II. How are Property Rights Established and Verified?

As explained in the preceding chapter, the clear delineation of property rights typically facilitates bargaining and voluntary exchange. If property rights are unclear, the parties have an incentive to bargain and clarify them. However, delineation and enforcement of property rights is costly. It is necessary, consequently, to balance the benefit from delineating property rights against the costs. In this section we consider how law strikes the balance.

A. Establishing Property Rights Over Fugitive Property: First Possession versus Tied Ownership

The problem of defining property rights seems straightforward for objects like land and houses, which have definite boundaries and stay put. But what about objects that move around or have indefinite boundaries, like natural gas or wild animals? "Fugitive property," as such things are called, creates a legal problem as illustrated by the case of *Hammonds v. Central Kentucky Natural Gas Co.*, 255 Ky. 685, 75 S.W.2d 204 (Court of Appeal of Kentucky, 1934). The Central Kentucky Natural Gas Company leased tracts of land above large deposits of natural gas. Some of the leased tracts were separated from one another by land that the company did not own or lease. The geological dome of natural gas from which the company drew its supply lay partially under the leased land and partially under unleased land. Hammonds owned 54 acres of land that lay above the geological dome tapped by the Central Kentucky Natural Gas Company, but she had not let the subsurface rights in her land to the company. When the Central Kentucky Natural Gas Company extracted natural gas and oil from the dome, she sued the company on the theory that some of the natural gas that was under her land had been wrongfully appropriated by the defendant.

It is difficult in this case, if not impossible, to identify which natural gas came from under unleased land and which came from under leased land. Two general principles can solve the problem of establishing ownership:

- 1. *First possession:* oil and gas are not the property of anyone until reduced to actual possession by extraction, or
- 2. *Tied ownership:* the owner of the surface has the exclusive right to subsurface deposits.

Under the first rule, the Central Kentucky Natural Gas Company was entitled to extract all the natural gas from the dome, regardless of whether it held the surface rights. But under the second rule, the Central Kentucky Natural Gas Company was only entitled to extract the natural gas under the ground that it owned or leased.

The consequences of these two rules for the efficient exploration and extraction of natural gas are very different. According to the first rule, fugitive oil or gas is not owned by anyone until someone possesses it, and the first person to possess it thereby becomes the owner. This rule can, consequently, be called the *rule of first possession*. The rule of first possession applies the legal maxim "first in time, first in right." This rule has been used to establish ownership rights for centuries. To illustrate, in the arid

American Southwest, state law allowed a person to obtain a right to water in a stream by being the first to tap it for use in mining or irrigation. (See the box entitled "Owning the Ocean" on page 156.) By now, there are few opportunities to claim unpossessed land or water, but the rule of first possession applies to important forms of intangible property, such as inventions.

A great advantage of the rule of first possession is that it focuses on a few simple facts, so it is relatively easy and cheap to apply. In the event of a dispute about ownership, determination of who first possessed the property in question is usually straightforward. For example, material evidence usually proves who tapped a water supply first. There is, however, an economic disadvantage of the rule of first possession: it creates an incentive for some people to preempt others by making uneconomic investments to obtain ownership of property. The reason why the rule of first possession creates an incentive to invest too much too early is easily explained. According to the rule of first possession, an appropriate investment transfers the ownership of a resource to the investor. The owner of a scarce resource can rent it to others. Rent increases as a resource becomes more scarce. Indeed, rent is the scarcity value of the resource. Under the rule of first possession, an investment thus yields two types of benefits to the investor: (1) production (more is produced from existing resources), and (2) future rent (scarcity value of the resource in the future).

To illustrate, assume that the law allows a person to acquire ownership of "waste" land by fencing it. Fencing land increases its productivity from, say, grazing cattle on it. By assumption, fencing the land also transfers ownership to the person who built the fence. Assume that fencing waste land costs more than the profit from grazing cattle on it at current prices, but everyone expects the use value of the land to increase as population grows in the future. Investors may build useless fences to "preempt" others and secure title to the land.

Preemptive investment illustrates a general economic principle applicable to the rule of first possession. When the state awards property rights, people contest vigorously to obtain title. In a contest for title, persons try to get ownership rights transferred to themselves. Economic efficiency, however, concerns the *production* of wealth, not the *transfer* of it. Investments for the sake of transferring wealth, not producing it, are socially inefficient.

In technical terms, social efficiency requires investors to invest in a resource until the marginal cost equals the marginal increase in productive value. The rule of first possession causes people to invest in a resource until the marginal cost equals the marginal value of the sum of increased production *plus* transferred ownership. The transfer effect under the rule of first possession thus causes over-investment in the activities that the law defines as necessary to obtain legal possession. It is in the self-interest of investors, but not in the interests of social efficiency, to improve property in order to transfer ownership.

To illustrate, consider the Homestead Act of 1862 in the United States, which established rules allowing private citizens to acquire up to 160 acres of public lands in the West. The act required claimants to fulfill certain requirements before they acquired title. For example, the claimant had to file an affidavit swearing that he or she was either the head of a family or 21 years old, and that the claim was "for the purpose of actual settlement and cultivation, and not, either directly or indirectly, for the use or benefit of any other person or persons whomsoever." Moreover, before full title

was acquired for \$1.25 per acre, the claimant had to reside on the claim for 6 months and make "suitable" improvements on the land. These requirements were meant to minimize transfer effects and to encourage production. In practice, however, the requirements were fleetingly enforced (as was usually the case with the residence requirement) and easily evaded (as when "suitable" improvements consisted of placing miniature houses—really large doll houses—on the claim). The occupation and development of the American frontier occurred at a faster pace than competitive markets or a strictly enforced Homestead Act would have produced.

In contrast to the rule of first possession, there is no gap in ownership under the second rule for fugitive gas, according to which all the gas under the ground already belongs to the people who own the surface. By extension, the second rule suggests that wild animals belong to the owners of some piece of land, such as the land where the wild animal was born. Ownership of fish and other marine resources should perhaps be tied to ownership of the ocean floor. In general, the second rule, called the *rule oftied ownership*, ties ownership of fugitive property to settled property.

The common and civil law often tie ownership by applying the principle of *accession*. According to this principle, a new thing is owned by the owner of the proximate or prominent property. Thus, a newborn calf belongs to the owner of the mother cow, new land created by a shift in a river belongs to the owner of the river's bank; the owner of a brand name has an exclusive right to use it in an Internet domain name; the owner of copyright has an exclusive right to adapt the work to another medium; an owner of an apartment also owns any fixtures that a tenant attaches to the walls; a new business opportunity discovered by a corporate employee in the course of work belongs to the corporation; and a carpenter who unknowingly uses someone else's wood to make a barrel owns it (but he must pay restitution to the wood's owner).³³

Tying ownership of fugitive property to settled property avoids preemptive investment so long as the ownership claims in the resource to which the fugitive property is tied are already established. To illustrate, all the gas is already owned under the second rule because all the surface rights are already owned, so the rule does not provide an incentive to acquire ownership by extracting too much gas too soon. Similarly, if salmon were the property of the people who own the streams where they spawn, the owners would not deplete the salmon by catching too many of them.

The problem with the second rule, as illustrated by the facts in *Hammonds*, is the difficulty of establishing and verifying ownership rights. The homogeneity of natural gas and its dispersion in caverns makes proving its original underground location difficult and costly.

Our analysis of fugitive resources reveals a common trade-off in property law:

Rules that tie ownership to possession have the advantage of being easy to administer and the disadvantage of providing incentives for uneconomic investment in possessory acts, whereas rules that allow ownership without possession have the advantage of avoiding preemptive investment and the disadvantage of being costly to administer.

³³ Thomas A. Merrill, "Establishing Ownership: First Possession versus Accession." Berkeley Law and Economics Workshop (26 February 2007).

Choosing the more efficient rule in a case such as *Hammonds* requires balancing the incentive to overinvest under the rule of first possession against the cost of administering and enforcing ownership without possession. (Besides first possession and tied possession, other ways of allocating initial rights include auctions, lotteries, and preferences based on attributes such as needs, accomplishments, ethnicity, and gender.)

B. When to Privatize Open-Access Resources: Congestion versus Boundary Maintenance

We have discussed various examples from history of unowned resources that become private property. *When* do unowned resources become owned? Economics suggests an answer.

The rule of first possession often applies when property is owned in common and accessible to the public. Property that is accessible for use by a broad public is called an *open access resource*. To illustrate, the seas are common property to which the public has access. In many cases, the fish and mammals in the sea can be owned by whoever catches them. Consequently, fish and marine mammals have been hunted far

³⁴ Cal. R. 175, 2 Am. Dec. 264 (Supreme Court of New York, 1805).

beyond the economic level, some to the brink of extinction. Similarly, in much of the world, common hunting land is over-hunted, common pasture land is over-grazed, and public forests are over-harvested. Much of the world's soil erosion and forest depletion is caused by the open-access rule.

Some technical terms follow to help explain the economic irrationality of the situation. The "maximum sustainable yield" is the largest yield sustainable in the long run. To maximize the yield, the application of labor and capital must expand until the marginal products of labor and capital are zero. All of the world's major fisheries are currently fished beyond the maximum sustainable yield, which means that the marginal product of labor and capital is negative. In these circumstances, the catch on the fisheries would increase simply by making less effort and reducing expenditures on labor and capital. Similarly, the yield on many open-access forests would increase by investing less effort and cutting fewer trees, and the yield on many open-access pastures would increase by investing less effort and keeping fewer animals. Overused fisheries, forests, and pastures are analogous to a factory with so many workers that they get in each others' way and slow each other down, so the factory's total product would increase merely by reducing its total employment. Nothing could be more irrational than assigning people to work at jobs with negative productivity.

Preventing overuse of common resources involves controlling use by means other than the open-access rule. Tied ownership is one method. For example, to prevent overgrazing of common pastures, small communities in Iceland traditionally tied access to common pastures to production on private pastures. Specifically, farmers were allowed to graze animals in the common, high lands in the summer according to a formula based on the number of animals each farmer sustained in the winter from hay grown on private pastures in low lands. ³⁵

Another method to prevent overuse is *privatization*, which means in this context converting from public to private ownership. To illustrate, many people could homestead land, fish in the sea, or gather coral from reefs. In contrast, a private owner can exclude others from using his or her resource. Granting private property rights over land, whales, or elephants would close access by limiting it to the owner. Thus, homesteading land converts it from public to private ownership; some salmon streams have been converted to private ownership; and some villages have been given ownership of coral reefs.

The conversion from common ownership to private ownership involves this tradeoff: A rule of open access causes over-use of a resource, whereas private property rights require costly exclusion of non-owners. This formulation suggests when an economically rational society will change the rule of law for a resource from open access to private ownership. When the resource is uncongested and boundary maintenance is expensive, open access is cheaper than private ownership. As time passes, however, congestion may increase, and the technology of boundary maintenance may improve. Eventually, a point may be reached where private ownership is cheaper than open

³⁵ See T. Eggertsson, Analyzing Institutional Successes and Failures: A Millennium of Common Mountain Pastures in Iceland, 12 Intn'l. Rev. Law & Econ. 423 (1992).

access. An economically rational society will privatize a resource at the point in time where boundary maintenance costs less than the waste from overuse of the resource.³⁶

This theory makes definite predictions about privatization. For example, it predicts that the invention of barbed wire, which lowered the cost of boundary maintenance in areas where there were few fencing materials, would promote the privatization of public lands in the American West. As another example, it predicts that property rights will be created in the electromagnetic spectrum when broadcasters begin to interfere with each other. The predictions of this theory are confirmed by some facts and disconfirmed by others. Apparently, societies are often rational, as the theory assumes, but not perfectly rational. Politics leads to bargains and compromises that violate the requirements of economic efficiency. For examples of these compromises, read the box entitled "Owning the Ocean."



Owning the Ocean

Water covers 70 percent of the Earth's surface in the form of oceans; yet, almost all of that vast amount of water is unaffected by well-defined property rights. In the late sixteenth and early seventeenth centuries, the great voyages of discovery and the resulting sea-borne empires in Europe necessitated internationally accepted rules on rights to use the ocean. These rights were first catalogued in the famous *Mare Liberum* of Hugo Grotius of Holland. He noted that the "sea, since it is as incapable of being seized as the air, cannot have been attached to the pos- sessions of any particular nation." In the system that Grotius suggested and that prevailed in international law for nearly 300 years, each nation was to have exclusive rights to the use of the ocean within three miles of its shoreline, with that area to be called the "territorial seas." (The three-mile distance was not picked at random; it was the distance that an early seventeenth-century cannonball could carry.) Beyond the three-mile limit, Grotius urged that the "high seas" should be a common resource from which none, save pirates, could legitimately be excluded.

Increasing use of the high seas in the early and mid-nineteenth century led to the replacement of the doctrine of "free use" with that of "reasonable use." After World War II, the increasing importance of shipping, fishing, offshore oil and gas deposits, and seabed min- ing caused the legal system of ocean rights to crumble. In 1945 President Truman announced that the United States' exclusive rights to subaqueous organic resources—such as oil and nat- ural gas—extended to the edge of the continental shelf or margin, an area that stretched 200 miles from the Atlantic Coast of the United States. Other nations quickly made similar claims. Unlike these unilateral actions, attempts at international cooperation have achieved mixed results.

³⁶ This is the central point made by Harold Demsetz in *Toward a Theory of Property Rights*, 57 Am. Econ. Rev. 347 (1967). He argues, for example, that American Indians did not establish property rights in land when the costs of administering the rules exceeded the benefits from private ownership. Proceeding along these lines, he tries to explain why certain North American Indian tribes, such as those in the Northeast, whose principal economic activity was trapping animals for their fur, developed a notion of property rights and others, such as the Plains Indians, whose principal resource was the migratory buffalo, did not. The extent to which his arguments can be squared with history or anthropology is still open to question.

To illustrate, when the third United Nations Convention on the Law of the Sea (UNCLOS) convened in 1973, there was widespread agreement that the territorial sea would be established at the 12-mile limit and that there should be an "exclusive economic zone," largely but not completely controlled by the coastal state, stretching to 200 miles beyond the shoreline, the general extent of the continental shelf.

There was not general agreement on what to do with property rights to the areas be-yond this 200-mile limit, and it was the disposition of these areas that raised the really hard issues. The developed countries urged a private-property-rights-based system of develop- ment, whereas the developing countries offered a common-property-rights system. In the end a compromise, called the *parallel system*, was agreed on. There would be both private development and a UN-funded and UN-operated company, called the "Enterprise." In order to give the Enterprise the ability to compete with the more advanced countries of the developed world, an International Seabed Authority (ISA) would be created to allocate rights to mine the oceans. The conference specified an ingenious variant of the "I cut, you choose" method of cake-cutting in order to allocate mining rights. Before it could begin operation, a private or state organization had to submit to the ISA two prospective sites of operations. The Authority would then choose one of those sites for later development by the Enterprise and allow the applicant to proceed with the mining of the other.

The United States refused to sign the final treaty, although 117 countries eventually signed it in December, 1982. Over time, the U.S. objections to the missing provisions of UNCLOS III have faded or been proven unfounded. The treaty went into effect in 1994. The U.S. has signed the treaty, but Congress has not ratified it.

In what ways do these historical developments respond to efficiency, and to what extent do they respond to political power and distribution?

Water has always been one of the most valuable natural resources, but because it tends to run away, there have always been problems in defining and assigning property rights in water. Centuries ago in England, the general rule was that rights were vested in the "riparian owner," that is, in the person who owned the land on the bank of the river. The riparian owner's principal right was to a flow of water past his land. It would be a violation of someone else's rights for an upstream user to use the water that passed by his property in such a way as to reduce the flow to downstream users. The upstream user could not, therefore, divert so much of the water to his own use that the flow was significantly diminished for those downstream. A riparian was restricted in his ability to sell water to nonriparians (that is, people who do not own land along the water).

However, in the nineteenth century, this legal arrangement had to be altered because industrial demand on the natural flow of a river frequently exceeded the supply. In the eastern United States, these issues were resolved by elaborating the natural-flow theory of water rights that had been adopted from the English common law. An alternative theory of water rights appeared in the western United States. Under the *reasonable-use theory*, the riparian owner is entitled to use the water flow in any reasonable way. It was

deemed reasonable for one owner to use all of the water in a stream or lake when others are making no use of it. Under the reasonable-use theory, a riparian owner does not have a right to the natural water flow. Furthermore, a riparian owner may transfer rights to nonriparians.

C. Recording and Transferring Title: Verification Costs versus Registration Costs

Branding cattle, stamping a serial number on an automobile engine, stenciling a Social Security number on a TV—these are some ways that private persons try to prove their ownership of valuable goods. In addition to these private remedies, the state sometimes provides registries of ownership. Thus, trademarks are registered to avoid duplication or overlap. Brand inspectors employed by the state or private companies may police violations. Despite these devices, people sometimes "buy" goods that were not the seller's to sell. This section concerns verifying ownership and remedies when a good is "sold" without the owner's permission.

Suppose you decide to fulfill a lifelong dream and buy a farm. You find a parcel in the country that you like and approach the farmer who is living there. After discussing the parcel's boundaries, fertility, and drainage, the farmer offers to sell the land at an attractive price. You shake hands to seal the agreement. The next week you return with a check, hand it over to the farmer, and shortly thereafter move onto the property. Two weeks later, a man knocks at the cottage door, announces that he is the owner of the property, and explains that he has come to evict the nefarious tenant who rented the cottage in which you are living. At this point you recall the joke that begins: "Hey buddy, how would you like to buy the Brooklyn Bridge?"

When you buy property, you should ascertain the rightful owner and deal with him or her. A reliable and inexpensive method for determining ownership prevents fraudulent conveyances, such as tenants representing themselves as owners. There are various ways to create a record of ownership. Consider the story—presumably apocryphal—of "recording" title in England in the Middle Ages, when few people could read. It is said that the seller handed the buyer a clod of turf and a twig from the property in a ceremony before witnesses known as *livery of seisin*. Then, the adults thrashed a child who had witnessed the passing of turf and twig severely enough so that the child would remember that day as long as he or she lived, thus creating a living record of the transfer.

Fortunately, we now have better methods of recording title in land. In the United States, there is no uniform method of land registration,³⁷ but each of the fifty states has some system for the public recording of title to land. A change in ownership of real

³⁷ There is an alternative land registration system, known as the *Torrens system*, after Sir Richard Torrens, who introduced this simplified mechanism into South Australia in 1858, and that system or something like it is in use in many parts of the world. In the Torrens system, the state operates a registry and a title insur- ance fund. Defects in title caused by the state record-keeper are compensated from the insurance fund. Several of the United States tried the Torrens system, but every one of them has abandoned the system, because incompetent bookkeeping caused such a drain on the state-operated title insurance funds that the funds went bankrupt. (See Sheldon Kurtz & Herbert Hovenkamp, American Property Law 1151–1244 [1987].)

property must be recorded in an official registry of deeds, such as the county recorder's office. Recording is a formal process, and the records are open to the public. The record of ownership on file usually contains a formal description of the property's location, a list of restrictions that apply to the property, and an account of who has owned the property at each point in time.

While a system of recording title is maintained for land and a few other valuable items, like automobiles, there is no such system for most goods. In most exchanges the buyer does not devote resources to determining whether the seller truly owns what he or she is selling. For example, you rarely question whether the books you purchase at the bookstore were rightly the bookstore's to sell. Your presumption is that whoever possesses a book rightfully owns it. Further proof of ownership is in the memory of witnesses to the sale, like the child in the medieval example, or perhaps in a written sales contract. A system of recording the ownership of books would burden commerce and impede the efficient movement of goods.

The security of major contracts is strengthened by a system of official witnesses to the event. Official witnesses, called "notaries," record the event in an official document and fix their seal to it. Some U.S. states license many notaries, so their fees are low. At the other extreme, some countries like Italy restrict notaries to specialized lawyers who pass difficult exams, perform complicated services far beyond witnessing a document, and enjoy high monopoly profits, especially in real estate transactions.

We have encountered another trade-off in property law. On the one hand, verifying title by formal means, such as recording the transfer of a deed, reduces the uncertainties that burden commerce. On the other hand, the verification of title through formal means is costly. Property law thus has to develop rules that *balance the impediments to commerce created by uncertain ownership against the cost of maintaining a system of verification*. For costly items like houses and cars, the law reduces the uncertainties that burden commerce by providing a system for recording title, and the law typically forces all sales through the recording process by refusing to protect unrecorded transactions in these items. For small transactions, however, the cost of maintaining a system of verification would exceed the benefit from reduced risk. ³⁸

D. Can a Thief Give Good Title?

Let us consider how people respond to laws allocating the responsibility to verify ownership. Imagine that you have made a shrewd deal for the purchase of a television from a person whom you met in the parking lot outside a local bar. The seller told you a tale about his urgent need to raise cash by selling his TV and handed it over from the trunk of his car. One evening while you are enjoying your new television, the police arrive at your apartment with the person from whom the TV was stolen. Should the law allow you to keep the TV or require you to return it? This example poses the general question: if a good is stolen from owner A by thief B, and B disappears with the money after selling the good to innocent buyer C, does the good belong to A or C?

³⁸ You should recognize that this argument in favor of a system of recordation of ownership claims is a general instance of the Normative Coase Theorem of the last chapter.

This figure depicts the facts:



This question is answered differently in different jurisdictions. According to the rule in America, transferors can usually convey only those property rights that they legitimately have. Thus, a person without title cannot convey title to a purchaser. ³⁹ In this example, the thief did not have good title to the television, so he could not give you good title to it. Instead, title rests with the person from whom the TV was stolen. According to the American rule, you must return the television set to its owner. You are entitled to recover your money from the thief (technically, the thief breached his warranty of title), if the thief is caught and has money.

A different rule prevails in much of Europe, where the buyer acquires title by purchasing the good "in good faith." The good-faith requirement means that the buyer must genuinely believe that the seller owns the good. The good-faith requirement prevents a "fence" of stolen goods from hiding behind the law. The law may also require the buyer to make reasonable efforts to verify ownership, such as checking that the serial number was not filed off the television. Applied to this example, the European law presumably permits you to keep the television. The original owner may recover your money from the thief, if possible.

In general, law must allocate the risk that stolen goods will be bought in good faith. The American rule places the entire risk on the buyer, whereas the European rule places that risk on the original owner. The American rule gives buyers an extra incentive to verify that the seller is truly the owner. The European rule gives owners an extra incentive to protect their property against theft. One of these rules is more efficient in the sense of imposing a lower burden on commerce and promoting the voluntary exchange of property.

Which rule is it? Here is a method for finding out. Let C_o indicate the lowest cost to the original owner of protecting against theft by, say, engraving his or her Social Security number on the object. Let C_B indicate the lowest cost to the purchaser of verifying that the seller is the owner by, say, confirming this fact with the party from whom the seller originally obtained the good. For the sake of efficient incentives, liability

³⁹ This is true as a generalization, but there are important exceptions. For example, if a thief steals money and uses it to buy goods from a merchant, the original owner of the money cannot recover the money from the merchant. A thief can convey good title to money. Moreover, the *Uniform Commercial Code* allows regular dealers in goods sometimes to give *better* title than they got. Thus, if a television store happens to have taken possession of and sold a stolen television, the buyer is entitled to presume that the dealer had good title to the television. Any liability to the true owner of the television lies with the dealer. Can you suggest an economic reason why this is a sensible rule?

⁴⁰ Our simplification of the European rule omits nuances in civil law. Thus, rule §935 of the *German Code of Civil Law* distinguishes an owner who lost possession of a movable good voluntarily as opposed to involuntarily. An owner who lost possession involuntarily has a relatively strong claim against a good faith purchaser of it.

should fall on the party who can verify ownership at least cost. Thus, the efficiency of the competing rules may be determined as follows:

- 1. If it is generally true that $C_o < C_B$, then it is more efficient for the good- faith buyer to acquire good title against the original owner.
- 2. If it is generally true that $C_o > C_B$, then it is more efficient for the original owner to retain title against the good-faith buyer.

Unfortunately, the absence of empirical evidence about the values of C_o and C_B prevents us from answering decisively whether one rule is better than the other. Indeed, the lack of evidence also prevents different countries from identifying the more efficient rule and adopting it. However, the example of Spain suggests what is probably the best approach. In Spain, the "American Rule" typically applies when the thief steals the good from a household and sells to a merchant. In other words, a Spanish merchant cannot get good title from a thief. Merchants who buy from a thief encourage thievery by making it more profitable. The Spanish practice of applying the American Rule to merchants who buy from thieves discourages merchants from "fencing" stolen goods, thus reducing the profitability of theft. In Spain, however, the "European Rule" that a buyer can acquire good title from a thief typically applies when the thief steals the good from a merchant and sells it to another merchant or a household. Thus, the Spanish practice increases the ease with which goods circulate among merchants in commerce and passes to the final consumer.⁴¹

E. Breaks in the Chain of Title

Uncertain ownership burdens commerce and causes deep discounting of the value of an asset by prospective purchasers. Consequently, economic efficiency requires clearing away uncertainties, or "clouds," from the title to property. This section briefly examines how property law removes the clouds that accumulate over titles.

1. Adverse Possession In the preceding chapter we discussed an example in which Joe Potatoes unwillingly built his house so that two feet of it extended over the property line onto Fred Parsley's lot. Recall that Parsley did not discover the trespass and sue until 10 years had passed. Has Potatoes acquired any right to the part of Parsley's property that he has occupied? According to Anglo-American law, he may have. If the owner "sleeps on his rights," allowing trespass to age, the trespasser may acquire ownership of the property.

The relevant legal doctrine is *adverse possession*. The phrase refers to the fact that a trespasser's possession of the land is adverse to the owner's interest. ⁴² Someone can

⁴¹ C. Paz-Ares, Seguridad Jurica y Seguridad del Trafico, Rev. de Derecho Mercantil 7–40 (1985).

⁴² It is also possible to acquire an easement by adverse use of another's property. For example, someone who habitually cuts across someone's property without protest by the owner may acquire the right to continue cutting across the property.

acquire ownership of another's property by occupying it for a period of time specified in a statute, provided the occupation is adverse to the owner's interests, and the original owner does not protest or take legal action.⁴³

The economic advantage of adverse possession is that it clears the clouds from title and allows property to move to higher-valuing users. To illustrate, assume that you want to buy a house that was built in 1910 and sold in the years 1925, 1937, and 1963. Your search of title reveals a confusion in the legal records about whether the sale in 1937 was legal. However, the current owner has resided on the property since 1963 without a legal challenge. The law for this jurisdiction stipulates that adverse possession for 25 years transfers ownership to the trespasser. The adverse-possession statute and the current owner's unchallenged occupancy since 1963 have thus removed the cloud from the title dating to 1937. In general, a rule for acquiring title by adverse possession lowers the cost of establishing rightful ownership claims by removing the risk that ownership will be disputed on the basis of the distant past.

Another efficiency justification for adverse possession was emphasized in the past: adverse possession prevents valuable resources from being left idle for long periods of time by specifying procedures for a productive user to take title from an unproductive user. Under such a rule, persons who neglect to monitor their property boundaries run the risk of losing idle parts of them to someone who makes use of them. In this respect the rule tends to move property from idleness to productive use. Sometimes squatters have acquired land from absentee owners through adverse possession. In the American West, settlers historically acquired much Indian land through adverse possession. The settlers viewed themselves as putting the land to a higher use, whereas the Indians viewed the settlers as thieves.

Besides the two types of economic benefit, adverse possession has a cost. The cost is that owners must actively monitor their land to eject trespassers who might otherwise become owners through adverse possession. Without adverse-possession statutes, owners might reduce monitoring costs and more trespassers would enjoy using other people's land.

⁴³ To be precise, traditional scholarship distinguishes four conditions that adverse possession must satisfy:

^{1.} The adverse possessor must have actually entered the contested property and have assumed exclusive possession.

^{2.} That possession must be "open and notorious." This phrase means that the trespass must not be done in secret; an alert owner should be able to detect it.

^{3.} The trespasser's possession must be adverse or hostile and under a "claim of right." This condition requires the trespass to be inconsistent with the owner's use rights and against the owner's interests.

^{4.} Finally, the trespass must be continuous for a statutorily specified period. Some states in the American West also require the adverse possessor to pay property taxes for a statutorily specified period before acquiring title. See Lawrence Friedman, A History of American Law 360–361 (2d ed. 1985). Note that these conditions do not inquire into the intentions of the adverse possessor. Despite this, there is evidence that courts are more likely to apply the adverse-possession rule when the trespass is accidental. See Richard Helmholz, Adverse Possession and Subjective Intent, 61 Wash. U. L. Q. 331 (1983).

2. Estray Statutes Suppose that while strolling down an alley in Manhattan you stumble over a brown paper bag. Opening the bag, you find that it contains a diamond brooch. Naturally, you would like to claim it for your own. But clearly someone has lost it. Are you entitled to keep it if the owner does not demand it back after a reasonable period of time? Are you obligated to make efforts to locate the owner, say, by advertising in the paper? Who owns property that has been abandoned, lost, or mislaid? *Estray statutes* answer these questions.

A typical estray statute in the United States stipulates a procedure for the finder to acquire ownership of lost or abandoned property. If the property exceeds a stipulated value, the finder may have to appear before a court official and sign a document concerning the facts about the property found. The court official then places an advertisement concerning the found item. If the owner does not appear to claim it within a stipulated time period (for example, one year), the finder becomes the owner. A finder who keeps the item without complying with the statute is subject to a fine.

Like registering title, estray statutes discourage the theft of property. Given an estray statute, a thief who is caught with another's property cannot avoid liability by claiming that he or she found it. ("Where did you get that watch?" Sherlock asked the suspect. "It fell off the back of a truck," he replied.) Thus, an estray statute helps to distinguish a good-faith finder from a thief. Like adverse-possession rules, estray statutes tend to clear the clouds from title and transfer property to productive users. Like adverse-possession rules, estray statutes also provide an incentive for owners to monitor their property. Finally, estray statutes induce the dissemination of information by finders and thus reduce the search costs of owners who lose or mislay their property.