (2000) (“[C]opyright only applies to *new* works by *individual* authors, not to old collective traditions, or ‘folklore.’”).

⁵ See *Bd. of Regents v. Roth*, 408 U.S. 564, 573-74 (1972) (discussing reputation as a liberty interest, not a property interest).

⁶ See *Moore v. Regents of the Univ. of Cal.*, 793 P.2d 479, 489 (Cal. 1990) (holding that spleen cells were not the property of the patient from whom they were extracted).

⁷ Thomas W. Merrill, *The Landscape of Constitutional Property*, 86 VA. L. REV. 885, 900-07, 974-78 (2000).

⁸ See J.W. HARRIS, PROPERTY AND JUSTICE 50-51 (1996) (discussing how “cashable rights” “are treated as property”); J.E. PENNER, THE IDEA OF PROPERTY IN LAW 129-32 (1997) (discussing choses in action, a category of property encompassing company shares, bank balances, debts, and other negotiable instruments).

discrete, and different political, cultural, and moral beliefs.⁹ The fact that the set of things eligible for treatment as property is socially contingent does not mean, however, that the basic triadic-relation characteristic of the property strategy is similarly contingent.

What, then, can we say about the subjects of the property strategy—those we call “owners”? The key to being an owner is having the capacity to manage discrete resources. In simple settings, owners are individuals—ordinary human beings. This is true in complex societies as well: all of us own property. The property strategy can also be implemented by conferring ownership on juridical persons, including family enterprises, partnerships, cooperatives, corporations, trusts, and nonprofit organizations. As long as an entity is organized in such a way as to allow it to manage discrete resources, it is eligible for the status of owner.

Because the property strategy requires that discrete resources have identifiable owners, open-access resources, whether described as “inherently public property” or the “common heritage of mankind,” remain outside the domain of the property strategy.¹⁰ Similarly, resources that are “fugacious” in their natural state, like wild animals, have traditionally been regarded as unowned until they are captured.¹¹

⁹ See Thomas W. Merrill, *Introduction: The Demsetz Thesis and the Evolution of Property Rights*, 31 J. LEGAL STUD. S331, S331 (2002) (“[P]roperty regimes are not static but change over time.”); see also Terry L. Anderson & P.J. Hill, *The Evolution of Property Rights: A Study of the American West*, 18 J.L. & ECON. 163, 164-68 (1975) (presenting “a theory of property rights evolution” expressed in terms of marginal benefits and costs).

¹⁰ See Carol Rose, *The Comedy of the Commons: Custom, Commerce, and Inherently Public Property*, 53 U. CHI. L. REV. 711, 723-30 (1986) (offering examples of and considering various rationales for open-access resources).

¹¹ See, e.g., *Missouri v. Holland*, 252 U.S. 416, 431, 434 (1920) (“[Missouri] alleges a pecuniary interest, as owner of the wild birds within its borders Wild birds are not in the possession of anyone; and possession is the beginning of ownership [T]omorrow [they] may be in another State and in a week a thousand miles away.”); *Pierson v. Post*, 3 Cai. 175, 178 (N.Y. Sup. Ct. 1805) (“The . . . authorities are decisive to shew, that mere pursuit, gave *Post* no legal right to the fox, but that he became the property of *Pierson*, who intercepted and killed him.”). A number of commentators have suggested that an open-access resource like a fishery can be regarded as a form of community property. See, e.g., Harold Demsetz, *Toward a Theory of Property Rights*, 57 AM. ECON. REV. 347, 354 (1967) (“Communal ownership means that the community denies to the state or to individual citizens the right to interfere with any person’s exercise of communally-owned rights.”). Community property presents an interesting borderline case because, insofar as the community excludes outsiders and is governed by a well-defined and enforced set of norms, it is not inappropriate to describe the community as a manager and, therefore, to regard the arrangement as falling within the property strategy. As exclusion of outsiders weakens and norms become contested, such

Here too, the resource has no manager in its natural state. Hence, it is not included in the property strategy. Other resources are declared to be open to all as a matter of policy, such as navigable waterways¹² or patents and copyrights that have expired and returned to the public domain.¹³ If management by a designated owner has been ruled out on policy grounds, the property strategy does not apply.

Just as with the set of “things” eligible for ownership, we also find considerable variability over time and space in terms of the identities of those who are eligible to serve as owners. In many primitive societies, men, but not women, can own property.¹⁴ In England and the United States, until the latter part of the nineteenth century, married women were severely restricted in their capacity to own property.¹⁵ Some legal systems recognize ownership by partnerships as entities and others do not; some recognize trusts as owners and others do not, and so forth. As is the case with the set of things eligible for ownership, these cultural and legal variations on who can serve as an owner do not detract from our general understanding of the nature of the triadic property relation, where the property strategy applies.

The crux of the property strategy lies in the concept of ownership—that is, in the nature of the prerogatives given to those called owners. Often these prerogatives are described in terms of the right to exclude others and correspond to a general duty imposed on others to desist from interfering with the object without its owner’s permission. As I have previously written, the owner’s right to exclude is a necessary

communities tend to look more like open-access regimes. The further a community-regulated resource falls toward the open-access end of the spectrum, the less plausible it is to regard it as being managed in any meaningful sense, and hence to regard it as following the property strategy. See generally Þráinn Eggertsson, *Open Access Versus Common Property*, in *PROPERTY RIGHTS: COOPERATION, CONFLICT, AND LAW* 73, 86 (Terry L. Anderson & Fred S. McChesney eds., 2003).

¹² See Joseph D. Kearney & Thomas W. Merrill, *The Origins of the American Public Trust Doctrine: What Really Happened in Illinois Central*, 71 U. CHI. L. REV. 799, 801-03 (2004).

¹³ See, e.g., *Golan v. Holder*, 132 S. Ct. 873, 882 (2012).

¹⁴ See, e.g., A.S. DIAMOND, *PRIMITIVE LAW PAST AND PRESENT* 82-83, 87 & n.3, 112 (1971) (noting that in ancient Babylonian law “the father of the family . . . [became] the legal owner of all its property,” in ancient Chinese law “the wife owned no . . . property,” and in ancient Indian law the wife also had no property (citations omitted)).

¹⁵ See generally Richard H. Chused, *Married Women’s Property Law: 1800–1850*, 71 GEO. L.J. 1359, 1384-412 (1983) (tracing the development of married women’s property acts in both England and the United States); Ben Griffin, *Class, Gender, and Liberalism in Parliament, 1868–1882: The Case of the Married Women’s Property Acts*, 46 HIST. J. 59, 62-83 (2003) (chronicling the reform in British law brought about by the Married Women’s Property Acts).

condition of identifying something as being property.¹⁶ Authors widely agree, at least with qualifications.¹⁷ Even some contemporary property “pluralists” agree that exclusion is an ever-present element in identifying something as property.¹⁸

Describing the prerogatives of ownership in terms of the right to exclude has the virtues of simplicity and vividness. It conjures up the image of the owner as a kind of mini-sovereign exercising absolute authority over her thing by repelling intruders and banishing unwanted freeloaders.¹⁹ But framing the critical set of attributes in terms of exclusion obscures the intuitive understanding of what ownership entails. When scholars claim that property is defined by the right to exclude, a chorus erupts: What about inclusion? What about the right of use? What about the power to “set the agenda” for the thing?²⁰ Must the owner’s rights be exclusive? What about co-ownership? What about obligations to the community? Rather than joust over whether exclusion entails other attributes, or whether it is or is not compatible with various qualifications, it is more profitable to specify the central characteristics of ownership with greater precision.

I contend that two prerogatives characterize ownership in all of its manifestations. The first is the recognition by other persons in the relevant normative community that the owner exercises *residual managerial authority* over the owned object. The second is the recognition by other persons in the relevant normative community that the owner enjoys *residual accessionary rights* with respect to the owned object.²¹ In

¹⁶ Thomas W. Merrill, *Property and the Right to Exclude*, 77 NEB. L. REV. 730, 731 (1998).

¹⁷ See, e.g., HARRIS, *supra* note 8, at 13 (stating that property in the primary sense consists of things which are “the subject of direct trespassory protection”); PENNER, *supra* note 8, at 71 (“[T]he right to property is a right to exclude others from things which is grounded in the interest we have in the use of things.” (emphasis omitted)); JEREMY WALDRON, *THE RIGHT TO PRIVATE PROPERTY* 39 (1988) (“The owner of a resource is simply the individual whose determination as to the use of the resource is taken as final . . .”).

¹⁸ See HANOCH DAGAN, *PROPERTY: VALUES AND INSTITUTIONS* 37 (2011) (conceding that “every property right involves *some* power to exclude others from doing something”).

¹⁹ See 2 WILLIAM BLACKSTONE, *COMMENTARIES* *2 (“[P]roperty [is] that sole and despotic dominion which one man claims and exercises over the external things of the world, in total exclusion of the right of any other individual in the universe.”); cf. Morris R. Cohen, *Property and Sovereignty*, 13 CORNELL L.Q. 8 (1927) (developing the analogy between ownership and sovereignty).

²⁰ See, e.g., Larissa Katz, *Exclusion and Exclusivity in Property Law*, 58 U. TORONTO L.J. 275, 278 (2008).

²¹ Something similar to my two prerogatives has been recognized by what is sometimes called the “property rights” theory of the business firm. According to this account,

other words, what is often loosely described as the “right to exclude” can be characterized with greater precision as twin rights of residual managerial authority and residual accessionary rights. Give someone the right to exclude the world from some thing, and, almost without exception, that person will have residual managerial authority and residual accessionary rights over the thing. The right to exclude is critical not for its own sake, but because it yields these two further attributes.²²

What do I mean by managerial authority? The concept is pretty straightforward. Start with an owner and a discrete resource. The owner is the manager of the resource. The owner has broad discretionary authority to decide who gets to enter or touch it, what it will be used for, what it looks like, and whether or to what extent it will be combined with other things in some larger enterprise. To exercise managerial authority is to be in charge of the resource and to have the last word about what will be done with it.

Notice, however, that I have described this aspect of ownership prerogative in terms of *residual* managerial authority, not simply managerial authority. Why the qualifier? It means that the discretionary authority of the manager is qualified by obligations that limit what the manager can do with the thing. The owner is in charge and has the last word, but this authority is residual because its exercise will nearly always be constrained in various ways.²³ Some of these constraints will be the product of explicit or implicit contractual agreements previously made by the owner. Some will come about because of prior conveyances of limited rights to others, such as easements and servitudes.

the owners of a business firm (the shareholders) have two key entitlements: the power to make residual control decisions and the right to receive residual financial flows. See PAUL MILGROM & JOHN ROBERTS, *ECONOMICS, ORGANIZATION AND MANAGEMENT* 288-93 (1992) (introducing the concepts of residual control and residual returns); Oliver Hart & John Moore, *Property Rights and the Nature of the Firm*, 98 J. POL. ECON. 1119, 1120-21 (1990) (same); see also Sanford J. Grossman & Oliver D. Hart, *The Costs and Benefits of Ownership: A Theory of Vertical and Lateral Integration*, 94 J. POL. ECON. 691, 716 (1986) (“Ownership is the purchase of . . . residual rights of control.”). Bob Ellickson has extended this analysis from the business firm to the household. See ROBERT C. ELLICKSON, *THE HOUSEHOLD: INFORMAL ORDER AROUND THE HEARTH* 60-64 (2008). My account extends this analysis further, with modifications, to property rights more generally.

²² For a more detailed economic model developing the thesis that the right to exclude confers residual control over an asset, see Hart & Moore, *supra* note 21, at 1125-31.

²³ Armen Alchian may have been the first to perceive this feature of the property strategy. He described property rights as “a method of assigning to particular individuals the ‘authority’ to select, for specific goods, any use from a nonprohibited class of uses.” ARMEN A. ALCHIAN, *ECONOMIC FORCES AT WORK* 130 (1977) (emphasis added).

Some are defined by common law duties, such as the law of nuisance. Some come about because of police power regulations or community norms.²⁴

Nevertheless, these qualifying obligations, however numerous, do not exhaust what can be done with the resource. Property is not just a long list of do's and don't's.²⁵ If it were, then we would no longer be operating under the property strategy. The property strategy requires that the obligations imposed on the owner be sufficiently limited in number and scope that we can comfortably say the owner has a wide—indeed, open-ended—set of options about what to do with the discrete resource.

Because the discretionary authority of the designated manager is residual, the strength of property rights varies significantly from one context to another, from one place to another, and from one legal system or society to another. The owner of an acre of land in rural Arkansas has more discretionary authority over the use of the land than does an owner of an acre of land in Manhattan. The discretionary authority of an owner of an iPad in the United States as to what applications, music, and video clips to load or erase on the device is greater than the discretionary authority of a similar owner in China.²⁶ But all of these owners still have significant residual management authority—enough so that we can comfortably say that they partake in the property strategy.

Less familiar may be the idea that the owner has residual accessory rights over the resource.²⁷ What does this mean? It means that

²⁴ What I am characterizing as “subtractions” from owner managerial authority can also be regarded as alternative methods of delineating property rights. See Henry E. Smith, *Exclusion Versus Governance: Two Strategies for Delineating Property Rights*, 31 J. LEGAL STUD. S453, S454-55 (2002) (arguing that property “rights fall on a spectrum between the poles of exclusion and governance,” and that in addition to the issue of who can exclude whom, we must attend to “a wide range of rules, from contractual provisions, to norms of proper use, to nuisance law and public environmental regulation” that limit the property right in question).

²⁵ See Thomas W. Merrill & Henry E. Smith, *What Happened to Property in Law and Economics?*, 111 YALE L.J. 357, 375-84 (2001) (criticizing the list-of-uses conception of property adopted in post-Coasean law and economics as “lead[ing] to an incomplete picture of property”).

²⁶ See, e.g., Sharon LaFraniere et al., *China Reins In Entertainment and Blogging*, N.Y. TIMES, Oct. 27, 2011, at A1 (discussing examples of Internet and media censorship in China); Edward Wong, *Beijing Imposes New Rules on Social Networking Sites*, N.Y. TIMES, Dec. 17, 2011, at A9 (same).

²⁷ For a discussion of the wide range and ubiquity of accessory rights, see Thomas W. Merrill, *Accession and Original Ownership*, 1 J. LEGAL ANALYSIS 459, 462-74 (2009).

as the value of the resource changes, the owner automatically captures this change in value—gain or loss. The property strategy requires that the owner—the person or entity who exercises residual managerial authority—also be the one who captures changes in the value of the thing over time. The concept of accessionary rights also means that ownership of a thing entails ownership of emergent resources that have a prominent connection to the thing. Ownership of land includes plants that grow on the land, ownership of animals includes offspring born to those animals, and so forth.²⁸ If new resources prominently connected to the original resource were up for grabs by the first taker, or were distributed in equal parts to everyone, or were systematically taxed away by the state, then we would have departed from the property strategy.

To illustrate, suppose I buy a funky painting at an art fair. If, years later, it turns out that the artist is regarded as a genius, I capture the gain in value of the painting. But if the painting is hardly worth the canvas on which it is painted, I suffer the loss. Or, suppose I own a mare, and the mare gives birth to a colt. Now, I own both the mare and the colt. The concept is familiar and intuitive, even if the phrase I am using to describe it—accessionary rights—may not be.

Of course, the accessionary gains and losses are also net of specific obligations, such as contractual obligations. Thus, accessionary rights are residual, just as management authority is residual. Indeed, some economists have defined property as residual claimancy, meaning that the owner is the one who gets the residual value after all other claims are satisfied.²⁹ Although this characterization is too narrow, since it leaves the critical element of residual managerial authority out of the picture, it highlights an equally important attribute of the property strategy—often overlooked—which I have called accessionary rights.

To recap, the property strategy is an institution for organizing the use of resources in society that has the following features: designated persons called owners are given residual management authority and residual accessionary rights over discrete resources. The set of persons eligible to serve as owners and the set of things regarded as discrete resources eligible for ownership vary from one society and one social setting to another. The size of the “residual” claim in both residual

²⁸ See, e.g., *id.* at 464-65; *infra* note 31 and accompanying text.

²⁹ See, e.g., YORAM BARZEL, *ECONOMIC ANALYSIS OF PROPERTY RIGHTS* 3-9 (2d ed. 1997).

management authority and residual accessionary rights also varies from one society and social setting to another. But the basic architecture of the strategy—owner, object, residual authority, and accessionary rights—is the same in all contexts and defines the property strategy relative to other strategies for organizing the use of resources.

II. SOME ILLUSTRATIONS

In order to make the previous discussion more concrete, it is helpful to consider some illustrations of the property strategy in disparate settings. This exercise will also help clarify the very broad range of applications that the property strategy permits.

A. *The American Family Farm*

There are any number of straightforward examples of the property strategy that will be familiar to persons living in modern capitalist economies. As a kind of archetypical example, consider a typical American family farm devoted to growing cash crops like corn and soybeans. The operation includes a number of discrete resources, most centrally arable land, but also buildings, machinery, and water wells. The owner, typically an individual or a married couple, is identified on the deed to the land, although the precise identity of the owner need not be widely known in the community as long as it is clear that the land is owned.

The owner clearly enjoys residual managerial authority over the use of the land and associated resources like buildings, machinery, and water wells. To be sure, the owner's discretion in managing these resources is constrained in a number of ways, including obligations to the government assumed as part of crop subsidy or soil bank programs, contractual obligations to seed companies, environmental regulations that control the use of pesticides and herbicides on the land, labor laws that regulate contracts with hired hands, the common law of nuisance, and social norms that prevail in the relevant community.³⁰ But,

³⁰ See TRIMBLE R. HEDGES, FARM MANAGEMENT DECISIONS 17-20, 91-94, 327-29, 528 (1963) (recognizing that farmers are subject to government regulation of pesticide use, the common law of property and contract, controls that accompany government subsidies, employment rules promulgated by regulatory agencies, and social customs); PENN STATE UNIV., COLL. OF AGRIC., THE FARM MANAGEMENT HANDBOOK 7 (George L. Greaser ed., 1991) (discussing farmers' contractual duties to parties who supply necessary inputs); G.F. WARREN, FARM MANAGEMENT 525 (1914) ("One's success is very largely controlled by the community.").

subject to these constraints, the owner enjoys broad residual discretion in determining what to plant, how much to plant, when to plant, when to apply fertilizers and weed and pest controls, when to harvest, what machinery to use in these operations, whether and whom to hire to assist in these operations, whether to store the harvest, when to sell, to whom to sell, and so forth.

Similarly, the owner also enjoys residual accessionary rights with respect to the land. In particular, the owner can claim the value of the crops that sprout and grow out of the land.³¹ Again, these accessionary rights are net of specific obligations. The owner may have to satisfy debts to banks for the purchase of the land and to various suppliers of machinery and seed; she may have to pay wages to hired hands who assisted in planting and tilling the crops.³² But, once these obligations are met, the owner will capture the residual gain (or loss) associated with the effort to make the resource yield a crop.

Thus we see in the example of the family farm all the elements of the property strategy: an owner, a discrete resource (actually, a number of discrete resources), and residual management authority and accessionary rights.

B. *Native American Tribes*

There is a common misconception that aboriginal societies either had no concept of property or regarded all resources as being held in common by the tribe or clan.³³ At least for more advanced hunter-gatherer and agricultural societies, this notion is almost certainly incorrect.³⁴ We know it is incorrect if only because of the well-documented

³¹ See Merrill, *supra* note 27, at 465.

³² See HEDGES, *supra* note 30, at 100-05, 505-08 (describing capital requirements and costs of farming, including costs of real estate, labor, machinery, and other inputs); WARREN, *supra* note 30, at 297 (recognizing obligations resulting from farmers' use of mortgages to finance their capital outlays); *id.* at 339-44 (describing obligations incurred to hired laborers); *id.* at 355-63 (discussing obligations inherent in owning, using, or renting machinery).

³³ See, e.g., JOHN LOCKE, TWO TREATISES OF GOVERNMENT 305 (Peter Laslett ed., Cambridge Univ. Press 1960) (1690) ("[T]he wild *Indian* . . . knows no Inclosure, and is still a Tenant in common . . ."); HENRY SUMNER MAINE, ANCIENT LAW 124-32 (Peter Smith ed., 1970) (1861) (conjecturing that private property evolved out of common or communal property).

³⁴ Extremely primitive hunter-gatherer clans may have had little sense of individual possession, in part because they put a premium on being able to travel light. See MARSHALL SAHLINS, STONE AGE ECONOMICS 9-14 (1972). Others have surveyed the anthropological understanding of property among more advanced preliterate societies.

and widespread practice of gift-giving in such societies.³⁵ One cannot offer an object as a gift to another unless they share the understanding that the object “belongs” to the giver and that the giver is transferring this control to the recipient. Thus, any society that engages in gift exchange recognizes at least some form of the property strategy.

Accounts of the practices of Native American tribes in precolonial times confirm that they followed the property strategy, at least as to some resources. William Cronon has offered a detailed account of the understanding of property among Native Americans in New England before the appearance of European settlers.³⁶ With respect to personal goods such as baskets, hoes, kettles, bows and arrows, and canoes, “ownership rights were clear: people owned what they made with their own hands.”³⁷ Sharing of personal property was common and “there was little sense either of accumulation or of exclusive use.”³⁸ Nevertheless, “every proprietor [knew] his own.”³⁹

With respect to land, Cronon tells us that Native American tribes had territorial claims to use particular tracts of land for certain purposes, such as hunting, fishing, or berry gathering.⁴⁰ These claims were in the nature of usufruct rights—rights to discrete things that last only as long as they are used—and often overlapped with claims of other tribes to use the same land for other purposes. Native Americans understood plots of land used for growing corn, however, as belonging exclusively to specific families. Individual family members—nearly always women—would till, plant, and harvest the land for periods of

See, e.g., Martin J. Bailey, *Approximate Optimality of Aboriginal Property Rights*, 35 J.L. & ECON. 183 (1992); *see also* MELVILLE J. HERSKOVITS, *ECONOMIC ANTHROPOLOGY* 350-70 (1952) (describing land tenure in various agricultural societies); E. ADAMSON HOEBEL, *THE LAW OF PRIMITIVE MAN* 46-63 (1954) (applying “fundamental legal concepts” to the study of the “law” of primitive societies).

³⁵ *See* MARCEL MAUSS, *THE GIFT: FORMS AND FUNCTIONS OF EXCHANGE IN ARCHAIC SOCIETIES* 17-45 (Ian Cunnison trans., 1954) (analyzing the history and function of gifts in primitive societies); SAHLINS, *supra* note 34, at 185-230 (describing the many facets of “exchange” in primitive societies); Richard A. Posner, *A Theory of Primitive Society, with Special Reference to Law*, 23 J.L. & ECON. 1, 16-19, 24-25 (1980) (same).

³⁶ WILLIAM CRONON, *CHANGES IN THE LAND: INDIANS, COLONISTS, AND THE ECOLOGY OF NEW ENGLAND* (1983).

³⁷ *Id.* at 61.

³⁸ *Id.*

³⁹ *Id.* (citation omitted) (internal quotation omitted).

⁴⁰ *See id.* at 63 (noting that English theories, under which agricultural use was a necessary condition of property ownership, could not accommodate Native Americans’ territorial claims to “clam banks, fishing ponds, berry-picking areas, [and] hunting lands”).

eight to ten years, until they abandoned it when soil nutrients gave out.⁴¹ The family would then lay claim to some other plot of land for purposes of growing corn, and would exercise exclusive control over that plot. Similarly, exclusive rights were recognized in territories where the tribes set traps for animals in the winter.⁴² In effect, whenever productive use of the land required a combination of investment, monitoring, and harvesting, something like the property strategy was recognized among the Native Americans as the mode of organizing the use of resources.⁴³

This pattern generally seems to hold for other aboriginal societies that have advanced beyond nomadic hunting. As Marshall Sahlins states with respect to usufruct rights to land in preliterate societies that engage in agriculture, “The producers determine on a day-to-day basis *how* the land shall be used. And to them falls the priority of appropriation and disposition of the product”⁴⁴ This is a succinct statement of the twin principles defining ownership under the property strategy: residual management authority and residual accessionary rights.

C. *The Household*

A much more unusual place to look for the property strategy is the household—the most common unit of social organization in which people sleep and share meals. Bob Ellickson has written an instructive book exploring the social structure of the household that is attentive to the manner in which resources are organized in these social units.⁴⁵ Within the household, a complex division of responsibilities typically prevails based on norms of reciprocity and gift exchange. Yet control over certain key household resources is invariably assigned to those who provide the capital needed to acquire them. Specifically, those who supply the capital to construct or purchase the physical structure in which the household resides are routinely afforded discretion in

⁴¹ *Id.* at 48.

⁴² *Id.* at 64.

⁴³ This, of course, is the central claim of Harold Demsetz in his famous article discussing the emergence of exclusive beaver-hunting territories after European traders created market demand for beaver pelts. Demsetz, *supra* note 11, at 352.

⁴⁴ SAHLINS, *supra* note 34, at 93; see also Robert C. Ellickson, *Property in Land*, 102 YALE L.J. 1315, 1399 (1993) (reporting a “‘universally applicable’ cultural rule that a crop is the private property of the individual, household, or narrow kinship line that has cultivated it” (citation omitted)).

⁴⁵ ELLICKSON, *supra* note 21.

determining whether to make major modifications or repairs to the structure.⁴⁶ This arrangement holds whether the structure is owned (typically subject to a mortgage) or rented. When the occupant owns the structure, the owner or the co-owners make decisions affecting the structure; when she rents it, the landlord makes these decisions.⁴⁷

More intriguingly, the internal organization of the household often entails the assignment of specific spaces—such as bedrooms, corners of rooms, or even particular chairs in rooms—to particular individuals. These assignments are often only implicit, yet they can give rise to “an informal entitlement.”⁴⁸ Imagine a suburban house with four bedrooms: one is assigned to mom and dad, a second to a twenty-something-year-old daughter who has returned home from college looking for work, a third to a teenage son, and a fourth to grandpa. It is not too far-fetched to see this kind of assignment of entitlements as an instance of the property strategy at work. Different members of the household have been given residual managerial authority and accessionary rights over different bedrooms. There may be household rules, such as “no smoking,” that constrain the residual managerial authority of each owner. But so long as these rules are satisfied, the bedroom assignees have residual discretion about how to decorate the room, whom to invite in for a chat, what music to play, and so forth. Each assignee also captures changes in value attributed to decorating choices and good or bad housekeeping. The application of the property strategy may be weak here, because the owners of the house (mom and dad) have the authority to switch to the “might makes right” strategy and reduce the sphere of residual authority on particular dimensions. But the same is potentially true under other applications of the property strategy. The tribal strongman or the state may also decide to prohibit certain uses of resources. Such a choice will reduce the scope of owner discretion, but will not mean that the object is no longer owned.

The point is that the property strategy is not limited to rights that enjoy the imprimatur of law or even of the customs of the relevant social unit, like the tribe or clan. It also operates inside households, business firms, schools and universities (think of faculty offices), and even on

⁴⁶ *Id.* at 64-75.

⁴⁷ *See id.* at 86-91 (“[E]ven during the rental period, the provisions of the lease are likely to limit a tenant’s control over . . . the physical condition of the premises . . .”).

⁴⁸ *Id.* at 118.

basketball courts.⁴⁹ As long as there is a discrete resource and someone who exercises residual management authority and residual accessionary rights with respect to the resource, the property strategy is at work.

III. NONNECESSARY FACILITATING FACTORS

The forgoing account of the property strategy omits certain features that figure prominently in other accounts of property. I have said nothing about the state. Nor have I mentioned the right to alienate (transfer) owned objects. My position is that neither the state nor the right of alienation is a necessary feature of the property strategy. They are highly useful; indeed, they can multiply the value of property many times over. But the property strategy can operate in societies that lack a formal system of government (like preliterate societies) or in informal settings (like households). And it can operate whether or not the resource is alienable.

A. *The Role of the State*

It is common to say that property is an institution created by the state. Indeed, a number of thinkers, including Jeremy Bentham most prominently, have said that there can be no property without the state.⁵⁰ Nevertheless, the examples offered in the previous Part—and scholarship about social norms more generally—suggest that this notion is not correct.⁵¹ It is possible to have a system in which designated persons have residual managerial authority and accessionary rights over discrete resources but in which the state and formal law play no role at all. The property strategy can also be sustained by social or even intra-familial norms.⁵²

⁴⁹ See Ellickson, *supra* note 44, at 1387 (describing conventions for allocating basketball court space when there are more players than space available).

⁵⁰ See 1 JEREMY BENTHAM, *THEORY OF LEGISLATION* 146-47 (Étienne Dumont ed., Charles Milner Atkinson trans., 1914) (1802) ("Property and law were born together, and would die together. Before the laws property did not exist; take away the laws, and property will be no more.").

⁵¹ See, e.g., JAMES M. ACHESON, *THE LOBSTER GANGS OF MAINE* 71-83 (1988) (documenting informal allocations of rights among lobster fishermen); ROBERT C. ELICKSON, *ORDER WITHOUT LAW: HOW NEIGHBORS SETTLE DISPUTES* 40-64 (1991) (documenting informal norms that control cattle-trespass disputes).

⁵² Alchian observed that property rights can be "supported by the force of etiquette, social custom, ostracism, and formal legally enacted laws." ALCHIAN, *supra* note 23, at 129.

The example of a household in which different members are assigned their own bedrooms illustrates this point. The assignment of rooms is not reflected in any formal deed or contract that could be enforced in a court of law. The property strategy here is created entirely by norms that evolve within one close-knit social group. The assignment of tools, weapons, canoes, and cornfields among Native Americans also demonstrates this point. Precolonial native tribes had no written laws and no formal institutions for resolving disputes or meting out punishments to miscreants.⁵³ The property strategy was sustained by longstanding social norms and reinforced by self-help, ostracism, and other social sanctions. For this reason, I have omitted any mention of the state from the basic description of the property strategy.

That said, it is undoubtedly true that the property strategy will be more effective if there is a state—provided the state wants to advance the property strategy. The state plays two roles under the property strategy. On the one hand, it can support the strategy by backstopping the owner. On the other, it can undermine the strategy by taking the owner's property without compensation or otherwise threatening the security of property rights.

The state can backstop the authority of the owner in a number of ways. For example, it can enact laws that forbid the destruction or theft of others' property, and it can institute a criminal justice system to charge and convict persons who break these laws. Further, the state can give owners civil remedies, such as the common law actions for trespass, nuisance, conversion, and replevin, which can be used to preserve owner control over discrete resources. Perhaps most importantly, the state can give owners the privilege to use self-help to deter and punish interferences with their property rights without fear of legal liability. Self-help is, in practice, the most important source of protection for owners, whether in the form of fences, locks, alarms, guards, or watchdogs.⁵⁴ If alienation of property is permitted, the state can help to define exchangeable forms of property, establish registries of

⁵³ See CRONON, *supra* note 36, at 59 (explaining that authority within New England tribes was based more on kin relations than on "more formal state institutions"); DIAMOND, *supra* note 14, at 202-03, 217-23 (recognizing the absence of written law among precolonial native tribes and noting that "there is no police, no one has jurisdiction and there is hardly any action by the community or any part of it to punish breaches").

⁵⁴ Consider the number of car thefts prevented by door locks, keyed ignition systems, burglar alarms, and Lojack systems relative to the number of criminal prosecutions or civil damages actions against car thieves.

rights, and enforce contracts exchanging rights. The basic point is that although state support is not a necessary condition of the property strategy, the stronger the state support given to owners, the more effective the property strategy will be.

Second, the state has a role in staying its own hand from interfering with the prerogatives of owners. We can call this role government forbearance.⁵⁵ This function can mean, for example, that the government makes a credible promise not to expropriate resources that have been allocated to a designated person, or at least to pay compensation to owners when it does expropriate.⁵⁶ But forbearance takes many other forms as well, including committing to make changes in the regulation of property prospectively rather than retroactively, giving owners hearing rights before seizing their resources for alleged violations of legal obligations, and establishing and maintaining a legal culture in which courts generally seek to protect the expectations of owners.⁵⁷

State backstopping and forbearance, like other variables we have surveyed, will differ from one time and place to another. If the government provides only a corrupt judicial system and operates like a bandit state—seeking to expropriate productive effort by citizens to enrich those who control the state apparatus⁵⁸—then the property strategy will be severely tested. It is unlikely that property will disappear altogether, because the property strategy is likely to persist in small group settings where it can be supported by social norms. But in extreme circumstances—such as those that prevailed in Stalinist Russia or Maoist China—a state committed to expropriation can significantly suppress the use of the property strategy.⁵⁹

⁵⁵ See THOMAS W. MERRILL & HENRY E. SMITH, *PROPERTY: PRINCIPLES AND POLICIES* ch. XI (2007) (discussing the varieties of government forbearance to promote security of property).

⁵⁶ See U.S. CONST. amend. V (“[N]or shall private property be taken for public use without just compensation.”).

⁵⁷ See MERRILL & SMITH, *supra* note 55, ch. XI.

⁵⁸ For the idea of a bandit state, see MANCUR OLSON, *POWER AND PROSPERITY: OUTGROWING COMMUNIST AND CAPITALIST DICTATORSHIPS* 10-11 (2000).

⁵⁹ See MAURICE J. MEISNER, *MAO'S CHINA AND AFTER* 420 (3d ed. 1999) (“[I]t was precisely the absence of private ownership of the means of production that came to crucially define Chinese society only a few years after the Communist victory of 1949.”); RICHARD PIPES, *RUSSIA UNDER THE BOLSHEVIK REGIME* 386-403 (1993) (“[L]ocal officials . . . felt at liberty to appropriate food, cattle, even clothing for their personal use. . . . The system operated on the absurd principle that the more the peasant produced the more would be taken from him . . .” (footnotes omitted)).

B. *The Right of Alienation*

We tend to associate property with alienability—the right to buy and sell discrete things and designate who takes them after their owners die. One old saw of Anglo-American property law is that absolute restraints on alienation are “repugnant to the [fee]” and are thus void as a matter of public policy.⁶⁰ But here, too, I do not believe that alienation is essential to the property strategy. When the property strategy is supported by social norms—as with the bedrooms in our example of the household—there is typically no right of alienation. Similarly, there have been many societies (e.g., the Native Americans) that have recognized only usufruct rights. As we have seen, these rights can be regarded as incorporating a version of the property strategy.

As in the case of state support, a robust right of alienation makes for a more effective property strategy. The power to alienate helps to solve a simple but serious problem: how do you replace the manager of a discrete resource when she is no longer doing an effective job? If resources are managed by a “might makes right system,” then a strongman can take away a weak or ineffectual manager’s resource and give it to someone else whom he thinks will be a better manager. If resources are managed by a bureaucracy, then higher-ups can fire an ineffectual manager, or at least reassign him to a different position. But the property strategy makes every manager a kind of sole proprietor—the manager is her own boss. How does one convince a sole proprietor that the time has come to resign?

Here the solution has generally been to rely on the right of alienation—to allow the manager to transfer the property to someone else. For the most part, this method of changing managers works reasonably well. If *A* believes that *B* is a poor manager, *A* can offer to buy the resource from *B* at a price that reflects *A*’s confidence about being able to extract more value from the resource than *B*. Often as not, *B* will implicitly agree with this assessment; at least, *B* will compare what *B* has been able to make of the resource with what *A* is offering, and will agree to the transfer if the deal with *A* is more advantageous. Over time, the system of voluntary alienation allows management authority over resources to be shifted around until they end up being managed

⁶⁰ *Potter v. Couch*, 141 U.S. 296, 315 (1891); accord JOHN CHIPMAN GRAY, *RESTRAINTS ON THE ALIENATION OF PROPERTY* § 105 (Boston, Boston Book Co., 2d ed. 1895).

by those who can extract the most value from them—those who can operate them most efficiently.⁶¹

Of course, selecting managers through alienation does not work perfectly. Some poor resource managers are delusional; others are very stubborn. Consequently, the system of assignment by alienation has been supplemented by other methods of changing managers that come into play in extreme circumstances. The doctrine of adverse possession is one such method. If the manager totally falls down on the job and disregards the resource for a significant period of time, someone else can take over and operate the resource in an open and notorious fashion for a specified period of time (usually multiple years), after which she will be declared the new manager by operation of law. Adverse possession can thus be seen as a method of firing owners in cases of extreme neglect of duties. Eminent domain is another such fallback method. If a manager stubbornly refuses to transfer his property to another person who is willing to pay a premium over the existing value based on a different contemplated use, or if a manager allows his property to become blighted, the government can condemn the property and force a transfer in return for just compensation.⁶²

The central point, however, is that the power of alienation, although useful in reassigning managerial rights to resources, is not a necessary condition of the property strategy. One can imagine a property strategy that makes managerial reassignments only when use ceases (the usufruct), upon death, by adverse possession, or eminent domain. I would readily concede that these systems would be handicapped relative to one that uses voluntary alienation to reassign managerial authority. But these systems would still partake of the property strategy in its general form.

⁶¹ See BLACKSTONE, *supra* note 19, at *9 (“[I]t was found, that what became inconvenient or useless to one man was highly convenient and useful to another Thus mutual convenience introduced commercial traffic, and the reciprocal transfer of property by sale, grant, or conveyance . . .”).

⁶² These sorts of compulsory exchanges of property typically go by the name “economic development” and are controversial. See generally Janice Nadler et al., *Government Takings of Private Property* (describing public attitudes toward economic development takings), in PUBLIC OPINION AND CONSTITUTIONAL CONTROVERSY 286 (Nathaniel Persily et al. eds., 2008).

IV. ADVANTAGES AND DISADVANTAGES OF THE PROPERTY STRATEGY

The property strategy has a number of powerful advantages, but it also presents some serious drawbacks. Our collective assessment of where to strike the balance between these strengths and weaknesses determines the extent to which we use the property strategy in organizing resources. Every society will strike the balance differently, and every society will likely strike the balance differently for different classes of resources.

A. *Advantages of the Property Strategy*

1. Local Knowledge

The first advantage of the property strategy derives from its reliance on decentralized management. The property strategy draws heavily on local knowledge about resources: where they are, what they are, what they are good for, and what sorts of practices or techniques will extract the most value from them. The aggregate of all local knowledge about resources greatly exceeds the knowledge that can be accumulated and meaningfully acted upon by any centralized institution, such as a strongman or a bureaucracy. This observation is a variant on Friedrich Hayek's famous argument for why market economies are more efficient, due to information costs, than centrally planned economies.⁶³ Modern economies require those engaged in industrial production to process vast amounts of information—about what to produce, who will produce it, in what amounts, of what quality, and so forth. The information is so vast and complex that no single organization can process and act upon it with any degree of accuracy.⁶⁴ Hence, centrally planned economies, such as that of North Korea, inevitably suffer from enormous inefficiencies, whereas market economies, such as that of South Korea, typically perform better because they rely on individualized decision-

⁶³ See F.A. Hayek, *The Use of Information in Society*, 35 AM. ECON. REV. 519, 526 (1945) (arguing that when knowledge of relevant facts is dispersed among many people, the pricing system will effectively coordinate economic activity); see also LUDWIG VON MISES, HUMAN ACTION: A TREATISE ON ECONOMICS 694-711 (Ludwig von Mises Inst. 1998) (1949) (arguing that human planning and cooperation are best optimized by a system that relies on the efforts of individual actors without centralized management).

⁶⁴ See MISES, *supra* note 63, at 694-711 (noting the informational failures of top-down resource management).

making by autonomous production facilities responding to signals sent by the pricing system.⁶⁵

The same point can be made about the property strategy with regard to the management of discrete resources. Any human society, from the most primitive to the most technologically advanced, faces a complex problem of how to regulate the management of discrete resources. Especially as the resources—such as individual tools and clothing—are utilized on a regular basis by particular persons, local knowledge about the resource will loom extremely large relative to the knowledge available to those with a more remote connection to the resource.⁶⁶ Thus, it is not surprising that every known human society has followed the property strategy with respect to things like tools and clothing.⁶⁷ Even North Korea recognizes private property rights in bicycles and shoes.⁶⁸

Similar considerations suggest that the ability to harness local knowledge under the property strategy will produce more efficient management of all types of discrete resources. Returning to the American farm, we might find that one portion of the land may be too hilly and rocky for crops, yet still suitable for grazing livestock. The owner of the farm is likely to understand this information, if only intuitively. If a government agriculture department made production decisions, by contrast, it is much less certain that such fine-grained distinctions would register. The department might decree that the entire farm must be used for growing crops, or that none of it could be put to this use—either way, an inevitable loss of production would result. Over time, as relative prices shift and the technology for terracing hilly land changes, the calculus for optimal land use may change. But the property strategy will always be informed by a detailed knowledge of the

⁶⁵ See *The World Factbook: Country Comparison :: GDP – Per Capita (PPP)*, CENT. INTELLIGENCE AGENCY, <https://www.cia.gov/library/publications/the-world-factbook/rankorder/2004rank.html> (last visited Apr. 15, 2012) (estimating that as of 2011, the GDP per capita of South Korea was \$31,700, whereas the GDP per capita of North Korea was \$1800).

⁶⁶ See *supra* note 63.

⁶⁷ See Edgar Bodenheimer, *The Case Against Natural Law Reassessed*, 17 STAN. L. REV. 39, 41-42 (1964) (chronicling the history of various natural and common law doctrines and noting that “private property in some articles of personal consumption, such as tools and clothing, is almost universally recognized”).

⁶⁸ BARBARA DEMICK, NOTHING TO ENVY: ORDINARY LIVES IN NORTH KOREA 14, 52 (2009).

different conditions that prevail on different portions of the farm and will thus have an edge in agricultural management.⁶⁹

2. Incentives to Maximize Value

A second major advantage of the property strategy is that it creates a powerful incentive for owners to work hard to obtain the highest value from resources. This incentive arises from the feature of the property strategy that assigns residual accessionary rights to the owner. The routine capture of all changes in value means that the owner automatically internalizes the benefits and costs associated with the exercise of his delegated managerial function. Decisions that expand or reduce output inure to the benefit or detriment of the owner. This means that the owner has a powerful incentive to manage the resource so as to maximize its value. The conventional way of describing this feature of the property strategy is that it allows the owner to “reap where [she] . . . has sown.”⁷⁰ Property encourages diligence, because the one making the effort will garner the fruits of her labor.⁷¹

Notice that the property strategy does not confer rewards on those who labor by asking in each case whether the one who has labored “deserves” to reap the reward. The property strategy proceeds, instead, by automatically allocating to the owner all gains and losses associated with the asset, whether they are deserved or not.⁷² This automatic accession principle nevertheless establishes the incentive structure that elicits the labor and effort from the owner, because she knows that whatever additional value she is able to create will be hers rather than someone else’s.

⁶⁹ Experience seems to confirm the superiority of the property strategy in the context of agriculture. See Ellickson, *supra* note 44, at 1331 (concluding from a variety of evidence that “family farming is ubiquitous” and that “collectivized agriculture almost always fails”).

⁷⁰ *Int’l News Serv. v. Associated Press*, 248 U.S. 215, 239-40 (1918).

⁷¹ This insight is old and familiar and can be found, for example, in the works of Blackstone and Bentham. See, e.g., BLACKSTONE, *supra* note 19, at *4, *7 (“It was clear that the earth would not produce her fruits in sufficient quantities, without the assistance of tillage: but who would be at the pains of tilling it, if another might watch an opportunity to seize upon it and enjoy the product of his industry, art, and labour?”); BENTHAM, *supra* note 50, at 196-208.

⁷² Merrill, *supra* note 27, at 459 (“[A]ccession can be seen as the critical legal principle that generates the internalization function of property, insofar as gains and losses attributable to the management of resources are automatically assigned to the most prominently connected property by accession.”).

Another way to think about this feature of the property strategy is that it functions like a giant profit-sharing plan—and a very generous one at that. Under the property strategy, the designated manager gets 100% of the profits associated with the manager's operation of the "profit center." It is common wisdom among those who study management that profit-sharing plans usually increase effort by managers.⁷³ So too with the property strategy. In contrast, organizations that manage resources with a strongman or bureaucratic strategy are notorious for shirking by the governed.

3. Scalability

A third and less-noted advantage of the property strategy is that it renders the management of resources "scalable," meaning that the size and complexity of managerial units can be adjusted up or down without redesigning the basic architecture of control.⁷⁴ The owner can add or subtract increments of resources and continue to exercise residual managerial authority and enjoy residual accessionary rights just as before, only on a different scale of operation. This arrangement is possible because each unit of property added or subtracted is subject to the same general principles of residual control and accessionary rights. Insofar as all relevant units are governed by the property strategy, each owner can adjust the scale of her operations up or down until she reaches her "comfort zone." If some units are governed by different strategies, like bureaucratic control, then scalability becomes more difficult.

The point can be illustrated by reference to the American family farm. Suppose the farm starts out as 160 acres, but, due to advances in farming technology, the efficient scale of operation requires a minimum of 320 acres. The owner can augment the original 160 acres by acquiring additional acreage in order to reach the more efficient scale. As she adds additional acres, they are automatically subject to the residual managerial authority and residual accessionary rights of the owner, just like the original 160 acres. The farmer can scale up the operation without changing the system of control or the incentive structure. Conversely, suppose the original farming operation consists

⁷³ See, e.g., Douglas L. Kruse, *Profit Sharing and Productivity: Microeconomic Evidence from the United States*, 102 *ECON. J.* 24, 29-36 (1992) (concluding that profit-sharing plans generally increase managerial effort).

⁷⁴ Smith, *supra* note 3, at 22.

of a mixture of cultivation of crops and raising livestock, but the owner decides that this type of operation involves excessive complexity and it would be more efficient to concentrate exclusively on growing crops. The owner can divest herself of livestock, and buildings and equipment designed for raising livestock in order to scale down the complexity of the operation to one solely devoted to crops. Again, the scal-scaling down can occur without any change in the system of control or incentives.

4. Avoiding Tragedies of the Commons

A fourth advantage of the property strategy is that it can overcome certain pathologies associated with open-access resources—the so-called “tragedy of the commons.”⁷⁵ If everyone is free to pursue resources—whether wild game, fish, roots, berries, or a corn crop—people may wastefully race to be first to capture the resource. An open-access commons may also lead to excessive or premature consumption of the resource and inadequate incentives to stock or cultivate the resource.⁷⁶ Eliminating the open-access character of a resource and substituting property rights is a promising way of eliminating these problems. Designating an owner for a portion of the resource, giving the owner residual management authority (i.e., the right to exclude others), and allowing the owner to capture the accessionary gains from his or her management activity will likely bring wasteful racing behavior to an end. Shifting to a property strategy will also help time consumption to achieve maximum sustainable yields and will create incentives to prudently restock and cultivate the resource.

Of course, the property strategy cannot solve all tragedies of the commons. Some resources, such as ocean fisheries, are too difficult to delineate in a cost-effective fashion.⁷⁷ And, as Elinor Ostrom has shown, there are a variety of regulatory measures, including many grounded in custom, that can mitigate tragedies of the commons in

⁷⁵ See generally Garrett Hardin, *The Tragedy of the Commons*, 162 SCIENCE 1243 (1968) (addressing the inherent problems in common-rights resource management in an increasingly overpopulated world).

⁷⁶ See Merrill, *supra* note 27, at 482-88 (discussing the pathologies associated with first possession rights) and accompanying text.

⁷⁷ See *id.* at 483, 484 & n.17 (noting the severity of the tragedy of the commons in ocean fishing).

lieu of the property strategy.⁷⁸ Still, and quite significantly, the property strategy is a tried and true device for overcoming tragedies of the commons.

5. Foundation for Exchange

Yet another advantage of the property strategy is that it creates the foundation for the exchange of rights. I have argued that alienability is not a necessary condition of having a property strategy.⁷⁹ But the converse is not true: it is not possible to have a system in which resources can be exchanged for value without first adopting the property strategy. Indeed, it is impossible to have a system that recognizes gift-giving, which we find in a great many preliterate societies, without first adopting the property strategy.⁸⁰ In order to make contracts for the exchange of resources, or to transfer resources from one person to another by gift, one must know who controls what resources. The property strategy answers these questions. By identifying the singular manager of each resource, the property strategy creates the condition that makes it possible for the exchange of resources to unfold.

The property strategy is a necessary condition for exchange to develop because it dramatically reduces transaction costs. It does so in two distinct ways, one internal and the other external. First, the property strategy lowers transaction costs internally by concentrating decision-making authority in a singular designated owner. As a general rule, the more people who must agree for any change to take place, the more difficult it is to reach agreement.⁸¹ As anyone who has chaired a consensus-seeking committee knows, reaching unanimous agreement takes a lot of time and a lot of compromising. The property strategy avoids these costs by giving the owner unilateral decision making authority over the disposition of the asset. It does not grant total control, of course—residual unilateral discretion is the more accurate characterization. Still, the property strategy lowers transaction costs because the owner can act without having to forge a consensus among multiple

⁷⁸ ELINOR OSTROM, *GOVERNING THE COMMONS: THE EVOLUTION OF INSTITUTIONS FOR COLLECTIVE ACTION* 8-23 (1990).

⁷⁹ See *supra* Section III.B.

⁸⁰ See *supra* note 35 and accompanying text.

⁸¹ See generally JAMES M. BUCHANAN & GORDON TULLOCK, *THE CALCULUS OF CONSENT: LOGICAL FOUNDATIONS OF CONSTITUTIONAL DEMOCRACY* 97-98, 111-12 (1965) (noting the higher costs of making a decision associated with supermajority or unanimity rules).

stakeholders.⁸² This cost differential is why resource management strategies that rely on bureaucratic control or group consensus are not likely to generate significant levels of exchange—at least, not officially sanctioned exchange.

Second, the property strategy reduces transaction costs externally, by increasing the number of potential transacting partners. This cost savings is a function of the decentralization of managerial authority inherent in the property strategy. If ownership is spread widely throughout the society, each owner has a very large set of potential partners with whom to engage in exchange. If one owner produces corn and wants to swap with another owner who grows wheat, then the first owner can potentially engage in exchange with multiple owners who produce wheat. This arrangement allows the owner to avoid the holdup problems associated with small-numbers bargaining. And, subject to constraints imposed by transportation and search costs, it allows the owner to strike the most advantageous exchange of rights.

When we combine these internal and external transaction cost-lowering features of the property strategy, we are well on our way to the general argument for the superior allocative efficiency of markets envisioned by Adam Smith and his intellectual descendants.⁸³

6. Checks and Balances

The property strategy also has advantages that are social and political rather than economic. One advantage is that it can help check and balance political power in a society. Because of its decentralized nature, the property strategy tends to disperse resources to large numbers of people in society rather than concentrating them in the hands of one strongman, state bureaucracy, or other collective decision-making body. This dispersion of resources also tends to diffuse power—although not perfectly, of course. Owning land or productive machinery does not translate directly into owning guns—or even exerting influence over those who have guns. Nevertheless, property ownership can be a source of countervailing power to that of the strongman, government, or others more generally.

⁸² See Henry Hansmann, *Condominium and Cooperative Housing: Transactional Efficiency, Tax Subsidies, and Tenure Choice*, 20 J. LEGAL STUD. 25, 34-37 (1991) (discussing the high costs of collective decisionmaking in common interest communities).

⁸³ See, e.g., I ADAM SMITH, AN INQUIRY INTO THE NATURE AND CAUSES OF THE WEALTH OF NATIONS 162-67 (Edwin Cannan ed., Univ. of Chi. Press 1976) (1776).

Checks and balances are vital to preserving liberty, and dispersed property ownership provides an important source of checks and balances.⁸⁴ For example, private ownership of resources allows political dissidents to organize opposition parties and distribute literature critical of the government.⁸⁵ It allows unpopular minorities to resist threats from the government.⁸⁶ By giving individuals control over resources, the property strategy also allows individuals to exercise more control over the direction of their lives outside the political sphere. The property strategy therefore supports the ideal of individual liberty.

7. Personhood

The final advantage of the property strategy is that it facilitates the full realization of personal goals and aspirations. As Margaret Radin has written, property is an integral aspect of personhood.⁸⁷ Although individuals should not be defined by their possessions, each person selects, shapes, and relies upon her possessions in determining who she is and what she seeks to achieve in life.

We should not get too carried away about the importance of particular objects, like books, rings, and family homes, to human flourishing. Human beings are adaptable creatures, and many unfortunate souls have lost all their property in wars and natural disasters and yet gone on to live fulfilling lives. Still, it is undoubtedly true that some degree of continuity in the objects we rely upon in our daily lives is critical to our development of plans and realization of goals for the future. As Erving Goffman has written, the first step in stripping persons who enter totalizing institutions like prisons and asylums of their identity is to take away all their personal property.⁸⁸ Thus, whether the individual is a hunter gathering his bow to pursue game, a cook returning to the kitchen to prepare a meal, or an author scanning her notes to write a

⁸⁴ See MILTON FRIEDMAN, *CAPITALISM AND FREEDOM* 15 (1962) (“The preservation of freedom requires the elimination of [the] concentration of power to the fullest possible extent and the dispersal and distribution of whatever power cannot be eliminated—a system of checks and balances.”).

⁸⁵ See Ellickson, *supra* note 44, at 1352-55 (“The private ownership of any valuable resource . . . can confer the economic independence that permits genuine political and social choice.”).

⁸⁶ See Charles A. Reich, *The New Property*, 73 *YALE L.J.* 733, 772 (1964) (“Like the Bill of Rights, property represents a general, long range protection of individual and private interests . . .”).

⁸⁷ Margaret Jane Radin, *Property and Personhood*, 34 *STAN. L. REV.* 957 (1982).

⁸⁸ ERVING GOFFMAN, *ASYLUMS* 18-21, 28, 48-49 (1961).

book, the ability to count on unquestioned managerial authority over particular objects is vital to the realization of a host of individual objectives. The critical role of property in shaping individual lives must therefore also be counted as an important advantage of the property strategy.

B. *Disadvantages of the Property Strategy*

Although the property strategy has been applauded for these positive functions, it also has negative attributes, which should not be ignored in any global assessment.

1. New Externalities

The property strategy entails dividing the world up into separate parcels of land or discrete objects of personal property, each with its individual owner. One advantage of this strategy, as we have seen, is that it eliminates certain kinds of externalities, notably those associated with commons tragedies. But the very process of carving up the world of resources into little boxes of ownership generates the preconditions for new externalities. By dividing the world into units of autonomous owner control, the property strategy creates a built-in incentive for owners to ignore aspects of their management that affect other units of autonomous owner control.

Externalities come in two varieties, negative and positive, and dividing the world of resources into discrete units of ownership can exacerbate both. Negative externalities are spillover effects from one human activity that have adverse consequences for other human activities.⁸⁹ Familiar examples are pollution and accidents. If *A* uses his land in a way that generates pollution, thereby harming his neighbor *B*, he has generated a negative externality. Or, if *C* allows his car to deteriorate into an unsafe condition, in which it poses a danger on the road to *D* and other drivers, he has created a negative externality. The very strategy of allowing owners to appropriate the gains from their property—the accessionary rights feature—creates an incentive to minimize the costs associated with managing the property. This incentive is especially great if the costs can be foisted on to someone else (i.e., the owners of some other property).

⁸⁹ See Daniel B. Kelly, *Strategic Spillovers*, 111 COLUM. L. REV. 1641, 1642-44, 1649-51 (2011) (defining and analyzing negative externalities).

Positive externalities, on the other hand, are spillover effects from one human activity that have a positive effect on other human activities.⁹⁰ They too can become a matter of concern under the property strategy. Here the worry is that the property strategy will generate too few positive externalities. For example, suppose I grow clover on my land and my neighbor keeps bees. If I plant one kind of clover rather than another, honey production next door will increase by fifty percent. But because my neighbor captures the benefit of increased honey production, I have little incentive to choose the more bee-friendly variety of clover. In this instance, the property strategy fails to provide a sufficient incentive for me to manage my land in a way that will benefit my neighbor.⁹¹

In short, by dividing resources into mine and thine, the property strategy solves some externality problems but also creates others. In order to address the new externalities created by the property strategy, it may be necessary to switch—at least in part—to some other system for organizing the use of resources, such as government oversight or community consensus.⁹²

2. Monopoly

Another concern about the property strategy is monopoly. Property, by its very nature, confers monopoly-like control on the designated owner with respect to the discrete resource. In this sense, every property right is a monopoly right. Ordinarily, this feature is of no concern. For example, each farmer has a monopoly on his own land. But if there are thousands of farmers producing a substantially identical commodity, like wheat, there will be vigorous competition among the farmers in the wheat market, and the monopoly each farmer has over his own production facilities will have no effect on the price that consumers must pay for wheat.

In other circumstances, however, granting property rights can create monopolies with troublesome social consequences. For example, if I own the only piece of land on which it is feasible to build a bridge

⁹⁰ See *id.* at 1649-50, 1716-17 (defining and analyzing positive externalities).

⁹¹ Of course, social norms or Coasean bargains may sometimes internalize these and other externalities. See Steven N.S. Cheung, *The Fable of the Bees: An Economic Investigation*, 16 J.L. & ECON. 11, 12-13 (1973) (explaining that beekeepers often contract with neighboring apple farmers).

⁹² Ellickson, *supra* note 44, at 1334-35 (discussing “large events” and the difficulty of regulating them under a private property regime).

across a river, I may have a monopoly on river-crossings, and, with it, the power to extract large tolls from the public for the privilege of using the bridge. Similarly, the award of patents or copyrights may allow the owners of these rights to extract large payments from the public if there are no good substitutes for what they have created.⁹³ This concern, therefore, suggests that the property strategy will become problematic insofar as the monopoly rights conferred by property coincide with a distinct market for particular goods or services. In these circumstances, it may be necessary to modify property rights by applying antitrust law or some other form of regulation.⁹⁴

3. Public Access Networks

No man is an island, and neither is his property. A world in which every resource was controlled by the property strategy would make travel, commerce, and human interaction very difficult. If rivers, or different segments of rivers, were privately owned, water transportation would be subject to the exclusion rights of river owners. As Ellickson puts it, "To make a trip, a traveller would have to bargain for a license of passage upon arrival at each private boundary. This long sequence of two-party transactions would entail grotesque transaction costs, impairing mobility."⁹⁵ The same is true of highways, streets, and, with the advent of air travel, navigable airspace.⁹⁶ Analogous points could be made about communications facilities like telephone lines and fiber optic cables for digital communications, as well as public utility lines transporting electricity, water, and natural gas. Paradoxically, private property must be interlaced with networks of open-access or public property if it is to work effectively as a strategy for managing resources.

Before the rise of the modern bureaucratic state, the need to preserve transportation and communication networks was recognized through a bevy of public rights doctrines that limited the scope or the

⁹³ See 1 HERBERT HOVENKAMP, *IP AND ANTITRUST: AN ANALYSIS OF ANTITRUST PRINCIPLES APPLIED TO INTELLECTUAL PROPERTY LAW* §§ 1.3, 4.2 (2002).

⁹⁴ For the potential of antitrust law to deal with such anticompetitive conduct, see *id.* § 1.3b.

⁹⁵ Ellickson, *supra* note 44, at 1382.

⁹⁶ See STUART BANNER, *WHO OWNS THE SKY?: THE STRUGGLE TO CONTROL AIRSPACE FROM THE WRIGHT BROTHERS ON* 291-93 (2008) (discussing the transaction cost problem associated with navigable airspace).

exclusivity of property rights.⁹⁷ The public trust doctrine, for example, precluded the transfer of control over navigable waterways into private hands. Doctrines of public dedication, public prescription, and customary rights assured that pathways used to move goods and people from one place to another could not be closed off. With the rise of the bureaucratic state, the dominant solution has become public ownership of public access networks. The government is said to own the navigable waterways, the streets and highways, and the navigable airspace.⁹⁸ It owns and licenses the “ether” in which broadcasting signals are sent.⁹⁹ It also regulates the terms of access and pricing of public utilities, such as those provided by electric, gas, landline telephone, and cable TV companies.¹⁰⁰

The property that the government owns or otherwise supplies for public access networks is either purchased or acquired by eminent domain. The government then manages its property either directly through government bureaucracies or indirectly through private bureaucracies operating under government supervision.¹⁰¹ The result is a Swiss-cheese pattern of ownership alternating between private and public property. Private property is much more valuable as a result, but this added value requires a significant compromise in the use of the property strategy.

4. Risk

By concentrating management authority and accessionary gains and losses in a singular owner, the property strategy magnifies incentives for innovation and hard work. But it also enhances the risk individual owners face if, for some reason, disaster befalls their particular resource. A crop can be wiped out by an insect infestation, or a patent can be rendered irrelevant by a competitor’s better invention.

⁹⁷ See Thomas W. Merrill, *Private Property and Public Rights* (surveying legal doctrines relating to public domain, public streets, highways, airspace, and public use takings), in RESEARCH HANDBOOK ON THE ECONOMICS OF PROPERTY LAW 75, 77-80 (Kenneth Ayotte & Henry E. Smith eds., 2011).

⁹⁸ See, e.g., *United States v. Causby*, 328 U.S. 256, 260-61 (1946) (“The air is a public highway, as Congress has declared Common sense revolts at the idea [of] private claims to the airspace . . .”).

⁹⁹ See 47 U.S.C. § 301 (2006) (declaring “the control of the United States over all channels of radio transmission”).

¹⁰⁰ See Merrill, *supra* note 97, at 85 (discussing public rights in the context of utilities).

¹⁰¹ See *id.* at 78-81.

It is reasonable to assume that most people want to hedge against risks that severely threaten their livelihoods. There are a variety of strategies for dealing with the risks that the property strategy creates for owners. In societies that lack a well-developed state, such as pre-literate societies or societies of settlers located in remote outposts, the risks associated with the property strategy may be so overwhelming that the society will decide to manage and share significant productive resources collectively. Group ownership, as Bob Ellickson has argued, “pools risk.”¹⁰²

The need for collective ownership to pool risk is much diminished today. In advanced capitalist societies, owners can buy insurance against casualty risks, and, if they have enough resources, they can diversify by holding a portfolio of different types of property located in different places. Additionally, government safety nets exist to cushion even the severest of misfortunes. In effect, the social welfare state substitutes for collective ownership as a means of reducing the risks associated with the property strategy. Of course, the taxes needed to fund the welfare state can also be seen as a qualification on the property strategy. In this respect, even advanced capitalist societies continue to recognize that risk is a disadvantage of the property strategy.

5. Inequality

A final concern about the property strategy is that it tends to promote inequality. Again, this concern is attributable to the feature of accessionary rights. Property, when well managed, tends to beget more property: as we have seen, the property strategy incorporates a generous profit-sharing plan in which the owner gets to keep one hundred percent of any gains in value attributable to the discrete resource. This feature is important because it creates an incentive for the owner to work hard to make the resource productive and valuable. However, not all gains in the value of resources are attributable to the skill and industry of the owner. Some will be due to rising market demand for resources generally; others will be due to sheer luck, such as when oil was discovered under the Clampett farm.¹⁰³ The portion that can be attributed to luck or general conditions of scarcity represents a kind of built-in multiplier, whereby those that have property get more property without regard to their individual effort or desert.

¹⁰² Ellickson, *supra* note 44, at 1341.

¹⁰³ See *THE BEVERLY HILLBILLIES* (20th Century Fox 1993).

Some would see the tendency for the property strategy to produce inequality as sufficient grounds to condemn the institution as a matter of distributive justice. Pierre-Joseph Proudhon thought that all property was theft,¹⁰⁴ and Karl Marx and Frederick Engels believed that the first step toward a more just society was the abolition of private property.¹⁰⁵ While most would not go that far, many still find property's tendency to generate inequality troubling.

There are also pragmatic reasons to worry about the inequality of resource ownership. Extreme inequality in the distribution of property undermines all the reasons previously advanced as strengths of the property strategy. If only a small number of people own property, then the property strategy loses its advantage of tapping into dispersed local knowledge. Further, incentives to be productive will exist for only a few, there will be no reduction in external transaction costs due to the presence of large numbers of potential partners for exchange, and the institution of property will offer little in the way of checks and balances against concentrated power. In other words, the tendency toward inequality should be disturbing to the friends of property, as well as to the more conventional egalitarians animated by considerations of distributive justice.

CONCLUSION

What conclusions can be drawn from this balance sheet of advantages and drawbacks? I suggest three.

First, nearly every human society is going to rely on the property strategy to some degree. There are simply too many resources, and local knowledge is too important in managing these resources, for the property strategy to be eliminated altogether.

Second, we are unlikely to see any society adopt an unadulterated property strategy for the management of all resources. Any society that adopts the property strategy will have to restrict the discretion of owners in ways that limit externalities, reduce the risk of monopolies, build public access networks, provide mechanisms to moderate the risks associated with property ownership, and slow the inherent gravitation toward

¹⁰⁴ PIERRE-JOSEPH PROUDHON, *WHAT IS PROPERTY?* 13 (Donald R. Kelly & Bonnie G. Smith eds. & trans., 1994) (1840).

¹⁰⁵ KARL MARX & FREDERICK ENGELS, *THE COMMUNIST MANIFESTO* 84 (John E. Toews ed., Bedford/St. Martin's 1999) (1848) (predicting that advanced countries would begin to see the abolition of property).

greater inequality. This reality means that owner discretion will be limited by a variety of police power regulations, antitrust and public utility laws, and systems of taxation and government redistribution.

Third, there is no reason to expect that the same balance between owner autonomy and regulation will be struck in the same way for every type of resource. Some resources are likely to present greater concerns about externalities, monopolies, public access, and inequality. Real property—land and buildings—undoubtedly presents larger collective concerns than do toothbrushes, for example. Thus, we should expect to find more rigorous public control of land and buildings than of toothbrushes.

The central point I have tried to make is that property is a distinctive institution for the organization of resources. This institution rests on a combination of dispersion and concentration of authority. Control over resources is dispersed across a large number of people. But discretionary authority is concentrated in a one-person, one-resource fashion. Dispersion allows us to tap into local knowledge and also provides the conditions for both market exchange and checks and balances on the exercise of power. At the same time, concentration produces powerful incentives for effort and investment, reduces the costs of exchange, makes it easier to hold persons accountable for externalities, and creates the stability needed for individual planning for the future. Understanding how the property strategy works is the first step toward making intelligent prescriptions for its proper deployment—and for appropriate limitations on its use.