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Against the Tide: Connecticut Oystering, Hybrid Property, and the Survival of the Commons

ABSTRACT. Property theorists hypothesize a trend of evolution toward efficiency and conventionally hold formal privatization out as the logical endpoint of this trend. Oystering, in particular, has often been cited as a context in which privatization is highly efficient. Nonetheless, in the nineteenth century, public ownership of Connecticut's valuable oyster grounds persisted throughout decades of economic and technological change. The history of Connecticut's hybrid regime in oyster grounds, which variably applied enclosure and common ownership to otherwise similarly situated areas, shows that such regimes can emerge and thrive for both economic and political reasons.

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INTRODUCTION

At the turn of the twentieth century, Connecticut was known for its oysters, and the men who harvested them were of two basic types. Henry Rowe was a prominent example of the first. Rowe was a prosperous business owner and a leader of Connecticut's major oyster cultivators. His firm raised oysters on thousands of acres of seabed, to which Rowe possessed legal title. He used the latest cultivation techniques, and his employees piloted handsome steamers on the grounds he owned—each steamer capable of taking up hundreds of bushels of oysters a day.¹

Captain Bob was a typical example of the second sort of oysterman.² Unlike Rowe, Captain Bob went to sea in a sail-powered sloop, the *Broadbill*, with only a few hired hands to help him haul in the dredges. Nor was Captain Bob an owner of the seabed. Instead, he worked the public grounds off Bridgeport, where hundreds of small boats like his competed to gather wild oysters. At the end of the day, if conditions were favorable, he might have forty bushels to show for his labor.

Henry Rowe and Captain Bob were both important players in a booming business. During the late 1800s, diners from California to the British Isles enjoyed Connecticut oysters on the half shell, and business and government leaders across America looked to Connecticut's industry as a model for their own.³ At the core of this industry was an unusual property rights regime. Connecticut oystering simultaneously encompassed both a regulated commons for natural oyster grounds (that is, Captain Bob's turf) and a private property regime for other areas of the seabed (where Rowe reigned). These radically different legal sub-regimes coexisted more or less peacefully through decades of profound

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1. See FISH COMM'RS & SHELL FISH COMM'RS OF THE STATE OF CONN., SIXTEENTH ANNUAL REPORT OF THE FISH COMMISSIONERS AND FIRST REPORT OF THE SHELL FISH COMMISSIONERS OF THE STATE OF CONNECTICUT 74 (1882) [hereinafter 1882 REPORT]; *Catching Oysters by Steam Power*, SEA WORLD, Aug. 4, 1879 (on file in the Oystering Collection, collection 121, vol. 1 ("Scrapbook No. 1 (Henry C. Rowe, New Haven, Connecticut)")), G.W. Blunt White Library, Mystic Seaport [hereinafter Rowe Scrapbook]; Henry C. Rowe, *Deep Water Oyster Culture*, 13 BULL. U.S. FISH COMM'N 273, 274, 276 (1893); *Oyster Legislation*, NORWALK SENTINEL, Apr. 7, 1880 (Rowe Scrapbook); *The Steam Dredge Bill*, NEW HAVEN J.-COURIER, Mar. 4, 1880 (Rowe Scrapbook).
 2. Captain Bob's last name has been lost to the ages. He was the subject of a 1904 profile in the *New York Tribune*, from which I have taken this description. See *Oyster Dredging: Long Island Sound Is Yielding Well This Year*, N.Y. TRIB., Nov. 6, 1904, at B6 [hereinafter *Oyster Dredging*].
 3. See J.W. Collins, *Notes on the Oyster Fishery of Connecticut*, 9 BULL. U.S. FISH COMMISSION 461, 461, 480-81 (1889).

technological and economic change, ferocious public controversy, and repeated attempts at simplification.⁴

This history is especially surprising in light of the conventional account of the development of property rights. In this account, law evolves toward efficiency, and in turn, valuable resources are subjected to private ownership in order to maximize production and minimize waste.⁵ Indeed, the law and economics literature has specifically cited oystering as evidence for the proposition that privatization promotes efficiency.⁶ According to the conventional account, then, one might have expected comprehensive enclosure of oyster grounds from an early date. Connecticut's stable and productive bifurcated system of property in oyster grounds, under which common ownership persisted for decades, seems to contradict this narrative.

In this Note, I explain Connecticut's somewhat puzzling two-tiered property regime. Drawing extensively on primary source material, I demonstrate that this regime enabled the use of efficient modern technologies while simultaneously preserving an open-access resource cherished and depended upon by multitudes. Moreover, I show that dividing the Long Island Sound into private and public territories generated productive biological and trade interactions

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4. In contrast, efforts to regulate oystering and enclose oyster grounds in other American fisheries generated violent conflict. See, e.g., BONNIE J. MCCAY, *OYSTER WARS AND THE PUBLIC TRUST: PROPERTY, LAW, AND ECOLOGY IN NEW JERSEY HISTORY* (1998); Anna Maria Gillis, *Oyster Wars*, HUMANITIES, May-June 2011, at 6, <http://www.neh.gov/humanities/2011/mayjune/statement/oyster-wars> [<http://perma.cc/B4YD-KH3D>] (Chesapeake Bay).
 5. The canonical account is Harold Demsetz, *Toward a Theory of Property Rights*, 57 AM. ECON. REV. 347, 350, 354-58 (1967). See also Michael Heller, *The Rose Theorem?*, 18 YALE J.L. & HUMAN. 29, 46 (2006) (outlining "the familiar 'scarcity story' of institutional economics," associated with Demsetz and Ronald Coase, in which informal regulation and communal property rights give way to formal private property); Saul Levmore, *Two Stories About the Evolution of Property Rights*, 31 J. LEGAL STUD. S421, S421 (2002) (describing the "conventional story" of increasingly private property rights and corresponding increases in value and economic activity).
 6. In a series of frequently cited analyses of mid-twentieth-century oyster-yield data, Richard Agnello and Lawrence Donnelley found that states with stronger private property rights in oyster grounds tended to enjoy higher labor productivity in their oyster industries. See Richard J. Agnello & Lawrence P. Donnelley, *Externalities and Property Rights in the Fisheries*, 52 LAND ECON. 518, 525 (1976); Richard J. Agnello & Lawrence P. Donnelley, *Prices and Property Rights in the Fisheries*, 42 S. ECON. J. 253, 259-60 (1975); Richard J. Agnello & Lawrence P. Donnelley, *Property Rights and Efficiency in the Oyster Industry*, 18 J.L. & ECON. 521, 522 (1975); Richard J. Agnello & Lawrence P. Donnelley, *Regulation and the Structure of Property Rights: The Case of the U.S. Oyster Industry*, 6 RES. L. ECON. 267, 278 (1984); see also Alison Rieser, *Oysters, Ecosystems, and Persuasion*, 18 YALE J.L. & HUMAN. 49, 51-52 (2006) (stating that Agnello and Donnelley's "account apparently has become the standard fare in economics textbooks and the oyster something of a poster child for the campaign to privatize the fishery commons").

across territorial boundaries, mitigating the efficiency losses associated with the partial preservation of the commons. Because of these economic and political advantages, the hybrid regime survived and thrived.

My historical findings have several theoretical implications. In offering the first in-depth account of Connecticut's oyster property system and its origins, I join the many writers who have shown that reality often contradicts the conventional tale of evolution toward efficient formal privatization and that alternative property systems often prove viable because they fulfill important societal needs—economic and otherwise. My account also demonstrates that these viable alternative property systems include hybrid regimes—that is, regimes that impose different property rules at different points in space or time. There have been few studies of such hybrid regimes from any perspective.⁷ In addition to expanding this small literature with a novel historical study, I make two contributions to our theoretical understanding of hybrid regimes. First, I show that regimes that are hybrid across geographic space, like Connecticut's, can give rise to efficiency-improving interactions among constituent territories subject to different property rules. Second, and more fundamentally, in contrast to existing studies of hybrid regimes—which heavily emphasize economic efficiency—I demonstrate that hybrid regimes can emerge and thrive because of their political functions.

This Note is organized in four Parts. Part I reviews the literature on the emergence of property rights, on alternatives to formal privatization, and on hybrid property systems, and it more fully situates this Note within these bodies of literature. Part II briefly provides context on the oyster and its cultivation. Part III looks back to the history of Connecticut oystering and shows that, although relevant law initially developed in apparent harmony with the typical tale of evolution toward efficiency, by the late nineteenth century Connecticut had chosen a different path—and succeeded nonetheless. Part IV explains this apparent anomaly with reference to both economic and political dynamics.

I. THE EMERGENCE OF PROPERTY RIGHTS: EFFICIENT PRIVATIZATION AND ITS CRITICS

A. The Conventional Account: Efficient Privatization

Harold Demsetz's cost-benefit framework is the classic, if contested, starting point for theorists of the emergence and maintenance of property rights. Demsetz famously argued that property rights tend to change according to “the emergence of new or different beneficial and harmful effects” produced by

7. See *infra* Part I.B.1.

those rights.⁸ In brief, when changes in the circumstances of economic production make it more profitable to society as a whole to establish a new property regime, such a regime will tend to emerge, whether through legislation, judicial decisions, or the evolution of social mores.⁹

Demsetz's framework has commonly been used to explain the gradual and seemingly universal advent of private property.¹⁰ On this account, resources that are increasing in value are more likely to be subjected to private property regimes that help those who produce or safeguard those resources to fully capture the resulting benefits.¹¹ The shift to private property can be expected to occur as long as the resulting efficiency gains outweigh the costs entailed in establishing and maintaining private property, such as the basic costs of exclusion (fences, guards, and so on) and the extra vigilance needed to deter interlopers from absconding with rising-value resources.¹² Even critics of the cost-benefit paradigm have acknowledged that, in the real world, enclosure tends to follow rises in value, apparently vindicating Demsetz.¹³ As Saul Levmore has observed, "the conventional story about the evolution or maturation of property rights . . . emphasizes that, with increases in value and economic activity, property rights become secure, strong, well defined though malleable and divisible, and increasingly private."¹⁴

B. Critique of the Conventional Account: Politics May Prevail

Demsetz's framework allows us to predict in broad strokes when private property may emerge, but is less helpful in exploring the mechanisms of pri-

8. Demsetz, *supra* note 5, at 350.

9. See *id.*; Thomas W. Merrill, *Introduction: The Demsetz Thesis and the Evolution of Property Rights*, 31 J. LEGAL STUD. S331, S331-33 (2002). Demsetz's case in point is the early Canadian fur trade, in which the rising value of furs and the consequent expansion of hunting increased externalities to common hunting ground ownership and prompted a move toward enclosure. See Demsetz, *supra* note 5, at 351-52.

10. See, e.g., Stuart Banner, *Transitions Between Property Regimes*, 31 J. LEGAL STUD. S359, S360-61 (2002); Heller, *supra* note 5, at 46.

11. See Demsetz, *supra* note 5, at 350, 356-57 ("[P]roperty rights develop to internalize externalities when the gains of internalization become larger than the cost of internalization. Increased internalization, in the main, results from changes in economic values . . . [P]rivate ownership of land will internalize many of the external costs associated with communal ownership The reduction in negotiating cost that accompanies the private right to exclude others allows most externalities to be internalized at rather low cost.").

12. See Terry L. Anderson & P.J. Hill, *The Evolution of Property Rights: A Study of the American West*, 18 J.L. & ECON. 163, 165-68 (1975).

13. See, e.g., Banner, *supra* note 10, at S361.

14. Levmore, *supra* note 5, at S421.

vate property's emergence.¹⁵ Nor does Demsetz clearly explain why efficiency-promoting revisions to property law, such as privatization, often fail to occur.¹⁶ Later writers have attempted to fill in these gaps, with many calling particular attention to the complex political dynamics that tend to emerge around valuable resources.¹⁷ In addition to the classic drivers of relative resource prices and technological developments, political power and legitimacy affect efforts to alter property regimes.¹⁸ To quote Gary Libecap: "The key for understanding . . . variation in property rights institutions is recognizing that the property rights that are devised to reduce the wastes of the common pool simultaneously define a distribution of wealth and political power."¹⁹ Property reform debates "activate" both those who stand to gain from change and those who risk losses, in degrees proportional to each side's interest in changing the status quo.²⁰ These groups' strength, in turn, may depend on factors internal to the group that have little to do with the economic costs and benefits of enclosure. For example, Libecap emphasizes that the relative size, internal heterogeneity, and resources of interest groups, as well as the roles they play in the status quo, all contribute to determining property outcomes. Current owners of resources are also more likely to have developed strategic political ties and an understanding of the "rules of the game" that will aid them in lobbying against reform.²¹

Similarly, factors apart from economic cost and benefit shape the political context within which interest groups battle.²² When competing interest groups are numerous and heterogeneous, negotiation is difficult, and the status quo is

15. See Banner, *supra* note 10, at S360-61.

16. See Levmore, *supra* note 5, at S422 ("[T]here are many [historical] examples that surprise the conventional storyteller.").

17. See, e.g., GARY D. LIBECAP, CONTRACTING FOR PROPERTY RIGHTS 16, 120-21 (1989); Terry L. Anderson & Peter J. Hill, *Cowboys and Contracts*, 31 J. LEGAL STUD. 5489, 5496-97 (2002); Katrina Miriam Wyman, *From Fur to Fish: Reconsidering the Evolution of Private Property*, 80 N.Y.U. L. REV. 117, 136-39 (2005).

18. LIBECAP, *supra* note 17, at 16, 120-21; Daniel Fitzpatrick, *Evolution and Chaos in Property Rights Systems: The Third World Tragedy of Contested Access*, 115 YALE L.J. 996, 1000 (2006).

19. LIBECAP, *supra* note 17, at 116.

20. See *id.* at 16 ("Capturing a portion of any rents that can be saved by more precisely defining property rights motivates individuals to organize for collective action to adjust property institutions [L]obbying politicians and other government officials for new or increased government support for existing private property rights will activate other interest groups in the political process."); *id.* at 25 (recognizing that changes in resource values can catalyze new bargaining); *id.* at 28 ("The greater the concentration of wealth under the proposed property rights allocation, the greater the likelihood of political opposition").

21. *Id.* at 17; see also Banner, *supra* note 10, at S360.

22. See LIBECAP, *supra* note 17, at 18.

more likely to persist.²³ When information concerning the value of parties' positions under current and proposed regimes is hard to procure, compromise solutions may be similarly unattainable.²⁴ Meanwhile, the electorate to which interest groups appeal may be unfamiliar with, or reflexively distrustful of, novel property rights systems. Longstanding arrangements may have developed ideological or sentimental value over time, which, in turn, may reduce the perceived legitimacy of new systems and of the authorities attempting to impose them.²⁵ In these ways, even efficiency-promoting revisions to property rights can entail substantial process and bargaining, causing social conflict and making these revisions unlikely—especially when the potential efficiency gains are likely to be modest.²⁶ When these political “costs” are factored into the efficiency equation, preserving or tinkering with the status quo of non-enclosure may be the best approach—even if theoretical economic efficiency gains are abandoned in the process.

C. Critique of the Conventional Account: Common Property May Be More Efficient

Even when political conditions allow for change, the most efficient regime in a particular situation may bear little resemblance to the formal, well-defined set of property rights familiar to the Western legal tradition. Informal systems that preserve some or all of the elements of common ownership may benefit from subtle efficiencies despite their lack of formal order. Robert Ellickson has argued that bottom-up, somewhat ad hoc property systems can reproduce most or all of the benefits of formal property law with a minimum of economic investment, procedure, and social disruption.²⁷ Ellickson's study explored the complex of norms governing rangeland in Shasta County, California. He concluded that these norms applied more or less universally within the county and supplanted the formal laws that ostensibly governed the rangeland.²⁸ Ellickson concluded from his study that similarly powerful norms tend to emerge to gov-

23. *Id.* at 21-22.

24. *Id.* at 23-24.

25. *Cf.* Fitzpatrick, *supra* note 18, at 1000 (noting that state actors' ability to enforce property rights regimes depends in part on the actors' legitimacy).

26. *See* LIBECAP, *supra* note 17, at 28.

27. ROBERT C. ELICKSON, ORDER WITHOUT LAW: HOW NEIGHBORS SETTLE DISPUTES 167, 181-82 (1991).

28. *Id.* at 52-53.

ern “workaday affairs” within “close-knit” groups, and that such norms maximize group welfare.²⁹

Informal governance, like formal regulation, can “privatize” resources at various scales. For example, the “lobster gangs” chronicled by James Acheson are a classic example of informal privatization at a small group level.³⁰ These “gangs” of lobstermen exclude all but a few from each lobster ground by implementing a host of unwritten rules through sabotage, secrecy, deception, selective mutual aid, and kinship ties.³¹ In contrast, Fikret Berkes has described a largely informally maintained fishery regime in Alanya, Turkey, in which relatively open access (all local fishermen are allowed to fish) is paired with a complex allocation scheme for prime locations within the fishery.³² Drawing on case studies such as Berkes’s, Elinor Ostrom has enumerated sociopolitical conditions under which communities can effectively protect and sustain valuable resources while maintaining such open systems.³³ She argues that the community enjoying access to the commons must be, among other traits, well-defined and self-governed, so that it is able to define rights, exclude outsiders, and monitor and discipline insiders as needed.³⁴

D. Alternatives to Privatization: Homogeneity and Hybridity

Demsetz’s critics have demonstrated that valuable resources are not inevitably privatized, and they have identified conditions that can make privatization less than optimal. Beyond theoretical arguments, they have produced many case studies of alternative property rights arrangements in the real world, from Turkish fishing villages to California ranching communities.³⁵ Michael Heller has even extended the project to oysters themselves. In a brief study of the Chesapeake Bay’s famed “oyster wars,” Heller, drawing on Carol Rose’s concept of the “limited commons,” argues that Chesapeake oysters historically were subject to an intricate, dynamic legal regime incorporating common and

29. *Id.* at 167.

30. See JAMES M. ACHESON, *THE LOBSTER GANGS OF MAINE* (1988).

31. *Id.* at 48-49, 64-65, 73-75, 101-04.

32. See Fikret Berkes, *Marine Inshore Fishery Management in Turkey*, in *PROCEEDINGS OF THE CONFERENCE ON COMMON PROPERTY AND RESOURCE MANAGEMENT* 63 (Panel on Common Prop. Res. Mgmt., Nat’l Res. Council ed. 1986); see also ELINOR OSTROM, *GOVERNING THE COMMONS: THE EVOLUTION OF INSTITUTIONS FOR COLLECTIVE ACTION* 18-20 (1990) (describing Berkes’s study).

33. See Elinor Ostrom, *Collective Action and the Evolution of Social Norms*, 14 *J. ECON. PERSP.* 137, 149-53 (2000).

34. *Id.* at 149-51.

35. See *supra* notes 27-32 and accompanying text.

private rights as well as formal and informal means of enforcement.³⁶ In fact, Heller claims, “every oyster culture interpolates among . . . ideal type regimes and creates something new and distinct,” undermining neat tales of progression from open access to formal privatization.³⁷

Many of the critiques of such tales share a methodological simplification, in which a non-Demsetzian property regime is described in relative isolation and portrayed as applying the same set of rules to all relevant instances of a resource. For example, Ellickson explores the functioning of a norm-based property regime governing rangeland in Shasta County, and Berkes analyzes the management of village fishing waters through collective, informal regulation. Heller’s account of the Chesapeake’s polyphonous “oyster culture” appears to take a further step by acknowledging the interpolation of multiple forms of regulation within a single, resource-specific property regime. However, Heller does not explore whether the Chesapeake system applied the same set of (jumbled, non-Demsetzian) rules uniformly, or whether the Chesapeake system treated apparently similar resources differently depending on their particular attributes.

In many settings, of course, similar resources are often subjected to different property rules depending on temporality or geography. Land is the most obvious example. Geographically distinct parcels may be regulated differently. For example, a residential plot replete with “No Trespassing” signs may stand between a public park and a golf course open only to members of the local country club. Furthermore, the same parcel may take on a different legal character with the passage of time: for example, public parks often become no-trespassing zones after dark, whether through law or less formal means of exclusion.³⁸

Although these everyday instances of property hybridity may seem unremarkable, hybridity can substantially improve the efficiency and stability of property regimes. Henry Smith, one of the only scholars to consider hybrid regimes in any depth, has observed that the interaction of different property rules across time can promote important social goods.³⁹ Smith coined the term

36. Heller, *supra* note 5, at 46-47; see also Carol M. Rose, *The Several Futures of Property: Of Cyberspace and Folk Tales, Emission Trades and Ecosystems*, 83 MINN. L. REV. 129, 139-40 (1998) (discussing the “limited commons” concept).

37. Heller, *supra* note 5, at 47.

38. See, e.g., ROY ROSENZWEIG & ELIZABETH BLACKMAR, *THE PARK AND THE PEOPLE: A HISTORY OF CENTRAL PARK* 473 (1992); Ben Yakas, *NYPD to People Exercising in City Parks: Your Asses Are Ours After Dark*, *GOTHAMIST* (Mar. 1, 2014, 4:30 PM), http://gothamist.com/2014/03/01/nypd_to_people_exercising_in_city_p.php [<http://perma.cc/5HVK-MM9V>].

39. Henry E. Smith, *Semicommon Property Rights and Scattering in the Open Fields*, 29 J. LEGAL STUD. 131, 135-36 (2000).

“semicommons” to describe a regime in which a resource is sometimes common and sometimes private, and in which “both common and private uses are important and impact significantly on each other.”⁴⁰ Smith illustrated the semicommons concept through the apparently inefficient but surprisingly durable medieval open-field system. Under this regime, land was held and farmed privately most of the time, but at certain times the private right to exclude was suspended to allow for grazing by the village’s collective herd across all parcels.⁴¹ The hybridity of the open-field system allowed villagers to engage in multiple kinds of production and enabled valuable interaction between productive activities.⁴² For example, the herd left manure on the land, providing a valuable input to private grain-growing later in the year.⁴³ At the same time, informal institutions restrained the negative consequences of (occasional) common ownership.⁴⁴ In these ways, temporal hybridity promoted economic efficiency.

E. Extending the Semicommons

Smith’s work on the semicommons provides several fundamental insights about hybrid property regimes. First, regimes defined by hybridity can and do emerge and persist in the real world. Second, by enabling and facilitating coexistence among, and interaction between, multiple forms of production requiring different property arrangements, hybrid regimes can provide important benefits. Third, hybrid regimes benefit from regulation, whether formal or informal, to prevent individuals from exploiting hybridity to their benefit but to the community’s detriment.

The rest of this Note extends Smith’s insights by documenting and analyzing an unusually vivid historical instance of hybrid property regulation. During

40. *Id.* at 131-32.

41. *Id.* at 132, 134-35.

42. *Id.* at 135-36.

43. *Id.* at 136.

44. Smith notes that community norms and ad hoc adjudications regulated participation. *Id.* at 136-37. Furthermore, each villager’s plots were scattered throughout the field, making it difficult for any villager strategically to direct the herd to or away from his sometime plot (for example, to avoid having the herd trample the plot during wet weather, or to secure manure to it during the time of year when it would be most valuable). *Id.* at 146-47, 149. By preventing villagers from exploiting the semicommons structure to benefit themselves at the expense of the rest of the community, scattering warded off a prisoner’s dilemma situation. *Id.* at 146 (“[B]y trying to influence the animals, everyone is at least worse off relative to mutual cooperation to the extent [that he engages in] unproductive efforts, but each farmer is individually better off engaging in such efforts than in refraining from them, regardless of what the others do.”).

the late nineteenth century, Connecticut developed a hybrid property regime, encompassing both common and private territory, to govern the rich oyster grounds of the Long Island Sound. Hybridity was the defining feature of this regime in its legal structure, its political history, and its day-to-day functioning. For this reason, Connecticut's historic oyster-ground property regime is an ideal case study on the origins and functions of hybrid property systems.

In exploring Connecticut's hybrid property system, this Note both adds to and expands upon Smith's work. The literature on hybrid regimes is not extensive. By documenting another real-world instance of hybrid property regulation and its functions, this Note further develops that literature and substantiates Smith's insights.

Moreover, this Note adds to current understanding of the semicommons in two important ways. First, I analyze a property regime that is hybrid over geographic space, rather than hybrid over time. A central point of Smith's analysis is that a semicommons regime can benefit from efficiency-boosting interactions among the sub-regimes that comprise it. Smith's essay focused on interaction among property sub-regimes, each of which applies to resources within the semicommons at different times—that is, sub-regimes that are spatially but not temporally coincident. On the other hand, I demonstrate that similar positive interactions can emerge if each sub-regime applies only to certain resources within the semicommons, but all operate at the same point in time—that is, if sub-regimes are temporally but not spatially coincident.⁴⁵ Few scholars have studied spatially hybrid property regimes in depth. To be sure, various articles have noted the obvious fact that such regimes exist,⁴⁶ and a few have consid-

45. Smith's account implies at one point that the medieval open-field system was spatially hybrid as well as temporally hybrid. Specifically, fallow fields were always open to grazing, and at least some fields were fallow at any given time. *Id.* at 135. Therefore, the open-field semicommons, like the Connecticut oyster regime, simultaneously encompassed both public and common property areas. However, Smith does not detail interactions between simultaneously existing private and common plots, and, in general, he characterizes the open-field semicommons as temporally hybrid rather than spatially hybrid. *See id.* at 132 ("In the open-field system, peasants had private property rights to the grain they grew on their individual strips However, during certain seasons, peasants would be obligated to throw the land open to all the landowners for grazing their animals (especially sheep) in common, under a common herdsman."); *see also* Henry E. Smith, *Exclusion Versus Governance: Two Strategies for Delineating Property Rights*, 31 J. LEGAL STUD. S453, S480-81 (2002) (describing the medieval open-field semicommons as "a situation[] in which common property and private property regimes both interact[ed] . . . by physical overlap and temporal interleaving" and as "a system of temporally interleaved rights").

46. *See, e.g.*, Abraham Bell & Gideon Parchomovsky, *Property Lost in Translation*, 80 U. CHI. L. REV. 515, 525 (2013) (common and private land in pre-colonial Native American villages); Richard A. Epstein, *The Allocation of the Commons: Parking on Public Roads*, 31 J. LEGAL STUD. S515, S534-36 (2002) (parking and no-parking zones); Sanne H. Knudsen, *Remedying the*

ered the efficiency benefits that such regimes may offer by pairing particular resources with particular property rules.⁴⁷ Nevertheless, these accounts do not explain the functions that the *interaction* of public and private property across space serves, and in turn, they do not fully explain how and when mixed regimes can serve as durable solutions to the struggle for rights to valuable resources. This Note aims to help fill this gap.

Second, and more fundamentally, I demonstrate that hybrid property regulation can promote political concord as well as economic efficiency, and that they can survive for that reason. In his article, Smith focused on the economic benefits of temporal hybridity, and explicitly adopted (if only for the sake of analysis) the simplified Demsetzian account of property rights, in which efficient arrangements tend to emerge.⁴⁸ Similarly, those scholars who have studied spatially hybrid systems in depth explain them in terms of economic efficiency.⁴⁹ At the same time, scholars recognize that politics also shape the development (or lack thereof) of novel property regimes.⁵⁰ This Note is the first to address explicitly the political functions of property hybridity. I trace the roots of Connecticut's hybrid regime to longstanding political conflict and demonstrate that it survived both because of its subtle efficiency virtues and

Misuse of Nature, 2012 UTAH L. REV. 141, 153 (the "patchwork quilt" of private and public land in the contemporary United States); Edella Schlager & Elinor Ostrom, *Property-Rights Regimes and Natural Resources: A Conceptual Analysis*, 68 LAND ECON. 249, 257-59 (1992) (open and informally enclosed lobster grounds); Katrina M. Wyman, *The Property Rights Challenge in Marine Fisheries*, 50 ARIZ. L. REV. 511, 530-31 (2008) (private and public land in the contemporary United States); James Graham Lake, Note, *Demsetz Underground: Busking Regulation and the Formation of Property Rights*, 87 N.Y.U. L. REV. 1100, 1102 (2012) (subway stations that allow and do not allow busking).

47. The most sustained exploration of a spatially hybrid regime is a recent student note. Lake, *supra* note 46 (arguing that New York City's regulation of busking in subway stations, in which buskers' use of busier stations is more strictly controlled, developed because the regulation limits externalities to busking where they are most severe). Elinor Ostrom reviewed an anthropological study of a village property regime incorporating both private and common land, and briefly noted that the distribution corresponded to the productive qualities of the land. See OSTROM, *supra* note 32, at 62-64.
48. Smith, *supra* note 39, at 133.
49. See, e.g., Lake, *supra* note 46. Although Lake focuses on efficiency factors, he does speculate that "exogenous legal norms," such as the First Amendment, were partially responsible for New York's adoption of a hybrid system rather than a uniform system, and some of the source material he cites suggests that public opinion also prevented New York from adopting a uniformly restrictive system. See *id.* at 1127-33. However, Lake does not analyze how and to what extent legal norms in fact embodied contemporary political pressures, nor (assuming that they did) why a hybrid regime was a particularly suitable response to these pressures such that it emerged and persisted in lieu of other potential solutions.
50. See *supra* Introduction.

because it embodied a distributional and symbolic compromise between warring elements of Connecticut's polity.

II. BASIC ELEMENTS OF THE NINETEENTH-CENTURY OYSTER INDUSTRY

A. *The Oyster and Its Ecosystem*

The Eastern oyster (*Crassostrea virginica*) naturally grows and reproduces in estuaries and other coastal waters, and it can form extensive accumulations where conditions are favorable.⁵¹ These accumulations are often referred to as "natural beds."⁵² The Connecticut coast, with its many shallow estuaries, inlets, and bays, provides excellent habitat for oysters and once possessed innumerable natural beds.⁵³

The oyster begins its life as a minute egg, known as "spawn."⁵⁴ Spawn are produced by oyster beds in innumerable quantities; after floating freely in the ocean, some ultimately adhere to stationary material, such as sand, natural debris, or the shells of other oysters.⁵⁵ This material is generically called "cultch." Once immobile, the spawn is called "spat" or "set," the latter term also being used to describe the total natural production of viable spat in a given year.⁵⁶

Spat and mature oysters face a host of dangers. Oysters are sensitive to variations in salinity, temperature, and food supply in the surrounding water.⁵⁷ They may also be smothered when storms and currents stir up sediment from the seabed.⁵⁸ They are susceptible to diseases, parasites, and water pollution.⁵⁹ Finally, oysters are consumed by a wide array of predators. In nineteenth-

51. See JOHN M. KOCHISS, OYSTERING FROM NEW YORK TO BOSTON 5-6 (1974).

52. *Id.* at 8.

53. See ERNEST INGERSOLL, A REPORT ON THE OYSTER-INDUSTRY OF THE UNITED STATES 58-87 (1881).

54. Some sources use the terms "spawn" and "spat" interchangeably. See, e.g., *Making Oyster Homes: Methods of Work Along the Connecticut Shore*, N.Y. TIMES, Aug. 7, 1892, at 11.

55. See KOCHISS, *supra* note 51, at 6-7; Rowe, *supra* note 1, at 274.

56. See Rowe, *supra* note 1, at 275.

57. See KOCHISS, *supra* note 51, at 5-7.

58. See, e.g., Gordon Sweet, *Oyster Conservation in Connecticut: Past and Present*, 31 GEOGRAPHICAL REV. 591, 603 (1941).

59. See, e.g., KOCHISS, *supra* note 51, at 7-8; *Oysters and Sewage: A Cheerful Story from New Haven*, HARTFORD DAILY COURANT, Nov. 19, 1888, at 6.

century Connecticut, the native starfish (*Asterias* sp.) was the most significant oyster predator.⁶⁰

B. Harvesting Oysters

For most of history, oysters were a wild resource and were gathered wherever they could be found. Some oyster grounds are shallow enough to be exposed at low tide, allowing for harvest by hand.⁶¹ Where beds are submerged, boats are used. The typical oyster vessel in nineteenth-century Connecticut was a small, fast, shallow-draft sailboat called a “sharpie.”⁶² Oysters were gathered from submerged bottoms with rakes, tongs, and most importantly, dredges.⁶³ Sailboats and hand tools were used exclusively in the Connecticut oyster fishery until the adoption of steam power in the 1870s.⁶⁴ Steam power allowed oystermen to use heavier and more capacious dredges, to harvest more oysters with fewer workers, and to work in deeper waters and in windless conditions.⁶⁵

C. Cultivating Oysters

Wild oysters are unpredictably available and may be depleted by overfishing. To avoid these risks, Connecticut oystermen began growing their own oysters around the turn of the nineteenth century.⁶⁶ Planting, an early technique, involved bringing young oysters, called “seed,” from elsewhere and depositing them on the seabed to mature.⁶⁷ Later, Connecticut oystermen learned that if they provided a suitable substrate in an area otherwise favorable to oyster growth, then they could “catch” and cultivate free-floating spat produced by

60. See, e.g., KOCHISS, *supra* note 51, at 7-8; *Destroyed by Star Fish: An Enemy Which Threatens to Exterminate the Oysters*, N.Y. TIMES, Jan. 19, 1889, at 2; *The Oysters' Enemy*, BRIDGEPORT STANDARD, Nov. 20, 1883 (Rowe Scrapbook) [hereinafter *The Oysters' Enemy*]; Unidentified newspaper clipping beginning “Few persons not in the trade . . .”, likely from the *Sea World* (c. 1879) (Rowe Scrapbook) [hereinafter Newspaper clipping beginning “Few persons not in the trade”] (“[A] company of stars . . . will go through an oyster bed sometimes like fire through a forest.”). Here and in subsequent footnotes, I have inferred the dates and/or publication titles of unidentified or incompletely identified primary sources using surrounding sources from the Rowe Scrapbook.

61. See, e.g., INGERSOLL, *supra* note 53, at 61.

62. See KOCHISS, *supra* note 51, at 91-123.

63. See *id.* at 81-82, 85-86, 88.

64. See *id.* at 131-33.

65. See *id.* at 89-90; Collins, *supra* note 3, at 465, 469.

66. See VIRGINIA M. GALPIN, NEW HAVEN'S OYSTER INDUSTRY, 1638-1987, at 17 (1989).

67. See KOCHISS, *supra* note 51, at 11.

other oysters.⁶⁸ Although the ancient Romans and Chinese used this technique, it apparently was not employed in Connecticut until the 1860s or so.⁶⁹ The ideal substrate was oyster shell. Connecticut cultivators deposited vast quantities of shells on previously barren stretches of seabed throughout the later decades of the nineteenth century.⁷⁰

Initially, cultivation was practiced in the shallow coastal waters where oysters had always been found. These waters became crowded, however, as the industry grew and private ownership of underwater land emerged.⁷¹ Planters and cultivators therefore turned to deeper plots and, eventually, Long Island Sound, where vast stretches of empty seabed lay under fathoms of water.⁷² New Haven oystermen first attempted cultivation in the Sound in the 1870s.⁷³ The technique quickly caught on, hugely increasing the output of the Connecticut oyster fishery.⁷⁴ Natural bed oystermen, sometimes referred to as “natural growers” or simply “growthers,” continued to harvest wild oysters during this period.⁷⁵

68. Sources of spat included “brood oysters” placed on the cultivation site, as well as nearby natural beds and planted tracts. *See id.* at 13; Collins, *supra* note 3, at 473; Rowe, *supra* note 1, at 274.

69. *See* EDWARD E. ATWATER ET AL., HISTORY OF THE CITY OF NEW HAVEN TO THE PRESENT TIME 615-16 (1887); KOCHISS, *supra* note 51, at 11.

70. *See, e.g.*, Henry C. Rowe, Letter to the Editor, *Monopoly of the Oyster Grounds*, NEW HAVEN REG., Aug. 26, 1875 (Rowe Scrapbook) (“. . . I have laid out a considerable sum in attempting to start a crop of oysters on the ground, and have put down fifteen thousand bushels of shells for that purpose, besides seed.”).

71. *See* INGERSOLL, *supra* note 53, at 64.

72. *See Notes from the Commission*, SEA WORLD, Oct. 27, 1879 (Rowe Scrapbook) (“Most of the valuable ground along the shores of Branford, East Haven, New Haven, West Haven, Milford, Stratford, Bridgeport, Norwalk and Darien, is already taken up under existing laws. This is the ground near shore. There are vast extents of deep water ground yet waiting some enterprising cultivators . . .”). For a fuller discussion of this history, see Part III.B, *infra*.

73. *See infra* Part III.B.

74. *See infra* Part III.B.

75. *See infra* Part III.B.1.

III. TESTING THE PRIVATIZATION NARRATIVE: CHANGES IN THE LAW, 1762-1881

A. The Conventional Narrative Corroborated: Early Regulation

The early history of oyster regulation in Connecticut more or less squares with the classical Demsetzian narrative, in which rising resource values trigger new restrictions on property ownership.

1. Early Abundance

Initially, oysters' natural abundance made regulation unnecessary. Connecticut's waters had always provided ample oysters. Native Americans harvested wild oysters from the shallows in and around present-day New Haven and left extensive shell middens throughout the area.⁷⁶ Oysters were a significant source of food for early European settlers, and they soon became economically important as well. New Haven's first oyster dealers were plying their trade in the seventeenth century,⁷⁷ and these dealers were supplied by professional oystermen who lived close to the harbor or the nearby Quinnipiac River.⁷⁸ By 1800, oysters were being exported inland as far as Montreal.⁷⁹ An 1824 report in the *East Haven Register* estimated local yearly production at 60,000-100,000 bushels.⁸⁰

2. Regulation of the Commons

As the oyster trade developed, wild oysters became scarce, and the law shifted in turn. In 1762, New Haven, whose beds had been under pressure since the early 1700s,⁸¹ forbade residents from harvesting during the spawning season and banned the removal of cultch from the natural beds in the harbor.⁸² In 1766, the New Haven town meeting extended the off-season through September and outlawed dredging altogether, believing it to harm the beds.⁸³

76. See ATWATER ET AL., *supra* note 69, at 613; GALPIN, *supra* note 66, at 13.

77. See ATWATER ET AL., *supra* note 69, at 613; GALPIN, *supra* note 66, at 13.

78. See INGERSOLL, *supra* note 53, at 61.

79. See GALPIN, *supra* note 66, at 14.

80. See ATWATER ET AL., *supra* note 69, at 613-14.

81. See GALPIN, *supra* note 66, at 13.

82. See KOCHISS, *supra* note 51, at 9-10.

83. See *id.* at 10.

Meanwhile, in 1784, the Connecticut legislature passed a law enabling towns to broadly regulate oystering within their waters.⁸⁴ Twenty-four coastal towns subsequently enacted seasonal restrictions and catch limits. Under these ordinances, oystermen were limited to two bushels a day and could only harvest within their own towns.⁸⁵

The two-bushel limit and the locality requirement were widely flouted.⁸⁶ The seasonal restriction apparently held up better, and by the early 1800s had been extended in New Haven until the end of October.⁸⁷ Yet even though the seasonal restriction was obeyed, this restriction did not appreciably slow depletion of the beds. In an 1880 reminiscence of oystering earlier in the century, one author vividly depicted the race to harvest wild oysters during the legal season, beginning at midnight on November 1:

No eye could see the great face of the church-clock on the hill, but lanterns glimmered upon a hundred watch-dials, and then were set down, as only a coveted minute remained. . . . [T]he great bell struck a deep-toned peal. It was like an electric shock. Backs bent to oars, and paddles churned the water. From opposite banks navies of boats leaped out and advanced toward one another. . . . Before the twelve blows upon the loud bell had ceased their reverberations, the oyster-beds had been reached, tongs were scraping the long-rested bottom, and the season's campaign upon the Quinepiac [sic] had begun. In a few hours the crowd upon some beds would be such that the boats were pressed close together. They were all compelled to move along as one, for none could resist the pressure of the multitude. The more thickly covered beds were quickly cleaned of their bivalves. . . . A week of this sort of attack . . . usually sufficed so thoroughly to clean the bottom, that subsequent raking was of small account. . . . It was not long . . . before the old-fashioned large oysters, "as big as a shoe-horne," were all gone, and most of those caught were too small for market.⁸⁸

84. See An Act for Encouraging and Regulating Fisheries, 1784 Conn. Pub. Acts 78, 78.

85. See GALPIN, *supra* note 66, at 13-14.

86. See *id.* at 14.

87. See INGERSOLL, *supra* note 53, at 63.

88. *Id.* at 64. Although Ingersoll wrote many years after the events he described took place, an 1867 newspaper article corroborates his description, see *The Fair Haven Oyster Trade: The Bivalves from Infancy to Death*, HARTFORD DAILY COURANT, Sept. 28, 1867, at 1 [hereinafter *The Fair Haven Oyster Trade*], and an 1887 source assures us that "the old residents pronounce [Ingersoll's account] quite correct." ATWATER ET AL., *supra* note 69, at 614.

3. *The Advent of Enclosure*

Even as the natural beds continued to decline, demand for oysters was booming, driven in large part by population growth.⁸⁹ Connecticut oystermen turned to planting and cultivation to fill the gap. Planting began in New Haven harbor around 1800. Planters used seed oysters both from local beds and from further afield, including the Housatonic River, New York, Delaware Bay, and, by sometime between 1817 and 1830, the vast natural beds of the Chesapeake Bay.⁹⁰ Fueled by imported Chesapeake seed and the advent of rail transport, the New Haven oyster industry expanded greatly from the 1830s to the 1850s.⁹¹ Levi Rowe & Co., one of the city's leading firms, sold 150,000 gallons of opened oysters in 1856 alone.⁹² A fleet of at least eighty boats was employed in transporting seed from southern waters.⁹³ Hundreds worked in shucking and packing,⁹⁴ and Fair Haven developed a thriving manufacturing sector secondary to the fishery, producing goods such as barrels, cans, tubs, pails, and oyster-shell lime.⁹⁵

As planting entered its boom years, full-fledged cultivation (that is, catching spat, rather than planting seed) was just beginning to emerge. Various oystermen experimented with cultivation using shells in the 1850s and 1860s;⁹⁶ however, the practice became dominant only after further technological developments in the 1870s.⁹⁷ Cultivation and planting both differed from wild harvesting in that they required long-term investment on the part of producers, raising the possibility of free-riding. An industrious oysterman might plant a few acres of seabed and return years later to harvest the mature oysters, only to find them harvested in the meantime by an unscrupulous competitor. Underwater land was deemed public property both at common law and in popular

89. See GALPIN, *supra* note 66, at 17.

90. Sources differ as to the exact onset of the Chesapeake trade. Compare ATWATER ET AL., *supra* note 69, at 614 ("about 1823"), with KOCHISS, *supra* note 51, at 15 ("1830 . . . although certain evidence points to 1823 or earlier"), and *The Fair Haven Oyster Trade*, *supra* note 88 ("1817").

91. See INGERSOLL, *supra* note 53, at 61. As before, much of the production was for export. See, e.g., *Oyster Trade at Fairhaven*, N.Y. DAILY TRIB., Jan. 9, 1857, at 6 [hereinafter *Oyster Trade at Fairhaven*] ("The Hartford and New Haven Railroad are at present running from six to ten cars daily, loaded with oysters, mostly destined for the Western market, though a portion pass up the Connecticut valley and find their way into Canada East.").

92. See INGERSOLL, *supra* note 53, at 61.

93. See *Oyster Trade at Fairhaven*, *supra* note 91.

94. See *id.*; *The Fair Haven Oyster Trade*, *supra* note 88.

95. See ATWATER ET AL., *supra* note 69, at 621; *The Fair Haven Oyster Trade*, *supra* note 88.

96. See INGERSOLL, *supra* note 53, at 72-77; KOCHISS, *supra* note 51, at 17.

97. See *infra* Part III.B.

opinion, and in turn, planters had little ability to exclude others from planted grounds.⁹⁸

Consonant with Demsetz's narrative, the law soon shifted to enable oystermen to capture the profits of cultivation. In 1845, the Connecticut legislature authorized town committees to allow oystermen to stake out areas of the seabed and plant them with imported oysters, and imposed penalties for trespassing upon staked-out grounds.⁹⁹ In 1855, with the southern trade flourishing, the legislature provided further security for planters by allowing the town committees to grant perpetual titles in the seabed to individuals.¹⁰⁰ The 1855 statute restricted individual ownership to two acres, but one could evade this restriction by gathering together the grants of friends, relations, and even strangers.¹⁰¹

Oyster entrepreneurs quickly claimed and enclosed a great deal of land. Tracts were marked off with poles or branches sunk into the seabed.¹⁰² In 1862, a French envoy visited New Haven and described its harbor: "As far as the eye can see, the bay is covered with myriads of branches, waving in the wind, or swayed by the force of the currents. It looks as if a forest were submerged, the tops of the trees only rising above the surface of the water."¹⁰³

The early enclosure regime had rough edges. Grants often described the tracts at issue in loose terms; the seabed was poorly surveyed; and procedures for designating and transferring land were irregular and inconsistent.¹⁰⁴ Moreover, many oystermen staked out and claimed ground without legal sanction,

98. See THOMAS W. MERRILL & HENRY E. SMITH, *PROPERTY: PRINCIPLES AND POLICIES* 312-13 (1st ed. 2007) (noting that underwater land was public property at common law); INGERSOLL, *supra* note 53, at 65 (stating that underwater land was public property in the public opinion).

99. See An Act in Addition to an Act Entitled "An Act for the Growing of Oysters," 1845 Conn. Pub. Acts 41-42. In 1846, the law was amended to permit planting native oysters as well as imported seed. See An Act Relating to the Growing of Oysters, 1846 Conn. Pub. Acts 32; Sweet, *supra* note 58, at 593.

100. See An Act Regulating and Protecting the Planting of Oysters, 1855 Conn. Pub. Acts 112.

101. See *id.* at 112-13; INGERSOLL, *supra* note 53, at 64; Sweet, *supra* note 58, at 594; *The Oyster Interest: Differing Opinions on the Subject of Grants of Oyster Lots*, NEW HAVEN J.-COURIER, Apr. 4, 1878 (Rowe Scrapbook) ("[U]nder the various acts of legislation . . . parties had got persons to put down their names for the limited two acres and assigned them to the one operator. In this way men in the dry goods business . . . and lawyers had had lots marked off, and had assigned them, themselves not knowing or caring anything about oysters or the oyster business.").

102. See P. de Broca, *On the Oyster-Industries of the United States*, in 1873-1875 U.S. COMM'N OF FISH & FISHERIES, REPORT OF THE COMMISSIONER 271, 306.

103. *Id.* (footnote omitted).

104. See Sweet, *supra* note 58, at 594.

in ignorance or otherwise.¹⁰⁵ Disputes were common, especially when land granted through the town committees was already in use or had been staked out under previous laws. Ingersoll writes:

Cultivators of all grades found many and many instances in which their staked-out ground was reappropriated, or the oysters, upon which they had spent a great deal of time and money, were taken by their neighbors even, who angrily resented any imputation of stealing. . . . Having put some oysters on a piece of ground and found them to do well, a man would put in a claim for a grant of that piece, and feel greatly abused because it had previously been designated to some man who knew that the only proper or safe way was to get legal possession of the ground first, and make a trial afterwards.¹⁰⁶

In 1864 and 1865, the legislature banned the practice of staking out plots without committee consent, mandated the recording of designations and transfers, and allowed towns to tax the beds, thereby providing some modicum of additional certainty.¹⁰⁷

Concurrently, the legislature enacted new controls on the natural beds in an attempt to stem their continuing decline. These included a statewide off-season from March 1 to November 21, a ban on nighttime oystering on the public beds, and a total ban on the harvest of oysters by nonresidents of Connecticut.¹⁰⁸ Oystermen continued to gather tens of thousands of bushels from natural beds throughout this period, although due to intensive harvesting, the oysters taken up were too small to sell for consumption.¹⁰⁹ Instead, they were used as seed on other grounds.¹¹⁰ An 1867 article commented that “[a] good many of the native oysters are also taken out of the Quinnepiack [sic] and

105. See ATWATER ET AL., *supra* note 69, at 615.

106. INGERSOLL, *supra* note 53, at 65 (footnote omitted).

107. See An Act in Addition to an Act Entitled “An Act Regulating and Protecting the Planting of Oysters,” 1865 Conn. Pub. Acts 61; An Act in Addition to and in Alteration of “An Act Regulating and Protecting the Planting of Oysters,” 1864 Conn. Pub. Acts 69.

108. See An Act Regarding the Taking of Oysters, 1848 Conn. Pub. Acts 56-57 (ban on oystering by out-of-state residents); An Act in Addition to an Act Entitled “An Act for the Growing of Oysters,” 1845 Conn. Pub. Acts 42 (nighttime oystering ban); An Act To Promote the Growing of Oysters, 1842 Conn. Pub. Acts 49-50 (off-season). Towns were allowed to opt out of the legislatively imposed off-season, which functioned as a default rule. See An Act To Promote the Growing of Oysters, 1842 Conn. Pub. Acts 50.

109. See Collins, *supra* note 3, at 468; Sweet, *supra* note 58, at 593; see also INGERSOLL, *supra* note 53, at 86 (describing the depletion of the vast natural bed at Bridgeport).

110. See, e.g., Collins, *supra* note 3, at 468.

planted on the planting grounds. These are said to make the best oysters in the country.”¹¹¹

B. The Conventional Narrative Challenged: Technological Change and Property Law Hybridity

The law was changing, but the state of the art was changing faster, and by the late nineteenth century, the need for wholesale legal change was clear. This Part describes the stresses that affected the Connecticut oyster industry in the 1870s and 1880s, and details the legislature’s response. I show that the oyster reforms of 1881 halted the trend toward full privatization of the oyster grounds. Nonetheless, the property regime these reforms established survived and even flourished in the following years.

1. A Technological Revolution

In 1874, Peter Decker, a Norwalk oysterman, set out to sea in a steam-powered oyster sloop—the first of its kind.¹¹² Decker’s fellow oystermen were quick to realize the advantages of the new technology, and several were operating from purpose-built steamers by the late 1870s.¹¹³ Steam-powered oystering was incredibly efficient. “It must rather disturb those who have only the ordinary implements used in catching oysters,” one journalist commented, “to see the rapidity with which these steam monsters rake up the bivalves and deposit them on ship-board.”¹¹⁴ The *New York Times* observed that oystermen with steamers were able “to secure the lion’s share of seed from the public beds.”¹¹⁵

Steam power allowed oystermen to venture into deeper water. In 1874, Henry Rowe, a prominent New Haven cultivator, obtained a tract under thirty-five feet of water in the Long Island Sound and successfully cultivated a crop

111. *The Fair Haven Oyster Trade*, *supra* note 88.

112. See KOCHISS, *supra* note 51, at 131-32.

113. See *Catching Oysters by Steam Power*, *supra* note 1.

114. *Steam Dredging* (c. 1878) (newspaper clipping) (Rowe Scrapbook); see also 1882 REPORT, *supra* note 1, at 74 (“A medium-sized sail vessel with three men will dredge up about twenty-five bushels of oysters in a day; while a medium-sized steamer with only one man more will take twenty times as many.”); see also Untitled article beginning “It is said that at the next session . . .”, BRIDGEPORT FARMER, Aug. 25, 1881 (Rowe Scrapbook) [hereinafter Untitled *Bridgeport Farmer* Article] (equating the productivity of the average steamer with that of thirty-two average sail vessels).

115. *Law-Making in Connecticut: Much Discussion of the Oyster Question*, N.Y. TIMES, Mar. 22, 1881, at 1; see also *The Oyster*, HARTFORD DAILY COURANT, Mar. 16, 1881, at 1 (describing steamers’ advantage in harvesting seed from natural beds).

of oysters on it.¹¹⁶ Rowe's success shattered the long-held belief that the Sound's deep and turbulent waters were unsuitable for cultivation.¹¹⁷ The coastal towns were soon granting land far offshore.¹¹⁸ Steam was essential as cultivators pushed into faraway deep-water tracts, where the use of hand tools was infeasible.¹¹⁹

With steam power and deep-water cultivation, Connecticut's oyster production expanded as never before. Observers in other states looked on with some awe. "[T]he only noteworthy increase [in oyster production] is upon the Connecticut shore," the *New York Sun* reported in 1881. "Six or seven years ago the oyster cultivators of New Haven, Fair Haven, and Norwalk were in the habit of going over . . . to buy two-year-old oysters from the beds 'off Fire Island way,' for their planting. Now the process is reversed."¹²⁰

2. *The Need for Legal Change*

It soon became clear that Connecticut's success could continue only if its legislators caught up to reality. Existing law hindered efficient, modern oystering in several respects. First, and most obviously, many of Connecticut's most fertile waters were still exempt from enclosure. The early development of private property rights did not mean the end of the natural beds, which were expressly excluded from staking out and from private ownership in the laws of 1845 and 1855 and which continued to be reserved for the public under subsequent legislation.¹²¹

Second, even where private property in oyster grounds existed, the law mandated operation at an inefficient scale. In order to defray the expense of building and operating steamers, growers had to expand their holdings.¹²²

116. See Rowe, *supra* note 1, at 273.

117. See KOCHISS, *supra* note 51, at 20-22.

118. See, e.g., *The Connecticut Oyster Grounds: Report of the Commissioners of the General Assembly*, HARTFORD POST, Feb. 19, 1880 (Rowe Scrapbook) [hereinafter *The Connecticut Oyster Grounds*].

119. See, e.g., 1882 REPORT, *supra* note 1, at 74 ("For deep-water cultivation steamers are indispensable. They . . . enable the growers to work at times and in places and ways that no sail vessels would attempt . . .").

120. *Sound Oyster Growing: Connecticut's Enterprise in Newly Acquired Territory*, N.Y. SUN, Sept. 4, 1881 (Rowe Scrapbook).

121. See An Act Regulating and Protecting the Planting of Oysters § 3, 1855 Conn. Pub. Acts 112, 113; An Act in Addition to an Act Entitled "An Act for the Growing of Oysters" § 3, 1845 Conn. Pub. Acts 41, 42; INGERSOLL, *supra* note 53, at 64; Sweet, *supra* note 58, at 594.

122. See, e.g., *Catching Oysters by Steam Power*, *supra* note 1 ("There are very few oyster growers who do a business sufficiently large to afford the heavy outlay of the first cost, and the still

However, the law limited individuals to two acres each.¹²³ To avoid ruin, oystermen transacted around the law. In 1875, for example, Henry Rowe assembled fifty-eight co-claimants in order to acquire an 128-acre tract in the New Haven harbor channel.¹²⁴ Such tricks were costly, and by the late 1870s, many were calling for the two-acre limit to be abandoned altogether. The *Sea World* commented: “It is universally shown that the ‘two acre law’ is useless except as a vexation. No cultivator can really do anything with two acres alone. About as well attempt to navigate a steamboat in a washtub.”¹²⁵ Another editorial predicted that “[t]en years may show that even fifty acres is too small a piece.”¹²⁶

Third, because no registry existed, the 1870s oyster boom spawned even more property disputes. Oystermen frequently staked out land deeded to others, and towns deeded lands already granted by their neighbors.¹²⁷ The two-acre requirement contributed to the confusion, since assembled plots were inevitably irregular in shape.¹²⁸ Disputes over town boundaries proliferated, both between oystermen fighting over tracts and between towns seeking to tax the increasingly valuable seabed.¹²⁹ These disputes implicated the ability of towns

more telling one of the constant expense, thus making what may be termed an ‘elephant’ to any dealer not having an immense quantity of oysters to catch up every year.”). Henry Rowe’s first steamer, a sixty-three-foot vessel with three steam engines, four dredges, and a crew of ten, cost \$6,500; he acquired a second steamer a few years later at a cost of \$9,000. *See id.*; Newspaper clipping beginning “George N. Graves, of Fair Haven” (c. 1882) (Rowe Scrapbook).

123. *Cf.* LIBECAP, *supra* note 17, at 53 (discussing a similar situation in the early Western logging industry).
124. *See Monopoly of the Oyster Grounds, supra* note 70.
125. *Notes from the Commission, supra* note 72.
126. *Change in Oyster Laws, SEA WORLD*, Jan. 5, 1880 (Rowe Scrapbook).
127. *See, e.g., Oyster Grounds, NEW HAVEN J.-COURIER*, June 30, 1876 (Rowe Scrapbook); *Troubles of Oystermen, NEW HAVEN UNION*, July 15, 1876 (Rowe Scrapbook); Untitled newspaper clipping beginning “A good deal of trouble is constantly arising . . .”, *NEW HAVEN J.-COURIER*, May 6, 1878 (Rowe Scrapbook).
128. *Sound Oyster Growing, supra* note 120 (“[T]he plots granted [under the two-acre system] were of all sizes and shapes, run in such irregular lines that a map of them looked like a Chinese puzzle more than anything else, and it must have been almost impossible for dredgers to avoid at times trenching upon the property of their neighbors and thus begetting disputes, reprisals, and law suits.”).
129. *See, e.g., Rowe v. Smith*, 48 Conn. 444 (1880). The towns surrounding New Haven harbor—a vital oystering ground divided along numerous uncertain jurisdictional boundaries—resorted to the courts, the legislature, and private negotiation to resolve their disputes, with varying results. *See, e.g., Recent Legislation for Protecting Oyster Growers, NEW HAVEN PALLADIUM*, Apr. 2, 1877 (Rowe Scrapbook); *Troubles of Oystermen, supra* note 127; Untitled newspaper clipping beginning “A good deal of trouble is constantly arising . . .”, *supra* note 127. On rising oyster ground values, *see, for example, Oyster Grounds, NEW HAVEN PALLADIUM*, Jan. 24, 1877 (Rowe Scrapbook) (“Lots are said to be worth from \$50 to \$500 and an acre of

to grant oyster land in certain areas as well as the validity of titles already granted. During the late 1870s, the Connecticut legislature enacted a flurry of piecemeal legislation aimed at resolving these issues.¹³⁰ But as cultivators pushed further out into the Sound, where town jurisdiction was uncertain and state regulation nonexistent, disputes seemed sure to multiply.¹³¹

Fourth, legislators had yet to decide how to accommodate steam power within existing regulation. In 1879, the Connecticut legislature passed a law that limited steam dredging on the natural beds to two days per week, but the law did not address the use of steam on private beds.¹³² This seems to have satisfied no one, and lobbying continued apace. Along with other large-scale cultivators, Rowe pushed for open access for steamers.¹³³ His opponents turned out in force at the legislature, arguing in a public hearing that steam dredging injured the oyster beds—a point that the proponents of steam strenuously disputed.¹³⁴ Meanwhile, a *Norwalk Sentinel* correspondent opined that

[t]here is no business in the state that the members are so unfamiliar with as the oyster interest. Some of the back country members have an idea that there is literally millions in it. They think the state should get enough out of it . . . to pay its whole expenses. They believe the town

oyster grounds from \$500 to \$1,000—more than the value of a similar area of upland”); and *Troubles of Oystermen*, *supra* note 127 (noting that oyster grounds were becoming “more and more valuable”).

130. See An Act in Alteration of an Act Relating to Oyster Lots and Fisheries § 3, 1879 Conn. Pub. Acts 422, 423 (establishing procedures for boundary dispute resolution); An Act Concerning Fisheries, 1878 Conn. Pub. Acts 273 (clarifying the boundaries of certain towns’ marine jurisdiction); An Act Relating to Oyster Lots and Fisheries § 8, 1878 Conn. Pub. Acts 274, 276 (validating existing grants); An Act Concerning Fisheries § 1, 1877 Conn. Pub. Acts 223, 223 (requiring that all designated oyster grounds be demarcated by personalized stakes or buoys); An Act Amending Sections 21 and 22 of Article 1 of Part 1, Chapter IV, Title 16, of the General Statutes Relating to Fisheries § 2, 1875 Conn. Pub. Acts 14, 14 (regulating dredging in East Haven); An Act Relating to Fisheries for Shell-fish in Tide-Waters and Rivers, 1875 Conn. Pub. Acts 14 (validating existing grants).
131. The southern jurisdictional boundaries of the coastal towns, past which the state would exercise sole jurisdiction, were apparently undefined during this time but were assumed to exist somewhere. See, e.g., *Oyster Legislation*, *supra* note 1. State laws passed during this period gave New Haven and Orange special permission to grant deep water beds, but other towns also made grants without such permission. See, e.g., *The Connecticut Oyster Grounds*, *supra* note 118.
132. See An Act To Prohibit the Dredging for Shell Fish by Steam, 1879 Conn. Pub. Acts 442.
133. See *The Steam Dredge Bill*, *supra* note 1; see also *Oyster Legislation*, *supra* note 1 (describing Rowe’s prodigious lobbying efforts).
134. See *The Steam Dredge Bill*, *supra* note 1.

committies [sic] are robbers and that oystermeu [sic] generally are not far behind them.¹³⁵

Out of this chaotic situation emerged another half-measure: banning steam outright on certain public beds and explicitly allowing it on private grounds in New Haven harbor for a limited period.¹³⁶

3. *The Legislative Response: Preserving Inefficiency?*

In April 1881, the Connecticut legislature—still besieged by clashing lobbyists and polemicists,¹³⁷ and spurred on by a state commission’s critical report on the condition of Connecticut’s oyster laws—lurched into more comprehensive action.¹³⁸ The legislature passed a set of reforms embodying a wide-ranging compromise between the major oyster growers and the “sail men.” The core of this compromise was a hybrid property regime. Under this regime, the towns retained jurisdiction north of a line drawn close to the coast, but were still banned from granting natural beds. South of the line, a board of three state commissioners was empowered to grant perpetual franchises to Connecticut residents, with no limit on grant size—but only in “such undesignated grounds . . . as are not and for ten years have not been natural clam or oyster beds.”¹³⁹ The legislature also passed bills that allowed steamers on private grounds but

135. *Oyster Legislation*, *supra* note 1.

136. See An Act Regulating the Dredging for Shell-fish by Steam Power, 1880 Conn. Pub. Acts 544; see also ATWATER ET AL., *supra* note 69, at 620 (discussing Rowe’s success in obtaining dredging legislation).

137. For a sense of the lobbying war leading up to the 1881 reforms, see, for example, *Connecticut’s Proposed Oyster Laws*, Feb. 1880 (otherwise unidentified newspaper clipping) (Rowe Scrapbook); *Law-Making in Connecticut*, *supra* note 115; *Oyster Legislation*, *supra* note 1; *The Order of the Day*, Apr. 5, 1881 (publication name illegible) (Rowe Scrapbook); *The Steam Dredge Bill*, *supra* note 1; Untitled newspaper clipping beginning “The following is the speech of Capt. C. W. Hoyt . . .”, CONN. REPUBLICAN, Mar. 12, 1881 (Rowe Scrapbook); Charles W. Bell et al., Answer to Statements Made by Mr. Henry C. Rowe in his Circular Entitled “Ought the Steam-Dredge Bill to Pass?” (1881) (unpublished circular) (Rowe Scrapbook); Petition from advocates of steam power (Jan. 31, 1879) (Rowe Scrapbook); Reasons Why the “Act Establishing a State Commission for Designation of Oyster Grounds,” Being File No. 314, Ought Not to Pass (1881) (anonymous unpublished circular) (Rowe Scrapbook); and Henry C. Rowe, Ought the Steam Dredge Bill to Pass? (Jan. 1881) (unpublished circular) (Rowe Scrapbook).

138. See Concerning Raising of Oysters, 1879 Conn. Spec. Acts 128 (establishing the Commission); *The Connecticut Oyster Grounds*, *supra* note 118 (concluding that under the system of town jurisdiction, “laws [were] diverse and conflicting, and their administration [was], to the last degree, loose and inefficient”).

139. An Act Establishing a State Commission for the Designation of Oyster Grounds § 3, 1881 Conn. Pub. Acts 100, 101.

banned them from all other grounds.¹⁴⁰ A newly created state oyster commission was directed to comprehensively map oyster grounds and grants within both state and town jurisdictions, and procedures were set forth for resolving the location and extent of natural beds within town waters.¹⁴¹

At first glance, the reforms of 1881 collectively seem like another halting step toward efficient law. In allowing steam-powered oystering and creating well-administered private property rights in the seabed, these reforms introduced regulatory innovations that allowed oystermen to capture the higher profits and productivity that could come from modern technologies and full enclosure. True, the 1881 reforms left many of Connecticut's oyster grounds out of this legal revolution. Following Demsetz, it would be reasonable to imagine that this anomaly would soon be corrected. After all, the legislature had demonstrated its willingness to make fundamental legal changes in order to facilitate efficient production, and the natural beds were apparently not efficient.

Indeed, the natural beds exhibited many of the signs of degradation typical of open-access resources.¹⁴² The *Sea World* noted in 1880 that “[t]he oysters on well known natural beds are kept used up too closely to grow to any valuable size, except for seed. If a new bed is discovered it is soon cleaned and brought to the condition of the older ones.”¹⁴³ Other sources suggest that the natural beds were also badly infested with starfish.¹⁴⁴ The state commissioners described this problem as a classic tragedy of the commons:

The natural or public beds are not so carefully and thoroughly worked as the private beds are, and no systematic efforts are made to destroy the star-fish

140. See An Act To Regulate Dredging with Sail Vessels on Natural Oyster Beds, 1881 Conn. Pub. Acts 87; An Act Concerning Shell Fisheries, 1881 Conn. Pub. Acts 58; An Act Regulating the Dredging for Shell Fish and Shells, 1881 Conn. Pub. Acts 58.

141. See An Act Establishing a State Commission for the Designation of Oyster Grounds, 1881 Conn. Pub. Acts 100.

142. See 1882 REPORT, *supra* note 1, at 70 (“The natural beds are by law common property, and are free to all.”).

143. *Change in Oyster Laws*, *supra* note 126. Henry Rowe claimed that natural growers had “dredged some of the public beds so persistently that the oysters are caught before they are the size of the thumb-nail, and as one of them testified before the fisheries committee, he thought it ‘lucky to get enough big oysters for a stew’ in all day.” Henry C. Rowe, Letter to the Editor, *A Great Revolution*, HARTFORD DAILY COURANT, Apr. 1, 1884, at 1-2. Scholars have empirically confirmed that modern public oyster beds tend to be less efficient at producing oysters than privately owned beds. See sources cited *supra* note 6.

144. See, e.g., Henry C. Rowe, *Rowe Refutes Bell: The State Association Vindicated*, NEW HAVEN PALLADIUM, Mar. 24, 1884 (Rowe Scrapbook); *The Foe of the Oyster: The Fish Commission To Study the Starfish Problem*, N.Y. TIMES, Jul. 15, 1889, at 3.

. . . In the free scramble for the oysters, [the natural growers] have no thought but “to keep what they get and catch what they can,” and it would be lost time to them to dredge for stars while others dredge for oysters. . . .

Commissioners . . . would not give the impression that . . . the natural-bed oystermen as a class are any worse than the same number of men in any other occupation. The Commissioners have found them, with few exceptions, honest, industrious and well disposed. No one can be reasonably blamed for omitting to do that which is the joint duty of all—for failing to cooperate where cooperation is impossible.¹⁴⁵

According to some observers at the time, the inefficiency of natural bed production was also evident in the market. One wrote that although “[t]here are still a few individuals of the old school who are toiling along in the manner their fathers did . . . these parties are small in number and steadily decreasing. The old methods cannot compete in the market”¹⁴⁶

But in spite of its apparent inefficiency and contrary to the typical narrative, the natural bed system—and the hybrid property regime that enshrined it in law—lasted well into the twentieth century. Years after the 1881 reforms, the *Baltimore Sun* reported that “[w]hile there are many differences of opinion . . . the general feeling is one of satisfaction with the present law.”¹⁴⁷ The state’s cartographical and adjudicatory efforts over the following years maintained a large amount of territory as “natural bed,” and in some cases, the state commission even revoked grounds previously granted to cultivators (including Henry Rowe) and declared them public.¹⁴⁸ Natural growers continued to fight, both before the state commission and in court, to sustain and expand the

145. FISH COMM’RS & SHELL FISH COMM’RS OF THE STATE OF CONN., THIRD REPORT OF THE SHELL FISH COMMISSIONERS: STATE OF CONNECTICUT 13 (1884) [hereinafter 1884 REPORT]. The commissioners also noted numerous reports that natural growers threw starfish caught in dredges back onto the beds rather than destroying them. *See id.* at 12-13; *see also The Oysters’ Enemy*, *supra* note 60 (corroborating these reports). Larger cultivators, on the other hand, employed boats exclusively to remove starfish from their properties. *See, e.g.,* 1884 REPORT, *supra*, at 12; *The Hungry Starfish*, N.Y. TIMES, June 11, 1886, at 1.

146. *Developing the Oyster Industry* (c. 1880) (otherwise unidentified newspaper clipping) (Rowe Scrapbook).

147. *Oyster Farming: Results Accomplished by the Connecticut Laws*, BALTIMORE SUN, July 23, 1892, at 8 [hereinafter *Oyster Farming*].

148. *See, e.g., The Oyster Commission*, NEW HAVEN J.-COURIER, Sept. 12, 1882 (Rowe Scrapbook); *The Stratford Grounds: A New Boundary Fixed for the Natural Oyster Beds*, NEW HAVEN EVENING REG., Aug. 23, 1882 (Rowe Scrapbook) (“Mr. Rowe said this afternoon that although he suffered severely he should accept the decision if the others did.”).

area open to the public, and they sometimes prevailed.¹⁴⁹ Here, apparently, was an inefficient property regime that stubbornly resisted evolving with the times.

IV. EXPLAINING CONNECTICUT'S SYSTEM: THE POLITICAL AND ECONOMIC VIRTUES OF HYBRID PROPERTY

The previous Parts have demonstrated that a simple narrative of evolution toward efficiency partially explains Connecticut oyster law and its history. The universal right to unrestricted oystering was first restricted when increasing demand and limited natural supply caused depletion, thereby raising the costs of open access. Later, the property regime shifted toward enclosure, as (1) booming demand and the advent of rail increased the value of the resource, and (2) new technologies (first planting, then cultivation, and finally capital-intensive deepwater cultivation) rendered private ownership, with the long-term investment and economies of scale it enabled, uniquely beneficial. Other legal reforms increased the efficiency of the property system and the benefits of private ownership by simplifying and partially centralizing its administration, removing scale restrictions, and more clearly establishing boundaries. Finally, the introduction of efficient steam power prompted additional changes in the form of legislation that protected the right to use steam.

The natural bed system is an anomaly within this narrative. Under this system, valuable beds were subjected to a common property system that reduced output and promoted waste. Yet, despite its disadvantages, this system persisted for decades.

In this Part, I seek to explain this anomaly. I demonstrate that the history of Connecticut's spatially hybrid property regime partially undermines efficiency-oriented theories of the emergence of property law. Section A describes the subtle but important efficiencies that emerged from interactions between the territories within the hybrid regime. Section B shows that, to the limited extent that the hybrid regime was economically inefficient, its political virtues made up for the loss.

149. See, e.g., *Appeal of Keister*, 92 A. 744 (Conn. 1914); *State v. Bassett*, 29 A. 471 (Conn. 1894); *State v. Nash*, 25 A. 451 (Conn. 1892); *In re Application of the Oyster-Ground Comm. of Clinton*, 52 Conn. 5 (1884); *May Work Natural Oyster Beds: A Decision of a Connecticut Court Which Has Brought Joy to Poor Oystermen on Long Island Sound*, N.Y. TIMES, Nov. 28, 1894, at 3 [hereinafter *May Work Natural Oyster Beds*]; *Natural Oyster Beds: Attorney-General Phelps Advises the Shell-Fish Commissioners*, HARTFORD DAILY COURANT, Nov. 9, 1899, at 7.

A. *The Efficiencies of Hybridity*

Although the natural bed regime seems at first glance to have been quite wasteful, and although it little resembled the privatized oyster regimes conventionally portrayed as most efficient, this regime benefited from two mechanisms that cabined the costs of common ownership and relatively open access.¹⁵⁰ First, robust informal controls reduced exploitation of the natural beds. By establishing private property in some areas and formally ratifying the natural bed commons in others, Connecticut's legislature likely strengthened these controls. Second, by allowing for multiple forms of production simultaneously, the hybrid regime facilitated interspatial interactions that supported the productivity of the natural beds. Together, these mechanisms eliminated many of the efficiency losses caused by common ownership of the natural beds and thereby lessened pressure for full enclosure.¹⁵¹

1. *Informal Governance*

Several extralegal mechanisms reduced the inefficiencies of public ownership of the natural beds.¹⁵² Although the natural beds were legally open to all Connecticut residents, it seems that oystermen tended to stay within their "turf," and in practice, the natural growers of the late 1800s had their own ways of excluding outsiders.¹⁵³ Informal exclusion was an early feature of Connecticut oystering. For example, in his 1880 account of oystering earlier in the century, Ernest Ingersoll recalled that residents of the "back country" would descend on New Haven at the beginning of the season, hoping to harvest per-

150. Cf. Rieser, *supra* note 6, at 52 (speculating that "proposed community-based property rights in oyster beds might have fared better" than "privatization proposals" in preserving Chesapeake oysters).

151. Cf. LIBECAP, *supra* note 17, at 66 (explaining that the nineteenth-century property regime for federal timber and range lands failed to evolve, despite its inefficiency, in part because "aggregate losses of common pool conditions . . . were not immediate or large enough to offset distributional conflicts and convince politicians of the political gains from changing the land laws").

152. As Smith has noted, such mechanisms are particularly important in semicommons regimes, where the coexistence of private and public property creates opportunities for strategic, selective degradation of the commons. See *supra* notes 44-45 and accompanying text.

153. Cf. ACHESON, *supra* note 30 (describing self-help exclusion measures in the Maine lobster fishery). As I have described, there were also formal restrictions to the same end. The most consequential regulation was the steamboat ban, but other laws, such as the seasonal restriction, the dredge weight restriction, the ban on oystering by out-of-state residents, and catch limits imposed on specific areas, also posed barriers to entry and slowed exploitation. See *supra* Part III.

sonal stocks of oysters for the winter ahead, and that “these rustics always met with a riotous welcome from the town boys They were very likely to find their boats, if not carefully watched, stolen and hidden before they had a chance to launch them, or even temporarily disabled.”¹⁵⁴ Another source relates:

Many pranks were played by the Fair Haven men upon their unwelcome competitors from the surrounding town On one morning when the [seasonal restriction] was off, Hezekiah Bradley’s canoe was found standing on end in an apple tree, up on the hill where the Shore Line railroad now runs

At another time a large fleet of visiting boats . . . were prevented from participating in the grand rush by the sudden disappearance of every rope and anchor in the fleet, and the owners of the boats on visiting the local stores to purchase new rope, found that their opponents had been there before them, and their money could not purchase any rope in Fair Haven.¹⁵⁵

Similar measures persisted after the reforms of 1881. In 1890, after several lean years, the natural beds at the mouth of the Housatonic experienced an abundant set, attracting oystermen from further afield. The *Hartford Daily Courant* reported what happened next:

The invasion of the grounds by the outsiders seemed to the small local fishermen little short of robbery. As the beds were natural beds the other parties had legal right of access to them, however, and the small fishermen could only protest and set forth their grievances. This they did, until all of the offending parties but one – Lorenzo Smith of New Haven – agreed to keep off the grounds.

Smith refused to enter into any compact, and as a result sometime between Saturday night and Sunday morning a fine sharpie of his was set afloat and her sails cut.¹⁵⁶

154. INGERSOLL, *supra* note 53, at 63.

155. ATWATER ET AL., *supra* note 69, at 614.

156. *A Little Oyster War: The Quiet Serenity of Stratford and Milford Disturbed*, HARTFORD DAILY COURANT, Aug. 28, 1890, at 1; *see also Oystermen at War: Bridgeport Fishers Take the Law into Their Own Hands*, N.Y. TIMES, Aug. 27, 1890, at 1 (reporting that Smith’s boat “mysteriously disappeared” and the sails of another boat were cut).

Once on the water, oystermen excluded others from their preferred grounds through secrecy, using triangulation and their own memories to “enclose” particularly rich areas within the natural beds. The *New York Tribune* explained:

The water out in the Sound all looks alike, and once an oysterman strikes a fertile spot for dredging he does not like to leave it till he has it worked out. It is impossible to mark the spot by buoys, for they would point out to the other oystermen the location of the paying bed. So the crafty oysterman strikes upon the ranges [a method of triangulation] to fix his find.¹⁵⁷

Although these and other informal exclusion measures predated the hybrid regime, it is likely that this regime’s limited establishment of private property actually strengthened them. As Daniel Fitzpatrick has recently written, attempts to supplant informal, non-state property regimes with formal, state-enforced private property rights often prompt devolution to open access.¹⁵⁸ The formal regime may lack enforcement capacity sufficient to exclude those with competing claims under the old regime, but, at the same time, pressure from advocates of the formal regime, as well as rising resource values, may degrade the social and institutional underpinnings of the old regime.¹⁵⁹ By alleviating the pressure of potential enclosure from the natural beds, and by defining a territory in which their traditional governance system could continue unchallenged, Connecticut’s hybrid system likely preserved the legitimacy and stability of informal governance. The hybrid system may in turn have significantly limited efficiency losses from the natural beds.

Connecticut’s natural beds were subject to relatively few formal controls, but the situation on the water was far from anarchic. Rather, robust informal controls existed to restrict and define access rights. Connecticut’s hybrid regime, like the common property regimes chronicled by Ostrom and Ellickson, thereby achieved a measure of efficiency in the natural beds without imposing formal privatization on them. Moreover, in relieving political and economic pressure on those beds by establishing separate, privatized areas, the hybrid regime reinforced the social foundations that, as Ostrom and Ellickson have emphasized,¹⁶⁰ are needed for informal controls to persist. Connecticut’s experi-

157. *Oyster Dredging*, *supra* note 2.

158. Fitzpatrick, *supra* note 18, at 1000-01.

159. *See id.*; *cf.* Ostrom, *supra* note 33, at 147 (discussing the “crowding out” of informal governance by formal law). Fitzpatrick argues that this dynamic underlies dysfunctional resource regimes in many developing countries. *See* Fitzpatrick, *supra* note 18, at 1000-01.

160. *See supra* Part I.B.1.

ence therefore suggests that hybrid property regimes can both benefit from and augment common property institutions.

2. *Efficiency-Improving Interaction Between Territories*

In addition to preserving and strengthening the natural beds' informal regulations, Connecticut's hybrid regime enabled productive economic and biological interactions between privatized and public production territories—that is, interactions over space, as opposed to the intertemporal interactions emphasized by Smith in his study of the open-field semicommons.¹⁶¹ These interspatial interactions further reduced the efficiency consequences of preserving the natural beds.

First, the oyster's peculiar reproductive biology gave rise to a helpful biological interaction between the natural and cultivated beds.¹⁶² As discussed above, oysters reproduce by producing spawn, which drift on the current and eventually settle as spat.¹⁶³ Oyster growing therefore generated a significant positive externality, in that an oyster in one place could produce spat in another place. This externality was especially beneficial to the natural beds. One observer wrote in 1879 that “[i]t is found, in oyster cultivation, that what one man does for the improvement of his own grounds, and the protection of his own crops, greatly helps all the other oyster beds in the vicinity. Thus oyster cultivation helps to increase and enlarge so-called ‘natural beds.’”¹⁶⁴ And in 1892, the *Baltimore Sun* reported:

The great Stratford [Bridgeport] bed, which is one of the best in Connecticut, is surrounded on the east, south and west for many miles by cultivated farms. . . . The spat floating from all these farms in all direc-

161. See *supra* notes 40-45 and accompanying text.

162. For other accounts of how natural resource biology helps shape property regimes, see Robert C. Ellickson, *A Hypothesis of Wealth-Maximizing Norms: Evidence from the Whaling Industry*, 5 J. L. ECON. & ORG. 83, 89-92 (1989); and Dean Lueck, *The Extermination and Conservation of the American Bison*, 31 J. LEGAL STUD. S609, S641-44 (2002).

163. See *supra* Part II.A.

164. Newspaper clipping beginning “Few persons not in the trade,” *supra* note 60; see also *Notes from the Commission*, *supra* note 72 (“It seems generally true that the people from the back country have a much better chance of securing a few bushels of oysters now near shore, because of the appropriation of waters by the cultivators. There are more oysters and more get within their reach, or where they can get them without a boat. They wash ashore from the beds, and the seed spreads to all the adjacent grounds.”).

tions greatly benefits this natural bed, just as such accretions have benefited all the natural beds of Connecticut.¹⁶⁵

Although the natural beds were overharvested, the intensive cultivation of oysters on surrounding private grounds constantly replenished them. In this way, the natural beds' situation within a bifurcated system created a margin of error, helping those beds withstand less-than-efficient harvesting practices.¹⁶⁶

Second, public and private oyster grounds interacted commercially through the sale of natural bed seed to cultivators. As noted above, the natural beds' oysters were small due to overharvesting and therefore could not be sold to the public. However, they could be transplanted onto private beds, where they would mature to salable size. Indeed, transplantation of natural bed seed, along with full-fledged cultivation (that is, oyster-growing using shells to attract spat) and the use of seed from private beds, largely replaced the planting of Southern oysters by the late 1800s.¹⁶⁷ By the late 1880s, seed from outside Connecticut provided less than ten percent of the state's total oyster harvest.¹⁶⁸

Unlike Chesapeake seed, local seed was cheap and convenient.¹⁶⁹ It transplanted well, and local growers generally preferred it to seed from further afield.¹⁷⁰ A few sources suggest that, among all local seed, natural bed seed was

165. *Oyster Farming*, *supra* note 147.

166. Notably, according to the state commissioners' statistics, the acreage of major natural beds actually *expanded* during the late 1800s. Between 1881 and 1894, the Bridgeport bed nearly tripled in size. See KOCHISS, *supra* note 51, at 155. Some of this expansion derived from redefinition of the boundaries of the bed, see, e.g., *The Stratford Grounds: A New Boundary Fixed for the Natural Oyster Beds*, *supra* note 148, but it is reasonable to assume that at least some of it was caused by accretion. Moreover, the natural beds continued to produce copious amounts of oysters during this period. The Bridgeport bed alone was capable of producing over 100,000 seed oysters in a good year, Collins, *supra* note 3, at 491, and in 1899 it yielded 400,000 bushels—roughly ten percent of the state's total yield of oysters. GALPIN, *supra* note 66, at 30. In 1887, 1888, and 1889, the natural beds produced fifteen, twelve, and five percent of the total volume of oysters harvested in Connecticut, respectively. These percentages are derived from figures reported in Collins, *supra* note 3, at 490-91.

167. See 1882 REPORT, *supra* note 1, at 61; KOCHISS, *supra* note 51, at 154; Collins, *supra* note 3, at 478-79 (describing private seed cultivators); Sweet, *supra* note 58, at 597.

168. Collins, *supra* note 3, at 489-90.

169. See *Long Island Oyster Beds: Development of the Connecticut Planting Industry—Enemies of the Oyster*, BALTIMORE SUN, Aug. 2, 1886, at 5 [hereinafter *Long Island Oyster Beds*].

170. See, e.g., *The Fair Haven Oyster Trade*, *supra* note 88 (noting that native seed was “said to make the best oysters in the country”); *For Four Days: Adjournment of the Legislature*, NEW HAVEN PALLADIUM, Mar. 23, 1883 (Rowe Scrapbook); *Long Island Oyster Beds*, *supra* note 169.

particularly desirable.¹⁷¹ In any case, the evidence demonstrates that natural growers sold great quantities of seed to nearby cultivators, as well as out-of-state oyster growers, into the twentieth century.¹⁷² The *Baltimore Sun* noted that Connecticut's split system "afford[ed] [growthers] an unlimited market for all the seed they can gather."¹⁷³ In 1904, a bountiful oystering year, the *New York Times* reported:

Th[e] prolific set will mean much to the oystermen of the Long Island shore, who depend so largely for their seed oysters on the set on this coast and in the Rhode Island waters. How much they will have to buy will depend largely on the set that has been made in the great natural bed off Bridgeport It is from these freebooters of the Sound [i.e., the natural growers] that the Long Island growers will buy seed in great quantities, and at low prices¹⁷⁴

"Buy boats" anchored near the natural beds and took on oysters from the natural growers, who queued in their sloops alongside the buy boats.¹⁷⁵ Other natural bed oystermen delivered directly to oyster houses along the shore.¹⁷⁶ Seed buyers bid against one another, and some oyster houses had exclusive contracts with particular oystermen.¹⁷⁷ In large part through this commercial interaction between private and public oyster grounds, the natural beds' small oysters, which would otherwise have been a degraded, valueless resource, became a sought-after commodity, and in turn, the natural beds continued to

171. KOCHISS, *supra* note 51, at 154 (noting that most Connecticut seed was produced on private grounds, but that "much of the best came from the state's and towns' natural beds"); Audio tape: Interview with James Fletcher Lewis by John Kochiss (Mar. 6, 1968) (on file with the G.W. Blunt White Library, Mystic Seaport) [hereinafter Lewis Interview] (discussing the superior form of natural bed oysters).

172. See, e.g., *Long Island Oyster Beds*, *supra* note 169; *Notes from the Commission*, *supra* note 72 ("Norwalk and Darien planters think the natural beds are the nurseries of their industry there."); *The Enemy of the Oyster: A Successful Device for Capturing and Destroying the Starfish*, *BALTIMORE SUN*, Dec. 23, 1890, at 3 [hereinafter *The Enemy of the Oyster*]; Unidentified newspaper clipping beginning "The catch of seed oysters . . ." (c. 1882) (Rowe Scrapbook).

173. *Long Island Oyster Beds*, *supra* note 169.

174. *Oystermen Rejoice in the Season's Big "Set": Biggest Crop of Baby Bivalves for Four Years*, *N.Y. TIMES*, Aug. 28, 1904, at FS4. Another account claims that the Bridgeport bed produced 500,000 bushels of seed in 1880, and that some ninety percent of this seed was planted in Connecticut waters. Unidentified newspaper clipping beginning "It was attempted to be shown that . . ." (c. 1881) (Rowe Scrapbook).

175. KOCHISS, *supra* note 51, at 167; Lewis Interview, *supra* note 171.

176. See KOCHISS, *supra* note 51, at 167-68.

177. See *id.* at 168.

provide hundreds of jobs.¹⁷⁸ As late as 1904, the *New York Tribune* could report on the Bridgeport bed as follows:

[T]here is a fleet of at least two hundred boats working each day that the weather permits. There are men working on the beds this fall who have worked there every year for a quarter of a century, and there are mere boys doing their first “stunt” on the beds, but they are all making “big money.”¹⁷⁹

B. Politics and the Hybrid Regime

The subtle efficiencies of the hybrid regime alleviated economic pressure that might otherwise have weighed on Connecticut’s legislators. At the same time, those legislators faced tremendous political pressure to preserve the public natural beds to some extent. The early conditions of the Connecticut oyster industry entailed relatively open access to certain preexisting beds—that is, the natural beds—with limited government regulation. Over the decades and centuries, Connecticut oystermen became accustomed to this state of affairs.¹⁸⁰ By the nineteenth century, the natural bed regime had become a “people’s right[.]”¹⁸¹ and the basis for a social and economic system involving hundreds of capital-poor oystermen, who were understandably attached to the status quo.¹⁸²

178. For example, in 1890, over 200 boats, each with two or three crewmembers, worked the Bridgeport and Stratford beds; notably, state statistics indicated that 1,024 men were employed in the fishery as a whole the prior year. See FISH COMM’RS & SHELL FISH COMM’RS OF THE STATE OF CONN., ANNUAL REPORT OF THE SHELL-FISH COMMISSIONERS: STATE OF CONNECTICUT 14 (1891) [hereinafter 1891 REPORT]; *The Enemy of the Oyster*, *supra* note 172. And in 1903, a bad year, the *Hartford Daily Courant* reported that “[t]he interests of about 600 men [were] unfavorably affected” by adverse conditions on the bed. *No Oyster Set About Bridgeport*, HARTFORD DAILY COURANT, Aug. 24, 1903, at 9.

179. *Oyster Dredging*, *supra* note 2.

180. See, e.g., *Notes from the Commission*, *supra* note 72 (“As it is a comparatively recent thing for ground in the sea to be set aside to private owners, many have the idea that somehow their rights are being taken from them.”).

181. See *Town Meeting in Guilford* (c. 1877) (otherwise unidentified newspaper clipping) (Rowe Scrapbook).

182. George Santopietro and Leonard Shabman have argued that the distributional, social, and quality-of-life characteristics of the Chesapeake natural bed system ought to be taken into account in evaluating that system’s efficiency, because they produce “nonmonetary, intangible benefits . . . like worker satisfaction bonus and community preservation” that oystermen value highly. George D. Santopietro & Leonard A. Shabman, *Can Privatization Be Inefficient?: The Case of the Chesapeake Bay Oyster Fishery*, 26 J. ECON. ISSUES 407, 413-15 (1992). I

In turn, revoking the natural beds' protection altogether was a politically daunting proposition. Because of the open-access nature of the resource, a large number of parties had interests in the beds, giving anti-enclosure forces political clout.¹⁸³ Indeed, although many growers were part-timers,¹⁸⁴ their sheer numbers ensured that any threat to the public beds would attract significant interest and allowed the growers to compete politically with the well-connected, highly organized large cultivators.¹⁸⁵

Moreover, the fate of the public beds was a highly salient and symbolic issue for the general public. Over the centuries, Connecticut's voters had grown fond of open access—so much so that in 1884, after the legal regime was more or less settled, Henry Rowe was still denouncing “the prejudices of those whose fathers and grandfathers used to go down to the shore and go oystering and put a bushel or two in the cellar.”¹⁸⁶

The general ideological currents of the time reinforced this “prejudice.” Much of the Connecticut public of the late 1800s was anxious about economic instability and scarcity, wary of monopolies, and inclined to support the humble but independent working man.¹⁸⁷ Especially toward the turn of the century, local newspapers frequently reported on schemes to form “oyster combines” and oyster ground monopolies,¹⁸⁸ and monopolization concerns were promi-

agree but focus here on the political dimensions of such intangibles rather than attempting to incorporate them into an efficiency analysis.

183. See *supra* notes 178–179 and accompanying text.

184. See KOCHISS, *supra* note 51, at 161; Collins, *supra* note 3, at 463.

185. By 1881, the cultivators had formed an official Oyster Growers' Association. See 1882 REPORT, *supra* note 1, at 54 (describing “[t]he Oyster Growers' Association, comprising most of the prominent men in deep-water cultivation . . .”). They were energetic advocates both in Hartford and in the press. See, e.g., Rowe, *supra* note 143; *Monopoly of the Oyster Grounds*, *supra* note 70; *Oyster Legislation*, *supra* note 1. The Association entertained legislators, regulators, and other notables with steamer cruises in New Haven harbor. See, e.g., *Oysters as a Crop*, HARTFORD DAILY COURANT, Sept. 2, 1885, at 1; *Untitled Bridgeport Farmer Article*, *supra* note 114.

186. Rowe, *supra* note 143, at 1.

187. See, e.g., ERIC FONER, *FREE SOIL, FREE LABOR, FREE MEN: THE IDEOLOGY OF THE REPUBLICAN PARTY BEFORE THE CIVIL WAR 11–18* (1970) (discussing the Republican party's ideological affinity toward hard work and small-scale entrepreneurship during the mid-1800s); LIBECAP, *supra* note 17, at 67 (noting that the late 1800s saw “a new sense of pessimism and a perceived narrowing of opportunities”).

188. See, e.g., *Big Oyster Syndicate*, HARTFORD DAILY COURANT, Jan. 19, 1898, at 11; *Oyster Syndicate Collapses*, HARTFORD DAILY COURANT, June 16, 1900, at 2; *Talk of Oyster Syndicate*, HARTFORD DAILY COURANT, Nov. 8, 1898, at 11. Few, if any, of these schemes seem to have succeeded.

ment in the debates leading up to the reforms of 1881.¹⁸⁹ These concerns were especially sensitive in the context of public-bed oystering—an activity tied in the public mind to small enterprise, personal liberty, and social mobility.¹⁹⁰ An 1883 article captures the prevailing vision of the public beds during this time:

Here high and low, rich and poor may plant at leisure and catch at pleasure all the oysters needed, with no private owners to dictate or stilted rules of a commission to restrict. On these beds the casual oystererman can rise in his majesty and assert with none to dispute, “I am monarch of all I survey.”¹⁹¹

Indeed, oystering had always been associated with the humble. For example, the poor and infirm were exempted from New Haven’s 1762 regulations on harvesting from the natural beds.¹⁹² A typical article from the late 1800s discussed “the hundreds of sturdy oystermen who own little sloops, and make a living by hard work spent on the natural oyster beds along the Sound.”¹⁹³ Some of these “sturdy oystermen” used seed from the natural beds to transition into part-time or full-time cultivation.¹⁹⁴

These ideological factors combined with the natural growers’ impressive numbers to create tremendous political pressure in favor of open access, regardless of the economic gains to be had from privatization. Contemporary accounts suggest that legislators felt this pressure acutely. For example, major

189. See, e.g., *Monopoly of the Oyster Grounds*, *supra* note 70; *New Haven Oyster Grounds*, HARTFORD TIMES, Aug. 26, 1875 (Rowe Scrapbook); *Town Meeting in Guilford*, *supra* note 181.

190. See, e.g., *May Work Natural Oyster Beds*, *supra* note 149 (“There is great rejoicing among the oystermen along the Sound over the decision of Judge Downs of Stamford The decision is in favor of the hundreds of sturdy oystermen who own little sloops, and make a living by hard work spent on the natural oyster beds along the Sound. It is also a rebuke to those who have an idea that the waters of Long Island Sound belong to them, and establishes the fact that people cannot be deprived of their rights of gaining a livelihood.”); *Town Meeting in Guilford*, *supra* note 181.

191. *The Oysters’ Enemy*, *supra* note 60.

192. See ATWATER ET AL., *supra* note 69, at 613-14; see also *Town Meeting in Guilford*, *supra* note 181 (reporting on a comment from “one of Guilford’s young citizens” at a town meeting that “in an adjoining village I am told that a poor man cannot catch even a meal of clams upon the shore”); *Notes from the Commission*, *supra* note 72 (“The Norwalk growers . . . think a public ground should be reserved . . . [f]or the poor, who are unable to own ground for themselves.”).

193. *May Work Natural Oyster Beds*, *supra* note 149.

194. See, e.g., KOCHISS, *supra* note 51, at 159; Collins, *supra* note 3, at 463; *For Four Days: Adjournment of the Legislature*, *supra* note 170 (“The catch on Fridays [is] generally carried home on Saturdays by the boatmen and planted on their own grounds, while the catch during the balance of the week was sold to boatmen who came around for the purpose.”).

players in the state Republican Party, including a U.S. congressman and an ex-governor, descended on Hartford during debates over oyster policy to make sure that their comrades did not disappoint the growers' lobby.¹⁹⁵ An observer remarked that "all over the House, it was secretly and industriously circulated that 'the party' would suffer; that the oystermen . . . would all go back on the ticket . . ." ¹⁹⁶ In 1891, the *New York Times*, in a report on the formation of the Natural Growers' Association, claimed that the new group was "destined in all probability to hold the balance of power The vote of the men employed on the oyster boats along the Connecticut shore is always considered at election time."¹⁹⁷

The growers seem to have been at least as politically potent, if not more so, at the local level. A packed town meeting in Guilford adopted a resolution denouncing "the recent legislation under which private individuals and corporations have obtained exclusive and permanent control of vast areas of natural clam and oyster grounds, viz[.], the rivers, coves and bays along the coast of this State . . ." ¹⁹⁸ Guilford's meeting was apparently unexceptional. "It is apparent," wrote one observer, "that oyster growers have had to fight their way to a standing in nearly all the towns. . . . As the case now is, a little excitement aroused may induce a town meeting to pass resolutions which will practically kill all the oyster business in that town."¹⁹⁹

A hybrid system was a particularly deft response to this political pressure. Resisting any major change to the property rights status quo governing certain long-familiar grounds, Connecticut's legislators preserved the unique symbolic values and social mobility opportunities associated with formally open access to the natural bed and thereby avoided massive political fallout. At the same time, they sacrificed the more marginal political gains from similarly maintaining the public status of deepwater and cultivated beds, which historically had not been cultivated and therefore were not linked to attentive, entrenched

195. See *Steam Dredging*, MERIDEN REPUBLICAN, Mar. 31, 1881 (Rowe Scrapbook). Although the debate discussed in this editorial concerned legislation on the use of steam, rather than privatization, the lobbies against steam and against privatization both consisted of small-scale oystermen.

196. *Id.*

197. *Oystermen Will Vote: A Factor of Importance in the Coming Connecticut Election*, N.Y. TIMES, Nov. 1, 1891, at 9. The article also claimed that "[i]t is an open secret that the vote of the oystermen last year went a great way toward electing R. E. De Forest Congressman from this district." *Id.* It estimated the number of Connecticut oystermen at 3,000, which seems high. See 1891 REPORT, *supra* note 178, at 14 (noting that there were 1,024 men employed in the industry for the year ending May 1, 1889).

198. *Town Meeting in Guilford*, *supra* note 181.

199. *Notes from the Commission*, *supra* note 72.

communities of users and voters. The State of Connecticut, by subjecting these beds to an entirely different set of property rules that provided sufficient protection for investment, was able to reap the economic rewards of modern oyster production to a considerable extent, all the while reassuring voters of their right to the oyster grounds they knew and loved.

Connecticut's experience thus reinforces the conclusions of those theorists, such as Libecap, who have augmented efficiency-oriented theories of the origins of property with accounts of how politics can divert the evolution of property rights away from theoretical maximum efficiency. Yet Connecticut's experience also shows that those subject to political pressure can and do act to minimize the economic distortion that political pressure can generate, and that spatially hybrid property regimes can serve as useful tools in this regard. Such regimes can defuse political tensions that relate to specific geographic areas (such as Connecticut's natural beds). Perhaps more importantly, however, a spatially hybrid property regime is an overarching compromise that still allows for relatively pure sub-regimes to exist within it. Such an arrangement may prove particularly effective where competing political and economic demands require such purity. As an example, Connecticut's legislators established a substantial zone of relatively unfettered access, satisfying those whose visions of freedom and equality demanded nothing less. At the same time, the legislature subjected large tracts to complete enclosure, providing cultivators with the high degree of certainty needed for intensive investment. By establishing a system of coexisting extremes in this way, Connecticut was able to meet the demands of both sides to a much greater extent than a spatially uniform compromise might have done.

CONCLUSION

The golden years eventually drew to an end. Over the initial decades of the twentieth century, pollution, pests, hurricanes, and bad spawning conditions laid waste to the Connecticut oyster industry.²⁰⁰ But while the industry thrived, it was a major economic force and a national model. Its bifurcated property regime embodied a contested but durable compromise among diverse interests and sectors of society, enabling prosperous and sufficiently peaceful coexistence for several decades.

The Connecticut oyster industry of the 1800s may be gone, but its history has much to tell us about property rights and their emergence. To an extent, the form and development of the industry's property system provide general support for Demsetz's cost-benefit argument. From early protections for plant-

200. See GALPIN, *supra* note 66, at 30-34.

ers of Chesapeake seed to the steam-friendly perpetual franchise regime of the 1881 reforms, Connecticut's property laws evolved to enable the greater economic benefits that changing technologies and markets made possible. Yet this wave of legal change only advanced so far. From its eventual dissipation and the dogged survival of the imperfectly efficient, eminently traditional natural bed regime, we can draw two broad conclusions about property law.

First, many forms of property regulation other than formal privatization can promote economic efficiency, including internally heterogeneous, or hybrid, property systems, as Connecticut's experience demonstrates. Specifically, the history of Connecticut oystering shows that spatially heterogeneous regimes encompassing both common access and privatization can sustain informal institutions that mitigate costs and foster efficiency-enhancing internal interactions.

Second, efficiency-focused explanations of the emergence of property rights and the existence of hybrid property systems are fundamentally incomplete. Property hybridity can emerge and survive not only when it is economically optimal but also when it fulfills political imperatives. Connecticut's natural beds were a resource with particular ideological and political resonance, and this resonance was amplified in the economically and socially tumultuous years of the late 1800s. The history of Connecticut's regime of hybrid property in oyster grounds is one of lawmakers who struggled to reconcile this unique political resonance with the promise of efficient production. It proves both that efficient privatization does not inevitably triumph in property law and that ultimately no single regime may triumph.

In sum, Connecticut's historic oyster property regime demonstrates that spatially hybrid property regimes can have both economic and political virtues.²⁰¹ Moreover, the specific functions of Connecticut's spatially hybrid re-

201. This is not to say, of course, that such regimes will invariably emerge. The history of oystering in other states shows as much. See sources cited *supra* note 4. A comparative analysis of the evolution of property law in the various oystering states is beyond the scope of this Note, but it is worth briefly speculating as to why, for example, a stable hybrid regime did not emerge during this period in the famously restive Chesapeake oyster industry. See Michael W. Fincham, *The Oyster Dreams of W.K. Brooks*, CHESAPEAKE Q., Apr. 2013, at 14, <http://www.chesapeakequarterly.net/V12N1/main3> [<http://perma.cc/Z95W-BJN7>] (arguing that in Maryland, "anti-leasing forces would manage to cripple every pro-farming initiative attempted, both through political power and poaching, not just during [the late 1800s] but during the next 130 years"); Gillis, *supra* note 4; see also *Oyster Farming*, *supra* note 147 (a Baltimore newspaper's admiring account of the Connecticut system). Topography may have played a role. Being largely shallow and suitable for wild oyster growth, the Chesapeake may not have had areas that were not associated in the public mind with open access (akin to the deep water tracts of the Sound) and that therefore could be turned over to private growers with comparatively less political blowback. See *Facts & Figures*, CHESAPEAKE BAY PROGRAM (2012), <http://www.chesapeakebay.net/discover/bay101/facts>

gime, and the specific needs it fulfilled for that state's oystermen, entrepreneurs, and voters, reflect circumstances in which hybrid regimes may be more likely to emerge and persist in the real world. For example, Connecticut's experience suggests that, where common access to certain areas is highly politically salient, legislators may be more likely to preserve common access intact within those areas and push privatization further elsewhere rather than bringing all areas under a regime that embodies both open access and private property features. Similarly, where a high degree of certainty is required to encourage investment, legislators may provide it through privatization in certain areas and push common access elsewhere. Legislators may also be more likely to strike such a spatial compromise when common-access areas produce a usable output for enclosed areas despite overexploitation, thereby mitigating the economic costs of partial non-enclosure. Finally, legislators may be more likely to choose a hybrid regime when that regime is able to preserve or even strengthen existing informal governance mechanisms in open-access areas.

This Note has broadly discussed the potential economic and political virtues of spatially hybrid regimes, and it has identified some basic conditions that may help them emerge and persist. Studies of other hybrid regimes could further substantiate the intuitions developed here, in addition to identifying other factors that may determine when such regimes will develop. Having emerged simultaneously as part of a single, broad compromise among competing interests, the case of Connecticut's coexisting private and public oyster grounds constitutes a vivid and discrete historical example of a hybrid regime. Nonetheless, regimes that spatially intersperse common and private property exist all around us. For example, federal and state policymakers are increasingly embracing marine spatial planning, in which sub-areas of the ocean are defined and subjected to different property rules (for example, rules that allow or forbid private leasing for energy production) as a politically and economically expedient alternative to traditional, more spatially uniform maritime regulation.²⁰² Or consider the archipelago of sub-territories within federally owned

[<http://perma.cc/7768-TFKH>] (noting that the Chesapeake is generally shallow). The jurisdictional complexity of the Chesapeake, which is split between two states, may also have complicated negotiation toward a grand bargain along the lines of Connecticut's 1881 reforms, and the state's political structure may have also conspired against compromise. See Fincham, *supra*, at 14 (noting that Maryland's method of geographic apportionment of political representatives disproportionately empowered anti-enclosure forces).

202. See, e.g., Courtney B. Johnson, *Advances in Marine Spatial Planning: Zoning Earth's Last Frontier*, 29 J. ENVTL. L. & LITIG. 191 (2014); Press Release, U.S. Dep't of the Interior, Secretary Jewell, Governor Patrick Announced the Nation's Largest Offshore Wind Energy Area Available for Commercial Development (June 17, 2014), <http://www.doi.gov/news/pressreleases/secretary-jewell-governor-patrick-to-announce-nations-largest>

and administered lands, many of which allow for a substantial degree of private control and exploitation.²⁰³

To be sure, these modern regimes are more sprawling and sophisticated than the system that governed Henry Rowe and Captain Bob. But, just like Connecticut's regime, these modern regimes use hybridity in an effort to attain a reasonable balance among citizens' diverse goals, values, and ways of life. The history of Connecticut oystering shows that hybrid property regimes can succeed in this fundamental task, and that they can serve as stable, productive solutions to the never-ending struggle for property rights.

-offshore-wind-energy-area-available-for-commercial-development.cfm [http://perma.cc/EV4Y-A6T6].

203. See, e.g., ADAM VANN, CONG. RESEARCH SERV., R40806, ENERGY PROJECTS ON FEDERAL LANDS: LEASING AND AUTHORIZATION 1-2 (2012), <http://fas.org/sgp/crs/misc/R40806.pdf> [http://perma.cc/CC64-N6W9]. See generally Bruce R. Huber, *The Durability of Private Claims to Public Property*, 102 GEO. L.J. 991 (2014) (exploring the diversity of private activity on federal land).

APPENDIX: OYSTER GROUNDS OFF BRIDGEPORT AND STRATFORD



Detail from an 1889 map of Connecticut oyster grounds, showing natural beds and rectilinear private tracts off the coast of Bridgeport and Stratford. The famous Bridgeport natural bed is the trapezoidal area at top center. Courtesy Mystic Seaport, G.W. Blunt White Library.