Commons, Titles and Rent

Note: “Barnes” refers to Peter Barnes’ *Capitalism 3.0*. “Harris” refers to *Environmental and Natural Resource Economics* by Jonathan Harris*; Ostrom refers to writing by Elinor Ostrom, including *Governing the Commons* (see my notes) and her article on “Sustainable Socio-Economic Systems.”

I. Commons

A. Definition

A commons is a resource shared by a group of humans. Barnes defines it “all the gifts we inherit or create together.” (p 4) A commons has a physical location and sometimes also a time slot. It may be small and local, such as a spring of water, or global, like the atmosphere. Sometimes a boundary is fuzzy, like the boundary of a fishing ground; and sometimes it is sharp, like the boundary of a political jurisdiction. Humans have fought many wars over boundaries.

B. Historical Commons

In English and US history, the Commons referred to land shared by small farmers, normally used for grazing cows or other farm animals. The Boston Commons, and Sheep Meadow in New York’s Central Park are relicts of such common land. In England farmers or peasants typically did not “own” their plots; rather the plots were also part of the commons, allocated to individual farmers by the local lord of the manor, by village elders or by tradition.

C. Commons for this Course, Ostrom, Harris, Barnes

In 2009, Elinor Ostrom won the Nobel Prize in economics for the ideas first laid out in her book, *Governing the Commons: The Evolution of Institutions for Collective Action* (1990). (See my notes in Cleveland_Ostrom_Governing_the_Commons.pdf.) Ostrom uses the term “**common pool resource**” or CPR for “a natural or man-made resource system that is sufficiently large as to make it costly (but not impossible) to exclude potential beneficiaries.” Note her key qualification, that potential beneficiaries can—with difficulty—be excluded from CPR’s. CPR’s include coastal fisheries, pastures and forests, and water supplies such as irrigation projects. CPR’s are pretty much equivalent to historical commons.

Harris uses the term **common-property resource**, defined as “a resource not subject to private ownership and available to all, such as a public park or the oceans” (p 477). He omits Ostrom’s qualification, which, as we will see, can make a big difference.

Barnes defines commons much more broadly than Ostrom or Harris. He divides commons into three categories: **Nature**, **Community** and **Culture**. See diagram p. 5. I will follow Barnes in the attached Catalog of Commons.

D. Land and Natural Capital

Barnes “Nature” category corresponds to what Adam Smith, David Ricardo and other classical economists referred to as “land,” that is, all resources outside those produced by

* I used Harris as a text in 2008. It’s a good introductory environmental economics textbook, with a mild ecological economics orientation.

humans. In neo-classical economics, land has become confused with “farmland” and dismissed as unimportant. (If you believe that, try buying a lot in midtown Manhattan!) More recently, land has come back in the form of “**natural capital**,” defined by Harris as “the available endowment of land and resources including air, water, soil, forests, fisheries, minerals, and ecological life-support systems” (p484). But sometimes Harris slips back into using land in the classical sense.

II. Titles

A. Definition

Titles or **property rights** are contracts between government and individuals, corporations or other units of government. (Corporations are just organized property holders.) Government creates, defines and enforces these titles. Titles give their holders certain rights to common resources, and impose certain obligations and limitations. The archetypical title is title to land—which gives owners rights to certain activities in a specified physical area subject to certain obligations, such as paying taxes.

Titles to land probably go back to the first agricultural societies. By 3000 BC, in ancient Mesopotamia (in modern Iraq), land titles were documented in thousands of clay tablets written in Akkadian, an early Semitic language.

In a primitive society, titles are minimal, and “government” is just the tribal council. Perhaps the chief has the right to pitch his tent on the high spot. An agrarian or fishing society, such as those Ostrom describes, may have elaborate rules allocating rights to common land or fishing spots. In modern societies, important titles are recorded in an official location, and may run to many pages of legalese. Some titles last indefinitely, such as titles to land; others last as briefly as two hours on a parking meter. Some titles are secure, like the title to my house; others are nebulous like the homeless guy’s “right” to sleep every night on the chairs in front of the church next door. Some titles, such as broadcast licenses, taxi medallions or patents, may be bought and sold. Others, such as professional licenses, attach to individuals and die with them. See Table of Commons and Titles, below.

B. Justification of titles

Officially, titles serve to ration access to scarce resources. Titles provide security for investors, whether in improving farmland or building skyscrapers on city land. In *The Mystery of Capital: Why Capitalism Triumphs in the West and Fails Everywhere Else* (2000), Peruvian economist Hernando de Soto argues that granting title to land will cure third world poverty. Arthur Young (1741-1820), English agriculturist and economist wrote the famous epigrams:

"The magic of property turns sand to gold."

"Give a man the secure possession of a bleak rock, and he will turn it into a garden; give him a nine years' lease of a garden, and he will convert it into a desert."

C. Origin of titles

Titles often have dubious origins, suggesting the official purpose is often more post-hoc rationalization than well-designed policy. Title origins fall into two basic categories: Power and Priority.

1. Power.

Most occupied land in the world today was originally conquered by force. No matter how far back we go in history, we see the charismatic warrior invading a territory and parceling out the lands among his troops, who become the new nobility—until the next invader hits town. Even the American Indians, displaced by the colonialists, had mostly conquered their land from earlier Indians. In our modern era, conquerors operate more subtly, trading earmarks for campaign contributions. But it comes down to the same thing, using government power, backed by physical force, to obtain valuable contracts. For example the latest farm bill grants the greatest benefits to agribusiness corporations.

2. Priority.

First come first served. Grandfathering. Primogeniture. Squatter's rights. Priority offers a handy rule for resolving title in murky situations. The Russians recently planted a flag on the sea floor at the North Pole, a first step to asserting claims to minerals below the melting ice. Manufacturers gain rights to dump waste in the air or water by polluting first. Likewise, airports gain noise rights. Broadcast companies who obtained the first radio and TV licenses thereby gained an inside track on additional pieces of spectrum. We give patents to inventors because they got there first—or at least got there first with their patent attorneys, as did notorious patent-grabber Thomas Edison.

Even in the common pool resource (CPR) systems described by Ostrom, priority usually plays a major role. For example, when ground water pumpers in Los Angeles agreed to cut back to the sustainable capacity of the underground basins, they cut back in proportion to prior use—which included heavy pumping just to establish a claim!

D. The Enclosures

In the 17th and 18th centuries, with the connivance of local authorities, entrepreneurial landlords in England began to fence off or "enclose" common lands to raise sheep for the wool cloth trade. Sometimes the peasants received small compensation; more often, they were driven out and sometimes killed when they resisted. In turn, displaced peasants provided labor for the growing Industrial Revolution factories. See Barnes Chp. 2. "Enclosure" became a term for turning common land into private property. The Classical economists used the blunter term "appropriation." Today we say "privatization."

E. Conditions on titles

In at least tacit admission of their origin as a grant from society, titles come with strings attached. Ancient lords had to provide their rulers with a certain number of armed knights or, among the Athenians and Vikings, a certain number of ships. Modern holders of land titles must pay property taxes, and obey zoning and nuisance laws. The government may confiscate their titles for public works under eminent domain, or for criminal offenses like growing pot. Broadcasters originally were obliged to provide a certain amount of public service programming, (which they usually did in the middle of the night). Now political candidates must pay millions for minutes of air time. Patents and copyrights run out eventually, although legal tricks and friends in Congress may help prolong their lives.

III. Rent

A. *Definition*

Rent or **economic rent**. The classical economists recognized that generic landlords—holders of titles to land and other natural resources—received "rent": a payment for the mere fact of ownership, that is, **unearned income**. Rent was often called "economic rent" to distinguish it from ordinary rent, such as we might pay to Avis for use of a car. Classical economist John Stuart Mill wrote that landlords "grow richer, as it were in their sleep, without working, risking, or economizing."

Today, economic rent is usually defined as **income above the cost of production**. That means it is a **surplus**, something for nothing. Since titles have no cost of production, by this definition all net income or net benefit from titles is unearned. For this course, **rent means unearned income accruing to holders of titles**.

B. *Treatment in textbooks*

With the disappearance of land from neoclassical economics, economic rent has pretty much dropped out too. But there's a trivial exception: textbooks portray high-earning individuals, typically sports stars like Michael Jordan or Tiger Woods, as earning economic rent because allegedly part of their extraordinary income is "unearned." Economic rent also survives in the term "rent-seeking behavior" applied typically to lobbyists and others seeking special favors from government. In Ostrom it appears in the term "rent-dissipation" for what happens in poorly managed common pool resources.

In micro economic textbooks, rent appears on supply and demand diagrams renamed as "consumer surplus" and "producer surplus." Consumer surplus is the difference between what consumers would pay for something and what they actually pay. Producer surplus is the difference between what a producer receives for a product and what it cost to produce. Consumer and producer surplus are something for nothing; ultimately they add to rent attached to underlying titles, like ownership of land in a particular location. But you'd never know that from a textbook. Macroeconomic textbooks omit rent altogether. Altogether, neoclassical economics has air-brushed rent from the economic picture. (See my notes, Cleveland_1._Demand_and_Supply.pdf.)

C. *Ricardo and Rent as Differential Above the Margin*

In 1817, Classical economist David Ricardo (1772-1823) published his famous book, *Principles of Political Economy and Taxation* (available on line at www.econlib.org/library/Ricardo/ricP.html.) In Chapter 2, he addresses the "creation of rent" arising from "the appropriation of land." He explains rent as a **differential above the margin**, using an example from agriculture. That means that the amount of rent a parcel of land can earn is determined by how much better it is than land that just barely covers costs of cultivation. For example, imagine an acre of land that earns $1000 dollars growing wheat and a nearby more fertile acre that earns $1500. If it costs $1000 to cultivate the first acre, then that land is **marginal**. It earns nothing. Assuming the same cultivation costs, the second acre earns $1500 - $1000 = $500. That $500 is a differential above the margin. It is economic rent, sometimes called Ricardian rent after Ricardo.

Ricardo also linked the increase of rent to economic growth. He writes:

> If all land…were unlimited in quantity, and uniform in quality, no charge could be made for its use, unless where it possessed peculiar advantages of situation. It is only, then, because land is not unlimited in quantity and uniform in quality, and because, in the progress of population, land of an inferior quality, or less advantageously situated, is called into cultivation, that rent is ever paid for the use of it. When, in the progress of society, land of the second degree of fertility is taken in cultivation, rent immediately commences on that of the first quality, and the amount of that rent will depend on the difference in the quality of these two portions of land." Chp 2 Parag 4.

We will meet Ricardo again in studying international trade.

D. Rent in National Income

The earliest estimate of US national income, prepared in 1915 by an economist called Wilford I. King, did include crude estimates of economic rent. King intended to show that rent was small and therefore not worth taxing. He was responding to the followers of the American activist and economist Henry George (1839-1897) who argued that all taxes should be imposed on rent. By the time the US National Income and Product Accounts (NIPA) got underway in the 1930s, economic rent had dropped out altogether. The NIPA do report ordinary rent, paid from tenant to landlord, a relatively small number. But most economic rent is either buried in profit or not counted at all, since the NIPA do not include reported capital gains, let alone try to estimate unreported capital gains. I have seen estimates of economic rent ranging up to 40% of national income; however it is difficult to pin numbers down given that the US Government does not collect or does not report key data. (For example, income tax data is "top coded." That is data from rich tax filers is lumped together, so researchers cannot separate millionaires from billionaires.)

E. Rent-seeking

Rent-seeking drives much of politics, as well as most wars. The Classical economists knew this very well. Most modern economists know it too, but largely address it in the context of so-called "game theory."

IV. Externalities

A. Definitions

Entities sharing a commons impose **externalities** when the actions of one affect another outside a market transactions. Externalities may be beneficial: if I fix up my house, our neighborhood improves. Externalities may be harmful, as when a factory pollutes a river.

Externalities may be one-sided or mutual. The polluting factory is one-sided. Mutual externalities occur when fishers reduce the stock of fish available to other fishers, or herdsmen graze common pastures. Ostrom's work concerns mostly mutual externalities.

B. Garrett Hardin (1915-2003) and the Tragedy of the Commons

In his 1968 essay, Garrett Hardin coined this memorable term for the supposed inevitable consequences of shared resources. (See "Tragedy of the Commons by Garrett Hardin.doc.) He gives an example of herdsmen, each of whom gains from adding another animal to a shared pasture while the degradation caused spreads over the whole pasture. Eventually the herdsmen, each pursuing his own gain, "destroy" the pasture. As Hardin puts it, "Ruin is the destination toward which all men rush, each pursuing his own best interest in a society that believes in the freedom of the commons. Freedom in a commons brings ruin to all." Hardin intended the tragedy of the commons as a metaphor for overpopulation. As he put it, "No technical solution can rescue us from the misery of overpopulation. Freedom to breed will bring ruin to all." Salvation, if any, lies in strict government control.

There are two problems with Hardin's analysis. First a truly open commons—that is, an open-access resource—is rare; Hardin reportedly later said he should have entitled his essay "The Tragedy of the Unregulated Commons." Ostrom's common pool resource is the more usual condition. Second, even in the case of a true open-access resource, the degradation will generally proceed only to the point of completely dissipating economic rent, that is, rendering the commons **marginal**. (However, in some cases that means reducing stocks, say of cod, below the level at which the population can easily recover.)

C. Externalities and the Coase Theorem

Long before Hardin, economists and others recognized that actions of one entity can indirectly spill over onto another, beneficially or harmfully. In the early 20th Century, British economist A.C. Pigou proposed that such "externalities" could be encouraged or mitigated by taxes. The herdsmen in Hardin's example all impose negative externalities on one another.

In a famous 1960 article, "The Problem of Social Cost," economist Ronald Coase claimed that externalities are "reciprocal." (See CoaseJLE1960.pdf.) That is, while A may injure B by letting his cattle run over B's wheat field, B equally injures A if he can require A to pay damages. In a world of no transaction costs, well defined property rights and rational individuals, it doesn't matter if A has the right to let his cattle run on B's land or B has the right not be overrun; in either case A and B will make a deal so that one pays off the other, reaching the same outcome that maximizes their joint profits.

Coase's article has proved tremendously influential. It called justifiable attention to the importance of allocations of property rights. It stimulated a line of Libertarian thinking that sees the solution to environmental problems as simply assigning property rights and letting the market work. However from the commons perspective, externalities are not necessarily reciprocal. A polluting factory is de facto privatizing a portion of common air and water. Moreover, transaction costs—such as costs of litigation—are typically large, as are effects on wealth. Consequently, it makes a huge difference whether or not the factory has a "right" to pollute or the public has a "right" to clean air and water. Finally, there's an intrinsic contradiction between the Libertarian call to get government out of the way and let the market solve environmental problems—and the requirement that government perform the difficult job of defining and enforcing property rights.

D. Resolving the problem of negative externalities.

In the musical comedy Urinetown, due to a terrible drought, all the townsfolk must pay to use public urinals that recycle water. The urinals belong to a greedy corporation, the Urine Good Company. When the people eventually revolt against extortionate pee fees, the town dries up and everyone dies to a chorus of "Hail Malthus." In the real world, there are many ways to resolve the problem of externalities, none of them perfect. This is precisely Ostrom's work, analyzing successes and failures in systems of managing common pool resources.

1. Cooperation

Humans evolved living and cooperating in small groups. Members of a group occupying a common resource know each other and can observe each other's activities. The group works out and enforces rules for sharing the resource. Not only that, but cooperation can make the commons far more productive. Suppose, for example, Hardin's herdsmen take turns watching the animals, building shelters, and preparing meals. By cooperating, they can manage their herds more easily and effectively than by going it alone. Or take lobstermen fishing in a harbor in Maine. By longstanding informal agreement, they allow only so many pots per individual. They destroy pots of violators, or of outsiders who try to fish in the harbor.

Our world is full of small cooperative commons: A family sharing a house or apartment. A classroom. A small business.

Informal cooperation tends to break down once a group gets much larger than a hundred individuals. Either the group must split up or institute formal rules, ultimately backed by force of law. The Hutterites are a religious sect similar to the Amish, except that they use modern technology on their farms. When a colony grows to about 140 people, it splits in two, with half the people going off to start a new colony. (http://www.hutterites.org/)

2. Common Pool Resources

Ostrom focuses on the "common pool resource" or CPR: "a natural or man-made resource system that is sufficiently large as to make it costly (but not impossible) to exclude potential beneficiaries." As long as it's possible to exclude outsiders, insiders can potentially establish a system to manage a resource for collective benefit. See my notes on *Governing the Commons*. A successful CPR system, however, is not necessarily a good thing from the viewpoint of the larger society. Yes, the system preserves the resource, but it may do so at the expense of excluding members of society who should have the opportunity to share the benefits. For example, imagine a coastal community with beautiful beaches, which they fence off from non residents. Even if it's necessary to limit access, is it fair to the larger society that only the locals should enjoy the beaches?

3. Privatization

Making common resources private property can reduce or eliminate the tragedy of the commons. However, privatization introduces problems of **fairness** and **monopoly**.

Fairness. As noted above, privatization historically has usually meant that a powerful individual simply grabbed the resource—as William the Conqueror grabbed England in 1066. The term "real estate" originally meant "the king's property." In the US, Thomas Jefferson advocated parceling out land (confiscated from Indians) among many small farmers. That was the idea of opening Western lands in the US to homesteading in the late 19th century. While homesteading did create several hundred thousand small farms, large influential operators—railroads especially—successfully grabbed up much of the best land. (But according to Garrett Hardin, "Injustice is preferable to total ruin.")

Monopoly. If one entity or a small group control an important resource, they can use their position to extort others. Much more about monopoly later.

4. "Cap and trade"

Cap and trade is a privatization solution to pollution. The government sets a limit, a cap, on the amount of a pollutant that can be released in a given area in a given period of time. It allocates pollution rights to individual polluters. Assuming the cap is low enough, the rights acquire value. The polluters who can most easily afford to reduce pollution, sell their rights to those who can less easily afford it. The cap and trade program for sulfur dioxide emissions from power plants, initiated in 1990, has dramatically reduced sulfur dioxide emissions and acid rain, at a fraction of the projected cost. See the Environmental Defense Fund website: http://www.edf.org/page.cfm?tagID=1085

Obviously it makes a big difference if we sell or give rights to polluters. Peter Barnes proposes that we give rights to commons—such as rights to emit carbon—to an independent public trust. The trust sets the amounts to be emitted each year, sells the rights to the highest bidders, and distributes the revenues equally to all citizens. See www.capanddividend.org.

Cap and trade has great potential for some widely distributed pollutants, like carbon dioxide and sulfur dioxide. For more local pollutants it may not work. It also very much matters where we draw the boundaries of commons—Peter Barnes points out if US carbon-dioxide emitters buy their permits only within the US they will pay more (and pollute less) than if they can shop for permits around the globe.

5. Government operation

In developed countries, government typically builds and owns roads, water and sewer systems. Government also often provides electricity. Some local governments in the US are trying to provide local wireless internet services—over the objections of the big carriers.

Services like roads and water systems are **natural monopolies,** offering huge economies of scale. It is much more efficient to have a single entity in control; but rather than face a powerful private company, governments do it themselves. More about natural monopolies later.

6. Government leasing

Government can retain ownership of common resources, but lease them out to private entities. For example, the department of Interior leases offshore oil deposits to oil companies. There's a plus and a minus to leasing. Plus: the government, which supposedly represents all the people, retains control of the resource and collects the rent. Minus: As Barnes points out, government agencies often quickly become captives of the industries they deal with.

7. Government regulation

Government can and does impose regulations on private property owners. At the local level, city governments impose zoning, health and safety and other regulations on private owners. At the state and federal level, government controls air and water pollution by regulation. Violators face fines or even criminal prosecution. Regulation has had some success, but again, regulators tend to become captives of regulatees.

8. Pollution Taxes and fees.

"Tax bads and we'll get less of them" is an old economists' prescription, not much used in practice beyond fines for violations. However, local state and federal governments do charge fees for use of public lands. For example, ranchers grazing cattle on public lands typically pay per head fees—usually much lower than fees on equivalent private land.

9. Queuing

Sometimes access to a commons is restricted by queuing, in the tradition of first come first served. In the summer in Central Park, people queue all night to get free tickets to the Shakespeare Theatre. Public health care is also rationed by forcing people to wait for hours.

10. Collecting the Rent.

We may not be able to reclaim commons that have been given away. However, we can collect the rent by taxation. All taxes collect some rent. But property taxes, corporate income taxes and taxes on capital gains and dividends do better than more regressive taxes like sales taxes and payroll taxes. The more progressive taxes also discourage waste of resources, for reasons I'll address later.

V. The Bounty of the Commons.

Humans, like other primates, evolved under conditions that made cooperation vital. That's why long-term occupants of CPR's can generally work out a system of sharing a resource and controlling members of the group who act selfishly. In fact, experiments conducted by Sam Bowles and others in societies around the world show that individuals will punish those who step out of line, even at considerable cost to themselves.

In *The Wealth of Nations*, Adam Smith illustrates the benefits of cooperation and specialization with the famous pin factory. (See Adam Smith on the Pin Factory.pdf). He estimates that where one man might only make one pin a day working alone, a team of specialists can make 4800 apiece a day. He extends his argument to markets, where trade and specialization enable the explosion of economic growth already in progress in his day.

Environmental economics focuses on preventing damage to the environment, certainly a worthy objective. But that's a negative strategy. We also need a positive strategy: a focus on encouraging more efficient and productive use of common resources. Only by getting more from less can we approach the goal of "sustainable growth" that is, growth without increasing drain on the physical environment.

Cooperation, high population density, relative equality and labor-intensity of production are keys to unlocking the bounty of the commons. That's what happens in thriving cities. (See Jane Jacobs on *The Economy of Cities*, (1969)).

Commons	Title	Conveys right to:	Special Conditions beyond paying taxes and obeying regulations	Transferable
Natural Commons				
Land (Earth's Surface)	Deed	Use specified area for limited purposes	Subject to eminent domain	Y
	Right of way	Use strip of land for power lines, railway etc		Y
	Airport landing rights	Use runway at specified short intervals	Obey control tower etc	Y
Urban land	Taxi medallion	Pick up passengers within a jurisdiction, at specified rates		Y
	Meter parking	Park for specified period in specified spot	Don't overstay	N
	Metro card	Travel in subway as long and as far as you want		
	Air rights	Build up to a certain height in Manhattan		Y
Water	Water rights (US West)	Draw specified amt of water; attached to land parcel	Use it or lose it	Y/N
	Fishing license	Limited catch in specified area		Y/N
	Discharge rights	Dump specified chemicals in specified water		N
Air	Emission rights	Emit specified pollutants; transferable under cap and trade		Y
	Air routes	Fly from A to B at specified altitudes		Y
Minerals	Drilling & mining rights	Drill or dig in specified location; mining rights almost free on public land		Y
Radio spectrum	Broadcast license	Broadcast at specified frequency at specified power in specified location	Don't broadcast bad language!	Y
Social Commons				
Economy	Bank charter	Accept deposits and issue loans ie. create money	Submit to audits; financial probity	Y
	Insurance charter	Accept and invest money for insurance	Submit to audits; financial probity	Y
	Peanut and sugar quotas	Produce and sell a specified peanut or sugar poundage in the US at supported prices		Y
	Marketing order	Form a cartel to restrict production of produce, eg oranges		
	Steel import quotas	Import restricted amount of steel from outside US		Y
	Liquor license	Sell liquor within a given jurisdiction		N
	Earmark	Receive a specified benefit from federal or state government		
Technology	Telephone	Transmit telephone conversation, worldwide	Can't discriminate among users	Y
	Web address	Post information on the web, available worldwide (almost)		Y
	Email address	Send and receive email	No spam	Y
	Cable franchise	Deliver cable in a specific area	Must carry	Y
	Patent	Use specified information in production, within a particular country, for a specified period		Y
Culture	Copyright	Sell rights to copy specified literature or other arts for specified period		Y
Individuals	Citizenship	Health and education benefits, right to use courts to enforce contracts etc	Cannot lose	N
	Medical license	Practice medicine within a particular state	Pass qualifying exams	N