The Rose Theorem?

Michael Heller*

INTRODUCTION

Law resists theorems. We have hypotheses, typologies, heuristics, and conundrums. But, until now, only one plausible theorem—and that we borrowed from economics. Could there be a second, the Rose Theorem?

Any theorem must generalize, be falsifiable, and have predictive power. Law's theorems, however, seem to require three additional qualities: they emerge from tales of ordinary stuff; are named for, not by, their creators; and have no single authoritative form. For example, Ronald Coase wrote of ranchers and farmers.[1] He has always shied away from the Theorem project. When later scholars formalized his parable, they created multiple and inconsistent versions.[2] Likewise, Carol Rose writes rich narratives of maypoles and foxes, rivers and roman roads.[3] She offers a theory of human motivation and predictions about our behavior.[4] And we may ask, though she might not, whether the rich alluvial mud of her scholarship crystallizes into a Rose Theorem.[5]

To illustrate how a Rose Theorem could operate, this article starts, as does Rose, with the most ordinary stuff. Consider the oyster. One can view oysters as nature unmodified, the raw matter that we subject to

---

* Vice Dean for Research and Lawrence A. Wien Professor of Real Estate Law at Columbia Law School. Thanks to Carol Rose, a pearl in the oyster of legal academia. Thanks also to participants at a Columbia 10-10 Workshop and to Judith Resnik, Henry Smith, and Kenji Yoshino for organizing the 2005 Yale Law School Conference on the "Properties of Carol Rose."

1. *See* Ronald Coase, *The Problem of Social Cost*, 3 J. LAW & ECON. 1 (1960).

2. *See* Robert Cooter, *The Cost of Coase*, 11 J. LEGAL STUD. 1, 14-20 (1982); *see also* ROBERT ELLICKSON, CAROL ROSE & BRUCE ACKERMAN, PERSPECTIVES ON PROPERTY LAW 207-08 (3d ed. 2002) (summarizing "strong" and "weak" forms of the Coase Theorem).

3. *See, e.g.*, Carol Rose, *The Comedy of the Commons: Commerce, Custom and Inherently Public Property*, 53 U. CHI. L. REV. 711 (1986); Carol Rose, *Romans, Roads and Romantic Creators: Traditions of Public Property in the Information Age*, 66 L. & CONTEMP. PROBS. 89 (2003); Carol Rose, *The Several Futures of Property: Of Cyberspace and Folk Tales, Emissions Trades and Ecosystems*, 83 MINN. L. REV. 129 (1998).

4. *See* Carol Rose, *Property as Storytelling: Perspectives from Game Theory, Narrative Theory, Feminist Theory*, 2 YALE J.L. & HUMAN. 37 (1990).

5. *See* Carol Rose, *Crystals and Mud in Property Law*, 40 STAN. L. REV. 577 (1988).

regulation. But oysters are among the earliest and most contentious resources in human commerce, cultivation, and culture. The standard references credit Shakespeare with coining "the world is mine oyster"—this is Pistol's rejoinder to Falstaff in the *Merry Wives of Windsor*.[6] But, ask yourself, why did Pistol compare the world to an oyster, rather than a clam or mussel? Shakespeare was not the first oyster maven. Rather, he was, I suspect, recording a folk locution from far further back. Ancient Babylonian, Egyptian, and even Hebrew cosmologies likened the earth to an oyster, a craggy firmament with fathomless waters below, the heavens floating above, and great riches within.[7] The oyster you slurp today is the fussed-over survivor of a millenniums-old interplay of nature, community, and law.

Given their long intercourse with human society—as bar snacks for the poor and aperitif for the wealthy; as tool for seduction, aphrodisiac, medicine, industrial compound, and jewelry; as currency and item of trade—it is a wonder oysters survive at all. Knowing that neighbors may take the catch, why has anyone ever refrained from harvesting oysters? Knowing that others may reap the reward, why has anyone ever set off on stormy seas to tend oyster beds? Why are oysters not extinct? Here is where Rose's scholarship can help. One version of a Rose Theorem could state, perhaps, that *law accumulates through layers of sediment and sentiment.*

By *sediment*, I mean the particular, the resource closely observed, its place and relation to other resources and places, its history and its changes over time. Oysters are not all alike. Some are salty, some briny, some sweet. The legal regimes in which oysters grow are just as subtle and varied. And knowing oysters does not mean we know clams, or cod, or buffalo, or software patents. The first task, then, for a Rose Theorem is to make us connoisseurs of "cultch"—the old shells and muck to which oysters attach and the resources on which law grows.

By *sentiment*, I refer to connections, to community and to the beliefs, narratives, signs, and struggles that mediate our relation with each other around any scarce resource. Sentiments shape law just as gravity bends light. We may ask, are these oysters private or commons? But the answer will reveal little. Big legal abstractions are just one tale, often not the most salient story, that people tell themselves about their interactions around nearby oysters. So, the second task for a Rose Theorem is to force attention to "spat," the cloud of spawn that grow into oysters and the web of social relationships that accumulate into law.

---

6. WM. SHAKESPEARE, MERRY WIVES OF WINDSOR act 2, sc. 2, 2-3 (Oxford paperback ed. 1998).

7. *See* ARTHUR KOESTLER, THE SLEEPWALKERS: A HISTORY OF MAN'S CHANGING VISION OF THE UNIVERSE 19-25 (1959/1972).

Above, I asked, "Are these oysters private or commons?" Any version of a Rose Theorem, would, I believe, show that the question itself sets analysis off on the wrong track. Reject the question. There is no "private" heaven floating above; no fathomless "commons" below. Instead, start with the layers of cultch and spat, sediment and sentiment, resources and relations that accumulate around oysters. From the Rosian perspective, property in oyster cannot be reduced to a recipe—3 shakes private salt, 2 grinds commons pepper, and a lemon wedge squeeze of public ownership. Rather, oyster relations constitute something original and distinct, a form of ownership that requires a more tailored language. For example, we could draw on a property construct that Rose has called the "limited commons."[8] She defines this type of group property as private on the outside, commons on the inside. As we will see, her construct better captures how people relate around oysters than do categories such as private or commons. From where does the limited commons construct emerge?

A Rose Theorem would illustrate the virtues of what I call legal interpolation, an approach that focuses attention on the narrative space between sharp-edged legal categories. She helps make us aware of "the persuasive power of narrative imagery"[9] in limiting legal analysis.[10] Her work always highlights institutions, social structure, and human drama, where Coase and his progeny strip them away. By pointing us to the layers of sediment and sentiment, Rose helps give us the tools we need to interpolate between economics and history, between bloodless abstractions and the tyranny of one damn fact after another. Her insight opens an intellectual space for interpolating constructs such as a limited commons. In turn, these hybrids help reveal hidden mechanisms for comedy—that is, successful cooperation and conservation—where a Coasian approach might predict tragedy. A Rose Theorem, if it exists, would build on her inclusive methodology, an approach that incorporates Coase's insights within a richer account of human sociability. What makes Rose's work a Theorem, in part, is that Rosian legal interpolations generate testable predictions, distinct from and more compelling than their Coasian counterparts.

This article moves us toward a Rose Theorem by focusing on the oyster. Oysters once were considered an inexhaustible part of God's beneficence and grace. Yet people managed to harvest them nearly to extinction. Why

---

8. Rose, *Several Futures, supra* note 3, at 132; *see also* Carol Rose, *Left Brain, Right Brain and History in the New Law and Economics of Property*, 79 OR. L. REV. 479, 484 (2000).

9. BONNIE MCCAY, OYSTER WARS AND THE PUBLIC TRUST: PROPERTY, LAW, AND ECOLOGY IN NEW JERSEY HISTORY xxvi (1998).

10. CAROL ROSE, PROPERTY AND PERSUASION: ESSAYS ON THE HISTORY, THEORY AND RHETORIC OF OWNERSHIP 287 (1994).

were those last oysters not dredged out altogether? How is it that our tables today are supplied with this tasty bivalve? Part I provides a whirlwind tour of oyster lore and law. Part II contemplates the contours of a Rose Theorem through the prism of a pirate tale, the late nineteenth-century Chesapeake Bay Oyster War. Part III wraps up by exploring how a Rose Theorem could fit within and contribute to current legal theory. To understand oysters' constant presence, we must look beyond a simple transaction cost story to the subtle interplay of community, history, narrative, and law—that is, to a Rose Theorem.

I. THE UR-TRAGEDY OF OVERUSE

Looked at over the millennia and through the prism of property theory, oysters may seem to illustrate simply how transaction costs and technological change first propel overuse in a "tragedy of the commons" and then lead to private property and conservation. Do not be seduced by such a story. This part shows that oysters have always been simultaneously commons and private with cycles of plenty and scarcity, violence and refinement, that pay scant attention to the formal legal regime.

A. The World is Mine Oyster

First, why focus on oysters? They are a seductive locus for legal theory. They can illustrate almost every approach humans have taken throughout history to resource management and conversation. As long as humankind has loved oysters, we have used reason, education, seduction, punishment, and reward of every stripe and flavor to supply our tables with these dear treats. Much of what we now call law, morals, even good manners is the calcified remains of such struggles.

1. Oysters' Virtue

Oysters give of their virtues too readily. They prefer shallow and accessible coastal waters where fresh water mixes with salt.[11] Since pre-history, people have been drawn to just these places for ports, trade, fishing . . . and oysters. Oysters are cheap and easy to harvest with a high nutritional payoff.[12] Except for their first few days as spat, oysters are sedentary: they can neither run nor hide. Spat depend on replenishing the layers of cultch, the gravel and old shells to which they must attach if they are to survive. While they are impressively fecund and resilient, oysters

11. *See* JOHN WENNERSTEN, THE OYSTER WARS OF CHESAPEAKE BAY 3 (1981).

12. *See* ROBERT HEDEEN, THE OYSTER: THE LIFE AND LORE OF THE CELEBRATED BIVALVE 191-92 (1986).

are vulnerable if harvesting intensifies, as when oystermen move from tongs to dredges. Tonging is the older, low-tech method.[13] The tongs themselves are like scissors—two rakes at the end of long wooden poles. A simple small boat is all you need. Tongers work in water up to twenty feet deep, just the level of the best oyster beds. By contrast dredges involved bigger boats that could work any depth. "Drudgers" pulled a toothed scoop with a chain sack along the seabed, bringing up everything in its path.[14] Once dredgers dig in, labor is needed to ensure replenishment of adequate cultch else oyster beds turn to ouse (an early variant of ooze—oystering has a rich vocabulary) and the spatfall is wasted.

Oysters have been a continuous part of human culture since before recorded history—great piles of shells, "middens," testify to our ancestors' reliance on this mollusk. When people first encounter new oyster areas, the beds seem inexhaustible.[15] But times change and oysters can be depleted. What happens then?

2. Roman Cycles

Today's oyster literature is thin, but throughout much of recorded history, much attention was paid to this vital victual. Already in ancient Rome, Pliny the Elder enthused, "[F]or this long time past the palm has been awarded to [the oysters] at our tables as a most exquisite dish."[16] One Roman emperor, Vitellius, was reputed to have eaten 1000 oysters at a single sitting (from which presumably he did not quickly arise).[17] Among the wine amphora excavated from the corner taverns of ancient Pompeii were many oyster shells, apparently the bar snacks of the time. When local oysters became scarce, the Romans began trading for them across and outside the Empire. As they conquered new territories, they acquired untapped sources for oysters. For example, soon after Julius Caesar's forces landed in Britain in 55 B.C., Sallust, a Roman commentator of the day, noted dryly that "the poor Britons, there is some good in them after all, they produce an oyster."[18]

But Britain's conquest only produced temporary windfalls which

---

13. Joseph Conlin, *Consider the Oyster*, 31 AMER. HERITAGE MAG. 65, 72-73 (1980).

14. *Id.*

15. *See, e.g.*, HEDEEN, *supra* note 12, at 6 (noting that in 1701, a visitor to Virginia remarked, "The abundance of oysters is incredible. There are whole banks of them so that the ships must avoid them. A sloop which was to land us at Kingscreek, struck an oyster bed, where we had to wait for about two hours for the tide.").

16. PLINY THE ELDER, THE NATURAL HISTORY (John Bostock & H.T. Riley eds., 1855) (book XXXII, chap. 21, sec. 6, "The Various Kinds of Oysters: Fifty-eight Remedies and Observations"); *see also* HEDEEN, *supra* note 12, at 4.

17. *See* Conlin, *supra* note 13, at 70. A modern record was set in the 1970s, when Vernon Bass downed 588 oysters in 17 minutes and 32 seconds. *See id.*

18. *Quoted in* J. RYDON, OYSTERS WITH LOVE, title page (1968) *and* HEDEEN, *supra* note 12, at 3.

Roman demand soon exceeded. In response, even during early Roman days, entrepreneurs developed sophisticated strategies to ensure private domestic production. Tasty young varieties of oysters were gathered, packed in straw and ice, transported long distances across the Empire, bedded close to home, and matured for several years before being gathered and brought to market. Pliny details cultivation methods that survive into the present:

> The first person who formed artificial oyster-beds was Sergius Orata. . . . This was done by him, not for the gratification of gluttony, but of avarice, as he contrived to make a large income by this exercise of his ingenuity. . . . [To improve their flavor], a plan has been more recently hit upon, of feeding [them in Orata's lake], famished as they must naturally be after so long a journey [from across Italy].[19]

As the early Roman literature attests, oysters went through cycles of scarcity and plenty. Naturally-occurring sites were discovered and depleted, cultivation methods tested and improved. Early entrepreneurs were managing oyster conservation, breeding varieties, and raising them in private lakes. Even within ancient Rome, there was no inevitable evolutionary shift from commons to private, but an oscillation and layering of conservation techniques.

3. Seduction in Shakespeare's England

Jump forward a millennium and a half to the shell-fish taverns of Shakespeare's day. Oysters were given "free"—only wine and such was paid. The poet John Taylor, in his 1630 "Voyage of the Paper Boat," praises oysters and "their meat/which freely, friendly scot-free all do eat."[20]

Just as in ancient Rome, oysters cycled between bar snacks for the poor and artifact of aristocratic hi-jinks. Oysters have always played a role in seduction, their meat for one sort, pearls another. For example, in the decades after Shakespeare and Taylor wrote, we come across a lively tale from the memoirs of the Chevalier du Grammont.[21] Banished from France for bedding a favorite mistress of the King, Grammont relocated to the court of the Merry Monarch, Charles II (1660-1685). There, Grammont seduced one Miss Warmestre, of whom it was said that she "had no shape at all, and still less air; but, . . . it very plainly appeared that her consent

19. PLINY, *supra* note 16, book IX, chap. 79, sec. 54, "The First Person That Formed Artificial Oyster-Beds."

20. *Quoted in* JP HORE & EDWARD JEX, THE DETERIORATION OF OYSTER AND TRAWL FISHERIES OF ENGLAND: ITS CAUSES AND REMEDY 6 (1880).

21. ANTHONY HAMILTON, THE MEMOIRS OF COUNT GRAMMONT, COMPLETE (Sir Walter Scott ed., 1906) (1713).

went along with her eyes to the last degree of indiscretion."[22] Lord Taaffe, Grammont's rival, was similarly intent on seducing Warmestre. While Taaffe required "free egress and regress to her at all hours of the day or night, this appeared difficult to be obtained."[23] Taaffe's obstacle was Lady Sanderson, the famously-incorruptible governess of the Queen's maids of honor. Yet, Sanderson consented that

> [Taaffe and Warmestre] should sup as often as they pleased in Miss Warmestre's apartments, provided their intentions were honourable, and she one of the company. The good old lady was particularly fond of green oysters, and had no aversion to Spanish wine: she was certain of finding at every one of these suppers two barrels of oysters; one to be eaten with the party, and the other for her to carry away: as soon, therefore, as she had taken her dose of wine, she took her leave of the company.[24]

As so often happens, things did not go well for the lively miss, who was soon with child. Called to account by the Queen, the governess Sanderson defended herself with an (abridged) version of Taaffe's courtship. Taaffe, the cad, "neither acknowledged Miss Warmestre nor her child, and he wondered why she should rather father it upon him than any other."[25] Warmestre soon quit the court and married a modestly-endowed country Lord whom she had spurned brutally some time earlier. Oysters were her downfall.

Note that while oysters were scarce and dear in Grammont's day, by Charles Dickens' times in the early 1800s, they were again food for the poor—the wealthy would not touch them for the sake of seduction nor gluttony.[26] In *The Pickwick Papers*, Dickens writes:

> "It's a wery remarkable circumstance, sir," said Sam, "that poverty and oysters always seem to go together."
>
> "I don't understand, Sam," said Mr. Pickwick.
>
> "What I mean, sir," said Sam, "is, that the poorer a place is, the greater the call there seems to be for oysters. . . . Blessed if I don't think that ven a man's wery poor, he rushes out of his lodgings and eats oysters in reg'lar desperation."[27]

By the latter part of the nineteenth century, however, oysters had again

---

22. The complete, searchable, and entertaining text of the Memoirs of Count Grammont is available online at www.gutenberg.org/files/5416/5416.txt (accessed on Jan. 10, 2006).

23. *Id.*

24. *Id.*

25. *Id.*

26. HEDEEN, *supra* note 12, at 6.

27. CHARLES DICKENS, PICKWICK PAPERS 270 (James Kinsley ed., Oxford Univ. Press 1988) (1836).

become "so rare as to disappear as an article of trade, and only to be found on the tables of the rich."[28] The cycle kept turning. As in ancient Rome, British law towards oysters accumulated through layers of sediment and sentiment. At times, export markets thrived, at times they were banned. Same with imports. Edicts supported private cultivation just as in Sergius Orata's day. At the same time, regulators created elaborate rules for managing the King's waters. The now familiar refrain, "only eat oysters in months with an 'r'"—all but May, June, July, and August—reflects an ancient regulatory attempt to protect spatfall and was a rule already familiar in Elizabethan England[29] and later in the American colonies.[30] So were local rules, and even international treaties,[31] limiting the minimum size of legal oysters, when they could be taken, who could take them, permitting, and so on. Also, on the informal side, British oystermen created their own elaborate rituals for sharing and preserving oyster beds. Accounts of seventeenth-century harbor gangs, for example in Faversham, would seem equally contemporary to ancient Romans and to today's Chesapeake oystermen.[32] These oysters tell a tale: beware the evolution of property rights story!

PART II – GET IT TODAY! HELL WITH TAMAR![33]

A. Anti-Teleology

Oysters on the Chesapeake Bay recapitulate in miniature the larger cycles of oyster lore. At one level, the Bay experience seems familiar, an ordinary Coasian transaction cost story leavened with a dash of Demsetzian property rights evolution.[34] Changes in technology, taste, and

---

28. HUNTER DAVIDSON, REPORT UPON THE OYSTER RESOURCES OF MARYLAND TO THE GENERAL ASSEMBLY 4 (1870).

29. SAMUEL BUTLER, DYET'S DRY DINNER (1599) (" It is unseasonable and unwholesome in all months that have not an R in their name to eat an oyster."); *see also* HEDEEN, *supra* note 12, at 6 (noting that this "superstition has no basis in fact").

30. *See* MCCAY, *supra* note 9, at 8 (1998) (noting that a 1719 Act by the colonial assembly of New Jersey—prohibiting oyster gathering from May 10 until September 1—was one of the earliest oyster laws anywhere in America).

31. *See* T.C. EYTON, A HISTORY OF THE OYSTER AND THE OYSTER FISHERIES 10-11 (1858) (detailing early nineteenth-century treaty between Britain and France limiting methods and times for oyster harvesting).

32. *See generally* PATRICIA HYDE & DUNCAN HARRINGTON, FAVERSHAM OYSTER FISHERY THROUGH 11 CENTURIES (2002).

33. This common saying on the Bay is discussed *infra* at note 78 and accompanying text. As a caveat, my oyster knowledge—aside from deep experience consuming them—comes from secondary sources. The best and most comprehensive of these works is WENNERSTEN, *supra* note 11. The stories and factual materials in Part II are drawn primarily from his work. In addition, I recommend HEDEEN, *supra* note 12, for details on Maryland oystering, including a useful timeline of Maryland oyster landmarks. *See id.* at x-xi (preface). The most theoretically-informed work linking oystering with law and social history is MCCAY, *supra* note 9.

34. *See* Harold Demsetz, *Toward a Theory of Property Rights*, 57 AMER ECON. REV PAP. &

population pressure led to changes in property rights allocation. Bay oysters shifted from commons to private ownership. But this incentives-based account flattens out the pirate tale and misses the romance of oyster conservation in practice.

Oystering on the Bay, as in Roman times, is shot through with private property elements, but also with commons aspects, and with relations that can best be described as neither private nor commons, but as a form of group property illuminated by Rosian methodology. Only through this group property prism, with attention to the local detail of each community's history and language, can we understand the dynamics of oysters' survival.[35] Only then do we stand a chance of deploying law in ways that are likely to lead to the resource's conservation. Micro-narratives of place and time constitute the essence of a Rosian challenge to Coasian teleology.

B. Bounty on the Bay

1. Early Years

Throughout the 1800s in America, oysters were cheap and abundant. Why? The Chesapeake Bay. Native Americans consumed what they could of Bay oysters, leaving behind enormous middens of shells. Early colonists ate oysters, too, though in many cases only if they were starving. The Bay was found so stocked with oysters, such great mountains of oysters, that no amount of dredging seemed able to diminish their bounty.[36] By the mid-1800s, though, there began to be signs of trouble with the beds. Oystermen in New Jersey and New York and elsewhere along the Eastern seaboard had already wiped out their natural beds.[37] Then these New England oystermen—following Serguis Orata's lead from two millennia earlier—began sailing down to the Bay to collect seed oysters that they could plant or bed back at home. The Maryland and Virginia legislatures acted together to expel the "foreign" oystermen and limit the Bay trade solely to locals. Then the locals turned on each other.[38] But no one dreamed that the natural beds in the Bay could run out. Looking back, from the vantage point of 1891, William Brooks, the foremost oyster biologist of the day, lamented in his celebrated book *The*

PROC. 347 (1967).

35. MCCAY, *supra* note 9, reaches a similar punchline as it unfolds the oscillation in New Jersey oystering practices. In associating herself with a neo-communitarian strand in Rose's work, McCay writes that "the tragedy of the commons argument tends to ignore and in practice often thereby weakens communal systems of using and managing common resources." *Id.* at xxiv.

36. *See* WENNERSTEN, *supra* note 11, at 5-6 ("Oysters were so plentiful in the Bay [around 1600] that occasionally ships would run aground on oyster beds.").

37. *See generally* MCCAY, *supra* note 9, at 8-10.

38. *See* Conlin, *supra* note 13, at 72.

Oyster that "the residents supposed that their natural beds were inexhaustible until they suddenly found that they were exhausted."[39]

2. The Oyster Wars

During this period, a new word entered English: "over-use." One of the earliest recorded citations to the word came in 1862: "oyster beds are becoming impoverished, partly by over-use."[40] According to Brooks, 1862 coincides with the apogee of the Bay oyster production.[41] Traditional oyster tongers (using tools like today's barbeque tongs, but longer) battled an emerging horde of high-capacity dredgers.[42] The first image below from a *Harpers Weekly* of the time shows tongers at work.[43] The small capacity of their boats and the reach of their tongs limited the damage they could do to oyster beds. Note also that the tongers shown are African-Americans—oyster harvesting, shucking, and pirating crossed color lines. Black oystermen found a sort of freedom and equality when tonging on the Bay, paid the same for a bushel as their white counterparts. Thousands of freed slaves made their living as oystermen, both as tongers and dredgers, and also as shuckers in the packing plants.[44]

The second image, also from *Harpers Weekly*, was captioned "Oyster Pirates Dredging at Night."[45] With larger boats and more destructive dredges, these pirate fleets of Virginian skipjacks could drift into Bay inlets, strip-mine oysters and wreck the beds, including the leased beds that some Maryland oystermen tried to cultivate as an alternative to the diminishing natural beds. Note, though, that from the Virginian perspective, the dredgers were often not "pirates," but were instead standing on their rights as Virginians in contested waters. Sometimes the "pirates" were trying out their rights, setting up conflicts to provoke legal resolution or to resist growing privatization on the Bay.

Coupled with the informal controls imposed by organized communities of Bay tongers, Maryland passed dozens of laws attempting to regulate oyster harvesting.[46] Nevertheless, the tonger/dredger and Maryland/

---

39. WILLIAM BROOKS, THE OYSTER: A POPULAR SUMMARY OF A SCIENTIFIC STUDY 76 (1905).

40. *See* OXFORD ENGLISH DICTIONARY, online edition, *available at* http://dictionary.oed.com/cgi/entry/00338190 (last visited Jan. 10, 2006).

41. BROOKS, *supra* note 39, at 1-2.

42. WENNERSTEN, *supra* note 11, at 13-14 (noting the introduction of high-capacity dredges from New England "plundering Yankee drudgers" and a mid-century Maryland law passed in response that banned "foreign," that is, nonresident oystering); *id.* at 29-30 (describing the two types of boats and the men who operated them); *see also* HEDEEN, *supra* note 12, at 158-83 (detailing procedures and tools for tonging and dredging).

43. John Dalziel & W. L. Shepperd, *Mine Oyster—Dredging-Boats in the Chesapeake*, HARPERS WEEKLY, Mar. 16, 1872, at 217.

44. WENNERSTEN, *supra* note 11, at 35 (discussing the racial economy of oystering).

45. *Pirates Dredging at Night*, HARPERS WEEKLY, Mar. 1, 1884, at 136.

46. BROOKS, *supra* note 39, at 19 (noting that since "1820, upwards of thirty laws . . . have passed the Legislature").

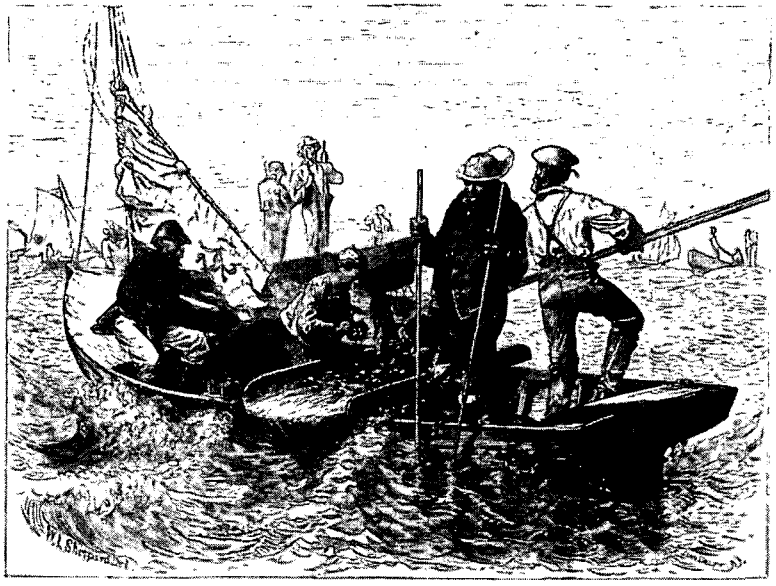

Image 1: Mine Oyster—Dredging-Boats in the Chesapeake

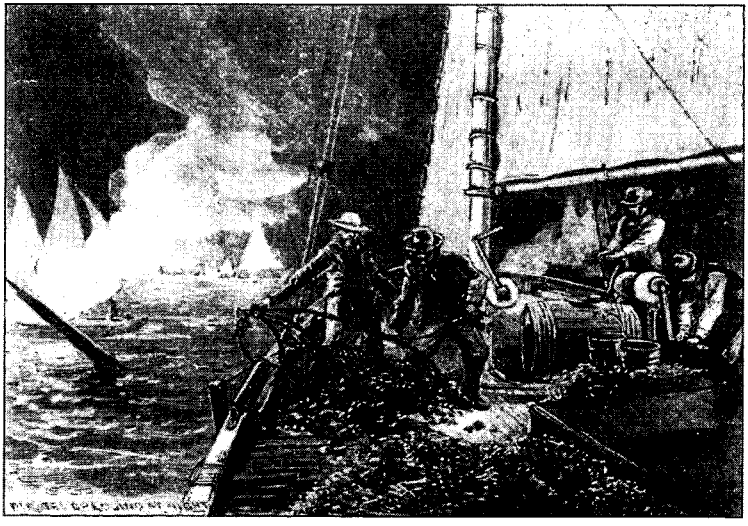

Image 2: Pirates Dredging at Night

Virginia oystermen conflicts intensified, and all sides began arming themselves. Violence became more frequent. The Maryland legislature took notice, and in 1868, commissioned Hunter Davidson to create and captain a new force soon known as the Maryland Oyster Navy.[47] At the start of his campaign, Davidson wrote that the dredgers were "a class of sailors, who, from the free and roving habits of their lives, removed from the restraints of society, and even of the law (until the Police Force was appointed), have grown to think themselves masters of the Oyster situation."[48] By 1871, almost a thousand dredge boats were operating on the Bay and in adjoining rivers. Tongers began to retaliate.[49]

With mandate in hand, the Commodore bought his armored sidewheel steamer, the *Leila*, and over the next few years petitioned for more funds and arms. By the early 1870s, he had acquired a fleet of gunboats with howitzers and repeating rifles.[50] Skipjacks were sunk, sailors were gunned down, bodies floated ashore.[51] By 1872, an assassination attempt on Commodore Davidson had been foiled, and the Navy had expanded to the point where it could position armed boats at the mouths of the oyster-rich rivers that fed into the Bay.[52] Today's quaint antiquing villages, towns such as Oxford and St. Michaels, were garrisons and forts just a century ago.

3. Private v. Commons

Military policy dovetailed with regulatory skirmishes. If he was going to wage oyster war, Commodore Davidson wanted to ensure that the Legislature would create a formal legal environment that he believed was worth fighting for. For him, that meant one thing: leasing public beds to private oystermen[53] and limiting permissible catches and minimum oyster sizes.[54] Davidson admonished the legislators to disregard opinions that "originate in local or individual interests, where they conflict with the general good in this matter, and permit the enactment of a law restraining and regulating the present thoughtless and improvident industry that takes every Oyster wherever found, regardless of season, size, or condition."[55] An elaborate body of Cull Laws and other oyster regulations emerged on

47. *Id.* at 37-57 (describing Commodore Davidson and the oyster police).
48. DAVIDSON, *supra* note 28 at 11.
49. WENNERSTEN, *supra* note 11, at 36.
50. *Id.* at 37.
51. *Id.* at 38-41.
52. *Id.* at 43.
53. DAVIDSON, *supra* note 28, at 16 ("The most liberal encouragement should be give to persons to plant and cultivate the Oyster.").
54. *Id.* at 5 (asking that "the heaviest fines be imposed for dredging at night").
55. *Id.* at 3.

the Bay during the mid-1800s.[56] When the Maryland Legislature threatened to lease out oyster beds for private production reserved to Maryland oystermen, not only did Virginia dredgers rebel, but also Maryland oystermen resisted. Many fervently believed that oyster beds were part of their common right, not susceptible to privatization.[57] Dredgers switched to nighttime raids as oysters kept re-appearing in the courts.

Like Commodore Davidson, the scientist and regulator Brooks blamed the decline of Maryland's oyster fishery on "improvidence and mismanagement and blind confidence."[58] The coming deterioration was no different than what had happened "in France, in Germany, in England, in Canada, and in all northern coast states"[59] before these jurisdictions moved aggressively to shift oysters away from open access toward private management, Brooks argued. The main reason that Bay oysters had not yet been wiped out, he suggested, was only that "[t]he immense area covered by our own beds has enabled them to withstand the attacks of the oystermen for a much longer time."[60] Brooks spoke from experience; he was not just a university professor but someone who had tonged oysters, he said, in five different states.

Like Commodore Davidson before him, Brooks argued for leasing out and privatizing Bay oyster beds: "Oyster-planting can be carried out only on private grounds, and it cannot flourish in a community which does not respect the right of the private owner to the oysters which he has planted."[61] But he recognized "the most serious obstacle" with leasing, a problem that continued for over a century on the Bay, was the oystermen's "absence of all respect for private property in oysters."[62] Respect could not be legislated, nor even created by Davidson's gunboats, but rather required the "formation of a public sentiment in favor of private cultivation."[63]

4. Judicial Interventions

Alongside the military and legislative battles were judicial ones, many stemming from 1632, when Charles I drew the water boundary between Maryland and Virginia not at the thalweg but at the high-water mark on

---

56. *See, e.g.*, HEDEEN, *supra* note 12, at x-xi (listing key laws).

57. Conlin, *supra* note 13, at 73 (quoting a study from the time noting that the typical waterman was "fanatical in his belief that the oyster, as a product of nature, is not amenable to such laws as apply to other kinds of food or property").

58. BROOKS, *supra* note 39, at 3.

59. *Id.* at 76.

60. *Id.* at 76-77.

61. *Id.* at 132-33.

62. *Id.* at 137.

63. *Id.* at 139, 149; *see also* HEDEEN, *supra* note 12, at 222 (noting present-day suspicion on the Bay of private leasing of oyster beds).

the Virginian side, thus putting all the oyster beds in Maryland waters. State control of the Bay has remained under dispute for almost 400 years. The 1785 Compact between Maryland and Virginia divided the Bay waters, but satisfied neither side.[64] They continued the fight under the original jurisdiction of the Supreme Court for sovereignty over oyster beds at the head of the Bay, particularly over access to oyster-rich areas such as the Pocomoke Sound and the Tangier Sound.[65] The stakes were high for the oystermen. Virginians and Marylanders each fought to keep out the others.[66] By 1874, the dispute had escalated, the leaders of the oyster industry demanded a well-demarcated boundary, and the matter went to the Supreme Court and was resolved after several years by a special master.[67] According to the Black-Jenkins Award of 1877, the most valuable beds were awarded to Virginia, which led to intensified interstate political competition alongside the military battles already occurring on the Bay. In particular, Maryland's Smith Islanders refused to accept this Award which cut them off from their most productive oyster beds. Virginia's Oyster Navy was beefed up to counter this new threat. During this period, the Supreme Court in *McCready v. Virginia* also ruled that Virginia's exclusion of Marylanders from its waters was legitimate because the waters in which the oysters were planted were Virginians' common property to manage as the state decided.[68] This ruling, too, did not quell debate.

In 1894, the Supreme Court again was brought in to allocate oyster beds in the Bay.[69] Virginia won against Maryland as a matter of law, but both sides lost in practice: Virginia refused to allow transfer of seed oysters to Maryland waters, and Maryland retaliated by refusing to allow export of cultch to revitalize Virginia beds[70]—each side blocked the other in a small-scale tragedy of the anticommons. Warfare continued with all sides using artillery, rifles, grappling hooks, and other weapons. However, as *Harpers Weekly* noted in an 1894 story on the oyster battles, "They have fired abundantly, but not accurately, and enough lead has been wasted to

---

64. *See* WENNERSTEN, *supra* note 11, at 47; *see also* HEDEEN, *supra* note 12, at 9. In 1785, the dispute between Maryland and Virginia was mediated at the home of General George Washington. The states agreed that Maryland would have sovereignty over the Potomac River but that Virginia would have equal access. Other Bay rivers and waters were divvied up, and the Compact held until the 1870s, when its provisions helped trigger the Oyster Wars. *See* WENNERSTEN, *supra* note 11, at 47.

65. *Id.* at 47.

66. *Id.* at 46.

67. *Id.* at 48.

68. 94 U.S. 391, 395-96; *see also* WENNERSTEN, *supra* note 11, at 94 (discussing the aftermath of the case).

69. *Wharton v. Wise*, 153 U.S. 155 (1894) (ruling that the Pokomoke Sound was a distinct body of water as to which Marylanders had no right to access for taking oysters). As an aside, the most recent dispute between Maryland and Virginia over the meaning of the 1785 Compact was decided by the Supreme Court in 2003. *See* Virginia v. Maryland, 540 U.S. 56 (2003).

70. *See* WENNERSTEN, *supra* note 11, at 95.

supply sinkers for all the fishing lines along the Atlantic Coast."[71]

Disputes arose over every aspect of oyster culture. Alongside the big territorial disputes, there were judicial fights over the empty shells, the cultch. For example, the Supreme Court considered whether it was an unconstitutional taking of property to require oystermen to hand over 10% of their emptied oyster shells to the state to return to the Bay as cultch.[72] The Court decided that requiring oystermen to return cultch was a legitimate form of in-kind tax, so another contested conservation mechanism was established—and another locus for resistance and protest was created.[73]

C. Between Property Regimes

1. Cross-cutting Battles

Thus, during the mid-1800s on the Bay, oysters were a resource located at the intersection of innumerable and often cross-cutting splits and divides: tonger versus dredgers, Bay oystermen versus New Englanders, Marylanders versus Virginians, oystermen who planted seed oysters in leased beds versus baymen who defended their common right to harvest anywhere on the water. The splits were multiplied further along race lines, between seamen and packers, pirates and licensed boats, and so on. Against this backdrop, the simple private/commons dichotomy does little analytic work.

Despite decades of sea battles, the Bay never resolved itself into a system that looked to be either recognizably private or commons. There was too much at stake for either side to give up. Oysters were worth killing for, as if they were aquatic buffalo or liquid gold. Though the Oyster War was fought ostensibly to protect Marylander tongers and leaseholders against marauding Virginians, oystermen on both sides continued to tong and dredge. Through the end of the 1800s, observers continued to offer warning after warning. The oyster biologist Brooks cautioned, "All who are familiar with the subject have long been aware that our present system can have only one result—extermination."[74] Long before Coase and Demsetz, regulators thought through the tradeoffs between commons and private models, but in a more subtle context, one that had to take account of the multiple concerns of Bay oystermen as they struggled with each other around increasingly scarce oysters.

---

71. *Cited in* Conlin, *supra* note 13, at 72.

72. Leonard & Leonard v. Earle, 279 U.S. 392, 396-98 (1929); *see also* Eduardo Penalver, *Regulatory Taxings*, 104 COLUM. L. REV. 2182, 2210-11 (2004) (discussing cultch as form of tax).

73. *See id.* at 2210 n.129 (discussing Maryland case from 1950s upholding continued legitimacy of in-kind payments of cultch).

74. BROOKS, *supra* note 39, at 77.

2. The Aftermath

Even in 1900, though, after a century of intensive tonging and dredging, the Oyster Wars, and Brooks's cautions, oysters were still "the chief fishery product of the United States . . . more valuable than any other single product of the fisheries, and . . . an important factor in the food-supply."[75] They were a commonplace, "one of the cheapest articles of diet in the United States."[76] Well into the twentieth century, when guests entered a proper home, they would be offered a few oysters to settle their stomachs and pique their appetites for the coming meal. How could oysters have been simultaneously so valuable and so cheap? Quantity!

Soon after 1900, however, the long-feared decline in oyster production set in. Decades of warnings had gone unheeded. Oysters became a luxury good in America, to be slurped with champagne, no longer fed to servants. Was this a simple shift from commons to private? No. At all times, oyster catchers roamed widely across the Bay.[77] Policing was always difficult. Imagine you were a farsighted, clearheaded, quick-witted "oyster catcher" concerned with overuse. Would you throw some oysters back? No. According to a common, late eighteenth-century Chesapeake Bay folk saying, you would "Get it today! Hell with tamar! Leave it to tamar, somebody else'll get it."[78] Even now, folks on the water still say, "[I]f a waterman caught the last oyster in the Chesapeake Bay, he'd sell it."[79] Leave no oyster behind. As late as the 1940s, oyster battles were fought, and people were shot, on the Bay.[80] The oyster war did not come to an effective end until 1962 when President John Kennedy signed the Potomac Fisheries Bill.[81] The oyster navies, now oyster police, still exist today.

Formal law is not the key, nor is the switch from commons to private. Neither preserves oysters, nor do gunboats. Instead, oysters' survival depends on a constantly shifting matrix of strategies, simultaneously public and private, individual and community, and on their constant renegotiation and interpolation.

---

75. ENCYCLOPEDIA BRITANNICA (1911 Edition), *available at* http://www.1911encyclopedia.org/O/OY/OYSTER.htm (last visited Jan. 10, 2006).

76. *Id.*

77. "Oyster catcher" is a term Baltimore merchants used in the mid-1800s for oystermen. *See* WENNERSTEN, *supra* note 11, at 11.

78. *Quoted in id.* at 49; *see also* HEDEEN, *supra* note 12, at 220.

79. *Quoted in* WENNERSTEN, *supra* note 11, at 134.

80. HEDEEN, *supra* note 12, at 9.

81. HEDEEN, *supra* note 12, at 9-10.

PART III. OYSTER'S SURVIVAL MATRIX

A. Risks in a Commons

Since our earliest days, we have understood that wherever oysters are found, a bloody free-for-all may ensue. Discussing the risks of common property, Aristotle noted in his *Politics*, "[T]hat which is common to the greatest number has the least care bestowed upon it."[82] Though he was discussing common ownership of women and children, the lessons pertain equally to oysters. In a commons, Aristotle wrote, "Every one thinks chiefly of his own, hardly at all of the common interest; and only when he is himself concerned as an individual. . . . Everybody is more inclined to neglect the duty which he expects another to fulfill."[83]

Oyster beds cannot easily be protected with padlocks, guard dogs, or barbed wire. Transforming them from open access to private property is not easy. Every oyster catcher knows that any other may drift in at night and swoop out the oysters in a bed. And each may logically come to a single conclusion: better to haul in a certain catch today, even if no spat are left for tomorrow; better to sell the cultch than return it to the beds. But, dredgers also know that oyster beds require forbearance, care, and time to regenerate. The millennium of regulation, war, and urge to discovery responds to this paradox.

Oyster beds become impoverished when people remove more oysters than they allow to reproduce. For oysters to thrive, a society must limit the number of oysters harvested each season and encourage people to maintain oyster beds. Over-harvesting and under-investment share a common structure: society suffers though individuals rationally pursue their own self-interest. People may be shortsighted, wrongheaded, or dim-witted—in a word, clueless. For such folk, gentle persuasion or reasoned discussion occasionally helps. More difficult is when the farsighted, clearheaded, and quick-witted overuse stuff. With them, reason may cut the wrong way. In the last few thousand years, peoples have intervened in countless ways to conserve oysters, ranging from gossiping about deviant oyster catchers to murdering them.

B. Resisting the Reductionist Solution

Yes, we can tell the reductionist story in which property regimes emerge sequentially. According to this view, societies tweak who is *entitled* to take oysters and how are the rules *enforced*. To simplify, imagine each lever can be switched in one of two directions. Formally, entitlements in

82. ARISTOTLE, POLITICS, Book 2, part 3 (Benjamin Jowett trans., 2000).
83. *Id.*

oysters may be held (1) in *common*, open to anyone's use, or (2) as *private property*, subject to a single decision-maker's control. For enforcement against deviant oystering, societies (1) rely on informal social *norms* or (2) enforce rules though formal *law*. Under this view, attempts to prevent a tragedy of the oyster commons—that is, to align individual action with the greater social good—can be seen as decisions about a limited set of on/off switches.

		Enforcement	
		Norms	Law
Entitlement	Commons	Type 1	Type 2
	Private	Type 3	Type 4

Figure 1: Four Stylized Regimes for Conserving Oysters

Initially, perhaps, far-flung peoples shared abundant oyster beds. As oysters became scarce, folks gossiped to keep deviants in line (Type 1). When conflicts intensified and villages clashed, a law-giving ruler intervened to mediate conflict (Type 2). Then, deviants became more crafty and public beds more degraded, so people marked off beds which they could monitor carefully, invest in securely, and conserve effectively (Type 3). Finally, with increased population, technology, scarcity, deviance, and conflict private owners came to rely on law, rather than self-help, to protect their beds (Type 4).[84]

If there were a Rose Theorem, it would disrupt this Coasian tale with its Demsetzian gloss. That is, Rose teaches that the familiar "scarcity story" of institutional economics is just that—a story, a narrative that may suppress as much as it reveals.[85] Looking closely at any moment, such as the Chesapeake Bay Oyster Wars, reveals that all four strategies are in use simultaneously, and that no one of these strategies aligns with the actors' motivation and self-understanding. That's the key.

---

84. Note that this is a version of the evolution of property rights tale that Rose discusses in PROPERTY AND PERSUASION, *supra* note 10, at 287.

85. *See* MCCAY, *supra* note 9, at xxvi-xxviii.

With a "limited commons," there are always new folks coming into the community and leaving. Virginian and Marylander oystering families are intermarrying and feuding. Deviant nephews are off on midnight raids. A cousin engineers a subtle innovation in the winch that lifts oyster dredges. Every oyster culture interpolates among the four ideal type regimes and creates something new and distinct. Group property is not static. At times, it may look more private, but even then employees devise subtle norms within a firm. Or more like open access, but with informal methods to discourage outsiders. Better to describe it, as Rose might, as a limited commons and look to the mechanisms, specific to that resource and community, that make the group work together or not.

C. Learning from Rose

For example, when Hanoch Dagan and I set out to understand the decline in black landownership in America, we already relied on and benefited from an as-yet-inchoate Rose Theorem.[86] The elements were in place—her attention to limited commons regimes, to sociability and cooperation, to the possibility of a comedy of the commons—as revealed by her scholarly corpus. Rather than squeeze our story into the four boxes of the matrix above, we engaged in the type of interpolation that a Rose Theorem would require. In our project, the Rosian elements coalesced into a theory of the "liberal commons."[87] We were able to identify the core spheres of decision-making that any group must address if they are to achieve the economic and social gains possible from cooperation, while preserving individual autonomy and freedom to exit. Our liberal commons construct starts with history, but abstracts away, up to a point. Our interpolation attends to incentives and welfare maximization, but also to the gains that people experience from sociability and cooperation, to the value we place on becoming part of a plural subject, where the "we" merges into the "I."[88]

I view the theory of the "liberal commons" as fruit from a Rose Theorem tree, as is my "anticommons" property category,[89] Henry Smith's "semicommons,"[90] and Elinor Ostrom's "common pool resource."[91] We all stand in relation to a Rose Theorem as Demsetz, Calabresi, and others build on Coase. All of our interpolations are early payoffs from heeding

---

86. Hanoch Dagan & Michael Heller, *The Liberal Commons*, 110 YALE L.J. 549 (2001).

87. *Id.* at 566-602.

88. *Id.* at 573.

89. Michael A. Heller, *The Tragedy of the Anticommons: Property in the Transition From Marx to Markets*, 111 HARV. L. REV. 621 (1998).

90. Henry E. Smith, *Semicommon Property Rights and Scattering in the Open Fields*, 29 J. LEGAL STUD. 131 (2000).

91. ELINOR OSTROM, GOVERNING THE COMMONS: THE EVOLUTION OF INSTITUTIONS FOR COLLECTIVE ACTION (1990).

Rose's insistence that legal scholarship attend to the layers of sediment and sentiment that build up around discrete resources.

CONCLUSION

Was it inevitable that oysters would move from being "one of the cheapest articles of diet in the United States"[92] to a luxury? No. Oysters could be as common as water itself or extinct. Over millennia, successful societies have created a tool kit of regulation and privatization strategies to conserve oysters. We shame those who steal away at night to dredge oysters, we jail them or sink their boats. We have formal legal mechanisms, such as closing times for beds, minimum catch sizes, maximum catch amounts, prohibitions on summer catches. We throw back cultch. We lease and seed oyster beds to encourage investment. But all of these methods were as familiar to Sergius Orata, Shakespeare, and Commodore Davidson as they are to oystermen today.

A Rose Theorem would help make sense of this story: pay attention to history, to community, to groups, to the stories that people tell themselves and each other as they struggle over scarce resources. Any given regulation exists not in isolation, but as a layer of legal sediment and community sentiment. The oyster we slurp now is a survivor. Its expense is itself part of the subtle palette of the group property solutions that people have crafted over thousands of years to ensure a continued supply of oysters. As one Maryland commentator noted in the 1870s:

> Nobody tires of oysters. Raw, roasted, scalded, stewed, fried, broiled, esalloped, in pates, in fritters, in soup, oysters are found on every table, sometimes at every meal, and yet no entertainment is complete without them.[93]

92. 1911 ENCYCLOPEDIA BRITANNICA, *supra* note 75.

93. *Quoted in* WENNERSTEN, *supra* note 11, at 28.