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The Accretion/Avulsion Puzzle: Its Past Revealed, Its Future Proposed

Joseph L. Sax*

One naturally searches for a reason or rationale for the requirement that the process be gradual and imperceptible, but this proves elusive.
—Southern Centre of Theosophy Inc. v. State of South Australia (1982) A.C. 706, 709 (Austl.)

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I. INTRODUCTION

The accretion/avulsion distinction embodies one of the baffling riddles of property law. Unfortunately, it cannot be dismissed as a mere artifact of antiquarian interest. The rule has serious contemporary relevance, for it determines ownership and use of our shorelines.\(^1\) The law provides that when the water's edge shifts “gradually and imperceptibly” (accretion)\(^2\), the property boundary moves with it. But where the shift is “sudden or violent” (avulsion), the boundary stays where it was. In general, the accretion rule accords with our contemporary view that water-adjacency is a primary value of private littoral/riparian titles,\(^3\) and that important public rights depend on the use of overlying water and the shore near the water's edge. Consequently, it has seemed to most modern observers that when a river shrinks or expands, or the sea rises or falls, title should move accordingly. That is the consequence of applying the accretion rule, and it traces back at least to Roman law set out in the Institutes of Justinian.\(^4\)

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\(^1\) I use the term “shoreline” as a generic way of describing the often-contested area at the water’s edge where sovereign and private littoral domains meet. In the literature, the word “shore” or more commonly “foreshore” is used to mean the area between ordinary high and low tide. See Lord Chief Justice Hale, A Treatise De Jure Maris et Brachiorum Ejusdem (1787), reprinted in Stuart A. Moore, A History of the Foreshore and the Law Relating Thereto 370, 378 (3d ed. 1888); see also Moore, supra, at xlii. I use the term “water's edge” to mean the place where land and water presently meet, either before or following an accretive or avulsive movement, whether or not title has migrated. In this Article I do not deal with issues involved in ascertaining the location of the “legal” water's edge, that is, the line of mean high tide or the ordinary high water mark on nontidal waters.

\(^2\) Terminology can be confusing. In the United States, we generally speak of the accretion rule to describe the various forms of gradual movement of the water's edge: by deposit of alluvion, by recession of the sea (technically reliction or dereliction), and by gradual wearing away of the shore (erosion). When any of these things happen suddenly they are denominated avulsion. In the English materials to be discussed below, the gradual deposit of material by which the upland extends further seaward is usually called alluvion, which is actually the word for the material deposited.

\(^3\) Littoral property abuts the sea or a lake, while riparian property abuts rivers. The differences are only terminological and I use them more or less interchangeably in this Article.

\(^4\) J. Inst. 2.1.20–24 (Paul Krueger ed., Peter Birsks & Grant McLeod trans. I here use Peter Birsks & Grant McLeod (English translation), Paul Krueger (Latin text), The Institutes of Justinian (1987). The relevant passage is reproduced in Appendix A, infra. See also Eugene F. Ware, Roman Water Law: Translated from the Pandects of Justinian 51 (1905).
Why, then, do we have an avulsion rule, which has an equally long pedigree? Why should it matter whether the water's edge shifts as the result of a storm and the sudden deposit of alluvion, rather than from gradual accretion? Should avulsion be limited to situations where a river suddenly shifts to an entirely different channel, or to transient floodwaters? Notably, sudden changes are by no means always short-term, though that is the case with conventional flood overflows. Nor, as endless lawsuits have demonstrated, do notions like perceptibility or gradualness accord well with the actual behavior of water bodies. Often change is gradual, but quite perceptible; sometimes change isn't very gradual, but neither is it sudden or violent. Frequently, shorelines reconfigure themselves in myriad ways from a range of causes as variable as the wind and weather, and conform at different times to each of the different legal standards.

It remains something of a puzzle why the law did not slough off this doctrinal duality long ago and turn to developing a law of shorelands that addressed the various public and private interests that demand resolution in the dynamic areas where water and land meet. While it may be Utopian to hope for anything so fundamental, we do have many important questions to deal with, not least those that rising sea levels are beginning to generate. It is timely to look back to the historic evolution of these rules in England and America in an effort to understand something about how and why they developed as they did, with the hope

5. The question has puzzled modern writers, for example, Joseph J. Kalo, North Carolina Oceanfront Property and Public Waters and Beaches: The Rights of Littoral Owners in the Twenty-First Century, 83 N.C. L. REV. 1427, 1440 (2005). Others have dealt with the seeming inappropriateness of the avulsion rule in many settings by noting "the uncanny ability of courts . . . to manipulate and massage the facts to reach a desired result [maintaining water access]." BRUCE S. FLUSHMAN, WATER BOUNDARIES: DEMYSTIFYING LAND BOUNDARIES ADJACENT TO TIDAL OR NAVIGABLE WATERS 254 (Roy Minnick ed., 2002).

6. E.g., Hawaii v. Zimring, 566 P.2d 725 (Haw. 1977) (holding that lava from a volcanic eruption overflowed the shoreline and permanently extended it). It has sometimes been suggested that "[t]he requirement of gradualness stems from the theory based on experience that an increase which is gradual is likely to be permanent." Argument of counsel for the riparian owner, S. Ct. of Theosophy, Inc. v. State of South Australia (1982) A.C. 706, 709 (Austl.). A statute authorizing suits to quiet title to accretions may require a showing of "permanency," defined, for example, as at least twenty years. See HAW. REV. STAT. § 669-1(e) (2009).

that greater understanding might ultimately generate better outcomes. As we shall see, the history goes back a long way, and is more than a little obscure.

Nowadays one who wants to know about the English common law rules that shaped American law looks first to (and often not much beyond) Blackstone's Commentaries. So it may be useful to start by quoting the regularly cited passage in which he sets out the accretion/avulsion rules:

And as to lands gained from the sea, either by alluvion, by the washing up of sand and earth, so as in time to make terra firma, or by dereliction, as when the sea shrinks back below the usual watermark; in these cases the law is held to be, that if this gain be by little and little, by small and imperceptible degrees, it shall go to the owner of the land adjoining. (o) For de minimis non curat lex: and, besides, these owners being often losers by the breaking in of the sea, or at charges to keep it out, this is possible gain is therefore a reciprocal consideration for such possible charge or loss. But if the alluvion or dereliction be sudden and considerable, in this case it belongs to the king: for, as the king is lord of the sea, and so owner of the soil while it is covered with water, it is but reasonable he should have the soil, when the water has left it dry. (p) So that the quantity of ground gained, and the time during which it is gaining, are what makes it either the king's, or the subject's property. In the same manner if a river, running between two lordships, by degrees gains upon the one, and thereby leaves the other dry; the owner who loses his ground thus imperceptibly has no remedy: but if the course of the river be changed by a sudden and violent flood, or other hasty means, and thereby a man loses his ground, he shall have what the river has left in any other place, as a recompense for this sudden loss. (q) And this law of alluvions and derelictions, with regard to rivers, is nearly the same in the imperial law; (r) from whence indeed those our determinations seem to have been drawn and adopted: but we ourselves, as islanders, have applied them to marine increases; and have given our sovereign the prerogative he enjoys, as well upon the particular

8. Even the most knowledgeable contemporary students of the subject, such as Bruce S. Flushman, seem not to have explored the early English history. For example, the avulsion rule did not arise out of rules settling international boundaries between nations, and the accretion rule was not generated to retain the benefit resulting from proximity of riparian property to the water, though that is certainly the central concern today. See Flushman, supra note 5, at 253. Of course, Flushman's excellent book is about modern American law; it is not intended as an historical treatise.

9. For example, an Oregon case, citing the passage in the text, speaks of "[Blackstone's Commentaries], on which many of the American cases rely." State v. Sause, 342 P.2d 803, 816 (Or. 1959). At one time, at least some American judges were familiar with the earlier historic development of the accretion/avulsion doctrines. See, e.g., County of St. Clair v. Lovelton, 90 U.S. (23 Wall.) 46 (1874).

reasons before-mentioned, as upon this other general ground of prerogative, which was formerly remarked, (s) that whatever hath no other owner is vested by the law in the king.

Blackstone quotes several authorities for the propositions he states, noted in the text by the letters o, p, q, r, and s.11 The first citation, (o), is “2 Roll. Abr. 170, Dyer 326,” which is a reference to one of the earliest known English cases on accretion, known as the Abbot of Ramsey’s case, from 1369. James Dyer was a sixteenth-century jurist who was said to have examined the actual record at the Abbey,12 and the material in Rolle’s Abridgement,13 which is a seventeenth-century collection of citations from the Yearbooks, contains the Abbot of Ramsey’s case as reported by Dyer.14 The references, (p) and (q) “Callis,” are to a series of lectures given at Gray’s Inn in 1622, published as a book and known as Callis on Sewers.15 The reference (r) is to the famous passage from Justinian’s Institute setting out the Roman law of accretion and avulsion.16

I shall examine each of the English law sources cited by Blackstone, as well as other earlier writers who discussed these issues, such as Lord Hale, whose De Jure Maris was written in the mid-seventeenth century,17

11. Id. The references in the text above simply cite an earlier passage on royal prerogative in 1 BLACKSTONE, supra note 10, at 298. The references cited here are from a third revised American edition published in 1884. The first edition of Blackstone, published in 1765, had slightly different notations, and one different citation. What is now (p) was then (n); what is now (q) was then (o) and cited Callis rather than Rolle’s Abridgement and Dyer; what is now (r) was then (p); and what is now (s) was then (q).


14. Actually; the Abbot of Ramsey’s case is found at 169, ¶ 9, not at 170, of Rolle’s Abridgement, but it is certain that is what Blackstone intended, as that is the reference that cites Dyer as its source, and it is the only reference that concerns accretion. A transcription of the actual Exchequer roll of the case, provided by Professor Donahue, is reprinted in Appendix D, infra.


16. J. INST. 2.1.20-24 (Paul Krueger ed., Peter Birks & Grant McLeod trans.).

17. De Jure Maris is reprinted in MOORE, supra note 1, at 370-415, and references to that work in this Article are from this source. It is thought to have been written around 1667,
as well as examining later writers. I will not discuss the Roman and continental authorities except in passing, though of course they were well known to English jurists and writers. In most respects, English law developed parallel rules, and was certainly influenced by the civilians, but as we shall see, English common law development evolved from home-grown precedents responsive to domestic concerns, and English judges developed their own rationales for the law they fashioned. The question I want to pose here is why the law developed as it did through the evolution of English common law, and ultimately to ask how well the rules we have inherited accommodate contemporary needs.

Blackstone's statement of the law raises a number of perplexing questions:

Should the quantum of an accretive or avulsive change be determinative of the result? If not, what did he mean by speaking of "the quantity of ground gained" and of a sudden and "considerable" change? In what sense did he think accretive changes were necessarily "de minimis"? If "reciprocal considerations" justify a moving title for accretive changes, why aren't such considerations equally applicable to avulsive changes, which also go both ways, sometimes adding land and sometimes sweeping it away? Then there is the question of what is meant by the phrase "by little and little, by small and imperceptible...

according to Moore, supra note 1, at xii, but was not published until 1787 by Francis Hargrave from a manuscript of Hale's. It has been doubted whether what Hargrave published was actually Hale's writing. In The Speech of Sergeant Henry Merewether, in the Court of Chancery, Saturday, December 8, 1849, Upon the Claim of the Commissioners of Woods and Forests to the Sea-Shore, and the Soil and Bed of Tidal Harbours and Navigable Rivers; the Nature and Extent of the Claim, and Its Effect on Such Property, reprinted in Robert Gream Hall, Essay on the Rights of the Crown and the Privileges of the Subject in the Sea Shores of the Realm app. IV, at bxxv (Richard Loveland ed., 2d ed. 1875) (1830), Hale's authorship is put in question. In any event, Hale's work generally was well known to lawyers before it was published. See James Jerwood, A Dissertation on the Rights to the Sea Shores 31 ff. (1850) (attacking Merewether); see also Alan Cromartie, Sir Matthew Hale 1609-1676, at 243 (1995) (citing the Hargrave publication of De Jure Maris as a reference with the date 1787).

18. An impressive scholarly article on this point is Paul Jackson, Alluvio and the Common Law, 99 L.Q.R. 412 (1983) (Eng.). He observes that litigants involved in important seashore boundary issues "require more explanation for the application of a rule than the assertion that Justinian so ordained." Id. at 413.

19. E.g., King v. Lord Yarborough, discussed at Section II.C., infra.

20. One rationale Blackstone gave for the imperceptibility rule was described by a court as "an explanation which may appeal to the amateur of legal fictions." S. Ctr. of Theosophy, Inc. v. State of South Australia (1982) A.C. 706, 721 (Austl.) (quoting Lord Wilberforce).

21. On the question of quantity, which led to Blackstone's term "considerable," see Henry Schultes, An Essay on Aquatic Rights 51-52 (1839) (interpreting the Abbot of Ramsey's case and citing a reference in 1 Reports of Sir Peyton Ventrus 188 (1726) collecting King's Bench cases in the reign of Charles II).
degrees.” Is that standard met if change, though not sudden as in a storm, is rapid enough that the change is obvious, measurable, and perceptible, such as the rising sea level on our coasts today? The more one thinks about these matters, and about Blackstone’s famous passage, the more curious this little corner of the law becomes.

II. THE FRAME OF MIND THAT EARLY WRITERS BROUGHT TO THE PROBLEM

Essentially, the law regarding movement at the water’s edge built on the general proposition that if land ownership were to change, the change must be pursuant to some lawful means for transferring property from one owner to another. Several such means existed, such as a grant from the sovereign, or a custom that legitimated long-standing uses of accreted or relicted land. At the time of the earliest known cases, in the fourteenth century, no avulsion or accretion rules had yet been developed in case law. The question then asked was simply how the claimant could have obtained title. In the earliest suits, the claim was that the littoral owner had appropriated land without the king’s permission.

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22. The English term “imperceptible” traces back to J. Inst. 2.1.20 (Paul Kreuger ed., Peter Birks & Grant McLeod trans.), where the Latin is: “est autem alluvio incrementum latens per alluvionem autem id videtur adici, quod id paulatim adicitur, ut intellegere non possis, quantum quoquo momento temporis adiciatur.” That sentence has been translated as “An alluvial accretion is one which goes on so gradually that you cannot tell at any one moment what is being added.” Id.; see Henry de Bracton, 2 Bracton on the Law and Customs of England 44 (Samuel F. Thorne trans., 1968).

23. As we shall see, Part II.C. infra, this was a disputed issue even in the early nineteenth century.

24. One aspect of the law appears always to have had universal agreement. Where a river turns entirely out of its previous course and takes a new channel, rather than moving one way or another astride its original bed, all agree that title should not migrate from the old riparian boundary to the new one. The reason is that rechanneling often skips over a great deal of intervening land, and a migrating title would commonly be very disruptive of ownerships between the old channel and the new one. This view also applies to political boundaries. See Nebraska v. Iowa, 143 U.S. 359, 362 (1892).

Notably, even the distinction between the cutting of a new channel, versus the movement one way or another within an existing channel, is not always clear with an unruly river like the Missouri. See Nebraska v. Iowa, 406 U.S. 117, 119 (1972).

Blackstone does not specifically speak, as does Justinian, of a “river [that] entirely abandons its original course and flows along a new bed” (see Appendix A, infra). He does cite this passage from Justinian and says English law relating to rivers is “nearly the same in the imperial law.” BLACKSTONE, supra note 10.

25. See text accompanying note 71, infra, regarding use of the term “prescription.” On custom, see Blundell v. Catterall, (1821) 106 Eng. Rep. 1190, 1194 (“The practice of a particular place is called a custom. A general immemorial practice through the realm is the common law.”).

26. See infra text accompanying notes 38-41.

27. Id.

28. See infra Appendices C-D.
Those cases most likely arose as attempts by Exchequer officials to raise money, rather than as specific concerns about rights at the seashore. But at least by the 1600s, it was clear that disputes concerning land at the edge of the sea (or in arms of the sea) where one of the owners at issue was the sovereign, were particularly sensitive: how had land previously owned by the king, land beneath the sea, somehow become vested in one of his subjects without his knowledge or consent?

That concern gives special weight to several statements in the passage from Blackstone quoted above: "[F]or, as the king is lord of the sea, and so owner of the soil, while it is covered with water, it is but reasonable he should have the soil when the water has left it dry;" and "[W]e . . . as islanders . . . have given our sovereign the prerogative he enjoys, as well upon the particular reasons before-mentioned, as upon this other general ground of prerogative, . . . that whatever hath no other owner is vested by law in the king."

One tentative conclusion to be drawn from these observations is that when the accretion rule is applied at the edge of the sea, giving a littoral owner title to a space previously owned by the sovereign, any such transfer would have been viewed as exceptional, and not—*a priori*—thought justifiable simply because it was fair to give accretions to owners who took the risk of submergence (reciprocity), or because it was deemed desirable to give such owners continued access to the water. A more convincing explanation, assuming its accuracy, would have been that the change was so insignificant that one could fairly say of it, "*de minimis non curat Rex.*" 

Some other ideas were put forward to justify a moving boundary that might have then satisfied jurists, or at least served as an acceptable legal fiction. One of them, as we shall see, is that where accretion or reliction occurred very slowly over a very long time, there was no longer evidence or knowledge of the location of the original boundary. That being the case, it could not be said with any confidence that land formerly owned by the king had been appropriated by the upland owner

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29. As Coke put it, "so all the lands in England were originally derived from the crowne of England, and are holden of the same mediately or immediately." *Edward Coke, 4th Part of the Institutes of the Laws of England* 363 (1641); *see also infra* text accompanying note 42.

30. 2 *Blackstone, supra* note 10, at 262.

31. Yes, "Rex," not "lex." This was the formulation used by Callis in *The Reading of the Famous and Learned Robert Callis, supra* note 15, at 62 [51].
(I shall subsequently speak of this as the "lost boundary" rationale). This was a very important concern in the writings we shall examine, and it may help explain why early writers, including Blackstone, may have thought that both the speed of the change and its quantum could be significant. If the amount in contention was small, it might qualify as de minimis. And, even if the acreage in question was considerable, if no one could say how much—if any—had previously been the sovereign's property, and how much had been upland, there would be no proof that the sovereign had been dispossessed. Moreover, if the change occurred slowly enough, over a long enough time, it might have seemed that nothing was happening, so the king need not take notice of it. Of course, any such notions would indeed have been fictions. In fact, as we shall see, the sovereign actively litigated these cases, and the amounts of land in controversy were known, often substantial in size, and expressly described in the reports.

In any event, none of the above explanations speaks to the element that is central to modern thinking: that the original upland was granted to the water's edge, and that maintaining water-adjacency is central to the value and use of riparian/littoral property. As we shall see, that explanation is nowhere to be found in the early history of the accretion/avulsion doctrines; nor, notably, was it mentioned by Blackstone.

A. The Historic Beginnings

It is usual to mention first Bracton, a treatise called On the Laws and Customs of England, composed, for the most part, in the 1220s and 1230s. While the treatise, in many parts, was based on reports of actual cases in the king's court—the plea rolls—its references to accretion seem to have been derived entirely from Roman law. Bracton's statement of the rule would have been as familiar to ancient, as to present-day, writers:

Alluvion is an imperceptible increment which is added so gradually that you cannot perceive [how much] the increase is from one moment of time to another. Indeed, though you fix your gaze on it for a whole day, the

32. See infra text following note 112.
33. BLACKSTONE, supra note 10.
34. See, e.g., King v. Lord Yarborough, infra note 128.
35. "[T]here are good reasons for doubting . . . whether Henry of Bracton could have been the author of all or even a major part of the treatise." It was apparently the work of a number of writers over a number of years. Paul Brand, The Age of Bracton, in THE HISTORY OF ENGLISH LAW: CENTENARY ESSAYS ON "POLLUCK AND MAITLAND" 65, 75 (John Hudson ed., 1996).
feebleness of human sight cannot distinguish such subtle increases, as may be seen in [the growth of] a gourd and other such things. 36

But Bracton appears not to have notably influenced the course of the English law governing shorelines, 37 which through common law evolution developed its own rationales for the rules it adopted out of its own experience and its own perceived needs. That law was founded upon court decisions going back to the fourteenth century, 38 beginning with three lawsuits. They are a decision of the Eyre of Nottingham, in the Yearbook of 1348, but probably decided in 1329-30; 39 the Abbot of Peterborough’s case of 1367; 40 and the Abbot of Ramsey’s case of 1369. 41

36. The Latin in Bracton is: “Est autem alluvio latens incrementum, et per alluvionem adici dicitur quod ita paulatim adicitur, quod intelligere non possis quoquo momento temporis adiciatur. Nam et si tota die figas inituitum, imbecillitas visus tam subtilia incrementa perpendere non potest, ut videri poterit in cucurbita et similibus.” The translation is in BRACTON, supra note 22, at 44.

The Latin word “paulatim” is translated as gradually. The word imperceptible used by English and American courts is a translation of “quod intelligere non possis,” which translates as “that cannot be perceived.” Id.

Bracton and Fleta are the earliest English authorities. Bracton’s On the Laws and Customs of England (circa 1220-1230), was first published in 1539. Fleta (circa 1290, first published in 1647), is essentially a digester of Bracton. A modern edition and translation of Bracton is available online at Bracton Online, http://hlsl5.law.harvard.edu/bracton/ (last visited Mar. 16, 2010). Fleta has been edited by George Sayles in the Selden Society series. These writings are not discussed in detail here, as on this subject they reported what they understood to be the Roman law, rather than describing the distinct evolution of English law. BUT SEE JOSHUA GETZLER, A HISTORY OF WATER RIGHTS AT COMMON LAW 50-51 (2004). Bracton was “a very famous Lawyer at the later end of the reign of Henrie the Third,” according to John Selden in his mare clausum. JOHN SELDEN, 2 OF THE DOMINION, OR OWNERSHIP OF THE SEA chs. XXII-XXIV, at 383 (Marchamont Nedham trans., 2004) (1652).

37. None of the later writers, including Blackstone, looked significantly to Bracton for authority on accretion and avulsion. Blackstone does cite Bracton in regard to ownership of islands that arise in the sea. Blackstone says: “[I]n case a new island rise in the sea, though the civil law gives it to the first occupant [citing Justinian], yet ours gives it to the king [citing Bracton].” 2 BLACKSTONE, supra note 10, at 261.

38. See, e.g., Blundell v. Catterall, (1821) 106 Eng. Rep. 1190, 1203 (K.B.) (“Another authority cited is a passage from Bracton … that plainly appears to have been taken from Justinian … and whether or not that has been adopted by the common law, is to be seen by looking into our books, and there it is not to be found.”); see also id. at 1198-99, 1202, 1205 (opinion of Bayley, J); id. at 1206 (opinion of Abbott, C.J.).

39. The case has no name, but is referred to in the literature simply by a citation, “22 Lib. Ass. Pl. 93” (which means the twenty-second year of Edward III (1348), in the Liber Assisarum, plea number 93). The case (cited only as 22 Ass. 93) is discussed in Hale, supra note 1, at 371. It is interpreted in THE READING OF THE FAMOUS AND LEARNED ROBERT CALLIS, supra note 15, at 61-62. These are the earliest references to it that I have found. An English language translation of the case is printed as Appendix B, infra.

40. The case, cited as 41 Edward III, is summarized in MOORE, supra note 1, at 157, and is described in Lord Chief Justice Hale, Hale’s Arguments Drawn up for the Case of Rex v. Oldsworth, in MOORE, supra note 1, at 351, and in Hale, supra note 1, at 396. A translation of a transcription from the original roll is reprinted as Appendix C, infra.
1. The Eyre Of Nottingham Case (1348)\textsuperscript{42}

The case speaks of an inland river running between two private landholdings (A and B), where A owns riparian land and the entire river bottom.\textsuperscript{43} B's land was riparian on the far side of the river.\textsuperscript{44} The river became wider, submerging some of B's former upland.\textsuperscript{45} The result in the case is that A's title expands with the river's expansion, so that he will now own the entire (enlarged) river bottom "if this increase of the watercourse had been so imperceptible that no one could perceive or would bound the increase as it increased by the process of time, as in several years and not in one year nor in a day, and if certain bounds are not placed and found of which one could perceive this increase."\textsuperscript{46} But if the river had expanded over B's soil "[q]uickly by force of a flood ... in such quick increase no one should lose his soil."\textsuperscript{47}

The case sets out the same basic accretion/avulsion distinction that we find in contemporary law, but what makes it interesting is the reason given for the result. The significance of the rate of movement and imperceptibility is the inability to "bound the increase," that is, to know where the original boundary was.\textsuperscript{48} The point is made yet clearer in the subsequent sentence, noting whether "certain bounds are not placed and found of which one could perceive this increase."\textsuperscript{49} The point seems to be that if no one can determine where the original boundary was, there is no way to ascertain what the asserted loser has lost, and therefore the

\textsuperscript{41} Blackstone cites this case, though not by name, in stating the basic accretion rule: "[T]he law is held to be, that if this gain be by little and little, by small and imperceptible degrees, it shall go to the owner of the land adjoining." The citation in Blackstone is "2 Roll. Abr. 170. Dyer, 326," which are sixteenth-century summaries of earlier cases. See notes 12 and 13, supra, for citations to Rolle's Abridgement and Dyer's Report. The reference is The Abbot of Ramsey's case, L.T. Remembrancer 43 Edw. III (1369) rot. 13 Dyer 326. A statement of the Abbot of Ramsey's case in modern English is given in MOORE, supra note 1, at 158-59, taken from Hale's Latin description, given in id. at 396, who says it comes from Dyer, who is said to have seen the register of the Ramsey abbey, Dyer's Reports, cited supra note 12, at 347 n.2. See also 2 Roll. Abr. 169, ¶ 9, where the Abbot of Ramsey's case is described, with a slightly different text than that quoted by Hale. A translation from the original roll is reprinted as Appendix D, infra.

\textsuperscript{42} See infra Appendix B. The Eyre of Nottingham Case, 22 Lib. Ass. Pl. 93, is reprinted in Hale, supra note 1, at 371.

\textsuperscript{43} Id.

\textsuperscript{44} Id.

\textsuperscript{45} Id.

\textsuperscript{46} See id.

\textsuperscript{47} Id.

\textsuperscript{48} See id.

\textsuperscript{49} Id.
existing water boundary should be taken as the property line, even though in retrospect it is clear that the river is not where it once was.  

Why does A's ownership not extend the full width of the river when the river expands rapidly, by force of flood? It could be that when there is a sudden change, the former bounds are easy to determine, and the issue arises immediately, rather than after many years of very slowly changing water lines. It is also possible that avulsive changes are often the result of periodic flooding or a sudden storm, and that the change is only transient, though I have found no such expressed justification for the avulsion rule in any of the early literature.

2. The Abbot of Peterborough's Case (1367)\textsuperscript{51} and the Abbot of Ramsey's Case (1369)\textsuperscript{52}

Though Blackstone refers only to the Abbot of Ramsey's case,\textsuperscript{53} the two cases are similar in their motivation, facts, and results, and they overlap in their timing. The two properties are not far from each other, and some of the same lawyers may have been involved in both of them. The Peterborough case was filed in 1367, but languished until Ramsey's case was decided favorably for the Abbot in 1371.\textsuperscript{54} The next year, a jury was empanelled in Peterborough's case, and judgment was entered for him in January of 1373.\textsuperscript{55}

Each case was initiated by the Crown, doubtless for revenue-raising purposes.\textsuperscript{56} Each claimed that the Abbots had acquired land without

\begin{itemize}
\item \textsuperscript{50} This analysis traces back at least to Bracton, who explains that the sea, up to the high water mark (full sea) is the sovereign's, unless the upland owner can show that the sea had at some earlier time overflowed his upland and that he hath notwithstandinge alwaye kept the boundes thereof, so that at the lowe water his sayd boundes are to bee scene: for in that case in deede yt is doughted . . . whether an arme of the sea by subite encrease wynninge a mans land, and ouerflowinge the same shall take away his propetye and interest therein.

Thomas Digges, \textit{The Origin of the Prima Facie Title of the Crown: The Treatise of Mr. Thomas Diggs: Mr. Digges' Arguments}, in \textit{Moore, supra} note 1, at 191 n.1 (quoting BRACtON). See \textit{id.} at 198-99.

\item \textsuperscript{51} A translation of the record of the case is reprinted \textit{infra} as Appendix C, along with along with Serjeant Merewether's summary (The Speech of Serjeant Henry Merewether, \textit{supra} note 17).

\item \textsuperscript{52} A translation of the record of the case is reprinted \textit{infra} as Appendix D; a summary by Moore is in \textit{Moore, supra} note 1, at 158-59.

\item \textsuperscript{53} See 2 \textit{BLACKSTONE, supra} note 10, at 202 (citing Dyer 326).

\item \textsuperscript{54} Professor Donahue informs me that the case was first filed in 1349 but not pursued. The then-abbot died, and it was refiled in 1367 against the new abbot.

\item \textsuperscript{55} \textit{See infra} Appendix C.

\item \textsuperscript{56} There is no positive evidence that at this time the Crown's ownership of land beneath the sea was at issue (\textit{but see} discussion \textit{supra} note 50), though it was a central concern for later commentators seeking a rationale for the accretion rule. "The soil of the sea, estuaries, and

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permission of the king, probably in violation of the Statute of Mortmain, which was designed to prevent land from passing into the ownership of religious institutions that avoided the taxes ordinarily paid by individual owners upon death, inheritance, or attainant.

The claim in the Peterborough case was that the Abbot acquired 300 acres of marsh and sand land from Sir Nicholas Ry[e] and his wife Juliana and another 300 acres from the Abbot of Swineshead after the enactment of the statute, and without obtaining permission from the king. Similarly, in Ramsey’s case, the charge was that the Abbot “appropriated to him and his house without the permission of the King, 60 acres of marsh in Brancaster,” and he was challenged to show if there was any reason why the aforementioned “60 acres of marsh should not be seised.”

The Abbots turned the cases around by making what was likely a surprise defense. They said they had not purchased, or appropriated, the land in question at all (and thus did nothing in violation of statute or without the license of the sovereign). The land in question had simply been deposited at the edge of their manors as alluvion by the gradual rising and falling of sea at the water’s edge. Of course, they did not speak explicitly of alluvion, nor did they mention any law of accretion.

The Abbot of Ramsey’s defense was

And the aforesaid Abbot comes, through William de Wylford his attorney, and says that the aforesaid marsh ought not to be seized into the King’s hands, because he says that he holds, and his predecessors from time immemorial have held, the Manor of Brancaster, which certain manor is situated by the sea, and that there is in the same place a certain marsh, but it is not to be known whether that marsh contains sixty acres.

Navigable rivers, within the British dominions, was originally in the Crown, and remains so still, except in those cases where it can be proved to have legally passed into the hands of private persons.” Hall, supra note 17, at 3 n.(f). For a general discussion of the traditional rights in the seashore, see id. at 1-14; Bracton, supra note 36, at 39-40. If sovereign ownership had been in issue, it would have been significant that the jury found that the marsh had been within the influx of the sea, which indicates that the land was originally held by the sovereign. In that case, even if the area was no longer under tidal influence, it would have been necessary to determine how it could have been involuntarily transferred out of the king’s ownership.

57. “The rights of manorial tenants were really won from the lord [the king] and carved out of his beneficial interest by concession from him of some kind or another, and necessarily could only be established against him by strict legal proof . . . .” J.B. Phear, A Treatise on Rights of Water 39 n.2 [47] (1859).
58. The specific language in the original, translated in Appendix, D., infra is: “post statutum etc. et sine licentia etc.”
59. Infra Appendix D.
60. See infra Appendix D.
61. See infra Appendix D.
62. See infra Appendix D.
He says that the marsh sometimes shrinks, through the influx of the sea, and at other times is enlarged by the flowing out of the sea, and so he says he holds that marsh in that manner.

And putting that aside, he denies that he or any of his predecessors appropriated any marsh in the place aforesaid to him and his house without the King's permission, as is supposed by the aforesaid presentment. And he is prepared to verify this etc. And he seeks judgment etc. And that is what the jury found, holding for the Abbot.  

Ramsey's defense might almost be taken as playful: he was charged with "appropriating" land, and he said he did not appropriate anything; he simply sat back and benefitted from the ebb and flow of natural forces. But his point was serious enough. He did not violate any statute, and he did not take anything that belonged to anyone else, including the sovereign, so he could hardly be said to have violated any law.

Though the Ramsey case is more famous, Peterborough's case is actually more interesting, for his defense offers a legal justification (local custom) for ownership of alluvion that washes up on the shore. First, Peterborough denied that he had purchased 300 acres from Nicholas Ry and his wife, and he denied that he had purchased 300 acres from the Abbot of Swineshead (we learn nothing more about those allegations).

Instead, Peterborough's defense deals only with an asserted sixty acres of marsh lying next to his land. His defense is

That the custom of the country is, and from time immemorial was, that all and singular lords having manors, lands or tenements upon the coast of the sea used in particular to have salt marsh and sand dunes, of a greater and lesser extent, thrown up near their land-holdings according to the inflows and outflows of the sea.

And thus the aforesaid then Abbot, predecessor of the present Abbot, had, by the inflows and outflows of the sea, around sixty acres of salt marsh lying next to his lands, and [built up] by the passage of time, according to the custom of the country from ancient [times].

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63. *Infra* Appendix D.
64. *Infra* Appendix D.
65. See *Infra* Appendix C.
66. It might seem that there is an obvious mistake, and that sixty acres is being substituted for 600 acres (300 plus 300). But the words "trescentas" (three hundred) and "sexaginta" (sixty) are spelled out in the Roll, so that the difference between them was doubtless an important part of the abbot's plea.
67. The word in the original, *sabula*, is here translated as "sand dunes." See Niermeyer, *Lexicon*, s.v., which translated it as "sandy hillock" or "sandy tract."
And putting that aside, he denies that the aforesaid then Abbot of Peterborough, the predecessor etc., acquired any salt marsh from the aforesaid Abbot of Swineshead as is presented above. And he puts himself super patriam [upon the jury's mercy] concerning this. 68

Notably, nothing in the report of either case mentions a positive reason for the accretion rule, nor is there any hint of the issue that later troubled commentators: the sovereign's title to land formerly under the sea and now covered by alluvion. Neither is there any reference to the Roman law, though fourteenth-century lawyers no doubt were aware of it. When Lord Hale commented on the Abbot of Peterborough's case some 300 years later, he had this to say: 69

1st, Here is custom laid, and he relies not barely upon the case without it. 2d. In this case it was per incrementum temporis and per mare projecta. It is not a sudden reliction or recessus maris .... And though there is no alluvio without some kind of reliction, for the sea shuts out itself; yet the denomination is taken from that which predominates. It is an acquist per projectionem ... not per recessum or relictionem. 3d. That such an acquisition lies in custom and prescription; and it hath a reasonable intendment, because these secret and gradual increases of the land adjoining cedunt solo tanquam majus [minus?] principali [cede to the soil as the lesser does to the principal]; and so by custom it becomes a perquisite to the land, as it doth in all cases of this nature by the civil law.

Hale's brief comment raised a number of issues that engaged and puzzled later commentators. Was it important that this was a case of accretion rather than reliction, 70 or only that it was not a "sudden" reliction? What is the significance of his mention of prescription, 71 and

68. See infra Appendix C.
69. Hale, supra note 1, at 397. While the passage in Moore says "majus" it almost certainly should be "minus."
70. Some authors say that the Ramsay case involved reliction rather than accretion. See SCHULTES, supra note 21, at 51 (citing 1 REPORTS OF SIR PEYTON VENTRIS, supra note 21, at 188), though the cited passage does not describe the Abbot of Ramsey's case. Blundell v. Catterall, (1821) Eng. Rep. 1194, 1206 (K.B.). Most later commentators, however, have followed Hale, and simply assert that the marsh filled in by accretion. E.g., THE READING OF THE FAMOUS AND LEARNED ROBERT CALLIS, supra note 15, at 65. Some writers seem to assume that the land was originally the Abbot's (above mean high tide), was then inundated, and later reclaimed. See HUMPHREY W. WOOLRYCH, A TREATISE OF THE LAW OF WATERS 53 (1853).
71. Nineteenth-century writers were not sure what Hale meant when he used the term "prescription". See, for example, HALL, supra note 17, at 16-17, 21, who suggests Hale meant "that kind of prescription or usage, which supports such franchise and usufructuary right [like] wreck, royal fish, separate fishery, &c., the immemorial use and enjoyment whereof will, per se, support a title to them." Id. at 21. It seems odd that one could prescribe against the sovereign, but apparently it was common to treat custom as prescriptive, the idea being that the sovereign acceded to longstanding uses recognized as customs, and allowed them to ripen into legal rights. See infra text accompanying note 122.
does it mean anything other than longstanding use? Why does he speak of the increases as being “secret” as well as gradual? And what does it take, legally, for accretions to become a “perquisite” (what we call an appurtenance)?

No answer to these questions is revealed by the reports in the Peterborough or Ramsey cases. What is most revealing about them, in retrospect, is that at a very early date, it had become established practice for seashore owners to treat accretions as their own, and that doing so did not apparently intrude on any other established uses or interests. The primary economic uses of such accreted lands in those days were for livestock grazing and, in marshy areas, for harvesting of reed and plover eggs. It must have seemed natural as solid land expanded simply to move one’s uses down with the new land (and there was no doubt some diking and draining going on to help the alluvion along). As Hale said, the lesser (alluvion) simply became in fact—and then in law—a part of the greater (upland) tract.

In any event, the later-developed rationales for the accretion rule, such as the absence of a boundary dispute, and de minimis impact, seem to have been consistent with the experience of seashore communities in the fourteenth century. And even the notion of reciprocity seems to have been something the abbots’ attorneys had in mind, inasmuch as their pleas spoke explicitly of the flux and ebb of the sea, implying that their clients were sometimes losers of land as well as gainers.

72. An appurtenance is something that has become part and parcel of the land. See Adams v. Frothingham, 3 Mass. 352, 358 (Mass. 1807).
73. The Abbot of Ramsay’s case is briefly described in Coke, supra note 29, at 140: [T]he case was, that the abbot of Ramsey was seised of the manor of Brancaster in Norf. bordering upon the sea, upon sixty acres of marsh of which mannor the sea did flow and reflow; and yet it was adjudged parcell of the abbots mannor, and by consequence within the body of the country unto the low water mark.
74. E-mail from Charles Donahue, Professor of Law, Harvard Law School (July 18, 2009) (on file with author).
75. In Digges, supra note 50, at 193, Digges observes, “[H]owe generally men that have possessions adjoyninge to the sea syde, vse when the sea is gone to put sheepe and other cattell vpon the salt shore, and so euerye man occupieth of the same so mutche as lyeth against his grownd, and wynne the same from the sea yf they cann.”
76. Hale, supra note 1; see also supra note 69, and accompanying text.
B. Two Early Writers: Callis and Hale

1. Callis on Sewers

The first commentaries I have found on the Abbot of Ramsey's case and on the issues raised by moving water boundaries are the lectures of Robert Callis delivered at Gray's Inn in August, 1622, and generally known as Callis on Sewers. Some forty-five years later, Chief Justice Matthew Hale is believed to have produced his much better-known treatise, De Jure Maris, though it was not then published. Callis is the more interesting writer. While Hale's work is presented as essentially descriptive of the law, Callis tries to work out inconsistencies among the precedents in an effort to come up with a coherent theory to use in a pending case where he was counsel.

Callis begins with an undisputed principle: that the sea, and the land beneath it, is the king's "in property, possession, and profit." That being the case, he says, it must be "that the ground which was the King's when it was covered with waters, is his also when the waters have left it." Thus, when the sea recedes or is pushed back by the accumulation of alluvion at the water's edge, it would seem that the area of the former sea bottom would continue to belong to the king. But, Callis says, things are not quite so simple.

First, in some places "frontagers [littoral owners] have claimed those grounds so left, by a pretended custom of frontagers." And, he says, there are good reasons for such customs, because such owners are subject to inundation when the water rises and are obliged to pay to hold back the water in some instances, "so if lands were left by the sea affront them [that is, if the sea recedes] that these land might accrue to them as a

77. See THE READING OF THE FAMOUS AND LEARNED ROBERT CALLIS, supra note 15, at 1 [1].
78. See also Hale, supra note 1, at 376: "In this sea the king of England hath a double right, viz. a right of jurisdiction . . . and a right of propriety or ownership."
79. THE READING OF THE FAMOUS AND LEARNED ROBERT CALLIS, supra note 15, at 52 [45]. Hale agrees:

The increase per relictionem, or recess of the sea. This doth de jure communi belong to the king; for as the sea is parcel of the wast or demesne, so of necessity the land that lies under it, and therefore it belongs to the king when left by the sea . . . .

Hale, supra note 1, at 380.
80. "If, as I have formerly declared, the grounds be the King's when they be covered with waters, it must needs be held an infallible ground, that they be also the King's when the waters have left them dry . . . . [Y]et I have known in some countries where the frontagers have claimed those grounds so left . . . ." THE READING OF THE FAMOUS AND LEARNED ROBERT CALLIS, supra note 15, at 57 [47].
81. Id. at 57 [47].
reciprocal consideration for their charge and loss.\textsuperscript{82} The problem, Callis says, is that there are also cases that go the other way.\textsuperscript{83}

He cites two such cases from about 1615, involving littoral owners named Brown and Bushey, in one of which Callis was counsel.\textsuperscript{84} Those cases involved significant recessions of the ocean, one amounting to 1600 shorefront acres.\textsuperscript{85} In those cases, the owners’ claims of a custom giving the upland owners title to relicted land were rejected. The ground of decision was that

\begin{quote}
    it were inconvenient that the subject should have frontage, and yet no bounds prescribed thereto; so that ten thousand acres might be left affront a man’s manor, which were not fit a subject should have this large inheritance by pretence of such allowed custom . . . for so might he become richer than the King.\textsuperscript{86}
\end{quote}

On the other hand, Callis points out, there are older cases where littoral owners had been allowed to obtain property in land beneath the sea, as against the sovereign. One such instance was Sir Henry Constable’s case in 1599, which established that a littoral owner could obtain a right down to low tide.\textsuperscript{87} Callis also cites a case from the 1570s, \textit{Digges v. Hamond}, where

\begin{quote}
    [I]t was adjudged in the Exchequer, in an information by Digges on behalf of the queen, that if the salt water of the sea yields and forsakes a great quantity of land on the salt shore, the queen shall not have it by her prerogative, but the next adjoining owner shall have the land as a perquisite.
\end{quote}

The Digges case had relied on the “excellent precedent” of the Abbot of Ramsey’s case,\textsuperscript{88} which Callis says holds that where “by little the sea

\textsuperscript{82.} \textit{Id.} at 58 [48]. “The King had from the earliest times the prerogative of erecting sea walls to defend the realm against waste from the sea, and probably made those pay for the works who benefitted thereby.” H. Gallienne Lemmon, \textit{Public Rights in the Seashore} 46 (1934) (quoting Hudson v. Tabor, 2 Q.B.D. 290 (1877)).

\textsuperscript{83.} \textit{The Reading of the Famous and Learned Robert Callis, supra} note 15, at 58 [48].

\textsuperscript{84.} \textit{Id.}

\textsuperscript{85.} \textit{Id.}

\textsuperscript{86.} \textit{Id.}

\textsuperscript{87.} The case involved the right of the upland owner to wreckage left on the shore. In 2 Rol. Abr. 170 ¶ 12, note 13 \textit{supra}, it is said that according to Sir Henry Constable’s case it was decided “The soil upon which the sea flows and reflows, of course [sic], between high water mark and low water mark, may be parcel of a manor of a subject.” See also 16 \textit{Viner}, supra note 13, at 576. It is also cited for this proposition in Hale, \textit{supra} note 1, at 351-52, 379. Moore describes the case in detail, and sets out the opinion. \textit{Id.} at 233-41.

\textsuperscript{88.} \textit{The Reading of the Famous and Learned Robert Callis, supra} note 15, at 69 [50], cites to Dyer 326, in \textit{supra} note 41.
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sometimes decreases and leave some parcel to the land, and some other time run over the same again, this ground belongs not to the King; for these be grounds whereto the subject may have a property, as in the grounds of the shore.\textsuperscript{89}

How does one reconcile these seemingly contradictory precedents, Callis asks? The answer, he concludes, is that where the littoral owners obtained title, it was by prescription and custom, that is, by use of the land in question over some period of time. Thus, Sir Henry Constable's case, the Abbot of Ramsey's case, and the Eyre of Nottingham case, which he cites (though involving private riparian owners on a river),\textsuperscript{90} had an element in common: over a substantial period of time, the adjacent landowners had established a history of long use recognized as granting an entitlement.\textsuperscript{91} By contrast, the cases that had been lost by the landowners were ones in which the decline in the ocean level occurred all at once, exposing the land, and where there was no history of established use.\textsuperscript{92}

Callis's conclusion appears to be that it is not the pace of change in itself that is critical (whether it is slow or sudden), but that when the pace of change is very gradual, the adjacent owner effectively takes over the newly exposed land unperceived and uses it as his own, so that it

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Moore cites the case as The Queen v. Hammond (Digges, of Lyons Inn, later of the Inner Temple, argued for the Queen's claim), which is discussed at great length in MOORE, supra note 1, at xxviii; Digges, supra note 50; and is set out in full in MOORE, supra note 1, ch. XI, at 212. According to Moore, the Digges case was part of an effort by Elizabeth and later James I—and according to Moore continued into modern times by the English government—to claim public title to the foreshore (land between high and low tide). Digges' theory (supra note 50, at 182) was that no private title in the foreshore could be obtained except by explicit grant from the Crown. Moore says (MOORE, supra note 1, at 223) that theory was rejected in Digges' case, in accord with the precedent set in the Abbot of Ramsey's case. The general question of ownership and use of the area between high and low tide (the shore), and the distinction between English and Roman law in this regard, is discussed in a separate section of THE READING OF THE FAMOUS AND LEARNED ROBERT CALLIS, supra note 15, at 65-67 [54-55].

\textsuperscript{89} THE READING OF THE FAMOUS AND LEARNED ROBERT CALLIS, supra note 15, at 61 [50-51].

\textsuperscript{90} See id. at 62 [52].

\textsuperscript{91} The notion that one could acquire an entitlement to property by putting it to productive use was a notion with considerable currency in the seventeenth century, in the context of colonization of America. “[I]n a vacant soyle, hee that taketh possession of it, and bestoweth culture and husbandry upon it, his Right it is.” Peter Harrison, \textit{Fill the Earth and Subdue It: Biblical Warrants for Colonization in 17th Century England}, 29 J. RELIGIOUS HIST. 10 (2005) (quoting John Cotton); see also Christopher Tomlins, “The Legalities of English Colonizing: Discourses of Intrusion on the North American Mainland, 1490-1640,” American Bar Foundation (2009), at 37 n.117 (quoting John Winthrop in almost the same words) (consent obtained).

\textsuperscript{92} See supra text accompanying note 84.
becomes—as in the words of the Abbot of Ramsey’s case—parcel of the manor; or, as is said in other writings, a perquisite to the littoral estate.\textsuperscript{93}

The gradualness of the process also diminishes the sense of loss by the loser. As Callis puts it, speaking of the Eyre of Nottingham case, “And so of petty and unperceivable increasements from the sea the King gains no property, for \textit{de minimis non curat Rex}.\textsuperscript{94} While obviously not every gradual accretive or relictive change ultimately involves acreage or values that are \textit{de minimis}, Callis seems to have concluded that when the process is slow enough, the diminution is so small as it happens, and occurs over so long a period, that it makes the loss of little consequence to the loser.\textsuperscript{95} Thus he says,

[I]f the decrease of the sea be by little and unperceivable means, and grown only in long tract of time, whereby some addition is made to the frontagers’ grounds, these ... may appertain to the subject; ... but lands left to the shore by great quantities, and by a sudden occasion and perceivable means, accrue [that is, remain in the title of] wholly to the King.\textsuperscript{96}

It is virtually certain that when Blackstone picked up as standards pace and size, saying that “sudden and considerable” changes do not bring about changes of title, he was drawing on the just-described analysis of Callis,\textsuperscript{97} just as he picked up from Callis the reciprocity and \textit{de minimis} notions as justifying the practice of giving gradual accretions to the upland owner.\textsuperscript{98}

Callis thus provided the rudiments of a theory for the law of moving shorelines. The first point is that change of location of the water’s edge does not in and of itself change the ownership of the underlying soil (and emphatically so where title to the soil is in the sovereign).\textsuperscript{99} One must show a legally acceptable justification for a change of title.\textsuperscript{100} Under the precedents, that justification was the existence of a custom allowing the upland owner to acquire title to land at the water’s edge that gradually added to his land and seamlessly came to function as part of his land.\textsuperscript{101} The justification for such customs was that the littoral owner had long

\begin{itemize}
\item \textsuperscript{93} See \textit{The Reading of the Famous and Learned Robert Callis}, \textit{supra} note 15, at 58 [48].
\item \textsuperscript{94} \textit{Id}. at 62 [51].
\item \textsuperscript{95} \textit{Id}. at 65 [53].
\item \textsuperscript{96} \textit{Id}.
\item \textsuperscript{97} See 2 \textit{Blackstone}, \textit{supra} note 10, at 261.
\item \textsuperscript{98} \textit{Id}.
\item \textsuperscript{99} See \textit{The Reading of the Famous and Learned Robert Callis}, \textit{supra} note 15, at 62 [51].
\item \textsuperscript{100} \textit{Id}.
\item \textsuperscript{101} \textit{Id}.
\end{itemize}
used and treated the added land as his own, a prescription-like notion.\textsuperscript{102} The gradualness of the change was simply evidentiary of such a claim of right by long use, not a reason in and of itself to divest the sovereign (or an adjacent riparian) of title.\textsuperscript{103} In the same way, the notions of reciprocity and \textit{de minimis} were evidence of the justness of the customary practices, not legal defenses to the sovereign's claim in and of themselves.\textsuperscript{104}

By contrast, Callis points out, where the ocean recedes substantially, the title to the exposed soil remains in the sovereign; the legal reason is that there has been no opportunity to establish a pattern of private use, as in situations like the Abbot of Ramsey's case. As a policy matter, the use/prescription theory assured that large tracts of strategic land at the nation's frontier would not be lost to the sovereign. As Hale pointed out,\textsuperscript{105} the behavior of the shore, especially on the Channel side—where substantial declines in ocean elevations were observed and loss of strategically important shoreline was a real concern—made the distinction Callis drew of more than academic interest. By contrast, accretive-type changes, like those in the Abbot of Ramsey's case or where littoral owners acquire use rights in the land between high and low water, were necessarily less consequential in their potential impact on sovereign interests.\textsuperscript{106} Indeed, title shifts in cases of long-standing use seem more to confirm the \textit{status quo ante} than to change it.

Callis then raises a more troublesome question: What about a rising sea that inundates what was formerly privately owned upland? It was apparently agreed by all that in such cases the king would have jurisdiction of the land newly submerged, and that public uses such as navigation would be available on such water.\textsuperscript{107} But what if the waters later receded? As to this he says:

But put the case the sea overflow a field where divers men's grounds lie promiscuously, there continueth so long, that the same is accounted parcel of the sea, and then after many years the sea goes back and leaves the same, but the grounds are defaced, as the bounds thereof be clean extinct and grown out of knowledge . . . .

\textsuperscript{102} \textit{Id.}
\textsuperscript{103} \textit{Id.}
\textsuperscript{104} \textit{Id.}
\textsuperscript{105} See \textit{infra} text accompanying note 115.
\textsuperscript{106} \textit{See The Reading of the Famous and Learned Robert Callis, supra} note 15, at 61 [50].
\textsuperscript{107} \textit{Id.} at 61 [51].
In such a case, he says, “it may be the King shall have those grounds.”

But the reason, it seems, is only because the original boundary has been lost, for he then says, rather wistfully, “I find that Nilus every year so overflows the grounds adjoining, that their bounds are defaced thereby; yet they are able to set them out by the art of Geometry.”

In a later edition of his book, in 1685, having found a precedent for his intuition, Callis says, “But if the bounds can be known in such a case, if the sea hath overflowed a man’s land for forty years, and then goes back he shall have his land again, and not the King.” The modern version of this doctrine is known as reemergence.

Callis’s discussion is consistent with a general understanding that titles did not change simply because of natural events, as long as the original boundaries were identifiable. His lectures may be the first overt appearance of the lost boundary theory as the basis for justifying a permanent transfer of title. Apparently, at least in this situation, it was not thought that the sovereign obtained title by prescription. Once the area was no longer needed for public navigation, and as long as the original boundary was still known, the land could be returned to its former owner.

Notably, nothing in Callis suggests that adjacency to the water is the key to such cases and, as we shall see, none of the old cases or old writers justified results on that ground.

2. Hale, De Jure Maris

In general, Hale’s analysis is much like Callis’s. He says the very slow addition of alluvion obliterates the original boundaries so that it is

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108. Id. at 61 [50-51].
109. Id. at 62 [51].
110. Id. at 62 [51] n.(a) (citing Mich.7.Jac: per Coke and Foster, Rol. Abr. Prerogative Le Roy. 168—this is 2 Rolle’s Abridgement 168 ¶ 2). The text reads: “Si le mere overfloue mon terre per 40 ans, et puis refloewre arere [arrere], jeo avera mon terre et nemy le Roy, M.7 JaB.perCoke &Foster.” (“If the sea overflows my land for 40 years, and then refloows back again, I will have my land and not the King.”)

See also Hale, supra note 1, at 381, who says:
If a subject hath land adjoining the sea, and the violence of the sea swallow it up, but so that yet there be reasonable marks to continue the notice of it; or though the marks be defaced; yet if by situation and extent of quantity, and bounding upon the firm land, the same can be known, though the sea leave this land again, or it be by art or industry regained, the subject doth not lose his propriety: and accordingly it was held by Cooke and Foster, M. 7 Jac. C.B. though the inundation continue forty years.

111. See infra text accompanying note 255.
112. De Jure Maris is reprinted in full in Moore, supra note 1, at 370-415.
113. Except that he seems to think it is important that the old cases, like the Abbot of Ramsey and the Abbot of Peterborough, involved accretion rather than reliction, and he appears to
no longer possible to ascertain where private land ended and the
sovereign domain began, and that the new land then appears as part and
parcel of the upland to which it adds itself.114 And he says, “[I]f such
alluvion be so insensible, that it cannot be by any means found that the
sea was there, idem est non esse et non apparere [in effect, to appear to
be is the same as actually being]; the land thus increased belongs as a
perquisite to the owner of the land adjacent.”115
Hale was also concerned with the “sudden retreat of the sea, such
there have been in many ages” and the prospect of private owners
obtaining major areas of seacoast, “especially the narrow sea lying
between us and France and the Netherlands” when the sea “leaves the
English shore in a great considerable measure; possibly by reason of
some super-undation on the other eastern shore, or by some other reason
we know not.”116 As this passage makes clear, Hale’s view about avulsive
changes is not based on the suddenness or violence of the change in
itself, but on its magnitude and the prospect of the sovereign losing
control over frontier waterfront lands. His focus was on what we would
call the national security interest.117 As he puts it, “The king of England
hath the propriety as well as the jurisdiction of the narrow seas; for he is
in a capacity of acquiring the narrow and adjacent sea to his dominion by
a kind of possession which is not compatible to a subject.”118 Elsewhere
he says, “[I]f the channel between us and France should dry up, a man
might prescribe for it, which is unreasonable.”119

114. Hale, supra note 1, at 380.
115. Id.
116. Id. at 397.
117. For a discussion of the King’s role as lord of the sea in respect of protecting against
the nation’s enemies, and against bringing the hostilities of others, in particular Spain and Holland
into the “British Sea,” see Selden, supra note 36, at 371.
Hale observes that other minor private acquisitions in the seashore are allowed, such as
rights of use of the shore for fishing acquired by custom and prescription, in Hale, supra note 1, at
385; land between high and low tide, in id. at 393-94 (citing Sir Henry Constable’s case, as Callis
did); and recovery of inundated land that was previously private, in id. at 400. In speaking of
reliction, Hale cites several instances (including one cited by Callis) where a private landowner
can reclaim his land that was for a time inundated and then exposed by reliction, if he can identify
it as within his original boundaries. Id. at 381.
118. Hale, supra note 1, at 399.
119. Id. at 381. The rule, he says, is “Nihil prescribitur nisi quod possidetur.” (Nothing can
be prescribed unless it has been possessed. Id. at 400.)
3. Callis, Hale, and the Emergence of the Accretion/Avulsion Distinction

Both Callis and Hale were having a good deal of difficulty finding a way to distinguish conventional, small additions to littoral tracts that had long been recognized as belonging to the upland owner from the much larger historic recessions of the sea that must, they thought and precedent had determined, remain in sovereign ownership. Doctrinally, it was challenging to explain why accretions that lay on top of the former sea bottom could go to the littoral owner, but the same area exposed as a result of the sea's retreat must remain sovereign property. Hale's analysis is fairly tortured. Essentially, his reasoning goes like this: (1) Because the soil under the sea belonged to the king, that area, even though the sea no longer covers it, cannot, without a grant from the king, transfer to anyone else; (2) But with alluvion, that is not the rule because, by custom or common law use, such accretions go to the upland owner, on the ground that, in the course of the gradual accretions, the new area simply becomes part of the upland; (3) Such a result really is not satisfactory to deprive the king of ownership, but that is the way it is under the tradition and it seems a reasonable enough result; (4) Anyway, allowing upland owners to acquire accretions does not mean they can acquire relicted areas, for the increase of alluvion is neither a “recess of the sea” nor properly a reliction, the sort of massive exposures of former seabed that would involve a major loss of sovereign territory; (5) And, even though upland owners have been allowed to obtain land where the sea recedes, as in the foreshore, those acquisitions are minor and justified by a history of usage by the landowner.

120. "If the salt water of the sea leaves a great quantity of land upon the shore, the King shall have this land by his prerogative, and the owner of the land next adjoining shall not have it as a perquisite." This is a translation of Rolle's Abridgement 169-70, ¶ 11, reprinted in 16 Viner, supra note 13, at 575-76.

"If the sea leaves the land gradatim, and for but a little quantity, the owner of the land shall have it, but if in a great quantity at a time, it goes to the King," quoted in 2 Reports of Sir Peyton Ventriss, supra note 21, at 188.

121. Others have also found Hale's reasoning on a closely related point difficult to follow, or perhaps to swallow. See, e.g., Baron Palles in Attorney Gen. v. M'Carty, infra note 153; see also Hall, supra note 17, at 142 ff. Louis Houck, a nineteenth-century American treatise writer, said in his work, A Treatise on the Law of Navigable Rivers, "Deprived of Lord Hale's great name, the law, as laid down in [De Jure Maris], in relation to rivers, would hardly ever have been recognized in this country. It was the name of that great jurist that dazzled our judges, and caused some of them to disregard the plainest principles of common reason." Louis Houck, A Treatise on the Law of Navigable Rivers § 32, at 18-19 (1868).

122. See Hale, supra note 1, at 399.
These analyses, and the various doctrinal convolutions they generated, may help explain why the pace of change (gradual and imperceptible versus sudden and violent) became so significant in the development of the English law of the seashore. As land extended seaward over time, by accretion or by use of the area between high and low tide, and as the landowner moved his land use with it (no doubt frequently helping the process along by some fencing and filling), the growing area effectively became—to use the phrasing of the time—parcel of the manor. These uses were not threatening to any important sovereign interest, and however difficult to justify doctrinally, one could dispose of them as being de minimis in terms of sovereign interest, even if not de minimis in monetary value or acreage.

Where the original boundaries were no longer ascertainable, that further eased the ability to justify a private claim to title and, according to Hale, was justified by the rule in the Eyre of Nottingham case, of which he says: "and so it is [in other words, title does not change], though if the alteration be by insensible degrees, but there be other known boundaries as stakes or extent of land. 22 Ass. pl. 93." By this I understand him to interpret the case as saying that even if the change is gradual, the title will not move if there is evidence as to where the original boundaries were. If that is the meaning, it would seem that an important influence on the law was the recognition that when the shore moved very slowly over a long time, it generally became impossible in retrospect to ascertain where the original boundaries had been. Hale then observes that the rule preventing title from transferring as long as the land in question can be distinctly identified with the original owner is also consistent with the Roman law. The reference is to the passage in Justinian where, after stating the accretion rule for imperceptible additions of alluvion, he says,

If, however, the violence of the stream sweeps away a parcel of your land and carries it down to the land of your neighbor, it clearly remains yours; though of course if in the process of time it becomes firmly attached to

123. "In the marshy districts . . . along the coasts of the sea . . . [t]hese marshes, indeed, are in many places 'manorial,' as Lord Hale expresses it,—and the right to embank and enclose them . . . and reduce them to a completely cultivable state, is of no small importance to . . . the owners of the adjacent terra firma." Hall, supra note 17, at 10.

124. Hale, supra note 1, at 371. The preceding description of the case in Hale is: "If a fresh river between the lands of two lords or owners do insensibly gain on one or the other side; it is held, 22 Ass. 93, that the propriety continues as before in the river. But if it be done sensibly and suddenly, then the ownership of the soil remains according to the former bounds. As if the river running between the lands of A and B, leaves his course, and sensibly makes his channel entirely in the lands of A, the whole river [still] belongs to A [the title remains where it was]; aqua cedit solo [the water cedes to the soil, i.e. takes on the title of the underlying owner of the soil]." Id.
your neighbor's land, they are deemed from that time to have become part
and parcel thereof.25

The reason for that rule, presumably, was that once so attached, the parcel
can no longer be separately identified as having come from the original
owner.

It is no easy task to elicit from Callis and Hale, or from the reports
of the precedents they cite, any clear view of how one should analyze
cases involving a migratory water's edge. However, the presence or
absence of a lost boundary and the associated sense that the new land at
some point becomes part and parcel of the upland estate may be the
closest one can come to a theory that was doctrinally satisfactory and
consistent with other important considerations of that time: the concern
about losing substantial coastal shoreline when the sea receded markedly
(as apparently it did); the custom of approving longstanding upland uses
accreted/rellicted shorelines; the nondisruptive character of changes that
came about very slowly (the de minimis rationale); and the general
consistency of this approach to Roman and continental law which,
though not viewed as binding, was known, cited, and respected.26

C. Lord Yarborough's Case

Despite the long history of accretion/avulsion law, and
notwithstanding the confidence Blackstone displayed about the rules in
his treatise, English jurists were still struggling with the doctrinal
problem when an accretion case came to the Court of King's Bench in
1818.27 The report in The King v. Lord Yarborough,28 which involved

125. J. INST. 2.1, at 21. Implausible as Justinian's example may seem, a virtually exact
instance occurred in a Florida hurricane case. Siesta Props., Inc. v. Hart, 122 So. 2d 218 (Fla.

This interpretation of the avulsion rule, a variant of the lost-boundary theory, rather than on
the suddenness and/or magnitude of the change, was adopted by the United States Supreme Court
in Nebraska v. Iowa, 143 U.S. 359, 368-69 (1892).

After giving the same example as Justinian, Bracton says "In the opinion of some, a utilis
vindicatio will be given the former owner, but [in truth] any recovery of the [tree] itself is at an
end since it was made parcel of the other's land and must be termed a different tree, nourished by
another soil." BRACTON, supra note 36, at 44. In his commentary, Thorne says the opinion
referred to is that of Martinus, presumably Martinus Gosia, a twelfth-century lawyer of Bologna
who wrote a gloss on Justinian.

126. The reciprocity rationale is an exception. It could have justified granting ownership
changes for avulsive as well as accretive changes, because they also go both ways, and a littoral
owner is certainly disadvantaged by an avulsive rise of the sea.

127. This area of the law seems to have had no notable development during the eighteenth
century, other than the appearance of Blackstone's Commentaries, which on this matter
essentially states the law as elucidated by older authorities, in particular Callis's seventeenth-
century work.
alluvion that had gradually filled a salt marsh of 453 acres over twenty-six or twenty-seven years, contains a summary of argument by counsel both for the littoral owner and for the Crown. These lawyers cite the authorities discussed in the preceding pages—Callis, Hale, Hale's comments about Bracton, the Abbot of Ramsey's case, etc.—and they raise troublesome questions that those authorities had not resolved.

What is the significance of the "de minimis" concept for a case that involved 453 acres? Does the requirement that the increase be "insensible" require a finding of a lost boundary in order for the littoral owner to succeed against the Crown? Must change be "imperceptible" only as it is happening, even though it is obvious to observers from one year to the next that land is gaining on the sea? Is it true that a littoral owner can never win if the process was caused by the retreat of the sea (dereliction) rather than by the deposit of alluvion, and is that an element that must be pleaded and proved? Is custom or prescription a necessary element of the littoral owner's case? Centuries of litigation and discussion had not clearly resolved any of those issues, and Lord Yarborough's case finally presented an opportunity to settle them.

For better or worse, the judge in the case found it unnecessary to resolve most of the conundrums raised by counsel. First, the court found that this was a case of accretion, where alluvion added new land, and not of retreat of the sea by reliction. He did not, therefore, have to address Hale's view that these different processes would likely generate different results. Neither did the judge question the distinction: he simply said this case involved accretion, and that the distinction between accretion and reliction "is easily intelligible in fact, and recognised as law by all the authorities on the subject." Nor did he find it necessary to engage most of the other issues. But he did reveal a view on the de minimis rationale, as well as the lost boundary theory. The former, at least as a quantitative test, disappeared simply by silence, because the case involved hundreds of acres of valuable land and the court simply

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129. Id. at 94-104.
130. Id.
131. See id. at 104-08.
132. Id. at 105-08.
133. Id. at 106.
134. Id. at 105.
135. The court said the land had an annual value of four shillings per acre, which was quite substantial in 1824. One does find mention of a "substantial accretion" exception in some modern American cases, but on examination they turn out to be unjust enrichment cases. See, e.g., DeBoer v. United States, 653 F.2d 1313 (9th Cir. 1981) (surveying long before a grantor and grantee clearly intended to grant a smaller acreage).
assumed that under the accretion rule the land belonged to the littoral owner.

Chief Judge Abbott also dealt with the lost boundary requirement, at least indirectly, by brushing it aside. The only legal question in an accretion case, he said, is the meaning of "imperceptibly." Hale, he concedes, "considers that as being insensible, of which it cannot be said with certainty that the sea ever was there." (the lost boundary rule). But Abbott found that an unworkable rule, because, while such uncertainty may describe a very gradual accretion after the first few years, that would no longer be the case after a century, or even forty or fifty years, for there will ordinarily be ascertainable landmarks after significant time has passed. Therefore, he concluded, the standard of imperceptibility must be taken to refer only to the manner of the change, meaning "imperceptible in its progress, not imperceptible after a long lapse of time." So the test simply becomes whether the accretion "could be perceived, either in its progress, or at the end of a week or a month." If not, it was sufficiently "slow and gradual" to be a legal accretion and to pass title to the uplandowner.

The court thereby seems to have effected a significant change from the rationale for the rule as given by Callis and Hale, though it is consistent with the rule in the Roman law, and as stated by Bracton.

For Callis and Hale, as noted above, the pace of change was only evidentiary.

The decision in Lord Yarborough's case made the pace of change itself the legal determiner for accretion. With that interpretation and the large size of the accreted tract, the court, without ever advert ing to them, cast away two of the basic explanations earlier writers had given for the accretion rule: lost boundary and de minimis. Judge Abbott's opinion nicely exemplifies how old rules are sometimes carried over to modern times, but without the rationale that gave rise to them and without the offer of any substitute rationale for them. The littoral owner prevailed in Lord Yarborough's case because the change occurred in a manner that the

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137. *Id.*

138. *Id.* at 107; see also Lemmon, *supra* note 82, at 81 (noting that the rule in Lord Yarborough's case was generally picked up "even where the former boundaries of land on the water front were physically defined or capable of ascertainment").

139. **Yarborough**, (1824) 3 B. & C. 91, at 106.

140. See *id.*

141. See *supra* text accompanying note 36.

142. In addition, Judge Abbott declined (on the reasonable ground that it was not before him) to opine upon the historical distinction between land gained by accretion and land gained by reliction. See *Yarborough*, (1824) 3 B. & C. 91, at 94-104.
court considered “imperceptible,” but we do not know from the opinion why (or even whether) that result was deemed appropriate by the court. And we do not know why or whether the law should continue to treat avulsive (less gradual) changes differently.

When the case came before the House of Lords four years later, the decision was affirmed, but upon a distinct and traditional ground that reiterated the old concern for dispossessing the sovereign of its land. In effect, Chief Justice Best affirmed the accretion rule as an immemorial custom and found the custom reasonable and not disadvantageous to the sovereign. Justice Best’s opinion in effect provides, for the first time, a modern explanation for the custom recognized in the Abbot of Ramsey’s case. It says that gradual alluvion adds very small bits of land at a time to the upland, which in themselves would be useless to anyone but the owner of the adjoining upland. However, that owner can make good use of the land because

[As] soon as alluvion lands rise above the water, the cattle from the adjoining lands will give them consistency by treading on them; and prepare them for grass or agriculture by the manure which they will drop on them. When they are but a yard wide the owner of the adjoining lands may render them productive. Thus lands which are of no use to the King will be useful to the owner of the adjoining lands, and he will acquire a title to them on the same principle that all titles to lands have been acquired by individuals, viz. by occupation and improvement.

By this rather clever analysis, Justice Best accomplishes a variety of goals: he adopts the ancient custom recognizing title in the upland owner, explains why it is reasonable, notes that it does not cover the larger sovereign interest in cases where “the sea frequently retires suddenly, and leaves a large space of land uncovered” and that should be left in state ownership, finds it consistent with the Lockean theory of ownership acquisition by the addition of labor, and concludes it is

144. Id. at 165.
145. Id.
146. Id.
147. Id.
148. Id. It is interesting to note that from the perspective of the nineteenth century, the primary value of the shoreland to the littoral owner was as pasturage, not for its water access. That may help explain why we do not see water access as the explanation for the accretion rule in the old writings and cases. By contrast, see infra text at note 250.
beneficial to the public. He notes also that the rule comports with the
civil law and with Bracton's statement of English law.

D. Nineteenth- and Early Twentieth-Century Decisions Following
Lord Yarborough's Case: The Final Repudiation of the Lost-
Boundary Rule

The lost boundary question that had been put to the side in the
King's Bench decision in Lord Yarborough's case remained in suspension
for nearly a century, until it was squarely raised before a distinguished
judge, Chief Baron Palles, in a 1911 case, Attorney-General v.
M'Carthy. The case was a seemingly conventional instance of seashore
accretion, but was distinguished by the fact that a line of posts explicitly
marked the original high water mark. The Crown's attorney argued that
"[e]ven if the aforesaid recession of the sea has been imperceptible in its
progress ... the bounds of the said former line of ordinary high water
mark are known, and the limits of the land left uncovered by such
recession are distinctly ascertained and capable of being laid down." Therefore, he argued, title should not transfer. That argument rested on
Hale's statement that in general, land gained by alluvion belongs to the
king "if by any marks or measures it can be known what is so

150. Id.
152. Some judges thought the lost boundary test had been wrongly repudiated by Lord
Tenterden in Lord Yarborough's case, see Attorney-General v. Chambers (1859) 5 Eng. Rep. 22,
28 (K.B.), but that view did not prevail and was firmly rejected in the M'Carthy case.
154. Id. at 264. The Crown asserted that because "the former line of ordinary high water
could be ascertained ... the defendant [upland owner] had claimed title to what had been bed of
the sea, and therefore, vested in His Majesty the King by his Royal Prerogative. Id. at 262.
155. Hale, supra note 1, at 395-96.
156. Id. at 396.
157. Id.
158. Id.
Ramsey's case, and had not said that such cases must involve a lost boundary. Whatever Hale may have meant, and whether or not Baron Palles correctly interpreted Hale, is no longer important. The point is simply that by the early twentieth century, the lost-boundary theory had been decisively rejected. It seems not to have occurred to the courts that now having banished one of the central justifications for distinguishing gradual (accretive) from nongradual (avulsive) changes, they ought to take a fresh look at the avulsion rule. And they never did.

One looks in vain for any remaining judicial curiosity about the retention of the avulsion rule. This lack of interest in updating the doctrinal situation was nicely demonstrated by a much-cited decision from 1839, the Hull & Selby Railway Company case. An individual owned a tract used for pasturage just landward of a seawall, and extending down to the high water mark where sovereign ownership began. Over many years, the tides "by slow and imperceptible progress" eroded away the tract. The high water mark now extended all the way to the seawall, so that when the tide was out the former tract was exposed as a mudflat. A railroad acquired ownership of the mudflat, which it apparently proposed to fill and use as a right-of-way, and the question in the case was whether the railroad must pay the upland owner or the Crown. It was conceded that under the usual rule, because the

159. *Id*. The Crown also relied upon the passage in which Hale distinguished a case where accretions went to the upland owner on a river. Hale said of the result there that it involved only two private owners, and that such a result "is doubted in case of an arm of the sea" where sovereign title is involved. *Id* at 395. However, he then acknowledged that there was precedent for giving an upland owner on the sea title to such land, but suggested that this was only because evidence of the former boundary no longer existed. *Id* at 395-96. However, Hale had also said, referring to this same case, "certainly the law will be all one." *Id* at 371. Hale's view is far from clear.

160. Nonetheless, it may be pointed out that Palles's dismissal of Hale is unconvincing. For authorities like Callis and Hale, the lost boundary element was an important element in justification of the accretion rule. While the Abbot of Ramsey's case rested on custom, and not explicitly on a lost boundary theory, the conclusion that the added land had over time become appurtenant to the upland (parcel of the manor) is certainly consistent with a finding that the site of the original boundary was no longer known. Baron Palles also disposes rather casually of the Eyre of Nottingham case, which limits the accretion rule to situations that rested on the conclusion, "if certain bounds are not placed and found of which one could perceive this increase," simply by saying it is not an authority because it relates to a fresh river between private owners, and not to the sea.

161. There are some situations where the avulsion rule is appropriate, of course. See infra text following note 273.

163. *Id* at 139.
164. *Id*.
165. *Id*.
166. *Id*.
erosion and landward movement of the water had concededly been slow and imperceptible, the accretion rule would apply and sovereign title would migrate landward with the rising water up to the new high tide line.\footnote{167}

But the landowner's attorney posed a novel issue to the court. If this same phenomenon had happened rapidly, and the sea had washed the former upland away, with the exact same physical consequence, the avulsion rule would apply and the former owner would retain title. Counsel noted that changing the ownership in this case provided no public benefit and disadvantaged no other private owner.\footnote{168} Why, then, he asked, should title transfer to the sovereign simply because the land was washed away slowly, rather than all at once?\footnote{169} As he put it

[T]here is no reason for such a rule [migration of the boundary] as to the encroachment of the sea; as long as the subject can by metes and bounds make out his title to the land originally granted, there is no interest, public or private, which requires that it shall be resumed by the Crown.\footnote{170}

With this argument, the attorney suggested that the operative rule should be that title does not shift unless there is an affirmative reason for a change, such as a lost boundary or a public use where water covers the land, neither of which existed in this case. That line of argument was quite compatible with the position of the old authorities, such as Hale, whom the landowner's attorney quoted.\footnote{171} Moreover, he urged that there was no good reason that the rate of movement of the water in itself (perceptibility) should determine the outcome.\footnote{172}

The court did not pick up the challenge. It simply said that the rule was clear that when the shore moved by gradual accretion (or reliction)
title moved with it, and it said the rule is different "where the change occurs by a sudden advance or recession of the water."\textsuperscript{173} The court cited the old reciprocity and "parcel of the manor" justifications for the accretion rule, without addressing why the pace of change in the case before it should determine ownership. There was a suggestion by one judge that avulsive changes are likely less permanent than accretive movements,\textsuperscript{174} with the water moving suddenly one way, then suddenly back to where it started. But that is certainly not always the case, and it was not the situation in the Hull & Selby Railway case.\textsuperscript{175}

Thus, as the nineteenth century progressed, English jurisprudence came to the point where it maintained the legal distinction between accretion and avulsion, while the rationales that had historically justified different treatment of different situations faded away or were rejected. The result was that cases became disputes over what the term "imperceptible" means, and battlegrounds in which a variety of witnesses testified as to how they "perceived" the changing situation on the ground.\textsuperscript{176} Why, as a matter of fairness, public policy, economics, etc., one result rather than another should prevail, faded into the mists.

Another revealing example was an 1884 case, Attorney-General v. Reeve.\textsuperscript{177} In 1863, the Crown had given a company a lease to mine sand from land seaward of the high-water mark on the seashore in Lowestoft in Suffolk County.\textsuperscript{178} Over a period of some twenty years, the high-water mark moved quite a ways seaward as the result of a build-up of alluvion,\textsuperscript{179} so that the mining was now on upland. The littoral owner claimed title under the accretion rule, and the Crown claimed that title had not changed because the rate of movement was "perceptible."

\begin{quote}
\textsuperscript{173} Id. at 141.

\textsuperscript{174} One still finds this distinction made occasionally, for example, "The requirement of gradualness stems from the theory based on experience that an increase which is gradual is likely to be permanent." S. Ctr. of Theosophy, Inc. v. State of South Australia (1982) A.C. 706, 709 (Austl.).

\textsuperscript{175} See Hull & Selby Ry., (1839) 151 Eng. Rep. 139.

\textsuperscript{176} Things are no better when the witnesses are experts: "Professor van der Borch said \textsuperscript{[perceivable means]} 'noticeable' in the course of a day with a yard as an upper figure ... you would notice it ... within a day in some exceptional cases with certain wind directions and velocities." The court responded: "Their Lordships find this lacking in the vital precision." S. Ctr. of Theosophy, (1982) A.C. at 722.

\textsuperscript{177} Attorney-General v. Reeve, (1884-85) 1 T.L.R. 675 (Q.B.D.) (U.K.).

\textsuperscript{178} Id. at 675.

\textsuperscript{179} A primary cause of the change was apparently the construction of a nearby pier, though both sides agreed the pier was a wholly separate project, and was not constructed in order to change the shoreline. Id.

\textsuperscript{180} Id. at 676.
\end{quote}
The testimony of witnesses was, as one might expect, less than
helpful: one witness stated that "the sea had receded rapidly—and
perceptibly—of late years ... and that this advance of the beach could be
plainly perceived from time to time as it went on." Others testified that
"the accretion was imperceptible and caused by the harbour works. It
had been going on ever since 1830," and so on. Then the judges engaged
with counsel on the meaning of imperceptible. Lord Coleridge said such
activity could "never be perceived while in progress," so the standard
"must mean not perceptible from time to time," which must mean that
there are no markers of its former location (suggesting the lost boundary
theory). Counsel denied this and insisted that the test was only whether
it cannot be perceived at "each moment of time." That led Baron
Pollock to object that the only changes that are perceivable "in each
moment of time" are convulsions, and that cannot be the test. Again
counsel objected, saying the test was whether it occurred "so gradually
that no man can tell how much is added each moment of time," which
caused Lord Coleridge to respond, "But how long is he to watch? As
long as Demosthenes might have taken in reciting his oration De
Corona? Would the accretion be perceptible if an addition could be
perceived at the end of the oration, or how long?"

So it went, with not a word about why one or the other party ought
to prevail. In the end, because the judges concluded that the receding
of the line of ordinary high-water was visible from month to month, and
at times even from day to day when the wind was blowing strongly from
northwest to west, with a high tide, they held it was not an accretion, and
judgment was given for the Crown, which got its royalties from the sand
mining lease (a reasonable result, perhaps, but with nothing in the
opinions indicating why).

181. Id. at 676.
182. Id. at 677.
183. Id.
184. Id.
185. Id.
187. There are many variants of this sort of empty disputation. For example, where the
process of erosive undermining of a river bank is gradual, but the ultimate actual collapse and
intrusion of the water is sudden, the contested issue was whether it was gradual erosion or sudden
avulsion. See Yukon Gold Co. v. Boyle Concessions Ltd. [1919] 3 W.W.R. 145, at ¶ 13 (Can.);
see also Williams v. Booth, (1910) 10 C.L.R. 341 (Austl.), where the connection of a lagoon to
the sea fills in very gradually, but the actual moment of cutting off access to the ocean is sudden.
The Australian case exemplifies a hypothetical example suggested some eighty years earlier by
HALL, supra note 17, at 115-17.
188. HALL, supra note 17, at 116.
E. Nineteenth-Century Treatise Writers

A treatise on tide waters by Joseph K. Angell, the leading nineteenth-century American treatise on the subject, was first published in 1826, only a few years after the opinion of Lord Yarborough's case in the Court of King's Bench. It relied on that decision as authority, adding little if anything to analytical clarity. As to accretions, Angell says that the law everywhere has taken the same position, which is that additions "so gradually and insensibly occasioned as to render [it] impossible to perceive how much is added in each moment of time" belong to the upland owner. While he does not expressly disavow the lost boundary rationale, he seems to do so implicitly. He picks up the language of Lord Yarborough's case stating that under the "imperceptible" standard the only question is the manner of the accretion itself, and he quotes Judge Abbott's statement that Hale's assertion that accretion arises when there is no means of ascertaining where the sea once was is "not properly applicable to this question [of deciding when there is an accretion]." Angell says that addition by "gradual and imperceptible formation renders [the newly formed land] no more a part and parcel of the bottom of the sea or river (fundus maris) which was before the property of the sovereign."

Angell seems generally to be satisfied with observing that the same outcome regarding gradual accretion is the law everywhere, saying such is the doctrine of the Roman, French, Spanish, and Louisiana

189. As noted earlier, other than Blackstone I have found no significant eighteenth-century writings on the law of the seashore, and I have found no reference to such writers in the nineteenth-century treatises, other than Bacon's Abridgement, cited by JOSEPH K. ANGELL, A TREATISE ON THE RIGHT OF PROPERTY IN TIDE WATERS AND IN THE SOIL AND SHORES THEREOF (2d ed. 1847). Of course Hale's De Jure Maris, which Hall, in his introduction, says was treated as the principal authority and relied upon, was actually first published by Hargreave in 1787. See supra text accompanying note 17.

There were a number of nineteenth-century writers on this subject, both English and American, among them Angell, Hall, Woolrych, Schultes, Houck, and Phear, all cited elsewhere in this Article.

190. See generally ANGELL, supra note 189.

191. Id. at 249.

192. One might conclude that Angell assumes the inability to find the earlier boundary after years of slow accretion, and that the greatly varying witness testimony in Lord Yarborough's case suggests the difficulty of knowing where that boundary once was. But at the least, one can say with confidence that by the nineteenth-century writers and judges were focused solely on the rate at which the land was accreting, and not on the presence or absence of markers, as was urged by the Crown in the M'Carthy case. Attorney-General v. M'Carthy, (1911) 2 I.R. 260.


194. Id. at 256.

195. Id. at 249.
jurisprudence, the common law, and is even "the law of a very remote nation [called the Gentoo]," as well as the rule in a number of American cases that he cites. As to the reason for the rule, he simply sets out the various rationales found in the literature, without questioning or analyzing them. He quotes Blackstone's "de minimis" statement, though numbers of the accretion cases he cites are distinctly not de minimis as one usually thinks of that notion. Similarly, he quotes Blackstone's statement of the avulsion rule without any explanation of why avulsive changes should be treated differently. He does, however, finally express approval for the reciprocity rationale, citing a New York case stating that the accretion rule "forms a reasonable compensation to him for the gradual encroachments of the sea, to which other parts of his estate may be exposed. This is the sound reason for vesting the maritime increments in the proprietor of the adjoining land." He is silent on the question why reciprocity does not apply to avulsive changes.

Angell's view on reliction also consists of citations of authority, rather than analysis. He cites Hale for the undisputed proposition that sudden and extensive recessions of the sea leave the exposed bottomland in the sovereign, and gives the technically correct explanation that "the land left dry by the receding of the water, is the property of the sovereign, as being a part and parcel of what previously was the sovereign demesne." But he then says that as to slow and imperceptible relictions, the same rule applies as to gradual accretions, and that the exposed land goes to the upland owner, though that land was also part of the sovereign demesne. This was apparently the standard view by the mid-eighteenth century, though whether gradual (small?) relictions and sudden (large?) relictions were to be treated differently was precisely one

196. Id. at 250 n.3. Gentoo is a corruption of the Portuguese Gentio, "a gentile" or heathen, which was applied to Hindus in contradistinction to the Moros or "Moors," for example, Mahommedans. The term (happily) is no longer used. See also id. at 249-50 & 250 n.3.
197. Id. at 251.
198. Id.
200. ANGELL, supra note 189 (quoting Emans, 2 Johns. 313).
201. Id. at 265 (quoting Hale, supra note 1).
202. Id.
203. Id. at 266 (citing as authority Bac. Abr. Tit. Prerogative, which is MATTHEW BACON, A NEW ABRIDGEMENT OF THE LAW (1762)). The relevant text says, "[I]f the Sea leaves any Shore by a sudden falling off of the Water, such derelict Lands belong to the King; but if a Man's Lands lying to the Sea are increased by insensible Degrees, they belong to the Soil adjoining." BACON, supra, at 153. Blackstone, as noted earlier, stated the same rules. ANGELL, supra note 189, at 251. Both writers cite the same authority, which is ultimately a reference back to the Abbot of Ramsey's case, though no such distinction arose in that case.
of the points left unclear by early writers, and particularly identified by Hale. 204 Oddly enough, Angell cites Lord Yarborough's case for the proposition that "land formed by the gradual declining of the sea is the property of the owner of the adjoining land," though no such issue or statement appears there and that case was undisputedly a matter of accretion, not reliction. 206

One may properly wonder why Angell and others of his time effectively abandoned the lost boundary rationale which had been so important previously. I suspect the reasons are simply that the accretion rule seemed fair to upland owners, there were no important sovereign interests on the other side, and the traditional concern about proving title to lands that had not been expressly granted by the sovereign had faded away, at least in the context of migratory shorelines.

The first modern English text to provide some analysis of the reasons for the rules was Hall's Essay on the Rights of the Crown and the Privileges of the Subject in the Sea Shores of the Realm, first published in 1830. 207 Hall provides an advance, but he hardly clears out all the underbrush. He unambiguously rejects the implication in Hale and Bracton that there is some difference between gradual accretions and gradual relictions. 208 He says Blackstone was correct in treating them the same, because both such accretions and relictions have the same features that Blackstone identified as reasons for giving the new land to the littoral owner: (1) de minimis non curat lex; (2) if it appears to be part of the upland estate, it is the same as being part of the upland estate; 209 and (3) reciprocity. 210

Hall says that if land is exposed either by "sudden and violent" retreat of the sea or, although not sudden, by action "perceptible in its

204. See supra text following note 121.
205. ANGELL, supra note 189, at 266-67.
206. Id. Angell refers to the statement in Lord Yarborough's case that there is always some reliction with accretions (and presumably vice versa), and that if the accretions predominate you apply the accretion rule. How that supports Angell's conclusion about the legal status of gradual relictions is unclear.
207. See supra text accompanying note 17. Robert Gream Hall, of Lincoln's Inn, was a Barrister-at-Law.
208. Hale relies on the Abbot of Peterborough's case as being one of accretion, but then he distinguishes it from "sudden reliction or recessus maris," leaving it unclear whether he is distinguishing any reliction or only sudden relictions. See Hale, supra note 1, at 396-97.
209. The Latin expression used by Blackstone is: "idem est non esse et non apparet." See supra text at note 115.
210. HALL, supra note 17, at 111. He also notes that whenever there is a building up of alluvion and addition of land by accretion, there is also always (as Hale himself noted) some reliction, so when authorities speak of land created "per alluvionem[,] they] may be understood to mean all imperceptible additions made by the sea to the adjacent soil." Id. at 115.
acquisition and increase, in quantity and limits not to be mistaken by ordinary observation,” such land belongs to the king.\textsuperscript{211} Hall takes the traditional view that because the now-exposed land was the king’s when it was under water, it is still \textit{prima facie} the king’s once it is exposed, and it only goes to the littoral landowner under some exceptional circumstance (that is, gradual and imperceptible accretion or reliction).\textsuperscript{212} The reason such gradual changes should be viewed as exceptional, Hall says, is “because of the difficulty of drawing the line [where the boundary once was], and the unwillingness of the common law . . . to be too nice in trifles, ‘de minimis non curat lex’.\textsuperscript{213} Thus, Hall provides the following rule:\textsuperscript{214}

\begin{quote}
It is not, indeed, either the \textit{sudden} or the \textit{gradual} nature of the \textit{event} which governs the law, but the \textit{perceptible} or \textit{imperceptible} nature of the \textit{acquisition}; and therefore the direction of the evidence will be to show the greater or less degree of distinctness and certainty with which the \textit{quantum} of soil claimed can be ascertained to have accrued within time of memory. Whatever reason and common sense denominates imperceptible and indefinable, or which, even if perceptible and definable, is still too minute and valueless to appear worthy of legal dispute or separate ownership, will be deemed part of the adjoining soil, and, as it were, to have grown out of it. In all other cases the King’s right will attach.
\end{quote}

Hall’s explanation seems to be a mélange of the lost boundary idea and, perhaps more centrally, a version of the use/prescription notions in which, over time, the new soil has little by little become part and parcel of the upland tract. Having happened so insensibly, the change is not perceived as having changed the status quo ante, and is thus effectively \textit{de minimis}. Hall rather cleverly takes the notion of imperceptibility, usually used as a sensory notion, and converts it into a measure of how much the losing landowner’s interest has been damaged in economic reality and the vagueness and uncertainty that necessarily accompany a large number of small changes occurring over a long period of time. Hall’s analysis thus retains the traditional view that the presumption is against title shifting unless some positive justification can be shown for dispossessing the sovereign, while giving substantive justifications, in terms of fairness and public policy, for the result. For example, speaking of reliction he says:\textsuperscript{215}

\begin{quote}
\textsuperscript{211} \textit{Id.} at 129.
\textsuperscript{212} \textit{Id.}
\textsuperscript{213} \textit{Id.} at 115.
\textsuperscript{214} \textit{Id.} at 117-18.
\textsuperscript{215} \textit{Id.} at 115.
\end{quote}
[P] *rima facie* and *jure communii*, the land gained is the King's, since it was clearly his so long as it remained sea-bottom, and it is only *not* given to him... because of the difficulty of drawing the line, and the unwillingness of the common law... to be too nice in trifles, "de minimis."

Hall's conclusion, that an involuntary transfer of land from the sovereign is exceptional and requires justification, is important in another way. It calls attention to the larger legal framework that was the unstated starting point for all the common law writers on this subject over many centuries: the notion that natural events do not ipso factō change ownership, and that as long as one can still identify his land, he does not lose title to it and can recover it. He thus gives a modern flavor to the long-standing rules that allowed upland owners to acquire title to a slowly moving shoreline. But he, too, fails to tackle the avulsion doctrine.

III. MODERN RECONCEPTION OF THE TRADITIONAL RULES

As one turns to the modern era and to the American cases, several features stand out. First, superficial appearances suggest that the old rules developed in England (and in the Roman law) are simply being taken up and applied to contemporary cases. The cases faithfully cite the standard rationales, such as reciprocity and *de minimis*; quote familiar passages from Lord Hale, Bracton, Blackstone, and Lord Yarborough's case; and duly cite the Institutes of Justinian and Gaius. But closer examination reveals two striking departures: the definition of what constitutes accretion, as contrasted with avulsion, has dramatically expanded; and a new justification for applying the accretion rule, maintaining water access for littoral/riparian owners, has become central.

A. Expanded Definition of Accretion

As it happened, some of the leading nineteenth-century United States Supreme Court cases arose on the Mississippi and Missouri Rivers, both noted for their tumultuous behavior. In one case, where the plaintiff claimed the benefit of the accretion rule to claim title to land added to his riparian tract, it was

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216. See supra text following note 111.
217. E.g., HALL, supra note 17, at 129.
219. See cases cited supra note 218.
contended by the defendant that this well-settled rule is not applicable to land which borders on the Missouri river... the course of the river being tortuous, the current rapid, and the soil a soft, sandy loam, ... the effect being that the river cuts away its banks, sometimes in a large body, and makes for itself a new course, while the earth thus removed is almost simultaneously deposited elsewhere, and new land is formed almost as rapidly as the former bank was carried away.220

This sounds like the very definition of avulsion. Yet the Court says:221

But it has been held by this court that the general law of accretion is applicable to land on the Mississippi river; and, that being so, although the changes on the Missouri river are greater and more rapid than on the Mississippi, the difference does not constitute such a difference in principle as to render inapplicable to the Missouri river the general rule of law [applicable to accretions].

The Court here tightens the noose on avulsions beyond the strictures imposed in Lord Yarborough’s case. Not only is imperceptibility shown by the inability to know at any given moment that change is happening (as that case ruled), but so long as it cannot be known at every moment what change is happening, the accretion test of imperceptibility will be met. In another Missouri River case, Jefferis v. East Omaha Land Co., the Court said:222

How much, if any of [the added soil], was formed between the date of the original survey, in 1851, and the time of the entry in ... 1853, cannot be told; nor how much was formed between 1853 and 1856 and so in regard to ... each successive owner. There can be, in the nature of things, no determinate record, as to time, of the steps of the changes .... The very fact of the great changes in result, caused by imperceptible accretion, in the case of the Missouri river, makes even more imperative the application to that river of the law of accretion.

This is a most striking change. The test of imperceptibility in Lord Yarborough’s case was the pace at which change was occurring (it must be very slow, even though, after some months or years, one could tell that change had taken place). Under the above standard, the pace of change—mostly rapid and sudden on the wild Missouri—was irrelevant. The question was whether one could identify (perceive) the exact amount of change that had occurred from each time period to the next, something that could presumably be done only if continuous monitoring of every site was occurring. This was a dramatic shift indeed from the older view

221. Id.
of what constituted avulsive change. Apparently, only a single sudden event (like a hurricane, or a river breaking through an oxbow) would now qualify as an avulsion.

Though it used traditional terminology and citations in these cases, the Supreme Court set a standard significantly expanding the definition of accretion, and it made clear why it had done so, though not conceding that it had done so. While citing traditional justifications, such as reciprocity, it showed itself to be attentive to the problem of water accessibility for riparian and littoral owners, speaking of natural justice to those who own land "bounded" by the water, and "follow[ing] title to the shore itself," notwithstanding the behavioral characteristics of the water body in question.223

Because the accretion rule generally accords with contemporary intuitions about the right result for dealing with migrating shorelines,224 the approach of the Jefferis case has been followed quite consistently, most notably when the Missouri River was again before the Supreme Court several years later, this time in a case determining state boundaries.225 Again, the claim was that the behavior of the river was avulsive.226 The Court agreed that the river's action on its banks was "rapid and great."227 It described "an instantaneous and obvious dropping into the river of quite a portion of its banks," and said the "disappearance

223. Id. at 189.
224. The avulsion rule is uncontroversially appropriate in two instances: where the shift is transitory as with floodwaters, or where a river shifts course to a wholly new place, leaving a dry riverbed behind (as where it abandons an oxbow and cuts a new channel straight through), and appearing in a place where the new riparians are often not any of the former riparian owners. The new channel situation is a well-established and rational exception [to the accretion rule] ... where a river changes its main channel, not by excavating, passing over, and then filling the intervening place between its old and its new main channel, but by flowing around this intervening land, which never becomes in the meantime its main channel.

Comm'r's of Land Office of State of Okla. v. United States, 270 F. 110, 113-14 (8th Cir. 1920); 8 Op. Atty. Gen. 175 (1856). In such a case, it is not the suddenness or gradualness of the change that is critical, but the disruption that would potentially ensue from granting the former riparian title to all the intervening land. The facts in Oregon v Corvallis Sand & Gravel Co., set out in 526 P2d 469 (Or. Ct. App. 1974), are illustrative. The decision was vacated on the issue (not germane here) of whether federal or state law applied. Oregon ex rel. State Land Board v. Corvallis Sand & Gravel Co., 429 U.S. 363 (1977); see also Arkansas v. Tennessee, 246 U.S. 158, 173 (1918).

226. Nebraska, 143 U.S. at 357.
227. Id.
... of a mass of bank [was] sudden and obvious.\textsuperscript{228} Yet it defined the activity as accretion rather than avulsion and found that the boundary remained in the middle of the river, wherever that mid-point was now found.\textsuperscript{229} Results like this make clear that the Supreme Court had come to the nondoctrinal conclusion that boundaries should follow a river's movement,\textsuperscript{230} and that the particular form that movement takes is of little, if any, consequence. The Court's focus on the reason for the result it came to is admirable. Unfortunately, however, the Court hesitated to concede what it was doing, and even in recent decades has continued to suggest that it is following long-established precedent, saying, for example, "[T]he well-recognized and accepted rules of accretion and avulsion attendant upon a wandering river have full application."\textsuperscript{231}

However it came to pass, one benefit of the contemporary strong presumption in favor of accretion\textsuperscript{232} is that courts are often spared having to contend with the actual behavioral facts of river movements, which follow no simple duality like accretion vs. avulsion, but show instead every variety of movement along a continuum from extremely gradual and imperceptible to extremely sudden and violent. Nonetheless, one still finds cases where judges solemnly consider testimony and pore over factual evidence about river behavior in order to resolve the traditional doctrinal question: Was it accretion or was it avulsion?\textsuperscript{233}

\begin{itemize}
\item \textsuperscript{228} \textit{Id.} at 368-69.
\item \textsuperscript{229} The Court's "creative" justification for its conclusion that the rapid and instantaneous movement was accretive, and not avulsive, was that one should not look at the obviously sudden and perceptible erosion of the land whose boundary is in question, but at the fate of the soil carried away, which was deposited somewhere downstream. While that fate of course signals that the place where the soil ends up is undergoing accretion, it had never before been the measure for the land from which the soil was lost.
\item \textsuperscript{230} Where state or Indian Reservation boundaries are concerned, sometimes they have been fixed by other means, such as a colonial-era grant or an interstate compact. \textit{See} Ohio v. Kentucky, 444 U.S. 335,337 (1980) (grant); 57 Stat. 494 (1943) (compact); \textit{cf} Wilson v. Omaha Indian Tribe, 442 U.S. 653,660 (1979) (federal statute or Treaty).
\item \textsuperscript{231} Ohio, 444 U.S. at 337.
\item \textsuperscript{232} \textit{E.g.}, Wyckoff v. Mayfield, 280 P. 340, 342 (1929); Hall v. Brannan Sand & Gravel Co., 405 P2d 749, 750 (Colo. 1965). \textit{See generally} \textsc{Flushman}, \textit{supra} note 5, at 99-100, ¶ 3.13, 263, ¶ 7.6.
\item \textsuperscript{233} \textit{E.g.}, United States v. Wilson, 433 F. Supp. 67 (N.D. Iowa 1977). The Supreme Court effectively agreed with the outcome in the district court, finding that though federal common law was applicable, it should incorporate the applicable state property law, which the trial judge had applied. \textit{Wilson}, 442 U.S. at 678.
\end{itemize}
B. Water Accessibility

Probably the reason our modern concern with riparian/littoral access to water was not a consideration in earlier times is that in those days, such land was used primarily as forage, rather than for boating or for access related to modern recreational use of the shore. Of course, there was a great deal of litigation and writing about littoral owners’ use entitlements in the inter-tidal area (for example, a right to wreck washed up on the shore, or a right of fishing on the shore), but such entitlements did not generally rest on claims of title to the land.

By contrast, water access appears as a central concern even in early American cases. In one lawsuit, for example, counsel made an argument of the sort one never sees in the older English cases, though he invoked the old authorities as precedent.

“If the river is the boundary, the alluvion, as fast as it forms, becomes the property of the owner of the adjacent land to which it is attached. On a great public highway like the Mississippi, supporting an immense

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234. For example, the “basic rationale for a doctrine which permits a boundary to follow the changing [stream bank] is the desirability of [keeping] land . . . riparian which was riparian under earlier [facts], thus assuring the upland owners access to the water [and] the . . . advantages of [this] contiguity.” RICHARD POWELL, LAW OF REAL PROPERTY ¶ 983 (1976). “Any other rule would leave riparian owners continually in danger of losing the access to water which is often the most valuable feature of their property.” Hughes v. Washington, 389 U.S. 290, 293 (1967). “[T]he convenience of retaining the river as a boundary outweighs any gradual detriment which one party or the other may suffer by the gradual diminution of territory.” Sterling v. Bartlett, 1993 S.L.T. 763, 767 (Scotland).

A related modern rationale is administrative convenience: that “it is manifestly convenient to continue to regard the boundary between land and water as being where it is from day to day or year to year.” S. Ctr. of Theosophy Inc. v. State of South Australia (1982) A.C. 706, 709 (Austl.). This is not quite true, at least in American law, where the boundary is the intersection of land with the mean high tide line, which is calculated as an average of ordinary high tides over the lunar cycle of 18.6 years.

235. Perhaps the earliest recreational case is Blundell v. Cottrell, (1821) 106 Eng. Rep. 1190 (K.B.), in which the court rejected a public claim of right to walk the intertidal area with bathing machines. Chief Justice Abbott points out that “sea bathing was, until a time comparatively modern, a matter of no frequent occurrence, and that the carriages, by which the practice has been facilitated and extended, are of comparatively modern invention.” Id. at 1205.

236. See HALL, supra note 17, at 40; Sir Henry Constable’s case, (1601) 77 Eng. Rep. 218 (K.B.).

237. Banks v. Ogden, 69 U.S. 57, 67 (1864): “[T]he principle of public policy, that it is the interest of the community that all land should have an owner, and most convenient, that insensible additions to the shore should follow the title to the shore itself.” One does not, however, find that justification in the early American treatises, such as ANGELL, supra note 189.

238. Cases often cite English, Roman and Civil law authorities, usually to show how similar they are. E.g., County of St. Clair v. Lovingston, 90 U.S. 46, 66-7 (1874).
commerce and bearing it to every part of the globe, purchasers must have obtained lands for the beneficial use of the river as well as for the land.\textsuperscript{239}

While courts did not question the avulsion rule, by applying the accretion rule very generously, they effectively assured water access for littoral owners.\textsuperscript{240} The rationales given in the cases, however, range rather widely. One leading case gave a dual policy rationale for the accretion rules, reciprocity and water-adjacency, adding the civil law notion that land should not be left unowned.\textsuperscript{241} Another, after citing reciprocity as a principle of justice, also invoked the analogy of alluvion to the Roman idea of an owner's right to the fruit of his tree or the increase of his flock as a natural, not just a civil, right.\textsuperscript{242} One can also find cases invoking the lost-boundary rationale.\textsuperscript{243} But despite the various legal grounds cited, maintenance of water access has been the primary concern of American courts. A Minnesota case from 1893 put it most plainly:\textsuperscript{244}

Courts and text writers sometimes give very inadequate reasons, born of a fancy or conceit, for very wise and beneficent principles of the common law; and we cannot help thinking this is somewhat so as to the right of a riparian owner to accretions and relictions in front of his land. The reasons usually given for the rule are either that it falls within the maxim, \textit{de minimis lex non curat}, or that, because the riparian owner is liable to lose soil by the action or encroachment of the water, he should also have the

\begin{footnotesize}
\begin{enumerate}
\item Id. at 56.
\item Banks, 69 U.S. at 67. This may also refer to Blackstone's concern to avoid giving title by occupancy, which he thought gave rise to excessive dispute, whereas the accretion/avulsion rule is designed to identify a clear owner according to a specified set of rules. 2 BLACKSTONE, supra note 10, at 298.
\item County of St. Clair, 90 U.S. at 69. The point is repeated in \textit{Philadelphia Co. v. Stimson}, 223 U.S. 605, 609 (1912). For its early statement in English law, see 2 BRACTON, supra note 36, at 43-45.
\item Jefferis v. E. Omaha Land Co., 134 U.S. 178, 189 (1890). In that case, no one could say where the boundary had been on the date of patent, from which accretion would have to be measured; the case was literally one where the changes, though perceptible over time and in the large, had factually made it impossible to say where the original boundary lay. The Court distinguishes cases where "there is a sudden change" and identification is possible. Id. at 194.
\item Lamprey v. Metcalf, 53 N.W. 1139, 1142-43 (Minn. 1893). State v. Sause, 342 P2d 803, 825 (Or. 1959) (quoting Hanson v. Thornton, 179 P. 494, 496 (Or. 1919)).
\end{enumerate}
\end{footnotesize}

One who purchases land abutting upon a lake or watercourse, usually considers his right of access to such waters as an element of value in the purchase. When we speak of riparian rights, we are not considering a mere shadowy privilege, but a substantial property right, the right of access to and a usufruct in the water. To say that the owner of such a right may without his consent be deprived of it by the state or the general government permitting some other person to obtain title to the accretion formed by an impounding or diversion of part of the waters that previously washed the shore of his land does not appeal to our sense of justice.
benefit of any land gained by the same action. But it seems to us that the
rule rests upon a much broader principle, and has a much more important
purpose in view, viz. to preserve the fundamental riparian right—on which
all others depend, and which often constitutes the principal value of the
land—of access to the water. The incalculable mischiefs that would follow
if a riparian owner is liable to be cut off from access to the water, and
another owner sandwiched in between him and it, whenever the water line
had been changed by accretions or relictions, are self-evident, and have
been frequently animadverted on by the courts.

IV. THE BONELLI CATTLE CASE: FINALLY, AN UNBLINKING LOOK AT
THE REAL ISSUES

The day did finally come when the Supreme Court escaped the
doctrinal prison and looked directly at the merits of the matter before it.245
The circumstance was a perfect example of the accretion/avulsion
distinction at its most troublesome. The land of a riparian owner along
the Colorado River was gradually lost to submergence as the river
meandered slowly toward the bank on his side.246 Under the accretion
document, the State of Arizona, as owner of the bottomland of the
navigable river, gained title to the land thus submerged.247 Some years
later, as the result of an upstream dam’s releases, water flows deepened
the river’s channel, and it quickly narrowed, reexposing the riparian’s
former land. But because the drop in water elevation happened very
quickly, it was treated by the state court as an avulsive change.248 As a
result, title was held not to transfer and the newly exposed land was said
to remain state property.249 The outcome was undesirable on all counts:
the riparian lost acreage he formerly owned, he was cut off from access
to the river, and there were no discernible benefits to navigation or other
public uses.250

245. One writer suggests that the Supreme Court had effectively been operating this way
for a long time. Analyzing the decisions in Jeffersis, 134 U.S. 178; City of St. Louis v. Rutz, 138
U.S. 226 (1891); and Nebraska v. Iowa, 406 U.S. 117 (1972), he concludes that “[t]he pragmatism
shown in these decisions strongly suggests that . . . precedent will be given due regard, so long as
the precedent and the specific physical process concerned . . . can be massaged to fit one another
to attain the desired result.” FLUSHMAN, supra note 5, at 262, § 7.5.3.

247. Id.
248. Id. at 316.
249. Id. at 328.
250. Id. at 325-26, 328-29. Reciprocity applied here (because the riparian owner suffered
submergence he should benefit from recession). Id. at 330. The Court also added a concept that
derives from the continental law, that a right to alluvion is an attribute of owning riparian land in
the sense that a right to the fruit is an attribute of owning a tree. Id. at 326.
Putting doctrine aside, the Supreme Court decided to resolve the case “on just principles.” 251 As the opinion put it, “that the rate was perceptible, should be of no effect.” 252 To achieve a substantive goal consistent with the law’s purpose, the Court invoked a rule of decision it would soon regret (and expressly repudiate): that the riparian rights of land whose titles came from the United States should be determined by federal law rather than state law. 253 Because no statutory federal law applied, the determination had to be made by federal common law, which the Court proceeded to fashion for itself. 254 It simply decided that the indisputably rapid and perceptible reexposure of the landowner’s former land “should be treated as accretion; hence title to the disputed land should be vested in [the upland owner].” 255

_Bonelli Cattle_ represented a refreshing judicial readiness to look through doctrine to the real issues presented by a case and to make doctrine the law’s servant rather than its master. One does not often see such an approach. It was a rather blatant example of “judicial activism,” though not in a conventional political setting. 256

V. ACCRETION IN OUR TIME: SOME SUGGESTIONS FOR BRINGING THE LAW UP TO DATE

Insofar as maintaining water access for littoral owners and protecting the public interest in the use of navigable waters remain the primary concerns of the law of the shoreline in our time, the strong

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251. _Id._ at 330 (quoting Mayor of New Orleans v. United States, 35 U.S. (10 Pet.) 662, 717 (1836)).

252. _Id._ at 324.

253. _Id._ at 320-21. It applied federal common law, on the ground that the original federal grant included the grantee’s riparian rights. In _Oregon ex rel. State Land Board v. Corvallis Sand & Gravel Co._, 429 U.S. 363 (1977), the Court returned to the conventional view that post-grant, state property law applies. Then, in a case involving an Indian reservation, the Court said federal law applied, but adopted state law (which there produced a result the Court apparently approved) as the applicable federal common law. _Wilson v. Omaha Indian Tribe_, 442 U.S. 653, 654-55 (1979).

254. _Bonelli Cattle_, 414 U.S. at 325-27.

255. _Id._ at 328. Although the Court noted that the reemergence doctrine would have supported the result it wanted, the Arizona court had found that reemergence did not apply to this situation under state law. _State v. Bonelli Cattle Co._, 489 P.2d 699, 702 (Ariz. 1971). The reemergence doctrine traces back at least to Rolle’s Abridgement. See text accompanying _supra_ note 110.

256. _Bonelli Cattle_, 414 U.S. 313. The decision was 7 to 1 (Justice Stewart dissented on equal-footing doctrine grounds). Justice Rehnquist, an Arizonan, did not participate, but later wrote the _Corvallis_ opinion, _supra_ note 253, overruling _Bonelli Cattle_.

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presumption in favor of accretion largely achieves our goals.257 The accretion rule maintains the water's edge (in the form of the ordinary high water mark) as the property boundary between public and private.258 That presumption has largely relegated the avulsion rule to a minor role, except where there is the shift of a river into a new channel or the change is temporary and of very short duration, as with flood waters, in which cases retaining the original boundary is appropriate.259

Nonetheless, the deeply rooted doctrinal "accretion/avulsion" distinction is by no means a thing of the past. It will doubtless arise repeatedly in sea level-rise controversies, and it continues to generate a good deal of wasteful litigation, with pointless and expensive lay and expert testimony, and dispute over distinctions that ought to make no difference. One need only examine the effort of text writers to help lawyers grapple with the issue to get a sense of the problem:260

Trying to define or describe "imperceptibility," an illusive concept, is, as can be imagined, a difficult task. How can one describe something that cannot be perceived? Yet surveyors, lawyers, and jurists have endeavored to do so.

The most enduring description ... is ... that though the witnesses may see from time to time that progress has been made, they could not perceive it while the process was going on." On its face this statement merely begs the question as to what is perceivable. How long is from "time to time"? Is it from year to year, day to day, or from one "instant" to another?

There are numerous examples of such wasteful disputation but one illustrative instance should suffice. In 1981, the following case arose in Texas: A couple named Davis had acquired a tract of littoral land on Corpus Christi Bay of approximately eighteen acres.261 All the land had previously been landward of mean high tide, but some years earlier a hurricane had washed away about four acres, which became submerged

257. Avulsion seems most often to be found in cases where a riparian's water access is not the issue, as when the question is who owns river-bed land that is valuable for mining. See, e.g., Yukon Gold Co. v. Boyle Concessions Ltd., [1919] 3 W.W.R. 145, ¶ 13 (Can.).

258. Where that line is migratory beyond merely seasonal variation, as is the case on the Great Lakes, the distinct problem is presented of a water-influence zone that can be dry for a number of years, and then be submerged for a decade or more under a continuing long-term cycle of rising and falling water levels. E.g., Glass v. Goeckel, 703 N.W.2d 58 (Mich. 2005).

259. Because the behavior of water does not neatly follow any legal categories, there is no way wholly to confine even such a highly simplified rule. A river may move back and forth with more and less gradual erosion and deposition, and then at times experience a sudden and violent change in the location of the channel, with gradual movement continuing thereafter. See, e.g., Arkansas v. Tennessee, 246 U.S. 158 (1918).

260. FLUSHMAN, supra note 5, at 265, ¶ 7.7.

land. The State of Texas, believing it owned those four acres as land beneath the navigable waters of the Bay, leased the land to the City of Corpus Christi.

The central question for the court was whether the State acquired title to the four acres when it became submerged. It seems a plain enough question with a plain answer: when the sea submerges shore land, public ownership should move landward to the new water's edge. In that way, the public easement remains coextensive with the sea. Should it make any difference how that happened, whether by gradual erosion, by sudden tearing away of land in a storm, or by a rising sea level? Clearly, the public interest does not vary depending on the source of the change, nor does the interest of the upland owner in maintaining water access depend on how the sea happened to move landward. In this particular case, most of the land had been swept away in a day or two by a hurricane, though there had also been some gradual erosion over a period of many years.

The Texas court took no such direct route, though it left no doubt that it believed title to land beneath navigable waters should vest in the State. Weighted down by centuries of common law development, it felt it had to address the following question: Was it accretion (the State gains title) or was it avulsion (title remains in Davis)? It would seem like a fairly obvious case of avulsion, because the change took place as the result of a hurricane, and the expert who testified said his "understanding of avulsion changes was that such changes were 'supposed to be very sudden'. . . . In that context, he testified that . . . the Davis property, had been subject to avulsion changes caused by northerns and hurricanes [and that] hurricanes are dominant 'shapers' of the shoreline." He and others also testified that hurricanes are not the only influences on the shoreline and that "in the periods between hurricanes, the shoreline continues to erode slowly away."

While this testimony might be expected easily to have led to a finding of avulsion, that was not the result the court determined it should reach. So it played a doctrinal trump card, the Supreme Court decision in the Missouri River case, *Nebraska v. Iowa.* The test for accretion is

262. *Id.* at 642.
263. *Id.*
264. *Id.*
265. *Id.*
266. *Id.* at 646.
267. *Id.* at 644.
268. *Id.*
269. 143 U.S. 359 (1892); *see also supra* text accompanying note 24.
"gradual and imperceptible" change, but according to that case, the Texas court said, "The application of the . . . test for 'gradual and imperceptible' has resulted in holdings of erosion where the change wrought to the land has been indeed both sudden and perceptible. Armed with such a standard, a hurricane was no problem, and the court, after quoting the Supreme Court's description of the loss of the Missouri river's banks there as "in one sense . . . not gradual and imperceptible, but sudden and visible," held that the landowners' evidence had not overcome the legal presumption in favor of accretion.

It is easy enough to poke fun at a court that is prepared to say in so many words that sudden is gradual and perceptible is imperceptible. And one can easily find other examples, like a Montana court that struggled with whether a river that moved one-quarter of a mile in a century was changing imperceptibly enough to qualify as accretion.

The legal situation could be greatly improved by a few straightforward changes. First and foremost, acknowledgement that maintaining water adjacency for riparian/littoral landowners and assuring public use of overlying water (and some part of the foreshore) are the central goals of the law relating to migratory waters, and title should therefore follow a moving water boundary without regard to the rate, perceptibility, or suddenness of the movement, subject to just a few exceptions:

1. Where a river shifts to a wholly new channel, as by cutting across a former oxbow. In such cases title should not move, whether the

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270. Corpus Christi, 622 S.W. 2d at 645 (quoting Nebraska, 143 U.S. at 368).
271. Id. at 369.
272. McCafferty v. Young, 397 P.2d 96 (Mont. 1964). The result was clearly correct, as the case involved property boundaries where it was clear that the grantor intended the boundary to be the original river bed, but the doctrinal setting obliged the court to hear extensive testimony and to engage in accretion/avulsion gymnastics. Id. at 100-01.
273. Notably, common law avulsion has been diminished significantly in some states by statute. See, e.g., N.C. GEN. STAT. §§ 77-20(a), 146-6(a) (2003).
274. For example, in Bohn v. Albertson, 238 P.2d 128 (Cal. Dist. Ct. App. 1951), a levee broke, opening flooded land to fishermen. The land had come to the state via the federal Arkansas Swamp Land Act of 1850 and was conveyed to a private owner who reclaimed it. Id. at 131. The court held the water was navigable and open to public use. Id. at 135, 140. Because the levee break was sudden, it was held avulsive so that the underlying land was still privately owned. Id. at 140-41. Would/should it have made any difference if the levee had been gradually eroded away, with the same flooding resulting, rather than having broken all at once? Leonard v. State Highway Department, 102 A.2d 97, 99-101 (N.J. Super. Ct. App. Div. 1954), also involved levee failure, but the court applied the accretion rule, and the flooded land went to the state.

The situations seem much like the example given in ANGELL, supra note 189, at 249, where a lagoon is either gradually or suddenly cut off from the sea, depending on whether one focuses on the gradual wearing away, or the sudden final moment.
change occurs all at once, or gradually shifts from one channel to another.\textsuperscript{275}

2. Where the movement is caused or amplified as a result of action by or on behalf of the tract owner or by the government.\textsuperscript{276}

3. Where movements are transient, such as floodwaters or a brief decline in water levels, in which case a set waiting period would be required before title shifts.\textsuperscript{277}

4. State boundary determinations should follow the general rule stated above where no other method has been adopted (as by Compact)\textsuperscript{278} or some other method was historically determined.\textsuperscript{279}

Implementing these doctrinal changes would formalize what has largely been the case all through the centuries: that for shoreline changes accretion has been the rule, and avulsion the exception, whatever the rate of suddenness of the change.\textsuperscript{280}

Several other points should be noted. While water adjacency is usually central to disputes over moving water boundaries, it is by no means always the case. Sometimes the question is who is to be compensated by a third party for the use of the land in question, as was the situation in the Hull & Selby Railway case,\textsuperscript{281} or who has the right to mine such land.\textsuperscript{282} I see no general issue of public policy raised by such cases, and it would seem that the parties’ intention at the time of transaction should generally govern. It would seem desirable to fix the right as of a given time, or at least to settle how such questions are to be dealt with when and if title migrates.

Sometimes, pursuant to statute, a property line can be fixed at a certain place by agreement, notwithstanding the usual common law or statutory rules about moving boundaries.\textsuperscript{283} In such instances, statutes

\textsuperscript{275}. See supra text accompanying notes 24 and 224.

\textsuperscript{276}. See, e.g., Walton County v. Stop the Beach Renourishment, Inc., 998 So. 2d 1102 (Fla. 2008), cert. granted sub nom.; Stop the Beach Renourishment, Inc. v. Fla. Dep't Envtl. Prot., 129 S. Ct. 2792 (U.S. June 15, 2009) (No. 08-1151); see also Joseph L. Sax, Some Unorthodox Thoughts About Rising Sea Levels, Beach Erosion & Property Rights, 11 VT. ENVTL. L.J. 1, 12-14 (2010).

\textsuperscript{277}. E.g., HAW. REV. STAT. § 669-1(e) (2009).

\textsuperscript{278}. Nebraska v. Iowa, 406 U.S. 117 (1972). Arizona and Nevada also set their boundary on the Colorado River by interstate agreement.

\textsuperscript{279}. E.g., Ohio v. Kentucky, 444 U.S. 335 (1980); see id. at 343 (Powell, J., dissenting) (noting that the decision produces "bizarre results").

\textsuperscript{280}. Witness not only the strong presumption in favor of accretion, the broad definitions of "imperceptible," and the precedent-setting Missouri River cases, but, apparently, the Roman law as well.

\textsuperscript{281}. See supra text at note 162.

\textsuperscript{282}. See, e.g., supra text accompanying note 177; see also Yukon Gold Co. v. Boyle Concessions Ltd. [1919] 3 W.W.R. 145 (Can.).

\textsuperscript{283}. CAL. PUB. RES. CODE § 6339(a) (2008).
may (and should) provide for an easement that protects the usual public rights in overlying waters and the foreshore, in the event the water moves landward. 284

Such arrangements raise a pervasive contemporary issue that was wholly outside the concern of those who fashioned the common law rules discussed in the preceding pages: How should public use and public environmental concerns be integrated with the property interests of littoral/riparian landowners? In its broadest sense, this is what may be called the seawall and retreat problem. In Blackstone's time, and earlier, a rising sea or eroding shore was considered a menace, and walling out intruding waters was not only desirable, but as he noted, was sometimes imposed as a financial responsibility on littoral owners. 285 Blackstone explained the owners' right to accretions in part on a reciprocity theory, saying, "[B]eing often losers by the breaking in of the sea, or at charges to keep it out,... possible gain [from accretions] is therefore a reciprocal consideration for such possible charge or loss." 286

Threatened landowners still protect themselves from rising waters, but today we recognize that seawalls, by intensifying erosive wave action and preventing landward migration of the sea, generate loss of sand beaches between high and low tide that are usually open to public use, adversely affect marine life that relies on that intertidal area, and destroy coastal wetlands by preventing their migration inland. Thus, what had in past centuries appeared as an obvious proprietary right, and even as a public duty, is now acknowledged to be a threat to public rights. In some states, as on the Texas Gulf Coast, such concerns have generated a requirement that owners retreat as waters move inland. 287 More generally, wherever shoreland is being lost, whether by erosion or by rising waters, coastal states have imposed restrictions on seawalls, other protective devices, and setbacks for development. 288

These newer public values create something quite foreign to the traditional legal perspective on migratory shorelines. Any effort to

284. E.g., id.
Boundaries established by boundary agreements ... shall be fixed and permanent without change by reason of fluctuation due to the forces of nature, except that any lands that may thereafter be submerged or become subject to the ebb and flow of the tide, shall, so long as such conditions exist, be subject to the easement in favor of the public for commerce, navigation, and fisheries.
285. See supra note 82, at 58 [48].
286. See 2 BLACKSTONE, supra note 10, at 262.
287. TEX. NAT. RES. CODE ANN. § 61.001 (2009); Matcha v. Mattox, 711 S.W.2d 95 (Tex. App. 1986).
characterize today’s rising sea levels as avulsive or accretive is empty of meaning, and can only distract attention from the serious issues that need attention. The reality is that there exists on the seashore a zone that is neither wholly public nor wholly private, but in which some accommodation must be made between public and private entitlements. It seems unreasonable for the public to claim a property right not to be impeded as a rising sea migrates landward. And it seems just as unreasonable for shoreland owners to claim an unconditional property right to protect their land against the sea, regardless of the impact on public values. The old categories don’t fit the contemporary reality. Perhaps the best way of conceiving the situation is that while owners of upland are entitled to protect their developed lands with seawalls, the public is equally entitled to demand alternative rights-of-way for lost public passage along the former foreshore; mitigation for lost wetland habitat; and the right to impose reasonable set-backs on threatened undeveloped lands.²⁸⁹

²⁸⁹ For a discussion of these issues, see Sax, supra note 276.
20. The law of all peoples makes yours any alluvial accretion which a river adds to your land. An alluvial accretion is one which goes on so gradually that you cannot tell at any one moment what is being added.

21. If the river's current rips away a piece of your land and carries it down to your neighbour, it clearly remains yours. If after a while it attaches itself to the neighbour's land, and trees which it took with it drive roots into that land, it will then have become part of his land and as such his. 22. [deals with islands arising in the sea] 23. Suppose the river entirely abandons its original course and flows along a new bed. The deserted river-bed goes to the adjacent landowners, according to the frontage of their estates on the old bed. The new bed becomes state property, the same status as the river itself. If the river ever returns to the old bed, the new bed is again divided between the adjacent landowners.

24. It is different, of course, if a land is flooded. A flood does not change the geography. If the water recedes the land is obviously still the property of the person who owned it before.

APPENDIX B

THE EYRE OF NOTTINGHAM CASE

Anon. 22 Edw. III, Liber Assisarum, 93
(1348, Reporting Eyre of Notts., 1329-30)

"If a watercourse runs between two lordships, of which the watercourse and the entire source (fountain) belongs to one lord, if this watercourse little by little diminishes (amenise) the soil of the lord to whom the watercourse does not belong, and increases the soil of the other, so that the channel of this watercourse is removed towards him out of its course on the soil of the other lord in part or in whole, still the watercourse with

290. J. INST. 2.1 57 (Paul Krueger ed., Peter Birks & Grant McLeod trans.).

291. This extract in the Liber assisarum can be found online at Boston Univ. Sch. of Law, Legal History: The Year of Books, http://www.bu.edu/phpbin/lawyearbooks/display.php?id=11841 (last visited Mar. 31, 2010). Professor Donahue has kindly provided the following information about the matter. The Eyre of Notts. of 1329-30 produced a Yearbook which, unfortunately, is not in print. The case has not been found in the surviving unpublished manuscripts of the eyre. It is possible that this was a discussion of a type quite common in the Yearbooks that interested only one reporter whose report has now been lost. I want to thank Professor Robert Palmer of the University of Houston who kindly searched for the case on my behalf.
the source (fount) belongs to the other lord to whom it first belonged, if this increase of the watercourse had been so imperceptible (celement) that no one could perceive or would bound the increase as it increased by the process of time, as in several years and not in one year nor in a day, and if certain bounds are not placed and found of which one could perceive this increase. Quickly (hastivemement) by force of a flood this takes away from a lord part of his soil, so that the soil of the other lord increases on the other side of the watercourse, in such quick (hastive) increase no one should lose his soil, if the river was not an arm of the sea, that he would not have the watercourse with his soil. And query, although the soil is an increase by an arm of the sea, if he would lose his soil. But I believe not. And note that each watercourse that flows and refloows is called an arm of the sea if as before (tant avant) as it flows. And note that Thorp CJKB said that if a watercourse is as a high street is, which watercourse by the increase of water, or by force of the same water changes its course on the soil of another, still there is also a high street where this watercourse is, as it was before in the old course, so that the lord of this soil could not disturb this course made anew. Adjudged in the Eyre of Nottingham.”

APPENDIX C

THE ABBOT OF PETERBOROUGH’S CASE

TNA ref KB27/357/26d
Mich. 23 Edward III, KB27/357 rot. 26d (1349)
Pasch. 41 Edw. III, KB27/426 Rex rot. 28 (1367)

Lincolnshire

A jury of diverse tenants of wapentakes of the county aforesaid presented at another time, that is to say in Easter term in the twenty third year of the reign of our present King, before the King at Lincoln,

That the Abbot of Peterborough purchased from Nicholas de Ry, knight, and Juliana his wife, three hundred acres of salt marsh in

292. I am grateful to Dr. Susanne Jenks for photographing this roll (Crown copyright reserved); to Professor Charles Donahue for making this transcription, for providing the footnotes, and for general assistance in interpreting this case. The translation is by B.F. Westcott. Jennifer K. Nelson helped me greatly with an earlier translation.


294. Standard abbreviations are extended without comment. Readings bracketed with ^ are interlined. It may be significant that in both places where the phrase unde plures terre eiusdem maneri costeram maris adjacent occurs in the first entry, it is interlined.
Gosberton, whereof each acre is worth annually six pence, following the statute etc, and without the King's permission.

Item they presented that the same Abbot purchased from the Abbot of Swineshead three hundred acres of salt marsh in Gosberton, whereof each acre is worth annually six pence, following the statute etc, and without permission etc.

And because the aforesaid Abbot has died, the Sheriff was ordered to cause the present Abbot of Peterborough to come and answer to the King concerning the matter etc.

And now, that is to say on the quindene of Easter 1367 in this same term, before the King at Westminster, the present Abbot comes through William de Stathern, his attorney.

And having said how he wished to clear himself of the matters put to him, he says, so far as concerns the presentment that the aforesaid Abbot of Peterborough acquired three hundred acres of salt marsh in the aforesaid town of Gosberton from the aforesaid Nicholas and Juliana,

That the custom of the country is, and from time immemorial was, that all and singular lords having manors, lands or tenements upon the coast of the sea used in particular to have salt marsh and sand dunes, of a greater and lesser extent, thrown up near their land-holdings according to the inflows and outflows of the sea.

And thus he says that the aforesaid Abbot, his predecessor etc, had a certain manor in the aforesaid town of Gosberton, of the ancient right of his church of Peterborough, which manor, indeed, the same present Abbot has as of the right of his church aforesaid, whereof many lands of the same manor lie next to the coast of the sea,

And thus the aforesaid then Abbot, predecessor of the present Abbot, had, by the inflows and outflows of the sea, around sixty acres of salt marsh lying next to his lands, and [built up] by the passage of time, according to the custom of the country from ancient [times].

And so far as concerns the presentment that the same then Abbot of Peterborough, his predecessor etc, purchased three hundred acres of salt marsh in Gosberton from the aforesaid Abbot of Swineshead, the same present Abbot of Peterborough says, as above,

That the custom of the country is, and from time immemorial was, that all and singular lords having manors, lands or tenements upon the

295. May 2, 1367. Presumably something more than the Black Death and the death of the original defendant accounts for the seventeen-year gap here, but it is not immediately apparent.
296. The word in the original, sabulo, is here translated as "sand dunes." See Niermeyer, Lexicon, s.v., which translated it as "sandy hillock" or "sandy tract".
297. A word has been erased here.
coast of the sea used in particular to have salt marsh and sand dunes, of a greater and lesser extent, thrown up near their landholdings according to the inflows and outflows of the sea.

And thus he says that the aforesaid then Abbot, the predecessor of the present Abbot, had a certain manor in the aforesaid town of Gosberton, of the ancient right of his church of Peterborough, which manor, indeed, the same present Abbot has, as of the right of his church aforesaid, whereof many lands of the same manor lie next to the coast of the sea,

And thus the aforesaid then Abbot, the predecessor etc, had, by the inflows and outflows of the sea, around sixty acres of salt marsh lying next to his lands, and [built up] by the passage of time, according to the custom of the country from ancient [times].

And putting that aside, he denies that the aforesaid then Abbot of Peterborough, the predecessor etc, acquired any salt marsh from the aforesaid Abbot of Swineshead as is presented above. And he puts himself super patriam [upon the jury's mercy] concerning this.

And Thomas de Shardelowe, who follows for the King, says that the aforesaid Abbot, predecessor of the present Abbot, purchased all the aforesaid lands and tenements from Nicholas de Ry and Juliana his wife, and the Abbot of Swineshead, after the statute etc and without the King's permission, just as is supposed by the aforesaid presentments. And he offers to verify this for the King. And the aforesaid present Abbot similarly. Therefore a jury should come in respect thereof before the King on the octave of St John the Baptist wheresoever [the court may be] etc. And he who etc . to acknowledge etc.

Afterwards these proceedings against the aforesaid Abbot are adjourned by jury hearings put in respite before the King until the quindene of St Michael in the forty sixth year of the present King of England.

On which day the aforesaid Abbot came before the King at Westminster through his said attorney. And the jury did not come. Therefore, by virtue of the King's writ directed to the Justices here for taking the aforesaid body of jurors before them, or either of them, by means of a writ of nisi prius, which writ, indeed, is filed amongst the precepts of the year aforesaid, and enrolled in Michaelmas term for the

298. Shardelowe is not a common name; Thomas may be related to John Shardelowe, the JCP who died in 1344.
299. July 1, 1367.
300. October 13, 1372. Another dramatic gap.
301. coram domino Rege—repeated.
year abovesaid, in roll 18, amongst the King's pleas in the coram Rege rolls, the aforesaid jury was put in respite before the King until the quindene of St Hilary, whereasover etc.

Unless the King's beloved and faithful John Cavendish and Thomas de Ingelby, Justices of the King for [hearing] pleas etc, or one of them, shall first have come, on the Saturday next after the feast of St Andrew the Apostle, at Stamford, for lack of jurors, because no-one etc. Therefore the Sheriff may have the bodies [habeat corpora] etc.

On which quindene of St Hilary the aforesaid Abbot came, through his aforesaid attorney, before the King at Westminster; and the aforesaid John and Thomas, before whom etc, inserted a record of the verdict of the aforesaid jury, arrived at before them, in these words:

Afterwards, on the day and in the place contained within, the present Abbot of Peterborough came, through his within-named attorney, before John Cavendish' and Thomas de Ingelby, the Justices within-named. And the jury similarly came. Whereupon a proclamation was made, as to whether anybody wished to say anything for the King in this regard, and nobody came.

And the jurors chosen and tried for this purpose say upon their corporal oath that neither the present Abbot of Peterborough nor any of his predecessors purchased any salt marsh nor any other lands or tenements in the town of Gosberton from Nicholas de Ry and Juliana his wife, nor from the Abbot of Swineshead nor any other person. And the same jurors say that the custom of the country is, and has been for all time, that all and singular lords having manors, lands or tenements upon the coast of the sea used in particular to have salt marsh and sand dunes, of a greater and lesser extent, thrown up near their land-holdings according to the inflows and outflows of the sea, and that that custom extends to all persons whomsoever, both religious and secular.

And further they say that aforesaid Abbot of Peterborough has a certain manor in the town of Gosberton, of the ancient right of his church of Peterborough, whereof many lands of the same manor lie next to the coast of the sea,
And that a certain late Abbot of Peterborough, [predecessor] of the aforesaid present Abbot, upon whom the presentments contained within were made, similarly held the aforesaid manor, of the ancient right of his church of Peterborough, as of the right of his aforesaid church,

And he had all the salt marsh contained in the same presentments, thrown up by the inflows and outflows of the sea and by the passage of time onto his lands in the aforesaid manor next to the coast of the sea, and thus he held that salt marsh, and the aforesaid present Abbot now thus holds it, in the manner aforesaid, according to the aforesaid custom of the country,

And putting that aside, they disagree that the aforesaid late Abbot, [the predecessor] of the aforesaid present Abbot, acquired the aforesaid salt marsh, or any other lands or tenements, from the aforesaid Nicholas and Juliana, or from the aforesaid Abbot of Swineshead, as is supposed by the presentments contained within.

Therefore it is considered that the aforesaid present Abbot may go from here without a further date [being fixed], always saving the King's right if any etc.

[The following is a description of the Abbot of Peterborough's case as given by Mr. Serjeant Merewether (note the confusion about the acreage involved, see supra note 66) is printed in Hall, supra note 17, at lxxxvi-lxxxvii.]

The Abbot of Peterborough was questioned at the king's suit for acquiring thirty acres of marsh land in Gosberkile; the license of the king not having been obtained. The abbot pleaded that by the custom of the country from time whereof the memory of man was not to the contrary, all and singular the lords of the lands of the manors, and the lands upon the coasts of the sea particularly, had all the marshes and salt marshes by the flux and reflux of the sea; and he says that he has a certain manor in that vill, from whence much land is adjacent to the coasts of the sea, and he has by the flux and reflux of the sea about 300 acres of marsh land adjacent; without this that he himself has acquired, &c. Upon issue joined, it depended many years before it was tried. But afterwards in Easter, 41 Edw. III., judgment was given, that according to the custom of the country, the lords of the manor near adjacent had the marshes and salt marshes increasing by the flux and reflux of the tide, and projected towards their land.

307. Smudge in manuscript.
APPENDIX D

THE ABBOT OF RAMSEY’S CASE

TNA ref E368/ 141 Recorda rot 13d (Exchequer, 1369)\textsuperscript{308}
Norfolk
For the King against the Abbot of Ramsey concerning land acquired without [the King’s] permission.

It was presented by a certain inquisition, taken at Wolferton [\textit{Wolfreton}] in the county of Norfolk, on the Thursday next after the feast of Saint Benedict in the 42nd year of our present King,\textsuperscript{309} before Edmund de Thorp’ and his fellow justices assigned by the King’s letters patent under the great seal dated 12 May in the 41st year of our present King.\textsuperscript{310}

For the purposes of inquiring (within the counties of Norfolk and Suffolk) concerning all purprestures whatsoever made upon the King, and concerning all wards, rights of marriage, reliefs, escheats, lands, tenements, rents, and other profits and emoluments whatsoever, belonging or appertaining to the King in the counties aforesaid but from him concealed, withdrawn, occupied and unjustly withheld, and by whom, where, and from what time, how and in what manner, and to inquire as to the true value of the same, (which inquisition indeed remains, together with the said letters patent, in the custody of this Remembrancer),

That the Abbot of Ramsey [\textit{Rameseye}]\textsuperscript{311} has appropriated to him and his house, without the King’s permission, 60 acres of marsh in Brancaster [\textit{Brauncestre}],\textsuperscript{312} and they are worth 13s 4d yearly.
Therefore it is agreed that the aforesaid Abbot should be forewarned, by a writ of \textit{scire facias},\textsuperscript{313} to appear here to show, if he can etc, why the 60 acres of marsh aforesaid ought not to be taken back into the King’s hands.

\textsuperscript{308} I am grateful to Dr Susanne Jenks for photographing this record; to Dr. J.S. Mackman for making a preliminary transcription from the original; and to Professor Charles Donahue for the footnotes to this transcript, and for general assistance in interpreting this case. The translation is by B.F. Westcott. Jennifer K. Nelson helped me greatly with an earlier translation.

\textsuperscript{309} March 23, 1367/8.

\textsuperscript{310} May 12, 1367.

\textsuperscript{311} Ramsey, Huntingdonshire (now Cambridgeshire).

\textsuperscript{312} Brancaster, Norfolk.

\textsuperscript{313} “[Y]ou should cause it to be known.”
And the Sheriff of Norfolk is ordered to cause it to be known etc, by [the corporal oath of] upright men etc. So etc, on the octave of St John the Baptist.\textsuperscript{314}

On which day the Sheriff returned the writ and advised that he had made the return of the same writ to William Talpe, Bailiff of the liberty of the hundred of Clackclose [Clakelose],\textsuperscript{315} who has the returns of writs etc, which bailiff, indeed, gave him no answer thereto.

The same Sheriff also returned that the aforesaid Abbot has no lands or tenements, goods or chattels, outside the aforesaid liberty but elsewhere in his bailiwick where they can be known to him.

So the Sheriff was ordered not to overlook anything whereby, on account of the liberty aforesaid etc, and to cause it to be known etc, by upright men etc. So etc, on the day after St Michael's.\textsuperscript{316}

On which day the aforesaid Sheriff did not return the writ. Therefore he was ordered just as previously. So etc, on the day after the Purification of the Blessed Mary.\textsuperscript{317}

On which day the Sheriff returned the writ and advised that by virtue of the same writ he had caused the Abbot of Ramsey to know that he should appear here, on the day contained in the writ, to show and propound just as the said writ requires, through Robert Rokel, John Cook, Richard de Dunham and John Wakke.

And the aforesaid Abbot comes, through William de Wylford his attorney, and says that the aforesaid marsh ought not to be seized into the King's hands, because he says that he holds, and his predecessors from time immemorial have held, the Manor of Brancaster, which certain manor is situated by the sea, and that there is in the same place a certain marsh, but it is not to be known whether that marsh contains sixty acres.

He says that the marsh sometimes shrinks, through the influx of the sea, and at other times is enlarged by the flowing out of the sea, and so he says he holds that marsh in that manner.

And putting that aside, he denies that he or any of his predecessors appropriated any marsh in the place aforesaid to him and his house without the King's permission, as is supposed by the aforesaid presentment. And he is prepared to verify this etc. And he seeks judgment etc.

\textsuperscript{314} July 8, 1369. (I understood the octave to be the eighth day (inclusive) after the feast, or 1 July. 8 July is the quindene, or fifteenth day. BFW). The heading of membrane reads: "Still common matters of Trinity term in the 43rd year of the third King Edward after the conquest. Still records."

\textsuperscript{315} Clackclose hundred, Norfolk.
\textsuperscript{316} September 30, 1369.
\textsuperscript{317} February 3, 1369/70.
To this it is said for the King that the aforesaid Abbot did appropriate the aforesaid 60 acres of marsh to him and his house, just as is supposed by the aforesaid presentment. And it is sought, on behalf of the King, that there should be an inquiry etc. And the aforesaid Abbot says as he did before, and seeks similarly. So let there be an inquisition thereupon.

And the Sheriff of Norfolk is ordered to cause a jury of 18 etc. men of the neighbourhood of Brancaster, each of whom etc., by whom [the truth of the matter may be better known] etc., and with whom the aforesaid Abbot has no affinity etc., to come here on the quindene of Easter to investigate etc. And the same date is given to the aforesaid Abbot to hear and do that [which justice requires] etc.

On which day the Sheriff did not return the writ. And the aforesaid Abbot comes through his said attorney. So he is ordered just as previously etc. So etc., on the quindene of Holy Trinity. And the same date is given to the aforesaid Abbot to hear and do that etc.

On which day the aforesaid Abbot came through his said attorney. And the Sheriff returned the writ with a panel of names of jurors. And, although called, they did not come. Therefore the Sheriff was ordered to restrain those jurors by their lands etc. So etc., on the quindene of St Michael, or in the mean time before any of the Barons of this Exchequer in patria, who first etc., on a certain day and place which etc. And it is said to the aforesaid Abbot that he might/should await/expect his appointed day before the aforesaid Baron in patria, if first etc. And that he should be here on the same quindene to hear judgment etc.

On which day the aforesaid Abbot came through his said attorney. And the aforesaid Baron did not return any inquisition in the matter. But the aforesaid Sheriff returned the writ, and he advised that the aforesaid jurors had been restrained, and the issues etc. And they did not come. Therefore the Sheriff is ordered, as many times before, to restrain the aforesaid jurors by their lands etc. So etc., on the quindene of St Hillary. And the same date is given to the aforesaid Abbot to hear and do that etc.

318. Note: a jury of 18 not 12.
319. April 28, 1370.
320. June 30, 1370. [I make it; Easter = 14 April, Trinity 8 weeks later = 9 June, quindene = 23 June—BFW].
321. October 13, 1370.
322. January 27, 1370/1.
And these proceedings are adjourned by fixing dates until the quindene of Holy Trinity in the 45th year of our present King.323 On which day the aforesaid Abbot came through his said attorney. And the aforesaid Sheriff returned the writ, and advised that the aforesaid jurors had been distrained, and the issues etc. And they did not come. Therefore the same Sheriff is ordered, as many times before, to distrain the aforesaid jurors by their lands etc. So etc, on the quindene of St Michael,324 or in the mean time before any of the Barons of this Exchequer in patria, who first etc, on a certain day and place which etc. And it is said to the aforesaid Abbot that he might/should await/expect his appointed day before the aforesaid Baron in patria, if first etc. And that he should be here on the said quindene of St Michael to hear judgment etc.

On which day the aforesaid Abbot came through his said attorney. And Amery de Shirlond,325 one of the Barons of this Exchequer, returned a certain inquisition taken before him in the matter at Swaffham Market326 in the county of Norfolk on Saturday the day after St James the Apostle in the 45th year of the present King,327 the Abbot of Ramsey then appearing in the same place through Robert Waryn his attorney.

[The inquisition was taken] by the corporal oath of William Tristrem, John de Moredon, and other jurors whose names are noted in the aforesaid inquisition, which is amongst the writs executed for the King for Michaelmas term in the 46th year.328 Which jurors, indeed, having been chosen and tried, say upon their corporal oath that the aforesaid Abbot did not appropriate the 60 acres of marsh in Brancaster in the aforesaid county to him and his house without the King's permission, but they say that the same Abbot and his predecessors have from time immemorial held, and now do hold, the Manor of Brancaster, which manor, indeed, is situated by the sea, and there is in the same place a certain marsh which sometimes shrinks, through the influx of the sea, and at other times is enlarged by the flowing out of the sea, and the same Abbot thus holds that marsh in that manner.

323. June 22, 1371. It would seem that a term was skipped. [I make it; Easter = 6 April, Trinity = 1 June, quindene = 15 June—BFW]
324. October 13, 1371.
325. Amery Shirlond was a baron of the Exchequer from 1365 to 1373. SAINTY, supra note 304, at 113.
326. Swaffham, Norfolk.
327. July 26, 1371.
328. This is so odd that it is probably a mistake. We have been told a number of times that we are in the 45th year, and that we are in Michaelmas term. There seems to be no reason the record of the inquest should be in the writ file for Michaelmas term of the following year.
And putting that aside, they disagree that the same Abbot or any of his predecessors appropriated any marsh in the place aforesaid to him and his house without the King’s permission.

Therefore it is said to the aforenamed Abbot that as far as concerns the aforesaid presentment, he may now go without a further date [being fixed], always saving the King’s right if he should wish to speak thereof at another time.329

329. Edge of membrane damaged. Valeat is also possible. [Voluerit will be correct. A similar phrase occurs in pardons—BFW].

The final 5 1/2 lines are a continuation of the case on the other side of this membrane, and are unrelated to this case.