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J. B. Ruhl & Thomas A. J. McGinn, *The Roman Public Trust Doctrine: What Was It, and Does It Support an Atmospheric Trust?*, 47 *ECOLOGY L.Q.* 117 (2020).

ALWD 7th ed.

J. B. Ruhl & Thomas A. J. McGinn, *The Roman Public Trust Doctrine: What Was It, and Does It Support an Atmospheric Trust?*, 47 *Ecology L.Q.* 117 (2020).

APA 7th ed.

Ruhl, J. B., & McGinn, Thomas A. J. (2020). *The roman public trust doctrine: what was it, and does it support an atmospheric trust?*. *Ecology Law Quarterly*, 47(1), 117-178.

Chicago 17th ed.

J. B. Ruhl; Thomas A. J. McGinn, "The Roman Public Trust Doctrine: What Was It, and Does It Support an Atmospheric Trust?," *Ecology Law Quarterly* 47, no. 1 (2020): 117-178

McGill Guide 9th ed.

J. B. Ruhl & Thomas A. J. McGinn, "The Roman Public Trust Doctrine: What Was It, and Does It Support an Atmospheric Trust?" (2020) 47:1 *Ecology LQ* 117.

AGLC 4th ed.

J. B. Ruhl and Thomas A. J. McGinn, "The Roman Public Trust Doctrine: What Was It, and Does It Support an Atmospheric Trust?" (2020) 47(1) *Ecology Law Quarterly* 117

MLA 9th ed.

Ruhl, J. B., and Thomas A. J. McGinn. "The Roman Public Trust Doctrine: What Was It, and Does It Support an Atmospheric Trust?." *Ecology Law Quarterly*, vol. 47, no. 1, 2020, pp. 117-178. HeinOnline.

OSCOLA 4th ed.

J. B. Ruhl & Thomas A. J. McGinn, "The Roman Public Trust Doctrine: What Was It, and Does It Support an Atmospheric Trust?" (2020) 47 *Ecology LQ* 117

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The Roman Public Trust Doctrine: What Was It, and Does It Support an Atmospheric Trust?

J.B. Ruhl and Thomas A.J. McGinn***

Through building waves of legal scholarship and litigation, a group of legal academics and practitioners is advancing a theory of the public trust doctrine styled as the “atmospheric trust.” The atmospheric trust would require the federal and state governments to regulate public and private actors to reduce greenhouse gas emissions to abate climate change. The traditional common law version of the American public trust doctrine requires that states owning title to lands submerged under navigable waters manage them in trust for the public to use for navigation, fishing, and commerce and that the states not alienate such resources to the detriment of this public interest. Some states have incrementally expanded their respective public trust doctrines to other resources and other uses, but thus far no federal or state court of last resort has extended the public trust doctrine to the atmosphere.

Advocates of the atmospheric trust argue that it, like the traditional doctrine, enjoys a pedigree that traces back in an “unbroken line” to Roman law and that Roman law is therefore persuasive, if not binding, regarding the scope and substance of the doctrine in modern times. This claim has given rise to critics who argue that Roman law evidences no glimmer of either version, traditional or atmospheric. The debate has spilled into the pages of law reviews and judicial opinions and, given how high the political and economic stakes are if courts adopt the atmospheric trust, it is not a trivial matter.

This Article is the first contribution to legal scholarship on this debate that teams a Roman law scholar and a natural resources law scholar to interrogate

DOI: <https://doi.org/10.15779/Z38P26Q432>

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what we call the Roman roots narrative. Our concern is that the debate has focused on the meaning of a mere snippet of Roman law—a brief passage from the Institutes of Justinian published in A.D. 533—and ignored the rich and important context that dates back long before publication of the Institutes. To a Roman law scholar, exclusive reliance on the highly abbreviated version of Roman law captured in the passage from the Institutes is problematic, to say the least. Although a few legal academics have grabbed on to additional sources of Roman law in an attempt to inform the debate, no one weighing in has fully employed the historical sources and methods of interpretation used by modern Roman law scholars and then, leveraging expertise in natural resources law, assessed the atmospheric trust’s claim to a Roman pedigree. We do so in this Article.

The Article proceeds in four parts. Part I sets the stage by revealing the incompleteness of the accounts of Roman law used by both the atmospheric trust advocates and their critics. Part II traces the origins and evolution of the Roman roots narrative from its earliest presence in American law and legal commentary to the current scholarship and litigation positions behind the atmospheric trust, showing the gradual devolution of the narrative from a serious intellectual effort to one of rubber-stamping a citation to the Institutes. To fill the gap, Part III presents our interpretation of the relevant Roman law sources bearing on their version of the public trust. Part IV compares our constructed Roman public trust doctrine to the atmospheric trust theory being advanced today in litigation and legal scholarship, assessing how close or far apart they are in different respects.

While it would be preposterous to claim that the Romans operated under anything like an atmospheric trust, our conclusion is that the American public trust doctrine has much stronger connections to Roman law than recent critics of the Roman roots narrative suggest. The Roman public trust doctrine actually dates back centuries before Justinian’s Institutes and draws from two streams of Roman property law, one of which has been left out of the modern debate by both sides. Advocates of the atmospheric trust may wish to update their thinking on the Roman roots narrative—there is far more to work with than a snippet from Justinian’s Institutes.

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INTRODUCTION

The public trust doctrine (PTD) is one of the most enigmatic and contested creatures of American jurisprudence. According to the Supreme Court's landmark 1892 opinion in *Illinois Central Railroad Co. v. Illinois*,¹ two principles form the core of the doctrine. First, because each of the states “holds the title to the land under the navigable waters,” they must manage those resources “in trust for the people of the State, that they may enjoy the navigation of the waters, carry on commerce over them, and have liberty of fishing therein freed from the obstruction or interference of private parties.”² Second, as a corollary, the nature of the trust “is governmental, and cannot be alienated, except in those instances . . . of parcels used in the improvement of the interest thus held, or when parcels can be disposed of without detriment to the public interest in the lands and waters remaining.”³

1. 146 U.S. 387, 452 (1892). For a description of the protracted and controversial events leading up to and following the *Illinois Central* decision, see generally Joseph D. Kearney & Thomas W. Merrill, *The Origins of the American Public Trust Doctrine: What Really Happened in Illinois Central*, 71 U. CHI. L. REV. 799 (2004). The *Illinois Central* Court did not use the term “public trust doctrine.” The first instance we could identify of a court using that term is the 1966 opinion in *Droste v. Kerner*, 217 N.E.2d 73, 76 (Ill. 1966). It appears in the pages of law journals first in a short student case note published in 1926. See *Waters and Watercourses—Navigable Waters—Nature of State's Title to Relicted Bed of Navigable Lake*, 40 HARV. L. REV. 140, 141 (1926). It did not appear in law journals again until the title of a 1970 article by Professor Joseph Sax, discussed extensively *infra* Subparts II.B, III.A.3, IV.B. When we and other contemporary legal scholars and courts describe early American scholars and courts as addressing “the public trust doctrine,” we are applying the modern term retrospectively to the topics it encompasses.

2. *Ill. Cent.*, 146 U.S. at 452.

3. *Id.* at 455–56. Some legal scholars disagree with the description of the PTD as a consequence of “land under navigable waters” that is owned by the state, arguing instead that the PTD is an independent common law doctrine associated with navigable waters generally, whether publicly or privately owned. E-mail from James Huffman, professor of law, Lewis & Clark Law School, to author (Aug 24, 2019, 4:28 pm) (on file with author). This matters, assertedly, because some submerged lands were alienated by sovereigns to private interests prior to the assumption of sovereignty by the states. This would mean that the limitations on alienation imposed by the PTD do not apply only to state-owned submerged lands, but

Beyond these two broad principles—considered the essence of what has come to be known as the “traditional” PTD⁴—many large questions remain under hot debate.⁵ Does the doctrine extend only to navigable waters, or also to other natural resources? Are other uses encompassed? Does the doctrine impose affirmative management duties on the states? Does the doctrine apply to the federal government for federally owned lands and resources, or even more? Is the doctrine’s source common law, constitutional law, or something else? Did the Court in *Illinois Central* correctly apply precedent? Can legislatures displace the doctrine by statute? How much can courts modify the doctrine?

These and other unresolved questions are now under a spotlight, as a wave of “atmospheric trust” litigation and legal scholarship asserts that the PTD requires no less than that the federal and state governments take affirmative action to force public and private actors to reduce greenhouse gas emissions to abate climate change. There are many cases underway in the U.S. state and federal courts in which the plaintiffs advocate judicial adoption of the atmospheric trust, the most prominent being the “Juliana” litigation brought in federal court by a group of children as plaintiffs.⁶ The history of that litigation matter is too complex to recount here, except to point out that a district court opinion denying summary judgment to the government defendants deferred ruling on the atmospheric trust theory, on the basis that the scope of the traditional PTD could regulate air pollution that affects navigable waters.⁷ The

to alienation of any public or private interests in submerged lands subject to the PTD that would interfere with public rights of use ensured by the PTD. Given the differences between Roman and American conceptions of property ownership, we do not attempt to resolve this debate. Nor is it a question that strikes us as central to resolving the merits of the claim that the American PTD has its roots in Roman law, which is the central focus of this Article. We raise the point simply to acknowledge that there is not universal agreement over finer details of the American PTD, much less regarding whether it has Roman roots.

4. Charles F. Wilkinson, *The Headwaters of the Public Trust: Some of the Traditional Doctrine*, 19 ENVTL. L. 425, 426–27 (1989). In this Article, we compare Roman law to the evolution of the PTD in American law. The PTD is only one of many trust-like doctrines that have developed in American natural resources and land management law, such as for wildlife, parks, and public lands. See David L. Callies, *The Public Trust Doctrine*, 8 BRIGHAM-KANNER PROP. RTS. J. 71, 71 (2019). Yet the PTD is a distinct doctrine governed by its particular set of conditions and constraints and thus should not be conflated with other trust doctrines. *Id.*

5. For overviews of the unresolved issues, see Richard M. Frank, *The Public Trust Doctrine: Assessing Its Recent Past & Charting Its Future*, 45 U.C. DAVIS L. REV. 665, 669 (2012); Harrison C. Dunning, *The Public Trust Doctrine in Natural Resources Law and Management: A Symposium*, 14 U.C. DAVIS L. REV. 181, 181–82 (1980).

6. *Juliana v. United States*, 217 F. Supp. 3d 1224, 1255 (D. Or. 2016).

7. *Id.* For academic writing advancing the atmospheric trust theory and explaining the litigation matters, see Michael C. Blumm & Mary Christina Wood, “No Ordinary Lawsuit”: *Climate Change, Due Process, and the Public Trust Doctrine*, 67 AM. U. L. REV. 1, 21–30 (2017); Mary Christina Wood & Charles W. Woodward, IV, *Atmospheric Trust Litigation and the Constitutional Right to a Healthy Climate System: Judicial Recognition at Last*, 6 WASH. J. ENVTL. L. & POL’Y 633, 641, 655–68 (2016); Mary Christina Wood & Dan Galpern, *Atmospheric Recovery Litigation: Making the Fossil Fuel Industry Pay to Restore a Viable Climate System*, 45 ENVTL. L. 259 (2015). More background on the atmospheric trust theory and litigation agenda is provided *infra* Subpart II.C.

Ninth Circuit reversed the decision, finding that the plaintiffs lacked standing.⁸ Thus far, neither the U.S. Supreme Court nor any state's highest court has adopted the atmospheric trust.

Amidst these unresolved questions regarding the PTD, there is one feature of the PTD that enjoys near universal support—the idea, endorsed by the U.S. Supreme Court and many other courts and legal scholars, that “its roots trace to Roman civil law.”⁹ This Roman roots narrative is deeply embedded in the American judicial and academic minds. A recent study found that just since 1990, over 1,700 articles make reference to the PTD, with over 420 of those proclaiming its Roman origins.¹⁰ Courts on American soil making connections between the doctrine and Roman law date back to 1774¹¹ and, as noted, reach as high as the Supreme Court. Indeed, as we show below, early American courts engaged Roman law, including that relevant to the PTD, as a robust source of authority, not as fancy window dressing.¹²

Yet, although expositions on the doctrine's Roman law roots during the 1800s and early 1900s were often broad historical accounts drawing from multiple Roman law authorities, since 1950 the Roman roots narrative has lost its intellectual vigor and depth. In legal scholarship and judicial opinions since then, the nearly exclusive basis offered for the Roman roots claim—if any is offered at all—is a short passage from the Institutes of Justinian (Institutes), a work that formed part of a compilation of Roman law the Byzantine emperor Justinian I commissioned in the early sixth century.¹³ Excerpted from a sentence nestled within a longer fragment of text, the passage tells us that Roman law held that “[t]hings common to mankind by the law of nature, are the air, running water, the sea, and consequently the shores of the sea.”¹⁴ This passage sets forth the category of what is known as the *res communes omnium* (RCO) (meaning

8. *Juliana v. United States*, 947 F.3d 1159, 1165, 1175. (9th Cir. 2020).

9. *PPL Mont., LLC v. Montana*, 565 U.S. 576, 603 (2012).

10. James L. Huffman, *Speaking of Inconvenient Truths—A History of the Public Trust Doctrine*, 18 DUKE ENVTL. L. & POL'Y F. 1, 13 n.59 (2007).

11. *Harrison v. Sterett*, 4 H. & McH. 540 (Md. Prov. 1774). This distinction is usually attributed to *Arnold v. Mundy*, 6 N.J.L. 1 (1821). For further discussion of both cases, see *infra* Subpart II.A.

12. See Neal Wiley, *Through a Glass, Darkly: Reading Justinian Through His Supreme Court Citations*, 8 ELON L. REV. 479, 483 (2016) (tracing citations in Supreme Court opinions to support the proposition that Roman law “has provided real substance on which centuries of American judges and lawyers have drawn”).

13. There are countless accounts of the history of Justinian's Roman law compilation project, and the story is fairly well settled. We rely on two sources: GEORGE MOUSOURAKIS, *ROMAN LAW AND THE ORIGINS OF THE CIVIL LAW TRADITION* 198–208 (2015), and Wolfgang Kaiser, *Justinian and the Corpus Iuris Civilis*, in *THE CAMBRIDGE COMPANION TO ROMAN LAW* 119–48 (David Johnson ed., 2015). For a recent concise history found in legal scholarship, see Frederick W. Dingley, *The Corpus Juris Civilis: A Guide to its History and Use*, 35 LEGAL REFERENCE SERVS. Q. 231, 231–36 (2016).

14. Compare J. INST. 2.1.1, in *THE INSTITUTES OF JUSTINIAN*, WITH NOTES (Thomas Cooper ed. & trans., 3rd ed. 1852) 67, with JUSTINIAN'S INSTITUTES 55 (Peter Birks & Grant McLeod eds. & trans., 1987) (providing one of the number of English translations of the Institutes available: “[t]he things which are naturally everybody's are: air, flowing water, the sea, and the sea-shore”).

“things common to all”).¹⁵ Serious arguments are today being made in legal scholarship, litigation pleadings, and judicial opinions that there is an “unbroken line of precedent” starting from this fleeting passage, published in A.D. 533, through English common law¹⁶ and early American common law, and from there right through to the claimed atmospheric trust.¹⁷

To distill the atmospheric trust idea to its essence, the claim is that the *RCO* passage has led inevitably not just to the traditional public trust principles described in *Illinois Central*, but to a requirement that America’s twenty-first century federal and state governments may be sued by citizens and forced by courts to regulate public and private greenhouse gas emission sources to mitigate climate change. Two of this claim’s leading advocates, Professors Michael Blumm and Mary Wood, unpack it into five key premises:

- (1) the air and atmosphere, along with other vital natural resources, are within the res of the public trust, and therefore subject to special sovereign obligations;
- (2) the legislature and its implementing agencies are public trustees;
- (3) both present and future generations of the public are beneficiaries of the public trust;
- (4) the government trustees owe a fiduciary duty of protection against “substantial impairment” of the air, atmosphere, and climate system, which amounts to an affirmative duty to restore its balance;
- and (5) courts have a duty to enforce these trust obligations.¹⁸

Going even further, dozens of legal scholars recently filed an amicus brief in an Oregon state atmospheric trust litigation matter, arguing that Roman law spawned similar doctrinal developments around the globe, potentially giving the PTD, and its atmospheric permutation, the status of customary international law.¹⁹

15. See *infra* Part III.

16. Beyond recognizing that the PTD came to American common law through English common law, we do not examine the historical evolution of the PTD in British law and commentary. Our project takes the American PTD as it exists—and as it is proposed to evolve—and assesses whether it has the claimed roots in Roman law. The answer does not depend on what happened between the doctrine’s formation in Roman law, if it did form there, and its landing in American law.

17. See Carolyn Kelly, *Where the Water Meets the Sky: How an Unbroken Line of Precedent from Justinian to Juliana Supports the Possibility of a Federal Atmospheric Public Trust*, 27 N.Y.U. ENVTL. L.J. 183, 183 (2019).

18. Blumm & Wood, *supra* note 7, at 23.

19. Brief of Amici Curiae Law Professors in Support of Petitioners, *Cherniak v. Brown*, No. S066564 (Or. 2019). Customary international law “consists of rules of law derived from the consistent conduct of States acting out of the belief that the law required them to act that way.” SHABTAI ROSENNE, *PRACTICE AND METHODS OF INTERNATIONAL LAW* 55 (1984). The elements of customary international law include the widespread repetition by States of similar international acts over time (State practice), the requirement that the acts must occur out of a sense of obligation (*opinio juris*), and that the acts are taken by a significant number of States and not rejected by a significant number of States. See Roozbeh (Rudy) B. Baker, *Customary International Law: A Reconceptualization*, 41 BROOK. J. INT’L L. 439, 446 (2016); Anthea Elizabeth Roberts, *Traditional and Modern Approaches to Customary International Law: A Reconciliation*, 95 AM. J. INT’L L. 757, 757 (2001). The argument, therefore, is that the PTD enjoys such widespread adoption and implementation across a significant number of nations, without significant rejection by other nations, that it is a binding feature of international law. We take no position on that claim.

These are bold legal claims with potentially substantial impacts on American climate policy, the national (and global) economy, and our government's balance of institutional powers. Yet, if advocates of the atmospheric trust believe its claimed Roman roots support its adoption, they are doing little to educate courts in that respect.

Few claims this weighty advance unopposed, but dissent from the Roman roots narrative and the "unbroken line" thesis purported to underlie the atmospheric trust premises has been surprisingly sparse.²⁰ One prominent critic is Professor James Huffman, who has pushed back on the Roman roots claim and expansive application of the PTD.²¹ Relying almost entirely on two previously obscure law journal articles from the mid-1970s, one authored by an LL.M. student²² and the other by a law school graduate fellow,²³ Huffman's problems with the Roman roots narrative boil down to three objections. First, Roman law did not guarantee an inalienable public right to use and access the sea and seashore.²⁴ Second, the *RCO* resources were "things common to all" mostly

20. This is to be distinguished from dissenting views on the PTD as a legal platform for natural resources management and regulation, such as is proposed by the atmospheric trust advocates, regardless of whether that application traces to Roman roots. For example, Professor Richard J. Lazarus has expressed deep skepticism about whether the PTD could ever supply a comprehensive legal approach to resource management problems. Richard J. Lazarus, *Changing Conceptions of Property and Sovereignty in Natural Resources: Questioning the Public Trust Doctrine*, 71 IOWA L. REV. 631, 641 (1986); see also William D. Araiza, *Democracy, Distrust, and the Public Trust: Process-Based Constitutional Theory, the Public Trust Doctrine, and the Search for a Substantive Environmental Value*, 45 UCLA L. REV. 385, 444 (1997) (writing that natural resources management requires technical expertise outside the scope of the doctrine); Barton H. Thompson, Jr., *The Public Trust Doctrine: A Comparative Reconstruction and Defense*, 15 SE. ENVTL. L.J. 47, 49 (2007) (advocating for a limited version of the public trust doctrine); Richard Delgado, *Our Better Natures: A Revisionist View of Joseph Sax's Public Trust Theory of Environmental Protections, and Some Dark Thoughts on the Possibility of Law Reform*, 44 VAND. L. REV. 1209, 1214 (1991) (arguing that the public trust approach is inherently antagonistic to the promotion of innovative environmental thought); James L. Huffman, *Why Liberating the Public Trust Doctrine is Bad for the Public*, 45 ENVTL. L. 337, 338–39 (2015) (arguing that expansive public trust applications undermine other important public values); James L. Huffman, *A Fish Out of Water: The Public Trust Doctrine in a Constitutional Democracy*, 19 ENVTL. L. 527, 527 (1989) (arguing that an expanded trust violates property origins); James R. Rasband, *The Public Trust Doctrine: a Tragedy of the Common Law*, 77 TEX. L. REV. 1335, 1336 (1999) (arguing that the doctrine usurps legislative authority and poses the potential for unconstitutional takings of property); George P. Smith, II & Michael W. Sweeney, *The Public Trust Doctrine and Natural Law: Emanations Within a Penumbra*, 33 B.C. ENVTL. AFF. L. REV. 307, 307 (2006) (using natural law theory to argue that expansion of the trust inappropriately interferes with private property rights). The atmospheric trust has also met opposition in legal scholarship. See Caroline Cress, *It's Time to Let Go: Why the Atmospheric Trust Won't Help the World Breathe Easier*, 92 N.C. L. REV. 236, 240–41 (2013) (arguing that there would be many flaws and drawbacks to using a public trust approach to greenhouse gas mitigation). We take no position herein on the merits—our exclusive focus is on the Roman roots narrative.

21. Huffman, *supra* note 10.

22. See Glenn J. MacGrady, *The Navigability Concept in the Civil and Common Law: Historical Development, Current Importance, and Some Doctrines That Don't Hold Water*, 3 FLA. ST. U. L. REV. 511, 513 (1975).

23. See Patrick Deveney, *Title, Jus Publicum, and the Public Trust: An Historical Analysis*, 1 SEA GRANT L.J. 13 (1976). Huffman explains that he relied almost entirely on these two articles for his sources regarding Roman law. See Huffman, *supra* note 10, at 13.

24. Huffman, *supra* note 10, at 14–15.

because their supply was abundant and demand for them slight.²⁵ Third, until late in the Empire, Roman law made no distinction between the public and the personal status of the ruler.²⁶ Piecing these ideas together from the two articles he resurrected, Huffman concludes that “Roman law seems to offer little to those seeking the comfort or reassurance of well pedigreed legal precedence.”²⁷ His skepticism has proven influential to some courts and scholars.²⁸

The battle lines are thus clearly drawn. On the one side, we have the atmospheric trust advocates, who point to a brief passage from an ancient Roman law text and argue that, because it uses the word “air,” the American doctrine encompasses an atmospheric trust of sweeping impact to our political system and national economy. On the other side, there are Professor Huffman and other skeptics who contend that “there was nothing resembling the modern idea of public trust in Roman law.”²⁹ The problem for both, as we establish below, is that neither side engages the full relevant body of Roman law nor uses the interpretive methods of Roman law scholars.³⁰ We have found no account of the Roman roots narrative in legal scholarship, pro or con, that does so alongside a deep assessment of the evolution of the American PTD.³¹ This Article is the first to do so.

In this Article, we interpret the Roman law relevant to the scope and application of the American doctrine the way modern Roman law scholars do—one of us, fortunately, being such. We then assess how far the mapping of Roman law onto American doctrine can reasonably be argued to inform modern courts handling atmospheric trust claims. To be clear, notwithstanding that we each are firmly committed to combating climate change through all legal means possible, here we are not taking sides in the debate over whether there should be an atmospheric trust of the kind proposed in the wave of litigation and legal scholarship. Neither do we attempt to resolve any of the other questions mentioned above regarding the scope and force of the doctrine or weigh in on the related debates over the “unbroken line” thesis, such as the degree to which

25. *Id.* at 15–17.

26. *Id.* at 17–18.

27. *Id.* at 18.

28. See *Chelan Basin Conservancy v. GBI Holding Co.*, 413 P.3d 549, 554 (Wash. 2018); Cress, *supra* note 20, at 244.

29. Huffman, *supra* note 10, at 1.

30. The most central of these methods concern the thorough exegesis of ancient legal texts, above all, those found in Justinian’s Digest. For a discussion, see Fritz Sturm, *Die Digestenexegese*, in *DIE RECHTSGESCHICHTLICHE EXEGESE: RÖMISCHES RECHT, DEUTSCHES RECHT, KIRCHENRECHT 1–74* (Hans Schlosser et al. eds., 2nd ed. 1993); see also RENZO LAMBERTINI, *INTRODUZIONE ALLO STUDIO ESEGETICO DEL DIRITTO ROMANO* (3rd ed. 2011).

31. Roman law scholar Bruce Frier has recently contributed an historical analysis of Roman law to assess the Roman roots claim. See Bruce W. Frier, *The Roman Origins of the Public Trust Doctrine*, 32 *J. ROMAN ARCHAEOLOGY* 641, 641 (2019). Frier points to the debate in legal scholarship between advocates and critics of the Roman roots claim and confirms that “Roman sources were called upon in order to develop the doctrine,” but he does not cover the history and evolution of the American PTD in legal jurisprudence or in the scholarship. *Id.* at 641–42.

Roman law actually influenced early English law and whether American courts accurately interpreted English common law regarding the scope and meaning of the public trust.³² We confine our analysis to common law principles of the public trust and thus do not include analysis of law from states that have embodied versions of public trust principles in their constitutions or in statutes.³³ And with respect to the common law form of the PTD, we fully acknowledge that it is a background principle of American property law, and as such, evolves over time to reflect new knowledge and changed circumstances—even the most conservative legal thinkers concur in that fundamental feature of the common law of property.³⁴

Rather, the question we specifically and exclusively engage is whether the Roman roots narrative accurately measures the distance between what the Romans thought then and what we think the atmospheric trust requires today. At some point, the distance could be so great that it strains credibility to claim Roman law as a continuing force in the evolutionary path of the American doctrine. To answer *that* question, we put the Roman roots narrative, and its critics, under a microscope using the full corpus of sources modern Roman law scholars use to interpret Roman law and applying the methods such scholars use to derive the fairest and most defensible interpretation of those sources. From there we assess the distance between the Roman PTD, such as it was, and the proposed atmospheric trust, such as its visionaries believe it should be.

The Article proceeds in four parts. Part I sets the stage by revealing the incompleteness of the accounts of Roman law used by both the atmospheric trust advocates and their critics. Part II traces the origins and evolution of the Roman roots narrative from its earliest presence in American law and legal commentary to the current scholarship and litigation positions behind the atmospheric trust,

32. See Deveney, *supra* note 23, at 36–52; Huffman, *supra* note 10, at 19–27; MacGrady, *supra* note 22, at 545–87. Ironically, the English version of the PTD petered out—most of the English foreshore is privately owned—but now there are proposals in legal scholarship to revive it, modeled on the American experience, in order to support atmospheric trust litigation. See Bradley Freedman & Emily Shirley, *England and the Public Trust Doctrine*, 8 J. PLANNING & ENVTL. L. 839, 842 (2014). These, too, repeat the Roman roots narrative based exclusively on the Institutes' *RCO* passage. *Id.* at 840.

33. See, e.g., John C. Dernbach et al., *Robinson Township v. Commonwealth of Pennsylvania: Examination and Implications*, 67 RUTGERS U. L. REV. 1169, 1169–70 (2015) (discussing a state constitutional public trust provision). Our reason for excluding constitutional and statutory codifications is that once codified, the constitutional and statutory language and adoption history controls. Roman law might serve as an interpretive device, but the codified language would generally preempt inconsistent common law, whether derived from Roman law or not.

34. See *Lucas v. S.C. Coastal Comm'n*, 505 U.S. 1003, 1030 (1992) (Justice Scalia, writing for the majority, acknowledged that background principles of property law evolve such that—using the example of nuisance law—“[t]he fact that a particular use has long been engaged in by similarly situated owners ordinarily imports a lack of any common-law prohibition (though changed circumstances or new knowledge may make what was previously permissible no longer so)”; see generally Michael C. Blumm, *Two Wrongs? Correcting Professor Lazarus's Misunderstanding of the Public Trust Doctrine*, 45 ENVTL. L. 481, 485–86 (2015) (summarizing case law and academic work compellingly categorizing the PTD as a “background principle” of property law subject to evolving with new knowledge and changed circumstances).

showing the gradual devolution of the narrative from a serious intellectual effort to a mere “check off the box” exercise. To fill the gap, Part III presents our interpretation of what “doctrine” on point can be extracted from the relevant Roman law sources, bearing in mind that the concept of doctrine does not match up well between the Roman law and modern American law systems. Our key findings are that the Roman doctrine bearing on the PTD traces much further back in time than Justinian’s Institutes and that it involved a more complex property law doctrinal foundation than either the Roman roots narrative or its critics claim. Part IV compares our constructed Roman PTD to the atmospheric trust theory being advanced today in litigation and legal scholarship, assessing how close or far apart they are in different respects. Our bottom line is a mixed bag: There is a solid basis for asserting Roman roots as far as the traditional PTD, which provides the atmospheric trust with its core foundation, but from there the atmospheric trust will need to rely on all-American roots. We conclude the Article with some suggestions for how to frame the Roman roots narrative in the context of adaptations of the PTD going forward.

There was a Roman public trust doctrine. The Romans did not call it that, and it was by no means as fully developed as the American doctrine. There was more to this principle than Huffman and his sources suggest was the case, but perhaps less than the atmospheric trust advocates would hope for. Yet, to the extent they believe the Roman roots narrative is important to their case, we encourage atmospheric trust advocates—indeed, all scholars and advocates of the PTD in any form—to look more broadly and deeply at Roman law rather than trivializing their claim by depending exclusively on a snippet from the Institutes. Restoring the depth and complexity of its Roman roots to the history of the American PTD confirms the stature of the doctrine as a legal principle that has endured for over a millennium and will provide a more secure foundation for grafting on the American roots that would be required to move the doctrine in new directions.

I. ROMAN LAW IN THE ROMAN ROOTS NARRATIVE AND ITS CRITIQUES

Both sides in the Roman roots narrative debate appeal to Roman law, but neither offers close to the complete picture. Atmospheric trust advocates do not even make an effort—they keep repeating the brief *RCO* passage from the Institutes and stop there as if that says all that can be said. All this does, after all, is list four items that are “common to all,” without discussing key aspects of the category that are crucial for the case they make. Clearly, therefore, standing alone, the *RCO* passage does not come close to establishing the two core public trust principles set forth in *Illinois Central*—the trust responsibility imposed on the state and the limits on alienability that come along with it³⁵—much less the

35. See *supra* notes 1–3.

other premises of atmospheric trust theory described above.³⁶ If that is all there is, the Roman roots narrative is on shaky ground. We show in Part II that there was a time when the Roman roots narrative relied on a far more robust account of Roman law, one that disappeared from the dialogue after 1950. And we show in Part III that Roman law has far more to offer as a contextual foundation. In this Part, we summarize how Roman law has been portrayed in the atmospheric trust debate, the gaps in those expositions, and the reasons why a more comprehensive study is necessary.

A. *Contested Roman Roots*

Why atmospheric trust advocates do not more fully engage Roman law or its historical importance in the history of the American PTD, we cannot say. Regardless of their reasons, one concern with accepting the brief *RCO* passage from the Institutes as sufficient and conclusive support for the Roman roots narrative, while providing no explanation for why, is that the stakes are very high compared to other applications of the Institutes in American law. Most citations to the Institutes are for mundane issues of the law of contracts, wills and estates, deeds, family law, and similar fields.³⁷ By contrast, the atmospheric trust movement is claiming that the Institutes' *RCO* passage, offered in isolation from any textual or historical context, supports the proposition that the American PTD allows citizens to ask courts to force the federal and state governments to regulate public and private interests to reduce greenhouse gas emissions so as to abate climate change. As the Supreme Court observed in the prominent *Juliana* litigation matter advancing this theory (and others) in support of the requested relief against the federal government,³⁸ the "breadth of [these] claims is striking."³⁹ If true, the claims could put the courts in charge of the nation's economy. We could find no other context in which the Institutes has been put forth as an authority for a proposition of American law with anywhere near the political and economic magnitude of the atmospheric trust claim. While that alone should not disqualify references to the *RCO* passage as supportive of the theory, it does suggest that in prudence it may be wise to scrutinize the claimed Roman law roots more closely.

Huffman and other critics of the Roman roots narrative purport to do so by engaging Roman law more fully than do its advocates, but they do not do so fully enough. Nor do they assemble and interpret the materials they present in a manner consistent with the practices of modern Roman law historians. We devote the remainder of our attention in this Subpart to establishing these concerns with their methods.

36. See *supra* note 18.

37. See *infra* note 74, discussing a database of cases we collected and organized by topic.

38. See *supra* note 7.

39. *United States v. U.S. Dist. Ct. for the Dist. of Or.*, No. 18A65 (U.S. 2018) (denying application for stay of lower court proceedings).

The two articles Huffman employs in his critique of the Roman roots narrative were aimed at a flurry of legal scholarship emerging in the 1970s claiming that the PTD applies broadly as a legal mechanism for natural resource protection. This scholarly movement in turn had its own roots in the work of the late Professor Joe Sax, beginning with a landmark article from 1970 in which Sax asserted that “of all the concepts known to American law, only the public trust doctrine seems to have the breadth and substantive content which might make it useful as a tool of general application for citizens seeking to develop a comprehensive legal approach to resource management problems.”⁴⁰ In the article, Sax alluded to Roman and English law as playing a role in the formation of the American PTD, but provided few details and merely cited the Institutes and a few old treatises as support.⁴¹ In a book published the next year, however, Sax went all in on the Roman roots narrative, asserting that

long ago there developed in the law of the Roman Empire a legal theory known as the “doctrine of the public trust.” It was founded upon the very sensible idea that certain common properties, such as rivers, the seashore, and the air were held by the government in trusteeship for the free and unimpeded use of the general public. Our contemporary concerns about the “environment” bear a very close conceptual relationship to this venerable legal doctrine.⁴²

Perhaps sensing a bit of an overreach in his connection of Roman law to an environmental protection purpose for the PTD, Sax later advised that “neither Roman Law nor the English experience with lands underlying tidal waters is the place to search for the core of the trust idea.”⁴³ Yet the Roman roots narrative has persisted largely uncontested in legal scholarship and judicial opinions.

To his credit, Huffman reminds us that there were scholarly exceptions to that unwavering faith in the Roman roots claim. Indeed, both of the articles he uses in his case against the Roman roots claim were published soon after Sax ignited the narrative, but both of them languished in obscurity until Huffman restored them to the debate. Of the two, the 1976 article by Patrick Deveney is aimed directly at Sax’s version of the PTD and purports to provide a sweeping history of Roman law, English common law, and relevant American law.⁴⁴ Deveney was at the time a fellow in the Sea Grant Law Program at the University

40. Joseph L. Sax, *The Public Trust Doctrine in Natural Resources Law: Effective Judicial Intervention*, 68 MICH. L. REV. 471, 474 (1970).

41. *Id.* A note on the PTD by a Yale Law School student published later in 1970 makes similar connections to Roman law and concludes that, with reformulation of the American doctrine to match the Roman doctrine, “[p]erhaps the day when common law citizens will have as many rights in the foreshore as Roman citizens once did is near at hand.” Note, *The Public Trust in Tidal Areas: A Sometime Submerged Traditional Doctrine*, 4 YALE L.J. 762, 789 (1970). For this bold claim the author, like Sax, also relies on citations to the Institutes and old treatises.

42. JOSEPH L. SAX, *DEFENDING THE ENVIRONMENT* 163–64 (1972).

43. Joseph L. Sax, *Liberating the Public Trust Doctrine from Its Historical Shackles*, 14 U.C. DAVIS L. REV. 185, 186 (1980).

44. Deveney, *supra* note 23.

of Buffalo Law School.⁴⁵ Glenn MacGrady's article, written when he was an LL.M. student at Harvard, is focused more on the historical development of public waters and navigability doctrines.⁴⁶ On Roman law, both Deveney and MacGrady commendably stepped beyond the cryptic Institutes' *RCO* passage to explore some of the texts found in the Digest, which is a compilation of classical Roman juristic opinions and writings also commissioned by Emperor Justinian.⁴⁷ In sharp rebuke to Sax's version of Roman law and its purported resonance with modern natural resources protection norms, Deveney concludes from his assessment of Digest sources that

in reality Roman law was innocent of the idea of trusts, had no idea at all of a public (in the sense we use the term) as a beneficiary of such a trust, allowed no legal remedies whatever against state allotment of land, exploited by private monopolies everything (including the sea and the seashore) that was worth exploiting, and had a general idea of public rights that is quite alien to our own.⁴⁸

Surely, had the atmospheric trust theory of the PTD been in play when Deveney wrote, he would have found it also completely unsupported by Roman law.

B. Gaps in the Evidence

Even on the face of their arguments, however, we had concerns about Deveney's and MacGrady's treatment of Roman law. To appreciate our reasons for initial skepticism requires first some further background on the history of the Institutes and the Digest. Both were part of Justinian's larger project to bring order to Roman law:⁴⁹ the *Corpus Iuris Civilis*.⁵⁰ Justinian intended for the Institutes—a compilation of rules—to be used as an elementary textbook for new law students, and the Digest—a compilation of juristic opinions, treatises, and other writings—was meant to be a textbook for advanced law students.⁵¹ The Institutes was based largely on the *Institutes* of Gaius, itself a textbook on Roman law from around A.D. 160.⁵² The Institutes was part of Justinian's effort to

45. Ernest L. Boyer, *Foreword*, 1 SEA GRANT L.J. 3, 3 (1976) (explaining that authors of articles in the issue were fellows).

46. See MacGrady, *supra* note 22, at 514. MacGrady's focus on ownership status of water and foreshore resources does not get to the heart of the questions of the presence, scope, and substance of any public trust relationship and alienation consequences. He confronts the PTD primarily as a property ownership status proposition. See *id.* at 546.

47. MOUSOURAKIS, *supra* note 13, at 200–05; Kaiser, *supra* note 13, at 124–28.

48. Deveney, *supra* note 23, at 17.

49. MOUSOURAKIS, *supra* note 13, at 193–211; Kaiser, *supra* note 13, at 123–33.

50. This title, "*Corpus Iuris Civilis*," is first attested to in 1583 and so is not, as far as we know, ancient. See Kaiser, *supra* note 13, at 123.

51. Kaiser, *supra* note 13, at 123–27; see also Charles P. Sherman, *The Study of Law in Roman Law Schools*, 17 YALE L.J. 499, 507–12 (1908); Simon Corcoran, *The Codex of Justinian: The Life of a Text through 1,500 Years*, in THE CODEX OF JUSTINIAN: A NEW ANNOTATED TRANSLATION, WITH PARALLEL LATIN AND GREEK TEXT cxvii (Bruce W. Frier ed., 2016) (noting "Justinian also issued a law which reformed legal education . . ." (referring to C[onstitutio] Omnem (533))).

52. MOUSOURAKIS, *supra* note 13, at 206.

restore the Roman Empire's splendor and dominance, not only by renewing its rule of law through compilation and codification but also by reconquering the lost western half of the historical empire through military force.⁵³ Although that military effort was successful, if only partially so, his initiative was more lasting on the legal front. After its rediscovery beginning in the eleventh century, law students throughout Western Europe used the *Corpus Iuris* in their training for centuries, and Roman law dominated in the development of law throughout Europe.⁵⁴ In early legal commentary, it was claimed that "[w]ith the exception of the Bible there is no book which has so profoundly affected western civilisation as the *Corpus Iuris*."⁵⁵ Indeed, here we are examining its text over a millennium later.

The point for our purposes, though, is that commentary on Justinian and the PTD often portrays it as "Justinian said" or "Justinian wrote," as if the emperor himself sat at a desk and drafted the different parts of the *Corpus Iuris*, including the Institutes and Digest, anew. In fact, Justinian, who was born in what is today northern Macedonia and never set foot in Rome, commissioned for the preparation of the Digest a team of seventeen members to interpret Roman law dating back many prior centuries and to compile an updated summary.⁵⁶ Justinian drew these members from the imperial administration, the courts, and the law schools in Constantinople and Beirut,⁵⁷ and for most if not all of them, unlike for Justinian himself, Latin was not their native tongue. Roman law did not "begin" with Justinian; rather, the Emperor hoped in part to account for what it was centuries before he was born. Justinian decreed to the compilers that their account of the classical law should remove inconsistencies, discard obsolete rules, and bend to legal principles Justinian wished to instill going forward.⁵⁸ Synthesis necessarily left out details and nuances, a process amounting in part to what Roman law scholars refer to as interpolation.⁵⁹

While Roman law scholars consider the Institutes as firmly within the core body of Roman law, albeit Roman law began ceding to Byzantine law soon after its publication,⁶⁰ the Institutes is not the final or most authoritative word on Roman law by any means. The Institutes was an attempt to summarize and synthesize Roman law going back many centuries before its publication.⁶¹

53. For a recent comprehensive account, see generally PETER HEATHER, *ROME RESURGENT: WAR AND EMPIRE IN THE AGE OF JUSTINIAN* (2018) (discussing the reign of Justinian).

54. MOUSOURAKIS, *supra* note 13, at 233–77 (law development); Sherman, *supra* note 51, at 512 (legal education).

55. FREDERICK PARKER WALTON, *HISTORICAL INTRODUCTION TO THE ROMAN LAW* 1 (4th ed. 1920).

56. MOUSOURAKIS, *supra* note 13, at 205–07; Kaiser, *supra* note 13, at 125–25.

57. *Constitutio Deo Auctore* 3 (530); *Constitutio Tanta/Dedöken* 9 (533).

58. MOUSOURAKIS, *supra* note 13, at 206; *see also* *Constitutio Deo Auctore* 4 (530); *Constitutio Tanta/Dedöken* 10 (533); *see infra* note 159.

59. MOUSOURAKIS, *supra* note 13, at 203; *see also* F. Pringsheim, *The Character of Justinian's Legislation*, 56 L.Q. REV. 229, 237 (1940).

60. MOUSOURAKIS, *supra* note 13, at 213–22.

61. MOUSOURAKIS, *supra* note 13, at 205–06; Kaiser, *supra* note 13, at 125.

Justinian decreed to the compilers he commissioned for this task, only three in number this time, that they exclude anything useless or out of place,⁶² such as would be irrelevant for the law of his own day. He also commanded that they rely not only on classical manuals such as those of Gaius but also rather decisively on imperial legislation, not least his own, rendering the final product, if anything, more of a Justinianic creation than the Digest.⁶³ Hence, a full conception of whether Roman law included anything like the American PTD—or further, an atmospheric trust—will benefit from assessing the relevant sources spanning centuries before the Institutes was published. In short, if one really wants to know what the contours of the Roman PTD were, if there was one, there is far more to inform the analysis than one brief passage from the Institutes.

Deveney and MacGrady thus were on the right track in consulting juristic texts compiled in the Digest.⁶⁴ The Digest is uniformly considered “the most important part of [Justinian’s] codification.”⁶⁵ To be sure, the Digest suffers from its own compression of history—it was a highly edited compilation, reducing over 3 million lines of juristic texts from 2,000 books to 150,000 lines of digested text organized into 50 topical books.⁶⁶ And it was, as noted, subject to limitations similar to those described above for the Institutes.⁶⁷ But the Digest, unlike the Institutes, was designed to pull in text from the past directly,⁶⁸ albeit in edited and disaggregated form, and its intended use as the *advanced* text for law students suggests that for important points of law requiring nuanced thinking, the Institutes alone was not considered sufficient.⁶⁹ Indeed, “again and again the reader [of the Institutes] is referred to the Digest for further details on a certain subject.”⁷⁰ In short, pointing exclusively to the brief *RCO* passage from the Institutes as the “foundation of the public trust doctrine in modern cases”⁷¹ is to ignore many of the key foundations of Roman law as we know it.

62. *Constitutio Imperatoriam maiestatem* 3 (533).

63. *Id.* at 3–6. While the compilers of the Institutes adopted a method of composition similar to that for the Digest, there are two important differences to note. First, they create the impression of a continuous text in the Institutes, which necessitated a greater degree of textual intervention. Second, they introduce therein a large number of Justinianic reforms. See JUSTINIAN’S INSTITUTES 12 (Peter Birks & Grant McLeod eds., *supra* note 14).

64. See Deveney, *supra* note 23, at 16–36; MacGrady, *supra* note 22, at 517–34. For further discussion see *infra* Subpart III.A.

65. MOUSOURAKIS, *supra* note 13, at 211.

66. MOUSOURAKIS, *supra* note 13, at 201–02; Kaiser, *supra* note 13, at 127–29.

67. MOUSOURAKIS, *supra* note 13, at 202–03; Kaiser, *supra* note 13, at 128; Pringsheim, *supra* note 59, at 236–40.

68. MOUSOURAKIS, *supra* note 13, at 200–05; Kaiser, *supra* note 13, at 124–25. The Digest is not a compilation of full juristic opinions and other writings; rather, the compilers disaggregated the writings into edited excerpts associated with various topics. Fortunately, Justinian ordered them to detail meticulously the source of every excerpt, allowing later scholars to reassemble most of the excerpts into their original contexts. The classic work of modern scholarship on the topic is OTTO LENEL, *PALINGENESIA JURIS CIVILIS* (1889).

69. Kaiser, *supra* note 13, at 125; Sherman, *supra* note 51, at 506–12.

70. Kaiser, *supra* note 13, at 125.

71. Wood & Woodward, *supra* note 7, at 663.

Yet both Deveney's and MacGrady's coverage of the Digest is haphazard and written on a flat historical background providing no chronology or context on which jurists said what, or when, thus offering no sense of how Roman doctrine evolved.⁷² They offer no reasons for why they chose different passages and do not identify nuances or the full history of interpretation by Roman law scholars.⁷³ As we establish in Part III, chronology, context, nuance, and interpretation matter critically to Roman law historians.

Overall, therefore, both Deveney's and MacGrady's treatments struck us on first impressions as just as susceptible to a cherry-picking concern as are those of the proponents of the Roman roots narrative, albeit they pick more cherries. Also, although Deveney introduces some of the scholarly commentary on the *RCO*, we knew there was much more to be consulted. Overall, therefore, while impressed that Deveney and MacGrady went far deeper into available text and commentary than other legal scholars of the PTD, we lacked confidence that their selections from the Digest and from the scholarship on the *RCO* provide the full story. That is the purpose of this Article—to develop a more robust assessment of the Roman roots claim by using the full array of Roman law sources and later scholarly commentary on the *RCO* passage.

C. Time to Fill the Gaps

We anticipate two objections to that threshold justification for our project. The first would be that it is impractical for modern jurists and legal scholars to go beyond the Institutes, given the training in language and historical context required for one to do so (which one of us has attained). In other words, the Institutes is a good enough proxy for Roman law. Indeed, we identified over three hundred federal and state judicial opinions citing the Institutes as support for some proposition of American law.⁷⁴ The first such citation we could identify

72. Deveney's presentation of Roman law is primarily textual with brief quotes from and many citations to the Digest, whereas MacGrady somewhat randomly quotes many Digest excerpts in his text. But neither provides a chronological account necessary for evaluating historical change. We are unaware of what level of training in Roman law Deveney or MacGrady had attained at the time they published their respective articles. Although we admire their ambition and efforts, given that both were recent law school graduates and given the way they engage and describe Roman law, we do not recommend relying exclusively on their articles as authorities for interpreting the Roman law of public trust principles. See, e.g., Huffman, *supra* note 10, at 13.

73. To his credit, Deveney makes a far greater effort than MacGrady to engage the scholarship interpreting the history and substance of the Roman law sources. See Deveney, *supra* note 23, at 22–36.

74. Our spreadsheet of cases is available at J.B. Ruhl & Thomas A.J. McGinn, *Justinian Citation Spreadsheet* (Aug. 12, 2019), <https://vanderbilt.box.com/shared/static/kxxzder0i1zvui7siiwdqev9fmry387a.xlsx> [hereinafter *Justinian Citation Spreadsheet*] (prompting an automatic download of the citation spreadsheet). We have not conducted archival research in this regard—we limited our historical research to the Westlaw database. Nor do we purport to have identified all cases in the Westlaw database that have relied on the Institutes as support for some proposition of American law. Given that many judicial citations are to “Just.” or “Inst.,” one can imagine how many cases came up in our research that we had to filter out. And, despite trying many different combinations, we may not have designed searches that would identify cases using other variations. Also, some cases repeat the Roman roots narrative or refer to Roman law in other fields, without citing Roman law, instead citing other cases or authorities which may or may

from a court on American soil, from 1774, was to a passage associated with public trust principles.⁷⁵ Other citations span the law of banking, business law, civil procedure, contracts, criminal law, family law, land and water law, and property law, the latter two dominating overall.⁷⁶ Over half of the total citations in our nonexhaustive data set are from the nineteenth century or earlier, but the Institutes remained a steady reference on a broad set of topics through the twentieth century and well into current judicial practice.⁷⁷

But using limitations of knowledge of language and historical context as a justification for simply accepting the Institutes' *RCO* passage as the sole Roman law authority for purposes of the PTD is problematic for several reasons. For one thing, as noted above, the Digest is available for interpretation as well and is regarded as the more advanced authority. As we discuss in Part II, early American courts and scholars developing public trust principles often consulted the Digest, as well as many more passages in the Institutes. Both the Institutes and Digest have been translated into English and, as our project evidences, Roman law historians are available to provide interpretive expertise where sources of reference are not translated. In short, there is no good excuse for not doing the work necessary to construct a full and fair account of the Roman public trust principles. In any event, to the extent there remains concern that an informed historical account is difficult to produce for these reasons, we now definitively supply one.⁷⁸

A second objection to interrogating the Roman roots narrative (and its critics) may be that this is all nothing more than a trivial point of historical curiosity. Who cares whether the American PTD or its newest atmospheric trust iteration can claim Roman roots, so long as the merits of applying the doctrine the way suggested in the atmospheric trust theory make it appropriate to the modern context?⁷⁹ After all, the Institutes were published in A.D. 533 and the Digests, also published that year, collect juristic writings from centuries before then. Why should the modern American PTD be defined by such archaic legal documents?

But it is not we who make the claim that Roman law is or is not relevant and persuasive. Rather, it is the proponents of the Roman roots narrative and the "unbroken line" thesis who cast the American doctrine's claimed Roman pedigree as highly persuasive, if not binding, with regard to the doctrine's newest

not cite Roman law, and so on. *See, e.g.*, PPL Mont., LLC v. Montana, 565 U.S. 576, 590, 603 (2012) (adopting the Roman roots narrative without citing the Institutes, but rather citing an earlier opinion of the Court that does cite the Institutes, *Idaho v. Coeur d'Alene Tribe*, 521 U.S. 261, 284 (1997)).

75. *Harrison v. Sterett*, 4 H. & McH. 540 (Md. Prov. 1774).

76. *Justinian Citation Spreadsheet*, *supra* note 74.

77. *Id.*

78. *See also* Frier, *supra* note 31.

79. Professor Hope Babcock argues that, even if the Roman roots narrative is a legal fiction, it a useful fiction that should not be dislodged. *See* Hope M. Babcock, *The Public Trust Doctrine: What a Tall Tale They Tell*, 61 S.C. L. REV. 393, 394 (2009).

application through an atmospheric trust.⁸⁰ The lynchpin of their Roman roots argument is that the modern PTD must be interpreted to extend to atmospheric resources because the Institutes' *RCO* passage refers to "air" alongside flowing water and the sea and seashore.⁸¹ Yet this and similar claims never examine what principle of Roman law the passage was supposed to reflect—that is, what the Roman jurists meant by "air." Did they mean air space or air quality, or both?⁸² Nor do such claims, which invariably go no further than to cite the Institutes' *RCO* passage, offer meaningful depth of interpretation for any other word in the passage, much less its holistic meaning or the meaning of other related provisions in the Institutes and Digest.

To be blunt, this is not how a Roman law scholar would engage the question of how deep the PTD's Roman roots run. Nor has the Roman roots narrative always been this shallow. In the next Part, we trace how the Roman roots narrative has gradually deteriorated from a serious intellectual effort to engage Roman law to a short obligatory citation in academic articles and judicial opinions.

II. THE ROLE OF ROMAN LAW IN AMERICAN PUBLIC TRUST JURISPRUDENCE

We start our story just before the dawn of the Republic, with the 1774 opinion in the case of *Harrison v. Sterett* in the Provincial Court of the Province of Maryland.⁸³ Thomas Harrison and James Sterett each owned land along the Patapsco River in Baltimore County, Maryland. Harrison alleged that in 1741, Sterett filled in a large portion of the river along his parcel with sand and stones, thereby impeding navigability and interfering with Harrison's "advantage of sailing with all manner of boats, flats, scows, and other vessels, to and from" his parcel.⁸⁴ Harrison claimed Sterett was liable for committing a nuisance.⁸⁵ The parties disputed the legal effect of various statutes governing wharfs and navigation in Baltimore as well as the facts regarding the flow levels of the river.⁸⁶

80. See Kelly, *supra* note 17, at 204 (noting "[t]he continued relevance, legitimacy, and precedential power of the Institutes of Justinian indicate that the doctrine is still binding").

81. See, e.g., Michael C. Blumm & Courtney Engel, *Proprietary and Sovereign Public Trust Obligations: From Justinian and Hale to Lampry and Oswego Lake*, 43 VT. L. REV. 1, 5 (2019) (noting "as often observed, Justinian's declaration includes air"); see also Blumm & Wood, *supra* note 7, at 42–44; Kelly, *supra* note 17, at 203; Wood & Woodward, *supra* note 7, at 662–63; Wood & Galpern, *supra* note 7, at 300. Atmospheric trust advocates offer additional reasons grounded in American law for why the public trust resources should include air. See Kelly, *supra* note 17, at 205–14.

82. Given that no form of atmospheric trust was being advanced at the time, Deveney's and MacGrady's critiques of the Roman law narrative understandably also do not engage the meaning of "air" in any of the relevant Roman law authorities.

83. *Harrison v. Sterett*, 4 H. & McH. 540 (Md. Prov. 1774).

84. *Id.* at 540.

85. *Id.*

86. *Id.*

The case turned, however, on the ownership status of the river and the effect thereof on Harrison's nuisance claim. Citing the Institutes (but not the *RCO* passage),⁸⁷ the court observed that "the banks of a river, also the sea shore, are public by the law of nations" and added, based on English common law, that "air and light are common to all; so is the sea, rivers and their banks Nothing is to be thrown therein to the prejudice of navigation."⁸⁸ Although it may seem this would have been advantageous to Harrison's case, it was his downfall. Because of the public nature of the resource, the court construed his claim to be one of public nuisance and found he had not submitted sufficient evidence of the special injury required for a private individual to advance such a claim.⁸⁹

Sterett is the earliest case we could identify in the Westlaw database that relies on Roman law as support for a key proposition underpinning the PTD. Although it appears to have fallen out of the modern public trust conversation, for well over a century the opinion was cited by lawyers and judges in many states as within the pantheon of public trust jurisprudence.⁹⁰ For our purposes, the opinion establishes several important premises.

First, making the connection between Roman law and public trust law runs long and deep in American jurisprudence.⁹¹ If the American doctrine does not trace back to Roman law, the courts have been misinformed for over 250 years. Of course, that is Professor Huffman's argument and the focus of our assessment.

Second, what is referred to today as "the public trust doctrine" is actually an amalgam of many doctrines, most of which, as *Sterett* reveals, have corollaries in Roman law. To be sure, the specific *RCO* passage is important in the development of the American doctrine, but it is not all wrapped into one short snippet from the Institutes. Rather, the two core principles laid out in *Illinois Central* are embedded in an intricate system of rules regarding ownership and use of water and submerged land resources.

Third, the doctrine has overwhelmingly been about water and submerged lands. True enough, the word "air" appears in the *RCO* passage, but it has not shown up in American public trust jurisprudence until recently. The atmospheric trust movement leverages a word from Roman law that has, until the atmospheric trust movement, played no role in the American doctrine.

87. *Id.* at 545 (citing J. INST. 2.1.4-5).

88. *Id.* at 545.

89. *Id.* at 548.

90. See *Saunders v. N.Y. Cent. & Hudson River R.R. Co.*, 23 N.Y.S. 927, 928 (N.Y. Sup. Ct. 1893); *Garitee v. Mayor & City Council of Baltimore*, 53 Md. 422, 426 (Md. 1880); *Meyers v. City of St. Louis*, 8 Mo. App 266, 267 (Mo. Ct. App. 1880); *Wetmore v. Brook. Gas Light Co.*, 42 N.Y. 384, 388 (N.Y. 1870); *Gould v. Hudson River R.R. Co.*, 6 N.Y. 522, 527 (N.Y. 1852); *Gough v. Bell*, 22 N.L.J. 441, 449 (N.J. 1850). Note that *Sterett* is sometimes misspelled as *Sterrett* in these opinions.

91. Indeed, the practice of American courts leveraging Roman law is not limited to public trust principles. See Samuel J. Astorino, *Roman Law in American Law: Twentieth Century Cases of the Supreme Court*, 40 DUQ. L. REV. 627, 627 (2002) (detailing use of Roman law by Supreme Court Justices in the twentieth century).

We unpack these three foundational premises by examining the theory and doctrine behind the three versions of the American PTD: traditional, Saxian, and atmospheric.⁹²

A. *The Traditional Public Trust*

The early development of American public trust and related principles focused intensely on ownership and rights of access to rivers and other navigable waters, shorelines, and other submerged lands, as well as rights of fishing and other resource exploitation.⁹³ In legal scholarship, Roman law played a prominent role in articulation of and debate over these doctrines.⁹⁴ The same is true of early judicial development of the PTD. In particular, state courts from around the nation were actively engaging Roman law to construct property ownership and public trust principles as they grappled with many varied disputes over access to and ownership of water and submerged land resources. Notwithstanding that *Sterett* precedes it by almost fifty years, the 1821 opinion in *Arnold v. Mundy*⁹⁵ is routinely cited as the first such judicial articulation of public trust principles in American jurisprudence.⁹⁶

Based on grants dating back to King Charles II, the plaintiff in *Arnold* claimed private title to oyster beds located in tidal flats in New Jersey.⁹⁷ The court ruled that title to a riparian parcel does not extend to the adjacent public trust resources and—going further than *Sterett*—that the sovereign could not alienate title to those “common property” resources into private hands.⁹⁸ Notably, the *Arnold* court observed that Bracton’s treatise, “quoting from Justinian,” supported this outcome.⁹⁹ But the passage the *Arnold* court takes from Bracton, quoting Justinian, is *not* the *RCO* passage, but rather has to do with rights to fish in rivers and harbors.¹⁰⁰ Ironically, the *Arnold* opinion—

92. This Part is not intended to provide an exhaustive history of the PTD; rather, we use representative cases and scholarly contributions to establish these three premises.

93. See Sax, *supra* note 40, at 475.

94. See, e.g., Charles E. Gast, *The Colorado Doctrine of Riparian Rights, and Some Unsettled Questions*, 8 YALE L.J. 71, 75 (1898); Samuel C. Weil, *Theories of Water Law*, 27 HARV. L. REV. 530, 530 (1914); Samuel C. Weil, *Running Water*, 22 HARV. L. REV. 190, 191 (1909); Eugene Ware, *Roman Water Law*, 20 HARV. L. REV. 251, 251 (1907) (book review). The influence of Roman law on American law was of great interest to scholars in this era. See generally William Bennett Munro, *The Genesis of Roman Law in America*, 22 HARV. L. REV. 579 (1909) (discussing the importance of the study of Roman jurisprudence for understanding contemporary law); Charles P. Sherman, *The Romanization of English Law*, 23 YALE L.J. 318 (1914) (discussing the influence of Roman jurisprudence on English law).

95. *Arnold v. Mundy*, 6 N.J.L. 1 (1821). In fairness, *Sterett* was decided by a colonial court, and the discussion of public trust principles in *Arnold* is both more extensive and more coherent.

96. See Huffman, *supra* note 10, at 37.

97. *Arnold*, 6 N.J.L. at 1–3.

98. *Id.* at 78.

99. *Id.* at 72.

100. *Id.* (citing J. INST. 2.1.2, stating “Moreover, all rivers and ports are ‘public.’ And on that account there is a right to fish common to all in ports and rivers”).

regarded as the seminal American PTD opinion—does not cite or discuss the *RCO* passage that is today hailed as the doctrine's foundation.

Arnold's use of Roman authority is characteristic of other opinions from the 1800s and early 1900s. An extreme example is an 1841 opinion from the Louisiana Supreme Court resolving a dispute over whether river alluvion belonged to the private riparian owner or the public.¹⁰¹ To provide historical context, both counsel and the court quote and translate dozens of passages from the Institutes and Digest, evidencing the extent to which Roman law played a role in shaping the traditional American PTD.¹⁰² That is perhaps not surprising given Louisiana's civil law roots, but similar effort to engage history is found throughout the nation's courts in this era of formulating public trust principles. Just to provide a few representative examples: the California Supreme Court in 1886 relied on multiple passages, including the *RCO* passage, to resolve a dispute over flowing waters;¹⁰³ the Montana Supreme Court did the same in 1933;¹⁰⁴ and the Texas Supreme Court in 1944 relied on several passages from the Institutes, including the *RCO* passage, to resolve a dispute over the ownership of an island.¹⁰⁵

Although most of this activity was developing in state courts, federal courts, including the Supreme Court, also followed this pattern of relying on Roman law to build out American PTD and related doctrines. The earliest example we found from the Supreme Court was the 1841 opinion in *Watkins v. Holman*, in which the Court relied on several Roman law authorities to articulate principles of the law of alluvium and accretion,¹⁰⁶ as it did in subsequent nineteenth century cases.¹⁰⁷ Late in that century, the Court also relied on Roman law—citing the Institutes (and the statesman and philosopher Cicero)—to establish that the public trust principles applicable to riparian rights would also apply to inland lakes and ponds.¹⁰⁸

Reading these and similar opinions,¹⁰⁹ it is evident that the courts were not merely parroting Justinian. They were engaging in historical analysis designed to build legal principles going forward, and Roman law was broadly seen as an authority for a wide-ranging set of principles in the project that ultimately produced the American PTD and related doctrines. One does not get the

101. *Mun. No. 2 v. Orleans Cotton Press*, 18 La. 122, 126 (1841).

102. *Id.* at 166–93, 216–26.

103. *Lux v. Haggin*, 69 Cal. 255, 316 (1886).

104. *Rock Creek Ditch & Flume Co. v. Miller*, 17 P.2d 1074, 1076 (Mont. 1933).

105. *State v. Balli*, 190 S.W.2d 71, 99–101 (Tex. 1944).

106. *Watkins v. Holman*, 41 U.S. 25, 49 (1841).

107. *Nebraska v. Iowa*, 143 U.S. 359, 364 (1892) (tracing the history through Roman, British, Spanish, and Mexican law); *County of St. Clair v. Lovington*, 90 U.S. 46, 66–69 (1874) (discussing Roman, French, British, and colonial American law). For a thorough review of the Supreme Court's use of Justinian as a source of authority on the doctrine of alluvium, see Wiley, *supra* note 12.

108. *Hardin v. Jordan*, 140 U.S. 371, 390–91 (1891) (also extensively discussing English common law).

109. See Kelly, *supra* note 17, at 202–04 (discussing other cases).

impression these judges thought of the public trust principles as “tracing back” to Roman law, but rather that they were formed by Roman law and embedded in the common law.¹¹⁰ They had the force of law. And while the *RCO* passage played an important role in forging the public trust principles during this era—as it must have—it did not play an exclusive role. In short, the courts relied on numerous extracts from the Institutes and Digest to craft a robust set of principles governing classification, ownership, access to, and alienation of public trust resources.

Ironically, however, the line of Supreme Court cases routinely described as leading to the core PTD principles laid out in the Court’s *Illinois Central* opinion, and including *Illinois Central*, do *not* invoke a single word of Roman law.¹¹¹ Also, the Court’s opinions described above that do leverage Roman law do not mention the *RCO* passage. The Court has referenced the *RCO* passage for public trust principles involving water and submerged land resources only once, in its 1950 opinion in *United States v. Gerlach Live Stock Co.*, but used it there only to support a proposition regarding private access to flowing waters.¹¹² The Court has yet to connect explicitly the Roman *RCO* concept with the core public trust principles laid out in *Illinois Central*.

Gerlach also marks a precipitous falloff of Roman law references in both state and federal public trust cases, with just four cases in our database between 1950 and 1975.¹¹³ Perhaps this should come as no surprise. After all, the domestic courts had been working since at least as far back as 1774 to construct the public trust principles in their American form. Roman law was a useful, if not essential, source of authority, and was perceived as *authority*, not just storytelling. But by 1950, the American doctrine was fully constructed as

110. For example, citing from both the Institutes and the Digest, the Supreme Court in 1892 described the doctrine of alluvion as having been “transmitted to us from the laws of Rome.” *Nebraska*, 143 U.S. at 364. See Astorino, *supra* note 91, at 627–28 (stating “Roman law was an integral part of the larger jurisprudential process by which American jurists reached back to find a line of argument to be employed in understanding the case.”); Wiley, *supra* note 12, at 492, 500–02 (noting “Justinian law has served as a precedential source for over a century in our highest court” and including an appendix collecting Supreme Court references to Justinian’s various publications).

111. These are: *Martin v. Waddell*, 41 U.S. 367, 391 (1842); *Pollard v. Hagan*, 44 U.S. 212 (1845); *Shively v. Bowlby*, 152 U.S. 1 (1894); *Ill. Cent. R.R. Co. v. Ill.*, 146 U.S. 387, 387 (1892). See Wilkinson, *supra* note 4, at 427 (describing these as the “leading nineteenth century cases”).

112. *United States v. Gerlach Live Stock Co.*, 339 U.S. 725, 744–45 (1950). Some atmospheric trust scholars argue that the Court has “relied on ancient Roman law’s classification of ‘*res communes*’ to find the public trust doctrine applicable to wildlife.” Wood & Woodward, *supra* note 67, at 663. In actuality, the Court in the relevant case was quoting from a treatise written in the eighteenth century by French jurist Robert Joseph Pothier, which included Pothier’s description of Roman law and a quotation from the Roman jurist Marcian. See *Geer v. Connecticut*, 161 U.S. 519, 523–25 (1896). Both Roman and American law developed distinct trust principles for wild animals. Although *Geer* recognized states’ own wildlife for the benefit of the public, a limited alienation principle, obviously, has never been applied to wildlife, and courts thus far have also rejected a Saxian stewardship interpretation of the wildlife trust. See Frank, *supra* note 5, at 677–79; Patrick Redmond, *The Public Trust in Wildlife: Two Steps Forward, Two Steps Back*, 49 NAT. RES. J. 249, 252 (2009). *Geer* thus seems a tenuous source of support for the atmospheric trust.

113. *Justinian Citation Spreadsheet*, *supra* note 74.

American law, so courts could dispense with the Romans and rely on home grown precedents. In the next Subpart, however, we describe the return of Roman law after the twenty-five-year hiatus, albeit in a highly abbreviated form.

B. *The Saxian Public Trust*

As discussed above, Professor Sax worked to change the orientation of the PTD from a rule about public use of a tight category of state-owned resources to an affirmative engine of broadly defined ecological stewardship. Sax was an undisputed founder of modern natural resources protection law and, because of his landmark article¹¹⁴ and subsequent work on the public trust,¹¹⁵ is also the universally recognized progenitor of the “modern” version of the American PTD.¹¹⁶ Before 1970, virtually all scholarly and judicial descriptions of the American PTD, whether relying on the Institutes or not, hewed very closely to the traditional version as the universally accepted scope: Because the states hold title to the submerged lands, people can use them for commerce, navigation, and fishing, and the states cannot alienate those lands except in furtherance of the public interest. Sax sought to change that.

The key move the Saxian model makes is captured in the conclusion to his 1970 article:

[T]he judicial techniques developed in public trust cases need not be limited to these few conventional interests or to questions of disposition of public properties [I]t seems that the delicate mixture of procedural and substantive protections which the courts have applied in conventional public trust cases would be equally applicable and equally appropriate in controversies involving air pollution, the dissemination of pesticides, the location of rights of way for utilities, and strip mining or wetland filling on private lands in a state where governmental permits are required.¹¹⁷

This, clearly, takes the PTD well beyond its traditional dimensions.

Despite hundreds of elaborations on that theme in legal scholarship and many mentions in judicial opinions,¹¹⁸ the Saxian trust project has not made significant headway in the state or federal courts. Thus, it may be premature to refer to it as the “modern” American PTD. Some state courts have incrementally extended the traditional common law doctrine to additional water and water-

114. Sax, *supra* note 40.

115. Sax, *supra* note 42; Sax, *supra* note 43.

116. A recent symposium on the PTD was dedicated to Sax, who is described in the dedication page as the “father of the modern public trust doctrine.” See Ryan Shannon, *Developments in the Public Trust*, 45 ENVTL. L. 257, 257 (2015); see also Gerald Torres, *Who Owns the Air?*, 18 PACE ENVTL. L. REV. 227, 241 (2001) (referring to Sax’s theory as the “modern use of the public trust doctrine”).

117. Sax, *supra* note 40, at 556–57. We could not find any instance in his writings on the PTD in which Sax pointed to the use of the word “air” in the *RCO* passage as support for his including “air pollution” in the list of example activities he suggested could be regulated under the PTD.

118. See Lazarus, *supra* note 20, 643–44.

related resources and uses,¹¹⁹ and even a few terrestrial resources such as parks,¹²⁰ but only a few have taken steps, in most cases small steps, towards an “ecological public trust.”¹²¹ Overall, “most states have maintained a relatively narrow scope similar to the *Illinois Central* standard from the late 1800s, with modest expansions.”¹²² Whether whatever progress the Saxian model has made is too much, too little, or just right is a debate peripheral to our purposes. Here, we are interested in tracking the devolution of Roman law from a robust source of authority in the development of the American PTD to a rubber-stamp citation.

As noted above, Sax initially presented his natural resource protection vision of the doctrine’s application as fully supported by Roman law.¹²³ But he connected none of the dots. Beyond the Roman roots claim, he did not attempt to elucidate on Roman law or how it supported his vision of the PTD moving forward as a natural resources protection juggernaut. He cited no prior case or legal commentary making the connection to natural resources protection law because there was none. Sax merely offered up Roman law, cited a few treatises and the Institutes, and left it at that.¹²⁴

Although Sax’s 1970 article quickly became influential in some state courts, leading several to strengthen the protection of traditional trust resources from development or exploitation, Roman law was not as immediately put back in the picture. The critical event in that regard was a two-day law journal symposium Professor Harrison “Hap” Dunning convened at the University of California, Davis School of Law in 1980 on *The Public Trust Doctrine in Natural Resources Law and Management*.¹²⁵ Over 650 people attended to “learn about the genesis, applications, and future possibilities for this common law doctrine of ancient origin but elusive contemporary meaning . . . and its practical application in nearly a dozen current lawsuits.”¹²⁶ As noted previously, however, Sax’s contribution to the symposium actually backpedaled from his earlier claim of Roman roots—he argued that medieval European law was the better guide.¹²⁷ Rather, it was other contributors who resurrected Justinian, and almost exclusively in the form of citation to the Institutes’ *RCO* passage.¹²⁸

119. See Callies, *supra* note 4, at 73–79 (detailing incremental extensions of traditional doctrinal resources and uses); Robin Kundis Craig, *Adapting to Climate Change: The Potential Role of State Common-Law Public Trust Doctrines*, 34 VT. L. REV. 781, 828 (2010).

120. See Michael C. Blumm & Aurora Paulson Moses, *The Public Trust as an Antimonopoly Doctrine*, 44 B.C. ENVTL. AFFS. L. REV. 1, 20 (2017).

121. See Craig, *supra* note 119, at 829–50 (detailing this limited and nascent trend).

122. Joseph Regalia, *A New Water Law Vista: Rooting the Public Trust Doctrine in the Courts*, 108 KY. L.J. 1, 13–14 (2019) (citation omitted).

123. See Sax, *supra* note 40.

124. See *id.* at 475.

125. See Frank, *supra* note 5, at 668.

126. Dunning, *supra* note 5, at 181.

127. Sax, *supra* note 43, at 186, 189–92.

128. Harrison C. Dunning, *The Significance of California’s Public Trust Easement for California Water Rights Law*, 14 U.C. DAVIS L. REV. 357, 363 (1980); Jan S. Stevens, *The Public Trust: A*

The journal's symposium issue was in essence a blueprint for litigants and courts to implement Sax's vision.¹²⁹ The California Supreme Court soon was on board, leaning on Sax in deciding several cases regarding tidelands and inland lakes and rivers.¹³⁰

The first big case to embrace Sax *and* Justinian was that court's 1983 decision in *National Audubon Society v. Superior Court*,¹³¹ known as the "Mono Lake" case, which is regarded by many legal scholars as "the nation's most important public trust decision in nearly a century."¹³² Water withdrawals that public authorities approved from the Mono Lake watershed to serve the needs of Southern Californians were depleting the Mono Lake aquatic ecosystem.¹³³ The court framed the case as a conflict between California's water rights system and the public trust, which it held protected Mono Lake's resources.¹³⁴ Describing Sax's vision for the PTD, the court held that the doctrine "is an affirmation of the duty of the state to protect the people's common heritage of streams, lakes, marshlands and tidelands."¹³⁵ In introducing its discussion of the PTD, the court quoted the Institutes' *RCO* passage.¹³⁶ That was the sole reference to Roman law in the opinion.

Despite its fame in the public trust conversation, the Mono Lake case involved traditional trust resources, and the court left it to state authorities to balance water rights and trust obligations.¹³⁷ The court did not come close to wholesale adoption of the Saxian public trust model. In that respect, Professor Robin Craig has meticulously assessed the degree to which the states' respective doctrines have evolved towards the Saxian model.¹³⁸ Whether the court in any

Sovereign's Ancient Prerogative Becomes the People's Environmental Right, 14 U.C. DAVIS L. REV. 195, 196–97 (1980).

129. See Frank, *supra* note 5, at 668–69.

130. See *id.* at 679.

131. See *Nat'l Audubon Soc'y v. Super. Ct.*, 658 P.2d 709, 718–19 (Cal. 1983). For background situating the case in the history of the PTD's development, including the path from the PTD to the atmospheric trust theory and litigation, see Erin Ryan, *From Mono Lake to the Atmospheric Trust: Navigating the Public and Private Interests in Public Trust Resource Commons*, 10 GEO. WASH. J. ENERGY & ENVTL. L. 39, 41 (2019); Erin Ryan, *The Public Trust Doctrine, Private Water Allocation, and Mono Lake: The Saga of National Audubon Society v. Superior Court*, 45 ENVTL. L. 561, 561 (2015). We provide some history *infra* Subpart II.B.

132. See Frank, *supra* note 5, at 670; see also Ryan, *From Mono Lake to the Atmospheric Trust*, *supra* note 131, at 41 (describing Mono Lake as the "leading example of modern public trust litigation in the United States").

133. For a thorough history, see Ryan, *From Mono Lake to the Atmospheric Trust*, *supra* note 131, at 48–53.

134. *Id.* at 54–55.

135. *Nat'l Audubon Soc'y*, *supra* note 131, at 724.

136. *Id.* at 718.

137. *Id.* at 727–29.

138. Robin Kundis Craig, *A Comparative Guide to the Western States' Public Trust Doctrines: Public Values, Private Rights, and the Evolution Toward an Ecological Public Trust*, 37 ECOLOGY L.Q. 53, 55–56 (2010); Robin Kundis Craig, *A Comparative Guide to the Eastern Public Trust Doctrines: Classifications of States, Property Rights, and State Summaries*, 16 PENN STATE ENVTL. L. REV. 1, 2 (2007).

particular case moves in that direction or hews to the traditional public trust, it is not uncommon for the opinion to include a quick citation to the Institutes' *RCO* passage. But that is invariably the end of Roman law in the opinion.

Only a few courts in the Saxian era have gone beyond the *RCO* passage when invoking Roman law for public trust principles. One example is the U.S. Supreme Court's 1997 opinion in *Idaho v. Coeur d'Alene Tribe of Idaho*.¹³⁹ Justice Kennedy's majority opinion cited a passage from the Institutes regarding rights of fishing in rivers and ports and from there went on to explain how this principle entered English and American common law.¹⁴⁰ Justice Kennedy referred back to *Coeur d'Alene* fifteen years later, in a dispute over the navigability of a river, to remind us that "[t]he public trust doctrine is of ancient origin. Its roots trace to Roman civil law . . ." ¹⁴¹ Yet there is no instance in the Court's public trust jurisprudence in which it connects the *RCO* passage to the core *Illinois Central* principles of state trusteeship and limited alienability, much less moves beyond those traditional principles towards the Saxian model.

As for legal scholarship on the Saxian public trust, it too largely confines support for the Roman roots narrative to a quick quote of and citation to the Institutes' *RCO* passage.¹⁴² The prominent exceptions are the critics—Deveney, MacGrady, and more recently Huffman—who, as we establish in Part III, also provide an incomplete account. Another is a fascinating article by MIT Professor James Wescoat, an expert in landscape architecture and geography, in which he meticulously matches excerpts from the Institutes and Digest to principles regarding ownership and use of water and submerged land resources.¹⁴³ Although Wescoat does not weigh in on the atmospheric trust debate, he too questions Huffman's critique.¹⁴⁴ Wescoat also links the American public trust to French and Spanish civil law,¹⁴⁵ a point we return to in the next Subpart. Lastly, although largely confining his sources to the Institutes and commentary, in 2007 Professor Robert Abrams dug far more deeply into Roman law than is usual in a defense of the Roman roots claim.¹⁴⁶ Beyond these few instances, legal scholarship since Sax's article, like judicial treatments, rests the Roman roots narrative entirely on the Institutes' *RCO* passage.

139. *Idaho v. Coeur d'Alene Tribe of Idaho*, 521 U.S. 261, 284 (1997).

140. *Id.* at 284 (citing J. INST. 2.1.2).

141. *PPL Mont., LLC v. Montana*, 565 U.S. 576, 603 (2012) (also referencing *Illinois Central*, *Arnold*, and the Mono Lake decisions).

142. There are far too many examples to document. Other than the exceptions referenced here, every article cited in this Article follows this practice. One of us confesses to having done so as well. See J.B. Ruhl & James Salzman, *Ecosystem Services and the Public Trust Doctrine: Working Change from Within*, 15 SE. ENVTL. L.J. 223, 224 (2006).

143. James L. Wescoat, Jr., *Submerged Landscapes: The Public Trust in Urban Environmental Design, From Chicago to Karachi and Back Again*, 10 VT. J. ENVTL. L. 435, 438-40 (2006).

144. *Id.* at 449-50.

145. *Id.* at 450-55.

146. Robert Haskell Abrams, *Walking the Beach to the Core of Sovereignty: The Historical Basis for the Public Trust Doctrine Applied in Glass v. Goeckle*, 40 U. MICH. J.L. REFORM 861, 870-77 (2007).

If it was and remains so important to the proponents of the Saxian public trust to claim Roman roots, why do it so casually with a mere fragment from the Institutes? Given they advocate for a significant evolution of the doctrine, and given Roman law had been left out of the scholarly and judicial dialogue for over twenty years, it may have served the early Saxian movement to remind scholars and courts just how wrapped up Roman law was in the early formation of American public trust principles. It may be that they sensed the ecological stewardship component Sax sought to introduce would find little footing in Roman law, a question we evaluate in Parts III and IV. Or, perhaps they thought the *RCO* passage says it all. But clearly it does not—it was not the sole foundation for early public trust principles and is fully absent from the Supreme Court’s key public trust cases. While it was an important player, scholars and courts back then clearly did not behave as if the *RCO* passage was all that was needed to build out the doctrine. Why, then, would it suffice a century later as the sole authority from Roman law to support building out the doctrine even further?

Whatever the reasons, it strikes us as paradoxical that the Saxian public trust movement sought to bootstrap Roman law to move the doctrine into ecological regulation territory but used so little Roman law to do so. Yet as strategically questionable as that approach may be, the atmospheric trust advocates have doubled down on it.

C. *The Atmospheric Trust*

As much as Sax pushed on the traditional public trust principles to suggest a major evolutionary step towards the PTD’s use as an ecological protection instrument, the atmospheric trust proponents are calling for a far more radical application by extending it holistically to the atmosphere.¹⁴⁷ To be sure, they can point to the word “air” in the *RCO* passage, but that is all they do point to. Can it all really come down to one word?¹⁴⁸

To be fair, given that the word “air” is the lynchpin of the atmospheric trust theory, it makes sense that its advocates rely heavily on the *RCO* passage. But we could find no treatment of the Roman roots narrative by atmospheric trust scholars revealing the depth and breadth to which Roman law played a role in

147. As noted previously, Sax included “air pollution” in the list of example activities he suggested the PTD could regulate. See Sax, *supra* note 40, at 556–57. We could find no evidence in Sax’s writings on the PTD that he contemplated at the time more than what has traditionally been regulated as air pollution—i.e., degrading air quality through emission of pollutants from an industrial facility. His broad conception of the PTD does suggest he would have embraced the atmospheric trust theory.

148. The federal district court in the *Juliana* litigation performed an end run around this question by holding that air pollution that impedes water resources is sufficient to trigger the sovereign’s public trust obligations. *Juliana v. United States*, 217 F. Supp. 3d 1224, 1255 (D. Or. 2016). We assume this is a second-best position for advocates of the atmospheric trust, though they will take it if they can get it. See Blumm & Wood, *supra* note 7, at 44–46. In any event, even this theory is a significant departure from the traditional American PTD, and any Roman roots claim behind it is equally subject to interrogation.

early American public trust jurisprudence. While they could not point to air as being part of that history, they could at least situate Roman law as more than just a quick cite to the Institutes—mistakenly or not, Roman law was truly and uncontroversially seen by courts and scholars as authoritative in the formation of public trust and related principles.

One exception to the practice of cutting the discussion of Roman law short appears in a recent amicus brief law professors filed in Oregon state litigation over the atmospheric trust.¹⁴⁹ After the obligatory quotation of the *RCO* passage, the brief argues that “because this Roman law informed legal systems worldwide, reflections of the public trust doctrine are widely evident in various countries’ legal traditions—so much so that the principle might qualify as international customary law.”¹⁵⁰ We take no position on the customary law claim, but we observe again that more could be made about the worldwide impact of Roman law and not just by looking to other nations but also by looking to American jurisprudence. As observed above, numerous early American courts, including the Supreme Court, waxed eloquently about the history of public trust principles in other nations—including not just England but also France, Spain, and Mexico—as being influential in shaping American doctrine.¹⁵¹ While that does not necessarily get Roman law to the atmospheric trust, it does add to the gravitas of the Roman roots narrative.

Not surprisingly, after twenty-five years of hearing only about a snippet from the Institutes, courts grappling with the atmospheric trust litigation also go no further than a quick cite to the *RCO* passage. The federal litigation in the prominent *Juliana* case is representative.¹⁵² On its way to denying the government’s summary judgment motion, the district court began the history of the American PTD with the *RCO* passage but thereafter said no more about Roman law.¹⁵³ The trial court in the Oregon atmospheric trust litigation did not even go that far but simply claimed the Roman roots narrative by citing U.S. Supreme Court precedent.¹⁵⁴ We can find no exception to this kind of practice in judicial opinions on the atmospheric trust.

Of course, even if one accepts that all of the Roman law of the public trust for water and submerged land resources maps onto air because of the *RCO* passage—one of the five key premises of atmospheric trust theory¹⁵⁵—how does that lead to the other four premises? Wood and Blumm, for example, quickly leave Roman law behind as they work through the other premises regarding the

149. Br. of Amici Curiae Law Professors Supporting Pet’rs, *Chernaik v. Brown*, (Or. July 22, 2019) (No. S066564).

150. *Id.* at 7.

151. *See supra* note 32; *supra* note 107; *supra* note 143.

152. *See supra* note 7.

153. *Juliana*, 217 F. Supp. 3d at 1255.

154. *Chernaik v. Brown*, No. 16-11-09273, 2015 WL 12591229, at *7 (Or. Cir. Ct., May 11, 2015), *vacated*, 436 P.3d 26, 36 (Or. Ct. App. 2019).

155. *See supra* note 18.

atmospheric trust obligations.¹⁵⁶ In short, advocates of the atmospheric trust seek to maximize the scope of the public trust while minimizing support for their Roman roots claim.

Nevertheless, it is undeniable that the *RCO* passage includes the word “air,” which is not a trivial point. The question is what to make of it and of the larger meaning of the Roman *RCO*. We turn next to Roman law as the source of an answer.

III. THE ROMAN ROOTS OF THE PUBLIC TRUST DOCTRINE

Our concern, to put it bluntly and briefly, is to ask whether there is indeed a Roman ancestor of the public trust and, if so, what this was. Not surprisingly, given all the attention it has been given by courts and scholars, the leading candidate is without doubt the category of property known as the *res communes omnium*—the “things common to all”—containing the sea, the shore, the air, and flowing water. Our analysis of that and surrounding context begins below with a survey of learned discussion of the *RCO* and related subjects from the Middle Ages down to the twenty-first century. Providing this context is necessary, for we are by no means the first to delve into the origins and contours of the *RCO*, and our contribution thus builds on those before us. In the next two Subparts, we then trace the *RCO* concept back to the classical jurist Marcian and then to his slightly earlier (and more respected) colleague Ulpian, providing our interpretation of their intentions. In the final Subpart, a brief exposition of the ways in which the ancient legal tradition might inform modern PTD conceptions closes the discussion.

A. *A Long Tradition*¹⁵⁷

As we establish in Part II, Justinian’s Institutes and Digest were critical sources of authority to early American courts and scholars grappling with public trust principles. The Institutes’ *RCO* passage was often cited in this regard, and over time it has become a kind of proxy for the body of Roman law that was instrumental to forging public trust principles. Indeed, it is all the atmospheric trust advocates deploy in their Roman roots claim.

The impression one easily forms from reading the American treatment of the *RCO* dating from its earliest mentions is that its status as Roman law is unassailable and its meaning is self-evident—that the Roman roots narrative boils down to the claims that the *RCO* was Roman law and it informs what the PTD means. With the exception of its few critics, no American court or legal scholar has peeked behind that curtain, and the critics have done so with one eye closed. If they pulled the curtain aside, they would find that Roman law scholars

156. Blumm & Wood, *supra* note 7, at 43–54.

157. What follows is not intended to be an exhaustive treatment but the forerunner to a lengthier discussion for future development and publication.

have been debating the origins and meanings of the *RCO* for centuries, as we see in the rest of this Subpart III.A. We begin with the medieval and early modern eras, then proceed to examine more recent work ranging from the late nineteenth century to the current day. It is important to put this debate in the open before we conduct our own interrogation of Roman law as it developed through the early classical (c. 30 B.C. to A.D. 90), high classical (c. A.D. 90 to 190), and late classical (c. A.D. 190 to 235) periods.

For most of the twentieth century, Roman law scholars paid relatively little attention to the issues connected with a “Roman PTD.” The exceptions are important, and we shall reckon with them below, but there are some earlier trends in the long, post-Roman history of their law that should not be overlooked. We cover them first.

1. *The Medieval and Early Modern Periods*

From almost the time of the recovery of Justinian’s Digest, which began in the eleventh century, the category of the *res communes omnium* has been a concern of scholars, not least because they perceived a contradiction with that of “public things” (*res publicae*). The legal experts known as glossators, active chiefly in Bologna from the late eleventh to the mid-thirteenth century, worked hard to harmonize the classical juristic sources overall, including those dealing with the *res publicae* and the *RCO*.¹⁵⁸ Consistent with their general approach to the study of Roman law, pursuant to which the glossators insisted, taking Justinian at his word,¹⁵⁹ that inconsistencies were only apparent, they set out to develop in cases of conflict a single rule that would accommodate the holdings found in various texts.¹⁶⁰ With regard to the things common to all, they were never able to reach complete agreement¹⁶¹ but did succeed in forging a majority view. Originating with Irnerius (born in c. 1050), this held that common things, such as the sea and shore, were in the use, not in the ownership, of both humans and animals, while public ones were limited to use by humans.¹⁶² The successors

158. On the glossators, see, e.g., PETER STEIN, *ROMAN LAW IN EUROPEAN HISTORY* 45–63 (1999).

159. Justinian famously instructed his compilers to remove inconsistencies of law in their preparation of the Digest. See *Constitutio Deo Auctore* 4 (530); see also *Constitutio Tanta/Dedöken* 10 (533).

160. Martin Schermaier, *Res Communes Omnium: The History of an Idea from Greek Philosophy to Grotian Jurisprudence*, 30 *GROTIANA* 20, 44–45 (2009).

161. A handy illustration of this fact concerns a small point of detail. In order to explain the reversion of shore property to its prior status, the twelfth-century Placentinus preferred a theory of *postliminium*, while Franciscus Accursius, the son of the great Accursius, invoked the escape from an owner’s control by fish and wild beasts. N. Charbonnel & M. Morabito, *Les rivages de la mer: Droit romain et glossateurs*, 65 *REV. HIST. DROIT* 24, 37 (1987).

162. PIETRO BONFANTE, *CORSO DI DIRITTO ROMANO*, VOL. 2.1, 58 (1966) (1926); Richard Perruso, *The Development of the Doctrine of Res Communes in Medieval and Early Modern Europe*, 70 *TIJDSCHRIFT VOOR RECHTSGESCHIEDENIS* 69, 69 (2002) 76; Schermaier, *supra* note 160, at 46. A minority position, that of Placentinus and some of his successors, conflates these two categories, which do not differ all that much from each other even on the mainstream view. Perruso, *supra* note 162, at 77. Biondo Biondi revived a version of Placentinus’ opinion in the early twentieth century, as discussed below.

to the glossators in the fourteenth and fifteenth centuries, known as the post-glossators or commentators, adopted a similar position.¹⁶³

From an early date, the legal regime associated with the *RCO* was embroiled in political conflict. To avoid an apparent contradiction in the sources between the interest of the State in public property and its appropriation by private individuals, a theory emerged among the glossators privileging the notion of jurisdiction over that of ownership.¹⁶⁴ Legal debate over issues relating to sovereignty did not occur in a vacuum but was grounded in tensions above all between the claims of the Holy Roman Empire and those of other polities.¹⁶⁵ In the fourteenth and fifteenth centuries, for example, Venice relied on a novel theory of jurisdiction to assert its independence from both emperors and popes, advancing multiple justifications, including that of custom.¹⁶⁶ In support of their claim to hegemony over the Adriatic, Venetian legal experts invoked a theory of prescription (*longi temporis praescriptio*) that was decidedly at odds with Roman law.¹⁶⁷ In order to assert their ownership over their own city, which was built by driving piles into a lagoon of the Adriatic Sea, they cited a pair of passages from the classical jurists Celsus and Pomponius that allow acquisition of ownership in precisely this manner.¹⁶⁸ The renowned commentator Baldus de Ubaldis reports a key element of their brief:¹⁶⁹

Baldus, *In primam Digesti veteris partem commentaria* c. 43.1.8: Circa aedificia quaero, numquid sit licitum aedificare in mari, sicut in littore? et dico, quod sic eadem ratione, et ita Veneti faciunt, qui sunt fundati in mari, et de iure gentium civitates in mari aedificatae sunt ipsorum qui aedificant . . . Hac ratione Veneti praetendunt libertatem, quia non aedificaverunt in

163. BONFANTE, *supra* note 162, at 58; Perruso, *supra* note 162, at 76. On the commentators in general, see STEIN, *supra* note 158, at 71–74.

164. Charbonnel & Morabito, *supra* note 161, at 40–42; Schermaier, *supra* note 160, at 47. The medieval jurists treated jurisdiction as a right of property similar to, but not identical with, ownership. “*Jurisdictio*, whether the right to hold a court, or the right to collect taxes, represented revenue for the noble, bishop, or city that held it.” Perruso, *supra* note 162, at 81.

165. MARIO FIORENTINI, FIUMI E MARI NELL’ESPERIENZA GIURIDICA ROMANA: PROFILI DI TUTELA PROCESSUALE E DI INQUADRAMENTO SISTEMATICO 8–11 (2003).

166. See Perruso, *supra* note 162, at 82–83.

167. The Venetians claimed, in a manner similar to that of the Genoese, to secure not precisely ownership but jurisdiction over their territory, above all in their case the Adriatic Sea, through holding it for a period of prescription of at least thirty years. They cited to this end a classical juristic text, DIG. 41.3.45 pr. (Pap. 10 *resp.*). This source makes no mention of “jurisdiction,” of course, since this was a right of property that did not exist in Roman law, but instead refuses to allow acquisition through prescription of ownership over property on the seashore, while, according to other classical evidence, the relevant period of prescription was ten or twenty years, not thirty. See Charbonnel & Morabito, *supra* note 161, at 39–40; Perruso, *supra* note 162, at 81; Schermaier, *supra* note 160, at 47; FIORENTINI, *supra* note 165, at 17–19.

168. DIG. 41.1.30.4 (Pomp. 34 *ad Sabinum*); compare DIG. 43.8.3.1 (Celsus 39 *digest.*), with Schermaier, *supra* note 160, at 47.

169. BALDUS DE UBALDIS, COMMENTARIA OMNIA 1, 43.1.8 (2004) (1599); see also Emilio Costa, *Il mare e le sue rive nel diritto romano*, in EMILIO COSTA, LE ACQUE NEL DIRITTO ROMANO 91, 115 n.3 (1919) (1916).

solo alicuius, caeterum qui in solo iurisdictionali alicuius aedificat illius efficitur subditus

(Baldus, in his commentaries on the first part of the "Old Digest"): About buildings I ask: is it permitted to build in the sea, as on the shore? And my response is, yes, it is permitted, under the same rationale. And this is what the Venetians do, since they are established in the sea, and cities that are built in the sea belong, by the law of nations, to those who build them . . . Through this rationale the Venetians claim their freedom, because they did not build on another's property/territory; but he who builds on the property/territory falling under someone else's jurisdiction becomes subject to him

In this holding, couched as a *responsum*—that is, an authoritative reply to a query on law—Baldus demonstrates how the Venetian jurists used the Roman law of property to address questions of sovereignty. Although other medieval legal scholars extensively discussed the idea of the *ius gentium* or law of nations, in the process transforming its content,¹⁷⁰ these experts seem to reach back to the Roman sources themselves, to Justinian's Institutes or to the Digest, which they clearly knew well.¹⁷¹

It was perhaps no coincidence that Venice was the one Italian state in the Middle Ages that managed to escape the domination of both emperors and popes.¹⁷² Whether or not one can conclude that their legal acumen contributed to their material achievements, the Venetians successfully engineered a legal transplant, which did not passively receive the Roman rules but recast them in a purposeful manner in order to meet contemporary needs.

With the humanist jurists of the sixteenth century, beginning with Andrea Alciato, and especially with Fernando Vázquez, we can trace a truly substantial development in the doctrine of the *RCO*. This change occurred in part because, unlike their medieval forerunners, the humanist jurists were willing to invoke ancient literary authorities such as Cicero and Seneca in order to develop their legal arguments.¹⁷³ These experts advanced a concept that was to have great importance for later international law by drawing a distinction between the universal community of the entire human race and the particular community composed of members of an individual state.¹⁷⁴

The greatest contribution in this area was that made by the seventeenth-century Dutch jurist Hugo Grotius, above all in his well-known treatise *Mare Liberum*, first published in 1609, where he invoked the category of the *RCO* in justification of the freedom of the seas.¹⁷⁵ Grotius, relying in no small measure

170. The same held even truer, if anything, for the early modern period. See Schermaier, *supra* note 160.

171. See J. INST. 2.1.5; see also DIG. 41.3.45 pr., *supra* note 167.

172. BONFANTE, *supra* note 162, at 59–60.

173. Vázquez was evidently the first to invoke Cicero with respect to the *RCO*. Perruso, *supra* note 158, at 85–90. On the humanist jurists, see, for example, STEIN, *supra* note 158, at 76–79.

174. BONFANTE, *supra* note 162, at 58.

175. This is available in a later edition, published in 1618, and reprinted in 1978. HUGO GROTIUS, *MARE LIBERUM* (1978) (1618).

on Vázquez,¹⁷⁶ was responding to Portuguese and Spanish claims to ownership of the sea and especially of the routes to the Indies. These claims were backed by papal authority,¹⁷⁷ and based chiefly on a theory of *occupatio*, or seizure—a means of acquiring ownership to certain types of property that is recognized by Roman law.¹⁷⁸ Grotius deploys the evidence of Latin literature, especially the work of Cicero and Seneca, to argue that the sea, or at least large stretches of it,¹⁷⁹ cannot be owned but must remain accessible to use by all as provided by nature.¹⁸⁰ He was hardly the only jurist of his day to invoke arguments from Roman law in support of a colonializing project.¹⁸¹ The result is a successful legal transplant based on the deliberate, creative reconstitution of a mixture of Roman legal and nonlegal sources brought together in support of a regime that is found nowhere in Roman law itself.¹⁸²

2. Modern Scholarship

As we turn to consideration of more recent modern scholarship, ranging from the late nineteenth century to the current day, on the subject of the *RCO*, a few words are in order regarding the challenge of source criticism, particularly regarding the legal texts. Our main concern is with certain traditional approaches in the interpretation of the classical juristic evidence. These approaches are known broadly as interpolation criticism. This method of source criticism, which has tended to assign large portions of this evidence to the late antique period, and above all to the Byzantine editors of the compilation, no longer enjoys the popularity it held for much of the twentieth century.¹⁸³ It is consistent with current methodological trends to view the bulk of interventions in the juristic texts attempted by Justinian's compilers as abbreviations or the product of aggressive editing, as opposed to a positive rewriting of law.¹⁸⁴ To argue for an

176. It is worth noting that Vázquez rejected the Venetian and Genoese claims to acquire a kind of ownership right over the sea by prescription. Schermaier, *supra* note 160, at 37.

177. See Perruso, *supra* note 162, at 90.

178. *Id.*

179. For some qualifications, see Schermaier, *supra* note 160, at 43.

180. Perruso, *supra* note 162, at 91–92. Grotius conflates the familiar categories of common and public. Alberto Miele, *Res publica, res communis omnium, res nullius: Grozio e le fonti romane sul diritto del mare*, 26 INDEX: QUADERNI CAMERTI DI STUDI ROMANISTICI 383, 384 (1998).

181. FIORENTINI, *supra* note 165, at 12–13.

182. See Miele, *supra* note 180, at 387; Schermaier, *supra* note 160, at 44. It has been customary to criticize those who instrumentalized Roman law for contemporary political purposes on the ground that they misunderstood it. See FIORENTINI, *supra* note 165, at 14 nn.22–23. Grotius was fully aware of the difference between his ideas and those of the Roman jurists, regarding their law as an historical phenomenon. Schermaier, *supra* note 160, at 34.

183. See *infra* note 184.

184. For an influential statement of method regarding source criticism, see MAX KASER, *Ein Jahrhundert Interpolationenforschung an den römischen Rechtsquellen*, in RÖMISCHE RECHTSQUELLEN UND ANGEWANDTE JURISTENMETHODE (1986) (1979). For more information on the background and modern history of interpolation theory, see FRANZ WIEACKER, RÖMISCHE RECHTSGESCHICHTE VOL. 1, 154–82 (1988); Jan H. A. Lokin, *The End of an Epoch: Epilegomena to a Century of Interpolation Criticism*, in COLLATIO IVRIS ROMANI: ÉTUDES DÉDIÉES À HANS ANKUM À L'OCCASION DE SON 65E

instance of the latter, one has to be ready to provide a coherent rationale for it; that is, a rationale that makes sense in terms of Byzantine law.¹⁸⁵ Nevertheless, it may be helpful to remind nonspecialists that we cannot simply assume the entire contents of the Digest to be classical, that the texts were vulnerable to alteration in pre-Justinianic late antiquity by unknown editors, and also that non-Justinianic juristic collections have their own history and so their own problems of textual transmission.

Although the general pattern of scholarly attention to the *RCO* over time is somewhat spotty and sporadic until very recently, Roman legal experts of the late nineteenth and early twentieth centuries offer something of an exception to this trend, taking a noteworthy interest in the *RCO* and related subjects. Two issues dominate the debate among scholars in this period, as the following discussion will show: (1) who first conceived of the *RCO* as a category of property? And (2) as a category of property, did the *RCO* possess legal coherence or was it merely a philosophical exercise? Their work remains influential on both questions and so is worth a close look, even if this, like the entire survey of subsequent scholarship that follows, must be selective.

One motive for the engagement of some of these modern scholars with the *RCO* arose from contemporary developments beyond the world of legal history, where the stakes were high. The regulation of water had become an urgent economic and political issue, especially in Italy, where the climate renders it a relatively scarce good.¹⁸⁶ Partly for that reason, the history of the law on water has long been deemed an integral part of the history of the law of property itself.¹⁸⁷

The category of “things common to all” presented a challenge to modern scholars in that it seemed to them, as it had for their medieval predecessors, to be ill-defined as a category and at odds with evidence pertaining to the classification of *res publicae*.¹⁸⁸ In fact, the evidence of the Digest appeared to them to present an intolerable contradiction between public and common,

ANNIVERSAIRE (Robert Feenstra et al. eds., 1995). The more recent collection edited by MASSIMO MIGLIETTA & GIANNI SANTUCCI, *PROBLEMI E PROSPETTIVE DELLA CRITICA TESTUALE: ATTI DEL “SEMINARIO INTERNAZIONALE DI DIRITTO ROMANO” E DELLA “PRESENTAZIONE” DEL TERZO VOLUME DEI “IUSTINIANI DIGESTA VEL PANDECTAE”* (2011), offers a variety of perspectives on the problem.

185. For explicit recognition of this fact, see JOËLLE BEAUCAMP, *LE STATUT DE LA FEMME A BYZANCE (4E - 7E SIÈCLE)*, VOL. 1, 13 (1990).

186. Pietro Bonfante, *Il regime delle acque dal diritto romano al diritto odierno*, 87 ARCHIVIO GIURIDICO 6-7 (1922), observes that in northern Europe, where the climate provides water in relative abundance, rivers tend to be classed as “public” if they are navigable, whereas in the south, the relative scarcity of water encourages adherence to the criterion that they be perennial in nature. The latter perspective is consistent with the Roman rules, which are influenced by the modest and irregular flow of rivers in peninsular Italy, those situated south of the Po Valley. *Id.* at 8. It also explains the greater emphasis placed on protecting such uses as irrigation and fishing. *Id.* at 9-10.

187. See *id.* at 4. The unification of Italy, a process that culminated in the capture of Rome in 1870, meant the abolition of many local regulations of water dating back to the medieval period and encouraged a trend toward the assertion of centralized control by the new Nation-State. *Id.* at 13-16.

188. This theme runs like a red thread through the scholarly discussion examined below.

especially with respect to classifying the seashore.¹⁸⁹ One approach they adopted was to choose one category over the other; another approach was to attempt to reconcile the two by attributing to each a different sphere of application,¹⁹⁰ even where the evidence is inadequate to support such an argument. In fact, there is a remarkable amount of diversity of opinion even as a consensus begins to emerge over certain key aspects.

For example, Theodor Mommsen famously could not make head or tail of the *RCO*, denouncing them in strikingly coarse language.¹⁹¹ For Mommsen, writing in 1889, the solution was to collapse the concepts of sovereignty and ownership in a crude application of mainstream nineteenth-century thinking, especially concerning the latter, by invoking a text of the high classical jurist P. Iuventius Celsus that asserts the *imperium* of the Roman people over the seashore.¹⁹²

The last decade of the nineteenth century witnessed the publication of a pair of articles that were deeply critical of key aspects of the *RCO*. In his 1891 publication, Muzio Pampaloni asserts that the different characters of flowing water and air on the one hand and the sea and its shores on the other, in terms of one's ability to possess them at law (and so their capacity for economic exploitation), mean that flowing water and air are the only genuine members of the category of the *RCO*, while the sea and its shores are present only by derivation from the *ius gentium*.¹⁹³ He also develops a singular theory that the jurists drew a distinction between an internal seashore and an external seashore, an idea that provoked much criticism.¹⁹⁴ Carlo Manenti responded in 1894 essentially by reversing Pampaloni's analysis,¹⁹⁵ declaring that the sea and its shores are the true members of the category of the *RCO* while the air and flowing water do not properly belong to it. He justifies this conclusion by declaring that air and flowing water cannot be the object of commercial exchange and are only inserted for reasons that are extralegal in nature,¹⁹⁶ namely, as a philosophical gesture toward the solidarity of humankind, the *societas humana* or *societas hominum*.

Going even further than Pampaloni and Manenti, Alfred Pernice devotes an article published in 1900 to a withering examination of the *RCO* that remains

189. See, e.g., the opinions of Emilio Costa *infra* text accompanying notes 212–216.

190. As the discussion below will demonstrate, the views of Alfred Pernice are an example of the first approach, and those of Biondo Biondi an example of the second.

191. T. Mommsen, *Sopra una iscrizione scoperta in Frisia*, 2 BULLETTINO DELL'ISTITUTO DI DIRITTO ROMANO 131 (1889) (noting “. . . che vi ficca quelle benedette *res communes omnium*, che non hanno nè capo nè coda”, translated as “. . . screw those damned ‘things common to all’, which have neither head nor tail”).

192. DIG. 43.8.3 pr. (Celsus 39 *digest.*).

193. M. Pampaloni, *Sulla condizione giuridica delle rive del mare*, 4 BULLETTINO DELL'ISTITUTO DI DIRITTO ROMANO 214 (1891).

194. See BONFANTE, *supra* note 162, at 75–76.

195. Carlo Manenti, *Concetto della communio relativamente alle cose private, alle pubbliche ed alle communes omnium*, 19 IL FILANGIERI 321, 492 (1894).

196. *Id.* at 543–44.

influential to this day.¹⁹⁷ In Pernice's analysis, the elementary textbook containing the late classical jurist Marcian's pronouncement on the *RCO* is very different from other legal manuals from the classical period, such as those authored by Gaius and Florentinus.¹⁹⁸ Marcian's version is broader in scope, richer in detail, and more dependent on imperial legislation, especially from the Severan period, as a source of law. The jurist's target audience is composed of budding young imperial bureaucrats and trial lawyers in training and not—although this is not made explicit—future experts in the law. More peculiar, because it allegedly lends Marcian's work a decided philosophical and rhetorical cast, is his predilection for citing authorities from outside the confines of Roman law, such as Demosthenes and Chrysippus.¹⁹⁹ One also finds a couple of citations to Homer and one to Vergil. Though Pernice praises the quality of the author's writing style as elegant and even at times elevated, in the end he argues for a close parallel between Marcian's textbook and Quintilian's famous manual on rhetoric, the *Institutio Oratoria*,²⁰⁰ which may not be intended as quite the compliment it might seem to be.

Pernice then turns to the two categories of the *RCO* and the *res publicae*, finding that they differ from each other in almost every single point of comparison, with the former however showing all the features that can be described as peculiar.²⁰¹ The most striking among these is the absolute exclusion of the state's authority, along with the solicitude demonstrated for the entire human race, which is not a characteristic feature of classical Roman law.²⁰² Pernice notes that of the four components Marcian classifies as common to all, sea and shore receive an outsized share of attention, while air and (flowing) water are left in the shade.²⁰³

Pernice postulates that a theory of original common ownership must lie behind Marcian's category of things common to all, the ownership of which, in Pernice's own opinion, is better conceived as falling to no one instead of accruing to everyone.²⁰⁴ A rapid survey of the theme as found in the Greek and Latin literary traditions concludes that it represents a very broadly diffused fantasy.²⁰⁵ This was connected in turn with Stoic notions about what these philosophers considered to be a very early period in human experience, the Golden Age, when no property was held in private but all in common, including women,²⁰⁶ a

197. Alfred Pernice, *Die sogenannten res communes omnium*, in FESTGABE FÜR HEINRICH DERNBURG ZUM FÜNFZIGJÄHRIGEN DOKTORJUBILÄUM 126 (1900).

198. *Id.* at 127.

199. *Id.* at 128.

200. *Id.* at 128–29.

201. *Id.* at 130.

202. *Id.* at 130–31.

203. *Id.* at 131.

204. *Id.* at 131 n.12.

205. *Id.* at 131–32.

206. *Id.* at 134 n.27. For the views of Zeno and Chrysippus on this subject, see DIOGENES LAERTIUS 7.33, 131.

doctrine that, in Pernice's view, forms the ultimate source of Marcian's theory.²⁰⁷ There follows a substantial review of Stoic thinking, all of which is simply attributed to Marcian in a lengthy and detailed exercise of argument by assertion.²⁰⁸ Stoic doctrine, especially as evinced in Cicero,²⁰⁹ is of direct significance for the theory of the *RCO*, according to Pernice. The conclusion, which also serves as the point of departure, is that an original community of property stands behind Marcian's category, though Pernice allows the jurist a shred of dignity by postulating that he accepted this more as a philosophical doctrine than as actual historical experience.²¹⁰ As for the *RCO* category itself, it almost seems as if, in Pernice's mind, it is vague and lacking in clarity because it is philosophical and philosophical because it is vague and lacking in clarity.

In an essay first published in 1916, Emilio Costa rejects Mommsen's conceptual fusion of sovereignty and ownership because it leaves no space for the operation of private law.²¹¹ He goes on to address a perceived contradiction between the status of property as "public" and as "common" in two ways. First, he develops a distinction made by Pernice for a different purpose, dividing the sea into territorial waters and the open main,²¹² defining the first as *public* and the second as *common*.²¹³ That would seem to address the "contradiction" insofar as the sea is concerned, but not the shore. The latter is described as public in many a classical juristic text,²¹⁴ while winding up on the list of the *RCO*. Costa attacks this difficulty by employing a method that was increasingly in vogue at his time of writing. He declares that the two Digest passages, one by Ulpian and one by Marcian, that mention the *RCO* are in fact the work of Justinian's compilers.²¹⁵

Fulvio Maroi later contests Costa's theory of a "double sea" consisting of a common open main on the one hand and public territorial waters on the other, pointing out that the evidence he cites simply cannot support this.²¹⁶ Instead, the sea was always for the Romans a *res communis* in its entirety, verging at times on enjoying the status of a thing belonging to no one, a *res nullius*.²¹⁷ More

207. Pernice, *supra* note 197, at 132.

208. *Id.* at 132–39.

209. Of particular importance is CICERO, DE OFFICIIS, 1.50–52.

210. Pernice, *supra* note 197, at 134.

211. Costa, *supra* note 169, at 94–95.

212. The key text cited is DIG. 1.8.10 (Aristo-Pomp. 6 *ex Plautio*), which says nothing about such a distinction.

213. Costa, *supra* note 169, at 97–99. See Pernice, *supra* note 197, at 143–145.

214. See, e.g., DIG. 43.8.3 pr., *supra* note 192.

215. DIG. 1.8.2.1 (Marci. 3 *inst.*); DIG. 47.10.13.7 (Pomp.-Ulp. 57 *ad edictum*); see also COSTA, *supra* note 169, at 109–113, who, to be sure, condemns only the second part of Ulpian's text, which contains the reference to the *RCO*. In this context, he disallows the words *et litora* on the ground that the plural noun *litora* cannot align with the singular verb *est*. *Id.* at 111. He assumes that (what he takes to be) bad grammar must signify the intervention of the compilers. *Id.*

216. Fulvio Maroi, *Sulla condizione giuridica del mare e delle sue rive in diritto romano*, 62 RIVISTA ITALIANA PER LE SCIENZE GIURIDICHE 151, 152–155 (1919). See also BONFANTE, *supra* note 162, at 77.

217. Maroi, *supra* note 216, at 160.

importantly, however, Maroi agrees with Costa in his identification of the two passages from Ulpian and Marcian that mention the category of the *res communis omnium* and its contents as Justinianic.²¹⁸ Like Pernice, Maroi views Stoic doctrine as an essential ingredient for the creation of the category of the *RCO*, but instead of seeing this tradition as influencing Marcian, he postulates its influence as operating directly on the work of Justinian and his compilers, who used Ulpian and Marcian as their mouthpiece.²¹⁹

Not surprisingly, perhaps, the next major development was for someone, Biondo Biondi as it happened, to reject the thesis of Byzantine intervention in the texts sustained by Costa and Maroi. Rather than addressing their specific allegations, however, in his article originally published in 1925, Biondi deprecates the method itself, describing interpolation criticism as the “rimedio eroico” for modern scholars confronted with a contradiction in their evidence.²²⁰ Instead, he argues that the discrepancy itself is illusory, since the sea and shore participate in both categories, as though two sides of the same coin.²²¹ They are *res communes* in terms of their universal accessibility of use, and *res publicae* in terms of the management of this accessibility by the State.²²² Apart from attempting to resolve this perceived contradiction on a primary level, Biondi tackles second-level discrepancies as well, most notably the vexing puzzle of how a private individual could acquire *dominium*—full ownership at private law—over a piece of property classed as public.²²³ This challenge remains a point of controversy to this day as does the question of Stoic influence on the development of the doctrine of the *RCO*, which Biondi, against Pernice and Maroi, stoutly denies.²²⁴ In sum, for Biondi, the jurists, instead of falling into contradiction, simply toggle back and forth between two complementary concepts of public and common. In the end, there is no significant historical development to account for.

Though to an extent Pietro Bonfante shares Biondi’s skepticism over Justinianic interpolation, he is not prepared to rule out the possibility completely. It is crucial to note first that he accepts the category of *res communes omnium* as the creation of Marcian.²²⁵ In his view, the category is not a legal one insofar as it is the product largely of ethical-philosophical speculation, traceable to the

218. *Id.* at 160, 168.

219. *Id.* at 168–70.

220. Biondo Biondi, *Condizione giuridica del mare e del litus maris*, in BIONDO BIONDI, SCRITTI GIURIDICI, VOL. 3, 107, 108 (1965) (1925).

221. *Id.* at 115–17.

222. *Id.* at 114. His approach is similar in some respects to that taken by the twelfth-century glossator Placentinus.

223. *Id.* at 108–09, 114–16.

224. *Id.* at 115.

225. See BONFANTE, *supra* note 162, at 55. Bonfante’s views are found in his magisterial collection of lecture notes, the *Corso di diritto romano*, the second volume of which appeared for the first time in 1926.

works of many nonjurists, such as Cicero and Seneca.²²⁶ Marcian himself displays a pronounced proclivity to cite such authors, an effect of his training in literature as opposed to law.²²⁷ The category lacks a history as well as any practical significance, especially because it combines items of a different nature, meaning that some were susceptible to economic exploitation and legal ownership, and others were not.²²⁸ Bonfante regards inclusion of the air as especially problematic because, in his view, it lacked economic value in antiquity.²²⁹ At the same time, he finds the inclusion on the list of *aqua profluens* (flowing water) an even thornier matter, given the uncertainty over the significance of the term—he thus ranks its inclusion in the category as “perhaps the most deplorable contrivance of Marcian.”²³⁰

Importantly, Bonfante criticizes the views of Costa,²³¹ but while he rejects the idea that the passage of Marcian mentioning the *RCO* is Byzantine in origin, he agrees that the one by Ulpian is interpolated, at least in its identification of air as “common to all.”²³² The upshot is that Bonfante accepts the category of *res communes omnium* as classical but utterly marginalizes it as somehow extralegal, the product of an isolated and suspect author, whom he tags with the somewhat contradictory epithets of “humanist” and “provincial.”²³³

In the teeth of continuing disagreement among scholars, Bonfante’s student Giuseppe Branca adopts a strategy that is notably innovative, certainly for this subject.²³⁴ Acknowledging the difficulty of separating the classical from the Byzantine in the first three parts of Justinian’s *Corpus Iuris*,²³⁵ Branca sets out first to discern the law as it stood at the time of the compilation, remaining on the alert for items which do not seem to fit perfectly with the system of the compilers, which he regards as a sure sign of classical content.²³⁶ Next, he seeks to reconstruct the classical rules themselves. Finally, he surveys the development

226. *Id.* at 55.

227. *Id.* at 56.

228. See the summary of his views at BONFANTE, *supra* note 162, at 60, where he speculates that Marcian may also have included rivers among the other four items.

229. *Id.* at 62.

230. *Id.* at 63 (“forse la più deplorabile invenzione di Marciano”). In Bonfante’s view, this piece of sophistry (*sofisma*) is itself not the product of legal norms but of ethical ideals of sociability. *Id.* at 64–65. Further on, he refers to *aqua profluens* as prompting a perennial blunder (“questo perenne abbaglio”) in the scholarship, amounting to the construction of what is little short of a metaphysical category (“poco meno che una categoria metafisica”). *Id.* at 71 n.1.

231. See *id.* at 76–78. Some years previously, Bonfante had criticized the influence of Costa’s reconstruction of the Roman rules on an important piece of Italian legislation dating to November 20, 1916, which promoted State control of the water supply. Bonfante, *supra* note 186, at 4, 13–16.

232. *Id.* at 77; DIG. 47.10.13.7, *supra* note 215.

233. BONFANTE, *supra* note 162, at 58.

234. Giuseppe Branca, *Le cose extra patrimonium humani iuris*, 12 ANNALI TRIESTINI 1 (1941).

235. On the composition of the *Corpus Iuris Civilis*, see *infra* note 292.

236. So, for example, Branca detects a discomfort on the part of the compilers for the three categories that are at the heart of his study: the *RCO*, *res publicae*, and *res universitatis*. BRANCA, *supra* note 234, at 64–78.

of juristic thought on the subject, starting in the preclassical period and winding up with Justinian.

While this approach is an interesting one, there is no guarantee that certain assumptions built into the analysis will not prejudice the results. For example, Branca acknowledges Marcian as the juristic creator of the *RCO*, even as he accepts Bonfante's views on the man's character as a provincial intellectual with an interest in literature, especially Greek literature, that is both over the top and something of an impediment for an expert in Roman law.²³⁷ Almost inevitably, this assumption influences his discussion of the category and its contents. Branca regards these items as being highly abstract in nature, especially flowing water, which he rejects outright, and the air, which he retains even though he concludes that it is useless from both an economic and a legal perspective.²³⁸ All the same, it is clear that he does not view Marcian as quite the outlier that his teacher Bonfante does.

Branca's unusual method merits further comment. As noted, he begins with an attempt to establish Justinian's law and then examines much of the same evidence in search of the classical regime. Such an approach may load the dice in favor of viewing the work of the high classical jurists Neratius, Aristo, Celsus, and their contemporaries as well as their successors in an overly deterministic fashion, so that they concretely prefigure the category of the *RCO*.²³⁹ This is not to deny that, properly qualified, some of his views possess considerable merit.²⁴⁰

In his 1945 lecture notes on Roman property law, Gaetano Scherillo also accepts Marcian as the creator of the category of the *RCO*, by now the dominant opinion among scholars, and like his immediate predecessors sees Marcian as unduly influenced by the philosophical-literary tradition.²⁴¹ A particular merit of Scherillo's work lies in the extent to which the author is able to reconstruct in a nuanced manner the differences in opinion among the classical jurists, even as he places this in a context of an evolutionary development.²⁴² Scherillo follows Costa and Bonfante in striking as nonclassical a portion of Ulpian's discussion of the *RCO*,²⁴³ while conceding that the jurist "substantially recognizes" the existence of the category. In his view, Marcian not only developed the category itself but, aside from the sea and its shores, included, to its great detriment, two

237. *Id.* at 214.

238. *See id.* at 238–39, 242–43.

239. *See, e.g.,* Branca, *supra* note 234, at 218.

240. For example, Branca plausibly asserts that Marcian expresses his views more clearly than did his juristic colleagues. Branca, *supra* note 234, at 214. This has particular relevance to the discussion of the relationship of Ulpian's thought and that of Marcian. *Id.* at 235–37. Like many earlier scholars, Branca condemns as Byzantine, *id.* at 119–20, 232, the words *et litora* in DIG. 47.10.13.7, *supra* note 215.

241. GAETANO SCHERILLO, *LEZIONI DI DIRITTO ROMANO: LE COSE* 69–72 (1945).

242. *See id.* at 73, 76–77, 84–85.

243. This is, of course, the reference to seashores in DIG. 47.10.13.7, *supra* note 215. SCHERILLO, *supra* note 241, at 83.

other items: flowing water and air.²⁴⁴ Scherillo understands air solely as a substance and not as a space, and so not as a “thing” in a recognizable legal sense. In his view, Roman law does not accept *aqua profluens* as an entity unto itself.²⁴⁵ In the end, because only half of its contents are to his mind legitimate, Scherillo dismisses the *RCO* as nothing more than a “social” category, rather than a legal one.²⁴⁶ He concludes, interestingly, that Justinian does not so much recognize Marcian’s category as destroy it: first, by retaining the two items Scherillo regards as dubious and second, by treating the sea and shore, the two he holds to be genuine, as though they are “public” in nature.²⁴⁷

The consensus surrounding Marcian’s authorship of the category of the *RCO* continues into the second half of the twentieth century, although with something of a twist. In a substantial discussion of the category and its legal foundation, Aldo Dell’Oro in 1962 refined the picture of a classical juristic tradition characterized by notable differences in opinion but that is, at bottom, evolutionary in terms of its fundamental trend lines.²⁴⁸ According to Dell’Oro, this evolution breaks down into three major stages.²⁴⁹ In the first, the word *populus* signifies the collectivity of citizens who own the *res publicae* in common. Under the Antonine emperors (mid- to late second century), the term acquires a new meaning, indicating the possession of status as a legal person, a development that in turn encourages the substitution of the State for the collective citizenry as owners of public property.²⁵⁰ Because some items are regarded as belonging to no one, as *res nullius*, high and late classical jurists such as Gaius, Scaevola, Papinian, and Paul qualify these as *res publicae iuris gentium*.²⁵¹ Finally, there emerges the category of the *RCO*, as the jurists limit the number of public things subject to the direct control of the State.²⁵²

There are difficulties with this reconstruction not limited to its evolutionary assumptions, which tend to flatten out the contours of juristic discussion and betray a certain determinism in its broad outlines.²⁵³ The emergence of a status for the Roman state as a legal person is almost certainly placed too early by Dell’Oro, insofar as this more likely occurred in the Severan Period.²⁵⁴ The category of property Dell’Oro identifies, along with some earlier scholars, as *res*

244. While air had some precedents in juristic thinking, flowing water was the personal contribution of Marcian himself. *Id.* at 84–87.

245. *Id.* at 72, 77, 84–87.

246. *Id.* at 87.

247. *Id.* at 88.

248. Aldo Dell’Oro, *Le res communes omnium dell’elenco di Marciano e il problema del loro fondamento giuridico*, 31 STUDI URBINATI 239 (1962–63).

249. *See id.* at 252–54.

250. *Id.*

251. *Id.* at 245–52.

252. *Id.* at 254–55.

253. *See id.* at 289 (illustrating the presentation of Marcian as the end of history as far as the category of the *RCO* is concerned).

254. *See* RICCARDO ORESTANO, IL “PROBLEMA DELLE PERSONE GIURIDICHE” IN DIRITTO ROMANO 307–14 (1968).

publicae iuris gentium, calls for further discussion, at minimum. But the author makes a number of useful observations, the most important of which is almost certainly his refusal to recognize a key text of Ulpian as interpolated.²⁵⁵ This allows him to credit this jurist with directly inspiring Marcian in the invention of the *RCO* category even if the latter retains pride of place as its creator.²⁵⁶ The implications of this move are, all the same, far from trivial. Even a slight shift in emphasis from the, if not actually marginal, certainly too often marginalized Marcian to a jurist of Ulpian's immense prestige and central importance was bound to lend a new credibility to the category itself.

Another gain Dell'Oro offers is a more sophisticated understanding of what the jurists mean by air. It turns out that the Romans in general do not rigorously distinguish air as space from air as substance, but that in the juristic evidence for the *RCO*, meaning the writings of Ulpian and Marcian, the former is the more likely interpretation, especially because it suggests the air possesses a certain economic importance as a venue for bird catching.²⁵⁷ And yet another solid result is the conclusion that the development of the *RCO* category was not motivated by philosophical or cultural considerations but by practical needs.²⁵⁸

In his lecture notes on Roman property and contract law published posthumously in 1974, Giuseppe Grosso identifies, not surprisingly, Marcian as the author of the category of the *RCO*.²⁵⁹ Grosso does not cite the just-examined essay by Dell'Oro. In important ways, his views represent something of a throwback to the arguments of Scherillo and earlier scholars, as one can see, for example, in his discussion of flowing water and air and where he even revives the thesis that the phrase *et litora* in the passage of Ulpian treated above is a Byzantine insertion.²⁶⁰ As one might predict, in Grosso's view, Marcian developed the category of the *RCO* based on his literary and philosophical proclivities.²⁶¹

3. *Sax and Thereafter*

It is easy, perhaps too easy, to find fault with both Joseph Sax, the founder of the modern PTD, and his critics in their use of Roman law. Sax himself had

255. Many previous scholars had suspected as interpolated the words *et litora* in DIG. 47.10.13.7, *supra* note 215. Cf. Dell'Oro, *supra* note 248, at 244–45, 272, who correctly points out that in this context, a plural subject with a singular verb is perfectly grammatical. See HARM PINKSTER, *THE OXFORD LATIN SYNTAX* 1251 (2015) (noting “[i]f the verb is positioned between the members of a compound subject . . . it agrees with the member that precedes it”).

256. Dell'Oro, *supra* note 248, at 251–52, 288. The author, in denying paternity to the compilers, reasons that if they had been the ones to introduce the category they would have done a lot more with it.

257. *Id.* at 273–83. As with the juristic construction of the air, Dell'Oro's discussion of that of “flowing water” (*aqua profluens*) is the most sophisticated to this point. *Id.* at 283–87.

258. *Id.* at 289.

259. GIUSEPPE GROSSO, *PROBLEMI SISTEMATICI NEL DIRITTO ROMANO: COSE - CONTRATTI* 26 (1974).

260. *Id.* at 26–28. For Grosso, the juristic construct of air is a substance that one breathes.

261. *Id.* at 29–30.

very little to say about it, in fact. As we noted above, in his pathbreaking 1970 article, which subsequently becomes the source most commonly cited in this connection, he mentions only a series of fragments from Justinian's *Institutes* while invoking the authority of Roman law.²⁶² His book, published the next year, devotes only a brief discussion to the subject, without citing any Roman evidence.²⁶³ His article published nearly a decade later has a longish footnote on the subject and otherwise simply cites once again a series of fragments from Justinian's *Institutes*.²⁶⁴ In a subsequent article, published in 1989, no reference to Roman law appears.²⁶⁵

There is a remarkable contrast between Sax's work and that of his early critics, the two young lawyers Huffman relies upon to make his case.²⁶⁶ Glenn MacGrady writes for seventeen pages on Roman law in his 1975 article,²⁶⁷ while Patrick Deveney, in his study published the following year, has twenty-one pages on the subject.²⁶⁸ These two authors make a heroic attempt to grapple with both the Roman sources and the modern scholarship.

MacGrady, despite having access only to a selection of the modern Anglophone writing and the ancient sources only in translation, achieves notable results nonetheless.²⁶⁹ After a brief discussion of the crucial evidence from Justinian's *Institutes*,²⁷⁰ he examines the classical regime for rivers and for the seashore, gaining clarity on the distinction between public and private. He argues that for the former, the bed is public, the water is common, the banks are private, and concludes that the criterion for defining a river as navigable was a broad

262. J. INST. 2.1.1–5, in Sax, *supra* note 40 (devoting but a single page to discussion of Roman law). Sax does not distinguish between the categories of “public” and “common things,” lumping together items from both these Roman categories, and seems to accept that the sources do not allow for such a distinction. The exclusive reliance of participants on all sides of the debate over the PTD on “Justinian” as the source of Roman thinking on the matter is remarkable but not inevitable. In other areas of the law, U.S. courts have cited, in addition to this emperor's *Institutes* and Novels, the *Institutes* of Gaius, plus his views and those of other classical jurists as preserved in the Digest, as well as the laws of other emperors as they survive in the Codex. Notably, however, apart from Gaius in his *Institutes*, the courts only rarely seem to mention the name of the jurist in question. For references, see WILEY, *supra* note 12.

263. SAX, *supra* note 42, at 163–64.

264. See Sax, *supra* note 43, at 185 n.1, 186 n.6 (noting J. INST. 2.1.1–6 and later linking the PTD with the category of the *RCO*). See Frier, *supra* note 31.

265. See generally Joseph L. Sax, *The Limits of Private Rights in Public Waters*, 19 ENVTL. L. 473 (1989).

266. For a later example, see Huffman, *supra* note 20, who cites no Roman sources directly; later, in *Speaking of Inconvenient Truths*, *supra* note 10, Huffman cites only J. INST. 2.1.1 directly, but he does so several times.

267. MacGrady, *supra* note 22, at 517–34.

268. Deveney, *supra* note 23, at 16–36, is divided into two sections. The first is entitled “The Uses Made of Roman Law at Common Law,” *id.* at 16–21, where he surveys the uneven reception of Roman rules on this subject into British and American law, above all in the late eighteenth and early nineteenth centuries, while the other section is simply labeled “Roman Law.” *Id.* at 21–36.

269. MacGrady, *supra* note 22, at 519, 523–25, repeatedly laments the deficiencies of his modern authorities, as well he might: none are central to the specialized discussion of the subject. At one point he expresses polite skepticism over the accuracy of a translation, again with justice. *Id.* at 533.

270. J. INST. 2.1.1–10.

one—even navigation via rafts (*rates*), according to the jurist Ulpian, made a river “navigable.”²⁷¹ Finally, MacGrady holds that the seashore was owned by no one and open to all; an acceptable public use was the construction of buildings, an act that accrued an entitlement shy of ownership.²⁷² This conclusion is consistent with that held by a number of other scholars.²⁷³ While compiling a respectable, if only partial, account of Roman law, ultimately MacGrady was not focused on the trusteeship and limited alienation principles that are the core of the PTD and thus offers little support to a critique of the Roman roots narrative.

Patrick Deveney, on the other hand, does engage the PTD directly and enjoys access to continental scholarship, citing among others the work of Emilio Costa.²⁷⁴ So it is not surprising to find him repeating some of its more characteristic findings discussed above: Marcian was the originator of the category of the *RCO*, prompted by an interest in classical poetry and—especially Stoic—philosophy, the passage of Ulpian suggesting his authorship is interpolated, and so on.²⁷⁵ Deveney postulates that, in motivating the creation of the category, “probably of equal importance were the mythical and philosophical aspects of the interface of the sea and the dry land”—equal, that is, to “economic stimuli.”²⁷⁶ He does not attribute the evidence he quotes from the Digest to named jurists, which renders an historical perspective strictly impossible and impedes analysis of the meaning of some texts. His pessimism over the effectiveness of Roman legal rules is profound; he seems close to concluding that there was no rule of law at Rome.²⁷⁷

Turning again to Roman law scholars, no survey of scholarly opinion on this matter would be complete without a mention of Ubaldo Robbe’s almost ineffable monograph dedicated to the *RCO* and related subjects, which appeared in 1979.²⁷⁸ Coming in at just under 1,000 pages, this scathing polemic addresses the work of such predecessors as Costa, Biondi, Bonfante, Branca, Scherillo, and others in an often highly granular fashion. Despite no small amount of equivocation, Robbe in the end joins the consensus, identifying Marcian as the author of the category of the *RCO*.²⁷⁹

The last twenty-plus years have witnessed an explosion of books and articles devoted to the *RCO*. What follows can again survey only some of the

271. MacGrady, *supra* note 22, at 519–30 (citing DIG. 43.12.1.14 [Ulp. 68 *ad edictum*] for the last point). One has the sense that supporting virtually anything that floated would be sufficient for the jurist to declare a river navigable.

272. MacGrady, *supra* note 22, at 530–34.

273. See DOMENICO DURSI, *RES COMMUNES OMNIUM* 64–89 (2017).

274. Deveney, *supra* note 23, at 26.

275. *Id.* at 25–28.

276. *Id.* at 27.

277. Deveney, *supra* note 23, at 24–25, 32–36.

278. See generally UBALDO ROBBE, *LA DIFFERENZA SOSTANZIALE FRA RES NULLIUS E RES NULLIUS IN BONIS E LA DISTINZIONE DELLE RES PSEUDO-MARCIANEA “CHE NON HA NÈ CAPO NÈ CODA”* (1979).

279. *Id.* at 123.

highlights. The 1999 monograph by Maria Gabriella Zoz on the *res publicae* allots considerable space to the matter of things common to all, attributing the category to Marcian.²⁸⁰ Mario Fiorentini's extensive 2003 discussion of the legal rules, especially those concerning procedural remedies for seas and rivers—particularly interdicts—is something of a breakthrough, valuable for its sheer richness of detail as well as its critical examination of past assertions of interpolation, many of which he debunks.²⁸¹ While recognizing the contribution made by Ulpian, Fiorentini assigns the creation of the category to Marcian.²⁸² He adopts a position of skepticism as to whether the Romans developed a true “environmental consciousness”²⁸³ that led them to develop legal rules designed to protect the environment. Andrea Di Porto offers a radically different perspective on this subject in two recently published collections consisting largely of previously published work.²⁸⁴

We can round off the discussion through mention of two recent contributions of importance. Elisabetta Cangelosi's 2014 study of water as a public and common category amplifies the engagement with modern concerns shown by Fiorentini and Di Porto. Her monograph embraces not just a study of the Roman rules²⁸⁵ but a detailed exposition of contemporary efforts on a global scale to address the challenges posed by the privatization of public resources.²⁸⁶ The recent monograph on the *RCO* by Domenico Dursi offers a sophisticated and substantial assessment that takes the subject to a new level.²⁸⁷ Ulpian is finally recognized by Dursi, albeit with some equivocation, as the likely author of the category of the *RCO*.²⁸⁸ Dursi's insistence that the category was the invention of the Severan jurists helps to dispel the principal contradiction that had long preoccupied scholars.²⁸⁹

280. MARIA GABRIELLA ZOZ, RIFLESSIONI IN TEMA DI *RES PUBLICAE* 10, 26, 34–63 (1999) (who nevertheless seems to backdate it at times to the high classical period).

281. FIORENTINI, *supra* note 165; see also Mario Fiorentini, *L'acqua da bene economico a res communis omnium a bene collettivo*, 1 ANALISI GIURIDICA DELL'ECONOMIA 39 (2010).

282. FIORENTINI, *supra* note 165, at 231 n.124, 341, 426, 434.

283. *Id.* at 479, 481–83.

284. See ANDREA DI PORTO, *RES IN USU PUBLICO E 'BENI COMUNI': IL NODO DELLA TUTELA* (2013); ANDREA DI PORTO, *SALUBRITAS E FORME DI TUTELA IN ETÀ ROMANA: IL RUOLO DEL CIVIS* (2014).

285. ELISABETTA CANGELOSI, *PUBLICA E COMMUNIS: ACQUA, MONDO ROMANO E BENI COMUNI* 106–12 (2014), ascribing the category of the *RCO* to Marcian.

286. A highlight is the recognition by the United Nations in 2010 of access to safe and clean water as a human right. *Id.* at 44–48.

287. See generally DURSI, *supra* 273. Dursi follows Dell'Oro regarding ancient perspectives on the nature of the air: while the Romans do not rigorously distinguish air as space from air as substance, the jurists tend to grant protection only to the former, certainly in the context of the *RCO*. *Id.* at 21–26. For an example concerning an interdict, see *id.* at 23–26. For an exception to this trend, see below. Dursi's work is reviewed in Frier, *supra* note 31.

288. *Id.* at 11–16.

289. See DURSI, *supra* note 273, at 139–41, with the comments of Frier, *supra* note 31, at 647. Dursi's view of the pre-*RCO* opinions of the classical jurists owes something to the work of earlier scholars such as Gaetano Scherillo and Aldo Dell'Oro.

To sum up the long and discontinuous march of modern scholarship on the *RCO*: After being thoroughly debunked toward the end of the nineteenth century, for a time afterward the category was laid at the feet of Justinian and his compilers. A century ago, this was a surefire way of consigning it to oblivion in the eyes of Roman law scholars. Next, it was allowed to be classical but attributed only to the late Severan jurist Marcian, one of a very few contenders for the distinction of being the last of the classical jurists. His much-discussed literary and philosophical interests encouraged scholars to indulge their inclination to marginalize and discount the *res communes omnium* as a feature of Roman law. This general lack of interest has evanesced in the last couple of decades, but no one will be surprised if modern commentators continue to show a certain diversity of opinion in the matter, given the discordances so evident in the ancient sources themselves. Neither the modern nor the Roman discussion need be a bar to understanding, of course. Our contribution to what is sure to be a continuing debate follows in the next sections.

B. *Beginning at the End*

As suggested above, modern experts typically cite as an authority for the “Roman public trust doctrine” all or part of a famous passage from Justinian’s *Institutes*, the emperor’s textbook for first-year law students promulgated in A.D. 529, as one of the three components, along with the *Digest* and the *Codex*,²⁹⁰ of his project compiling and codifying the law:

Inst. 2.1 pr.-1: (pr.) Superiore libro de iure personarum exposuimus: modo videamus de rebus. quae vel in nostro patrimonio vel extra nostrum patrimonium habentur. quaedam enim naturali iure communia sunt omnium, quaedam publica, quaedam universitatis, quaedam nullius, pleraque singulorum, quae variis ex causis cuique adquiruntur, sicut ex subjectis apparebit. (1) Et quidem naturali iure communia sunt omnium haec: aer et aqua profluens et mare et per hoc litora maris.

(Justinian in the second book of his *Institutes*): (pr.) In the previous book we set forth the law of persons: now let us see about things. These are deemed to fall in our private property or outside of it. For certain things are common to all by the law of nature, certain things are public, certain belong to an entire body (of the people), certain to no one, many things to individuals, which are acquired by each person in different ways, as will become clear below. (1) And, in fact, the following items are common to all persons through natural law: the air, and flowing water, and the sea, and through this the shores of the sea.

290. The *Institutes*, the *Digest* (a collection of overwhelmingly classical juristic texts), and the *Codex* (an assemblage of imperial statutes ranging from the mid-second century to the sixth) formed the three elements of Justinian’s great compilation of law, which, along with this emperor’s post-compilation legislation, the *Novels*, later became known as the *Corpus Iuris Civilis*. For details, see Kaiser, *supra* note 13, at 123.

With respect to classical law, however, Justinian represents at best the end of the story, if not an entirely new beginning.²⁹¹ Roman law scholars widely recognize that this text is stitched together from excerpts drawn from the works of two juristic predecessors.²⁹² The first is the following familiar text from the high classical jurist Gaius, writing in about A.D. 160:

Gaius 2.1: <Superiore commentario de iure personarum> exposuimus: modo videamus de rebus. quae vel in nostro patrimonio sunt vel extra nostrum patrimonium habentur.

(Gaius in the second book of his *Institutes*): In the previous book we set forth the law of persons: now let us see about things. These are either in our private property or deemed to fall outside of it.

Justinian's compilers attach to this a passage drawn from the elementary legal textbook of the late classical jurist Marcian, writing about a half century after Gaius, and preserved in the Digest:²⁹³

D. 1.8.2 pr.-1: (Marcianus libro tertio Institutionum): (pr.): Quaedam naturali iure communia sunt omnium, quaedam universitatis, quaedam nullius, pleraque singulorum, quae variis ex causis cuique adquiruntur. (1) Et quidem naturali iure omnium communia sunt illa: aer, aqua profluens, et mare, et per hoc litora maris.

(Marcian in the third book of his *Institutes*): (pr.) Certain things are common to all by the law of nature, certain things belong to an entire body (of the people), certain things to no one, many things to individuals, which are acquired by each person in different ways. (1) And, in fact, the following items are common to all persons through natural law: the air, flowing water, and the sea, and through this the shores of the sea.

The difference in the texts, aside from a handful of editorial adjustments in Justinian's version,²⁹⁴ lies in Justinian's inclusion of the category of "public property" ("quaedam publica"), which Marcian omits. This omission is explained either because a scribal error later inadvertently eliminated the reference, or it was dropped deliberately, possibly because Marcian himself wished to simplify his list or the compilers were interested in fusing the categories of public and common things.²⁹⁵ Marcian clearly subscribes to the

291. How faithful the texts of the compilation are to classical law has been the subject of learned debate for many years, as the survey of literature above shows. Most scholars accept that Justinian's reign marks the dividing point between Roman and Byzantine law, which Bernard H. Stolte, *The Law of New Rome: Byzantine Law*, in *CAMBRIDGE COMPANION TO ROMAN L.* 356 (2015), proposes as 534, the year after the publication of the *Institutes* and *Digest*.

292. See, e.g., Francesco Sini, *Personae e cose: Res communes omnium – prospettive sistematiche tra diritto romano e tradizione romanistica* 7 *DIRITTO@STORIA* § 1 (2008).

293. Scholars have disputed the precise date of the composition of Marcian's *Institutiones*, but the consensus now persuasively places this after, and perhaps well after, the death of Caracalla in 217. See discussion *infra*.

294. These include the insertion of "enim," "sicut ex subiectis apparebit," and "et." The differences in the first pair, between Justinian's version and that of Gaius, are if anything even more negligible.

295. Scribal error, meaning accidental omission, is the explanation favored by the vast majority of scholars for the omission of a reference to public property. GIUSEPPE GROSSO, *CORSO DI DIRITTO*

existence of *res publicae*, at least as a subcategory, as a reference he makes to public rivers and ports in another text shows.²⁹⁶ No more than in Justinian's version are the categories Marcian lists entirely mutually exclusive since, for example, the designation *res nullius* ("property belonging to no one") can also apply, at least on analogy, to the *res communes omnium*.²⁹⁷ Marcian's four *RCO* resources all hold a certain economic importance.²⁹⁸

The accessory quality Marcian assigns to the shore with regard to the sea has occasioned comment.²⁹⁹ It is only through the latter (*per hoc*) that the former comes to be included in the category of the *RCO* in his scheme. In earlier instances of juristic discussion, authored above all by Neratius, Aristo, Celsus, and Pomponius, the sea and shore share the focus of attention more or less evenly.³⁰⁰ It is only after the intervention of emperor Antoninus Pius, appearing in the form of a rescript of uncertain date, that the balance shifts in favor of the sea. Replying to petitions made by certain groups of Italian fishermen, Pius guarantees them access to the source of their livelihood. The shore nevertheless continues to play a key role in this context by providing a means of access to the sea as well as a place to dry and repair fishing nets.³⁰¹ So Marcian's formulation perhaps betrays the direct influence of that decisive piece of legislation.

One further question over which scholars have disagreed is whether Marcian's list of four items (air, running water, sea, and shore) is supposed to be exhaustive or merely a list of examples. What weighs in favor of the view that the list is exhaustive is that other possibilities do not seem to arise in the ancient legal sources and so can only be postulated with difficulty.³⁰²

ROMANO: LE COSE 42 (1941); SCHERILLO, *supra* note 241, at 71; GROSSO, *supra* note 259, at 25; ZOZ, *supra* note 280, at 23 n.53, 75 n.236; Sini, *supra* note 292; Michele Giagnorio, *Il contributo del civis nella tutela delle res in publico usu*, 6 TEORIA E STORIA DEL DIRITTO PRIVATO 6 (2013) 1, 24 n.41 (2013).

296. DIG. 1.8.4.1 (Marci. 3 *inst.*).

297. There are, to be sure, two broadly different types of *res nullius*, one consisting of property that is not at the moment privately owned but that can be acquired by a private individual (this occurs through seizure, or *occupatio*) and the other, more precisely termed *res in nullius bonis*, consisting of property that cannot be privately owned. See Gaius 2.9-11; DIG. 1.8.1 pr. (Gaius 2 *inst.*); ZOZ, *supra* note 280, at 195 n.596, 198; FIORENTINI, *supra* note 165, at 419; CANGELOSI, *supra* note 285, at 109.

298. As observes ZOZ, *supra* note 280, at 63. The economic value of air has been questioned by some scholars: see the discussion of the scholarship above, for example, *supra* text accompanying notes 256-57. But Marcian is not likely speaking of air as substance, such as the air we breathe, but rather of air as a space, located above the earth. See ZOZ, *supra* note 280, at 40, 59; Laura d'Amati, *Brevi riflessioni in tema di res communes omnium e litus maris*, in SCRITTI PER ALESSANDRO CORBINO, VOL. 2, 333, 336 n.14 (Isa Piro ed., 2016); DURSI, *supra* 273, at 10-11, 21-26. As Ulpian, discussed below, and a rescript of Antoninus Pius recorded at DIG. 8.3.16 (Callistr. 3 *de cognit.*) make clear, the point of enabling access to the air was to facilitate bird catching, an economic activity of no little importance. See Dell'Oro, *supra* note 248, at 273-83; JEREMY MYNOTT, BIRDS IN THE ANCIENT WORLD 73-89 (2018).

299. See Dell'Oro, *supra* note 248, at 265; d'Amati, *supra* note 298, at 337 n.17.

300. The consensus among scholars, certainly since the late twentieth century, is that sea and shore share the same status at law. But this was not always the case: see Charbonnel & Morabito, *supra* note 161, at 25.

301. Yet another text of Marcian preserves the content of the rescript. DIG. 1.8.4 pr. (Marci. 3 *inst.*).

302. See, e.g., DURSI, *supra* 273, at 10-11. Some literary sources mention sunlight, for example, which can be defined in some sense as an economic asset, but which was regulated at private law through

The conclusion that Marcian's category of the *RCO* serves as an ancient ancestor of the modern PTD seems at first glance an easy one. The Roman PTD, if we identify this with the category of *res communes omnium* attributed to Marcian, thus predates Justinian by three centuries.³⁰³ But how much further back did it go, and where did it come from? An even more interesting question, perhaps, is whether this rubric does, in fact, amount to *the* Roman version or what is simply *a* Roman version of what is now known as the PTD. The distinction is worth investigating.

C. Things Common to All

A famous text of Ulpian stands, in all likelihood, as the earliest articulation of the category of the *RCO*:

D. 47.10.13.7 (Ulpianus libro quinquagensimo septimo ad edictum): Si quis me prohibeat in mari piscari vel everriculum (quod Graece σαγήνη dicitur) ducere, an iniuriarum iudicio possim eum convenire? sunt qui putent iniuriarum me posse agere: et ita Pomponius. et plerique esse huic similem eum, qui in publicum lavare vel in cavea publica sedere vel in quo alio loco agere sedere conversari non patitur, aut si quis re mea uti me non permittat: nam et hic iniuriarum conveniri potest. conductori autem veteres interdictum dederunt, si forte publice hoc conduxit: nam vis ei prohibenda est, quo minus conductione sua fruatur. si quem tamen ante aedes meas vel ante praetorium meum piscari prohibeam, quid dicendum est? me iniuriarum iudicio teneri an non? et quidem mare commune omnium est et litora, sicuti aer, et est saepissime rescriptum non posse quem piscari prohiberi: sed nec aucupari, nisi quod ingredi quis agrum alienum prohiberi potest. usurpatum tamen et hoc est, tametsi nullo iure, ut quis prohiberi possit ante aedes meas vel praetorium meum piscari: quare si quis prohibeatur, adhuc iniuriarum agi potest. in lacu tamen, qui mei domini est, utique piscari aliquem prohibere possum.

(Ulpian in the fifty-seventh book on the Edict): If someone prevents me from fishing in the sea or from dragging a net (which in Greek is called a σαγήνη), can I sue him for *iniuria*? There are those who think that I can sue him for *iniuria*, and so Pomponius. And most (believe) that this (offender) is like the person who does not permit (me) to bathe in a public bath, to occupy a seat in a public theater, or to conduct business in, sit in, or (simply) frequent some other place – or who does not allow me to use my own property. For he too

the use of servitudes (more or less the Roman equivalent of modern easements). CICERO, PRO SEXTO ROSCIO AMERINO 71; OVID, METAMORPHOSES 1.135, 6.350. For the legal rules, see the classic study by ALAN RODGER, OWNERS AND NEIGHBOURS IN ROMAN LAW 38–89 (1972); see, more recently, J. MICHAEL RAINER, BAU- UND NACHBARRECHTLICHE BESTIMMUNGEN IM KLASSISCHEN RÖMISCHEN RECHT 27–73 (1987); COSIMA MÖLLER, DIE SERVITUTEN: ENTWICKLUNGSGESCHICHTE, FUNKTION UND STRUKTUR DER GRUNDSTÜCKVERMITTELTEN PRIVATRECHTSVERHÄLTNISSE IM RÖMISCHEN RECHT. MIT EINEM AUSBLICK AUF DIE REZEPTIONSGESCHICHTE UND DAS BGB 130–73 (2010).

303. For many years, the consensus among scholars of Roman law has attributed the category of the *RCO* to Marcian, eclipsing an older view ascribing it to Justinian. See the discussion in Subparts III.A.–B. above.

can be sued for *iniuria*. Moreover, the pre-imperial jurists gave an interdict to the lessee, if he happened to have leased this (i.e., fishing rights) from the State, since the use of force against him must be prevented when it will impede him from enjoying his lease. But still, what is to be said if I should prevent someone from fishing in front of my house or my luxury seaside villa?³⁰⁴ Am I liable on a suit for *iniuria* or not? And, certainly, the sea is common to all, as are its shores, just like the air, and it has very often been laid down in imperial rescripts that no one can be prevented from fishing. The same rule applies to bird catching, except for the fact that someone can be forbidden to enter another person's land. Nevertheless, the claim has even been made, albeit without a legal basis, that anyone can be prevented from fishing in front of my house or my luxury seaside villa. Thus, if anyone is so prevented, a claim on *iniuria* can still be brought. I can however prevent someone precisely from fishing in a lake that is my property.

Here we most certainly encounter a reference to the *RCO* as a category of property.³⁰⁵ Ulpian does not present the category in the same way as Marcian, a fact that has misled many over the years.³⁰⁶ This is largely because he is not writing an elementary textbook where it would be necessary to take the reader through a series of classifications of property, as is, of course, the approach of Gaius and Marcian. Ulpian does mention all three components of the new category—all three, that is, before Marcian later added that of flowing water. So the list is exhaustive as it stands. In making such a list, Ulpian is deliberately setting forth the *RCO* as a category.³⁰⁷ There is otherwise no reason to mention all three of these items in this context. He only needs to mention the sea for the purposes of his discussion about fishing, not the shore,³⁰⁸ and certainly not the air. The jurist thus tacks on the latter two in order to round out the *category* he is describing.

Even if both Ulpian and Marcian mention the category, this does not resolve the question of who came first: that is, who is its actual creator. The information available to us suggests that Ulpian is the much likelier candidate for this honor. Many scholars believe that “during Caracalla's reign Ulpian revised and prepared for final publication his commentary *ad Edictum*.”³⁰⁹ Caracalla reigned

304. By *praetorium*, Ulpian refers to a type of home villa or luxury villa that combined elements of a working farm with a pleasure resort, often standing in some proximity to a series of more modest working villas owned by the same person. Bruce W. Frier, *Law, Technology, and Social Change: The Equipping of Italian Farm Tenancies*, 96 ZEITSCHRIFT DER SAVIGNY-STIFTUNG FÜR RECHTSGESCHICHTE (ROMANISTISCHE ABTEILUNG) 204, 255 (1979). His use of the word is meant to offer the maximum contrast possible with a simple house (*aedes*).

305. See *infra* note 306.

306. Thus, modern scholarship has overwhelmingly identified Marcian, and not Ulpian, as the creator of the category of the *RCO*. See the discussion above in Subpart III.A.

307. Cf. DURSI, *supra* note 273, at 12 (viewing Ulpian's construction of the category as unintentional).

308. On the question of the—falsely—alleged interpolation of the words *et litora*, see above, especially note 255.

309. Bruce W. Frier, *Law on the Installment Plan*, 82 MICH. L. REV. 856, 863 (1984), citing numerous predecessors. For the view that Ulpian wrote Books 22–57 under the sole reign of Caracalla

alone from 211 to 217.³¹⁰ In this light, the plausible argument that Marcian composed his work in the reign of Elagabalus (218–222) or even as late as that of Alexander Severus (222–235) assumes significance.³¹¹ Ulpian emerges as far more likely to be the innovator.³¹²

Why does it matter whether Ulpian or Marcian invented the category of the *RCO*? Pushing the date of its birth back a decade or two is hardly consequential, especially since, aside from Marcian’s addition to the list of flowing water, there is no evidence of further juristic elaboration of the relevant rules. What may be of some significance, however, is its assignment precisely to the far more central and influential Ulpian than to the less conspicuous and all-too-frequently marginalized Marcian. In short, Ulpian offers the *RCO* a much finer pedigree.

One more observation is worth making. Although Ulpian clearly distinguishes the *RCO* from “public things” such as baths and theaters, he applies the same rules to both, suggesting that the regime protecting the former derives from that of the latter. This does not change with Marcian or even with Justinian. Moreover, Ulpian implicitly recognizes a distinction drawn by earlier jurists between two types of *res publicae*: those *in patrimonio populi* (“in the ownership of the people”), which were treated by the State as an economic asset much like private property, and those *in publico usu* (“in public use”), like baths and theaters, which could *not* be alienated. The State managed access both to the latter, which were notionally in its ownership, and to the things common to all, which were not. The fulcrum of the contrast rests on a distinction between property that actually produces income for its owner(s) and that which is simply made available for their use.

D. Modest Conclusions

What choices do the Romans present us with in terms of modern policy making in this area? What solutions did they develop that might work in a modern setting, and what adjustments will have to be made to this end? On one very basic level, ancients and moderns confront a similar challenge, which may be defined in its broadest contours as a collective action problem. As such, this challenge suggests the presence of aspects of each of the two main types of collective action problems. This means both the “cooperation problem,” where

(211–217), see TONY HONORÉ, *ULPIAN: PIONEER OF HUMAN RIGHTS* 169 (2nd ed. 2002); DURSI, *supra* note 273, at 13–14.

310. DIETMAR KIENAST ET AL., *RÖMISCHE KAISERTABELLE: GRUNDZÜGE EINER RÖMISCHEN KAISERCHRONOLOGIE* 156–59 (6th ed. 2017).

311. For the argument about the date of Marcian’s *Institutiones*, see DETLEF LIEBS, *Älius Marcian: Ein Mittler des römischen Rechts in die hellenistische Welt*, 128 *ZEITSCHRIFT DER SAVIGNY-STIFTUNG FÜR RECHTSGESCHICHTE (ROMANISTISCHE ABTEILUNG)* 39, 46–48 (2011); DURSI, *supra* note 273, at 14–16. For the regnal dates of Elagabalus and of Alexander Severus, see KIENAST ET AL., *supra* note 310, at 165, 171. Ulpian died in 223, another factor to consider. Frier, *supra* note 309, at 856.

312. The claim that Marcian (or Ulpian) simply granted formal recognition to an already existing category is without foundation. See Fiorentini, *supra* note 281, at 45; Giagnorio, *supra* note 295, at 11.

ideals of the common good conflict with individual self-interest, and the “coordination problem,” in which the State or other authority establishes a rule that is more or less arbitrary from the perspective of utility but is inconvenient to leave to private parties to develop.³¹³

There is more than one Roman ancestor of the PTD. The tradition is both older and more varied than previously thought. Its truest forebear is, one can reasonably argue, the regime protecting not the *RCO* but the *res publicae*, meaning, above all, those resources “in public use.” This has a pedigree that is even more complex and ancient, even as many of the rules developed for it apply equally or by analogy to the category of common things. The result is that the Romans offer two diverse yet closely associated models of property law regimes for the contemplation of modern jurists and policy makers.

These doctrines, largely the product of Roman juristic thinking, protected a Roman conception of the public interest. Given that they placed some important types of property beyond the reach of private ownership, the modern idea of a trust is not out of the picture.³¹⁴ The broad and longstanding cultural attachment to the ideal of wide or even universal access indelibly stamped their approach to the development of a legal regime for such property. Despite expectations to the contrary, all three attributes of the public trust doctrine come to be fulfilled, if after a fashion. The ancient *doctrine*, meaning the relevant legal rules, for the *RCO* can be described as safeguarding the *public* interest through a mechanism that is broadly identifiable in our terms as a *trust*.

If contemporary law-finders deem it expedient to deploy the Roman tradition in a modern setting, as a number of them have done, it might be useful to contemplate the lessons adumbrated some years ago by Alan Watson. Watson, an expert in Roman and comparative law, is the scholar credited with the introduction of the term “legal transplants.”³¹⁵ A noteworthy characteristic of his approach is his lack of confidence in the ability of the class of legal experts, or jurists, who typically mediate the process of transplantation, to get the job done right.³¹⁶

In his pathbreaking book on the subject,³¹⁷ Watson presents a series of case studies of the phenomenon of legal transplants. One finds them falling along a spectrum, with some close to wholesale, such the reception of English law in New Zealand over time and the adoption of the Swiss Civil Code by the Republic

313. See Thomas A. J. McGinn, *The Expressive Function of Law and the Lex Imperfecta*, 11 *ROMAN LEGAL TRADITION* 1, 8–10 (2015); Thomas A. J. McGinn, *La funzione espressiva del diritto*, 2 *RIVISTA GIURIDICA DEL MOLISE E DEL SANNIO* 85, 96–97 (2015).

314. There are differences of course that cannot be explored here. On the ancient legal meaning of trust, see generally DAVID JOHNSTON, *THE ROMAN LAW OF TRUSTS* (1988).

315. ALAN WATSON, *LEGAL TRANSPLANTS: AN APPROACH TO COMPARATIVE LAW* (2nd ed. 1993). On the coinage of the term, see John W. Cairns, *Watson, Walton, and the History of Legal Transplants*, *GA. J. INT'L & COMP. L.* 637, 643–44, 669–70, 687 (2013).

316. See, e.g., WATSON, *supra* note 315, at 21–22, 89, 92.

317. *Id.*

of Turkey in 1926.³¹⁸ Then there are the partial specimens, represented by the “semi-adoption” of Roman law in Scotland or in a dramatically different way, by the selective quarrying of the *Corpus Iuris Civilis* we find with *lo Codi*, a kind of commentary, or *Summa*, on the Codex of Justinian composed in Provençal, likely in the middle of the twelfth century, and of great subsequent influence.³¹⁹ At the far end of the spectrum are instances where, despite reasonable expectations, legal transplantation does not occur, such as the late Roman Republic.³²⁰ One also finds a variety of approaches taken to the Roman rules on transfer of ownership and risk in sale by different modern European codification projects, namely, the French, German, and Swiss.³²¹ The upshot is that modern legal experts contemplating adoption or adaptation of the Roman rules are hardly bound to any one method and retain a great deal of discretion over how much of the ancient tradition they wish to transplant as well what precisely to do with it.

Alongside this spectrum lies another that invites us to evaluate the success or failure of various experiments with legal transplantation in past time. It is worth noting that Watson, despite his sensitivity to the pathology detectable in some such exercises,³²² is far from denying the effectiveness of others.³²³ All the same, a certain arbitrariness often appears to pervade the process. For example, the sheer accessibility of a set of external rules, a fact that in itself can enhance perceptions of their authority, frequently seems to outweigh other factors in their adoption.³²⁴ That may not be the case with the Romans and the PTD, given the linguistic and disciplinary challenges in place for the twenty-first century, but the record viewed as a whole prompts caution before proceeding.

This by itself may be enough to discourage any approach to the Roman sources that smacks of Originalism. The recent debate among legal historians over whether the Romans were sensitive to ecological concerns and whether they pursued, through their lawmaking, a pro-environmental policy, offers yet another reason for hesitation. Among the protagonists is Andrea Di Porto, who argues that the Urban Praetor, assisted by the jurists, chiefly among them the Augustan-era M. Antistius Labeo, set in place a series of procedural remedies designed to

318. For New Zealand, see WATSON, *supra* note 315, at 71–74 (acknowledging some differences); for Turkey, where reception extended, perhaps surprisingly, even to some aspects of family law, see *id.* at 98, 115–16. Somewhere between these examples and the ones given in the next sentence would seem to fall “the earliest code of the modern Western legal world,” the 1648 enactment of the Massachusetts Bay Colony. See *id.* at 65–70 (quotation at 66).

319. For Scotland, see WATSON, *supra* note 315, at 36–56. Roman Egypt might be cited as another example, if of a somewhat different kind. *Id.* at 31–35. For *lo Codi*, see *id.* at 61–64.

320. See WATSON, *supra* note 315, at 75–78.

321. *Id.* at 82–87. Of the three, only the Swiss faithfully reproduce the Roman rules.

322. Difficulties arise in some cases from misunderstanding of a foreign rule, in others from mistranslation of a foreign source. See, e.g., WATSON, *supra* note 315, at 52–53 (with n.45), 92, 110, 116. See also ALAN WATSON, *SOCIETY AND LEGAL CHANGE* ix (1977).

323. ALAN WATSON, *THE MAKING OF THE CIVIL LAW* 99–130 (1981) has a chapter on “Successful Modern Codification,” which in its survey of the major European projects contains (like the rest of the book) much discussion of Roman influence.

324. WATSON, *supra* note 315, at 92, 113.

safeguard, in the interests of public health, the cleanliness of rivers, sewers, the air, and the “things in public use” (*res in publico usu*) in general.³²⁵ On the other side, Mario Fiorentini vigorously contests the existence of any such ambitiously conceived policy and denies that the Romans possessed anything like a modern environmental consciousness.³²⁶

The matter is too weighty and complex to address fully here, but it might be observed that both sides press their arguments rather hard. On balance, the surviving sources suggest to us that Roman policies are not linked, at least not in any obvious sense, to the protection of the environment. Instead they are keyed to the exploitation of certain natural resources for economic motives. On the other hand, if the skeptics of Roman “environmentalism” are correct that modern demographic conditions and industrial development are so radically different from antiquity as to render any such approach unsustainable,³²⁷ one has to wonder what relevance the Roman rules can possibly have for the future. The experience of modern legal traditions on the European continent and elsewhere, with regard to their own various yet often substantial reception of Roman rules, suggests that they may be taking the argument too far.

As we have seen, the Roman experience offers more than one model for moderns to explore in addressing contemporary challenges in the management of natural resources. Given their antiquity and past utility, these models might themselves qualify as a kind of public trust. The doctrines developed for the category of “public things” and that of “things common to all” provide a toolkit that repays not blind and unquestioning appropriation but careful and considered use. Few ways of law finding are perhaps as successful as transplants when done well and as awkward when done poorly. And yet, these two regimes of public and common do not exhaust the possibilities offered by this ancient yet modern tradition.

We close our examination of the Roman legal rules with yet another example drawn from the storehouse of the Roman law of property, offered simply as an illustration. This one presents a sort of remedy different from those mentioned above, that of an *actio negatoria*, which was used to assert the nonexistence of a servitude (the Roman equivalent of an easement). Interestingly, this applies to the air, the item in the canonical list of the *RCO* that has perhaps received the least amount of (though at the same time some of the most adverse) attention from commentators through the ages:³²⁸

(Ulpian in the seventeenth book on the Edict): Aristo, in reply to a legal inquiry by Cerellius Vitalis, states that he does not believe that smoke can be

325. See the two collections by DI PORTO, *supra* note 284.

326. See FIORENTINI, *supra* note 165, above all at 2 n.1, 173 n.29, 224 n.110, 226–27, 257–64, 326, 479–83.

327. See, e.g., FIORENTINI, *supra* note 165, at 479–83.

328. What follows is DIG. 8.5.8.5 (Alfen.-Aristo-Ulp. 17 *ad edictum*). This text concerns air as substance and not as space, making it perhaps more suitable than the category of the *RCO* as a model for a modern regime protecting the atmosphere.

lawfully discharged from a cheese shop to the buildings standing at a higher level above it, unless the shop holds a servitude for this purpose. The same (jurist) says that it is not permitted to discharge water or anything else from an upper level to a lower one. For one is permitted to use one's own property only insofar as nothing is discharged onto another's. Moreover, smoke counts as a discharge just as water does. So, the owner of an upper property can sue the owner of a lower one on the ground that the latter has no right to do this. Finally, he points out that Alfenus writes that a suit can be brought on the ground that the defendant has no right to cut stone on his property so that stone chips fall on my land. So Aristo holds that he who has leased a cheese shop from the town of Minturnae can be prevented by the owner of a building on an upper level from discharging smoke, but that the town of Minturnae is liable to him (the lessee) on the lease. He adds that a suit is possible against the man who discharges smoke on the ground that he has no right to do this. As a consequence, on the other hand, a suit is possible on the ground that the plaintiff has the right to discharge smoke. Aristo seems to approve this as well. But the interdict *uti possidetis* is also an option, if someone is prevented from using his property as he wishes.

What Aristo does is in essence to deploy the Roman equivalent of nuisance law to offer a remedy where a certain human activity has fouled the air and so interfered with the use and enjoyment of property by others. While the implications for broad protection against adverse environmental impacts are limited in Roman law, this does not foreclose an application in a modern setting, where a nuisance regime has played a key role in safeguarding ecological integrity and, as one of us has argued, can do much more along these lines.³²⁹

From Ulpian to the modern atmospheric trust—we now turn to measuring how great a leap is required.

IV. ASSESSING THE ATMOSPHERIC TRUST'S ROMAN ROOTS

As we establish in Part II, much has been forgotten or ignored in modern times about the role of Roman law in the early formation of the American PTD. And as we establish in Part III, even those early courts and scholars were not tapping into the full context. In this Part, we put the two together. Were, as Professor Huffman suggests, the early American courts and scholars simply misguided and mistaken? Or, if they were correct and the Roman roots narrative accurately captures history, how far do the roots go to support the atmospheric trust? To delve into that question, we once again track through the three versions of public trust theory. Acknowledging there is no single indisputable interpretation of the *RCO* and its origins, we do so relying on what we believe

329. For the argument that modern nuisance doctrine is underutilized in the service of safeguarding ecology, see J. B. Ruhl, *Making Nuisance Ecological*, 58 CASE W. RES. L. REV. 753, 777 (2008), where the author identifies the novelty in his approach as “linking damage to ecological resources on defendant’s property with injury to use and enjoyment of plaintiff’s property.” See generally Ruhl & Salzman, *supra* note 142.

are the most plausible and useful conclusions drawn from our discussion in Part III:

First, Ulpian should be credited as the progenitor of the *RCO* as a category of property, in which he included air, the sea, and the shore, with Marcian later adding flowing water. Ulpian unquestionably adds to the credibility of the *RCO* as a legal category of property.

Second, although the *RCO* resources and *res publicae in publico usu* are distinct categories of property, rules regarding the former draw from rules regarding the latter, in particular, limitations on alienability.

Third, in the *RCO* sense, air is probably best interpreted as a resource the Romans considered a space available for economic exploitation, not as a substance. Impairment of air as a substance could have been addressed through a private remedy akin to our modern doctrine of nuisance.

Fourth, Roman law in general was oriented toward viewing natural resources primarily as something to be used, and only secondarily, if at all, something to be protected. At the very least, the Romans had no regulatory regime resembling modern environmental law.

Fifth, as evidenced by its inventive use by the Venetians to establish their sovereignty, adoption of Roman law has almost always involved its adaptation. This is necessarily the case when it is invoked in modern times.

A. *The Traditional Public Trust*

The traditional PTD, the core principles of which the Supreme Court summarized in *Illinois Central*, consists of a rule defining public access to types of state-owned resources, plus a rule imposing limitations on the power of the state to alienate those resources. There is no basis to object to the Roman roots claim on account of the resources included in the *RCO* category—the Roman *RCO* resources of flowing water, sea, and shore are at the core of the traditional American doctrine (we leave air for the discussion below).

Rather, Huffman (channeling Deveney and MacGrady) aims his critique principally at the limited alienation component of the traditional doctrine. The gist of his argument is that there was no distinct Roman state that could govern the “things common to all” in trust, but rather that these resources were simply abundant, thus available to all, and in fact were subject to private exploitation because of that abundance.³³⁰ The limited alienation component of the American doctrine thus, in his view, has no basis in Roman law.

This is to some extent a straw man argument, for the traditional American PTD also allows alienation of the trust resources into private hands, albeit in limited circumstances. That was what much of the public trust litigation was about in the nineteenth and early twentieth centuries, with courts often approving

330. Huffman, *supra* note 10, at 14–18.

alienation as meeting the standard set out in *Illinois Central*.³³¹ But as we show in Part III, Huffman's sources (as well as Sax and the atmospheric trust advocates) missed the *res publicae in publico usu* roots onto which Ulpian grafted the conception of the *RCO* resources—that the latter are *res communes* in terms of their universal accessibility of use, but also like *res publicae* in terms of the management of this accessibility by the State. We do not argue that the same items appear simultaneously in both categories,³³² but rather that a number of the rules applying to the *RCO* category first arose for that from which it emerged. This feature of the *RCO* resources, heretofore not captured in the Roman roots narrative or by its critics, lends considerable support to the argument that the limited alienability component of the traditional PTD, which is the foundation of the *trust* conception, has roots in Roman law. That these resources nonetheless were subject to private exploitation in some circumstances under Roman doctrine (for example, one could build and occupy a home on the shore) differs immaterially from the traditional American doctrine.³³³

Where the Roman roots claim becomes murkier for the traditional doctrine has to do with judicial enforcement of the limited alienation principle against sovereign entities, as in *Illinois Central*. As the passage above describing Aristo's cheese shop scenario suggests,³³⁴ Roman jurists would have been comfortable resolving nuisance disputes between private interests, much as was the case in *Sterett* and many American cases decided thereafter. Indeed, one of the misconceptions caused by reliance on the Institutes passage as primary (often exclusive) support for the Roman roots narrative is that it suggests the *RCO* started with Justinian, an assertion made repeatedly in Saxian and atmospheric trust scholarship. As we have shown in Part III, the Roman roots trace back to Roman juristic writings dating back centuries before Justinian. The Digest collected and organized those writings, and the Institutes compiled the principles laid out in them and other writings into an organized legal text, analogous to the modern day Restatements.³³⁵ So it was by no means unusual for Roman jurists to be putting Roman public trust principles in play that might in turn be deployed in handling private disputes.

But the fundamental differences between Roman and American institutional structures complicate the picture when thinking about suits against a sovereign

331. For an historical account, see Lazarus, *supra* note 20, at 651–54; Sax, *supra* note 40, at 485–89.

332. This position would be similar to those adopted by the twelfth-century glossator Placentinus and the distinguished twentieth-century scholar Biondo Biondi. See *supra* Subpart III.A.

333. As the medieval Venetian jurists well knew, under certain conditions bits of public and later common property in the sea and on the shore could pass into private ownership. See DIG. 41.1.14 pr.-1 (Ner. 5 *membran.*); DIG. 43.8.3 pr.-1 (Celsus 39 *digest.*); DIG. 41.1.30.4, *supra* note 168; DIG. 1.8.10, *supra* note 212; DIG. 41.1.50 (Pomp. 6 *ex Plautio*), passages that require more discussion than is possible here.

334. See *supra* note 328.

335. See William R. Vance, *The Restatement of the Law of Property*, 86 U. PENN. L. REV. 173, 173 (1937) (drawing the analogy).

to enforce the limited alienation principle. In short, there is no evidence that a suit could be brought by a Roman citizen against State authorities to require State management of *RCO* resources in any particular way. Yet, no one has ever claimed that the Roman doctrine was operationalized in exactly the same way as the American (or English, or Spanish, or French) doctrine. To argue that they must be the same for the Roman roots narrative to hold water would be to argue that American common law has no roots in English common law because the United States never had a monarchy.

Roman institutions were different; of that there is no debate. But we have shown that *the law* of the Roman public trust was close enough in context to the traditional American doctrine to support the Roman roots narrative—that the *RCO* resources in Roman law were the same as in American law and that limited alienation by the State was the baseline condition.

B. *The Saxian Public Trust*

The Saxian public trust model depends on all components of the traditional model plus a sovereign ecological stewardship obligation. Like the limited alienation principle, this stewardship duty also can be enforced in the courts directly against the state, either to force it to correct its violations or to force it to regulate other parties on the theory that the state should control their behavior, even on private property. Thus, the PTD could be used to require the state to meet the stewardship obligation when regulating “air pollution, the dissemination of pesticides, the location of rights of way for utilities, and strip mining or wetland filling on private lands in a state where governmental permits are required.”³³⁶ That was Sax’s innovation of the PTD. But it was also an innovation of the Roman doctrine—the scope and conditions of the Saxian public trust stretch Roman roots too far.

As we explain in Part III, Roman law historians remain divided over the extent to which the Romans had conceptions of the environment and environmental protection similar to modern American sensibilities. But even assuming the Romans had some form of environmental “policy” in operation for the *RCO* resources, whether it imposed an affirmative obligation on the sovereign to regulate, one that could be enforced by the courts, is a different matter. It is one thing to establish that limited alienation was a baseline condition of the Roman doctrine, but an affirmative, judicially enforceable obligation of the state to regulate private activities on private land goes beyond what Roman law can supply in the form of roots. True, Ulpian wrote that Roman jurists did “not believe that smoke can be lawfully discharged from a cheese shop to the buildings standing at a higher level above it, unless the shop holds a servitude for this purpose,” but this only established that a private right of action would be

336. See Sax, *supra* note 40, at 556–57. We could not find any instance in his writings on the PTD in which Sax pointed to the use of the word “air” in the *RCO* passage as support for his including “air pollution” in the list of example activities he suggested could be regulated under the PTD.

available, not that the state *must* intervene with regulatory force and a permitting regime.³³⁷

Hence, to the extent a court grafts the Saxian model in part or in whole onto the traditional PTD, it will have to depend on distinctly American roots. This does not mean the Saxian model cannot claim origins dating back to the Roman doctrine; rather, the Saxian model, like the Venetian twist on the *RCO*, would necessarily require a substantial adaptation.

C. *The Atmospheric Trust*

The starting point for the atmospheric trust is the claim that air is a trust resource. Of course, the word air is right there in the *RCO* passage, so why is that not the end of the story?

To begin with, to suggest that the mere appearance of the word “air” in the *RCO* passage settles the matter ignores that the Roman law of water and submerged resources by no means begins and ends with that Institutes excerpt. For example, if one knew only that flowing waters and the seashore are *RCO* resources, one would know very little about what to do with that knowledge. The Romans had an array of corollary rules defining boundaries, access, and other features, which, with help from English common law and other nations’ doctrinal development, were gradually built into the early American doctrine governing water and submerged land resources.³³⁸ We have no evidence that Roman law developed rules like that for air, either as physical space or as a matter of air substance quality.

On the other hand, the word “air” does not first appear in Roman doctrine by the hand of Justinian—it dates back at least to Ulpian and, subsequently, to Marcian as one of the core *RCO* resources. Had air somehow become an important or disputed resource—perhaps because of competition for access or widespread pollution going beyond smoke from a cheese shop—by all accounts it would not have been in the least controversial to suggest air would enjoy *RCO* resource status and all that came with it. But we have no idea what rules for air the Romans may have formulated—as a physical matter, air and the sea have distinctly different properties and, as in modern times, would require different approaches.

At the very least, however, the proposition of including air in the scope of the American PTD enjoys Roman roots dating as far back as to Ulpian.³³⁹ What to make of that? Ironically, as little as we know about what the Romans intended by the addition of “air” to the list, we know even less about what the designers of the American PTD thought of air’s place. On the one hand, the fact that air is

337. DIG. 8.5.8.5 (Alfen.-Aristo-Ulp. 17 *ad edictum*).

338. See the cases discussed in Part II, *supra* notes 83–112.

339. Indeed, about a century before Ulpian’s invention of the category of the *RCO*, the prominent jurist P. Iuventius Celsus (the younger) had identified air, along with the sea and the shore, as resources whose *use* was common to all persons. DIG. 43.8.3.1, *supra* note 168.

not specifically mentioned alongside water in the American cases laying down the foundations of the traditional PTD does not necessarily mean the courts meant to exclude it from PTD resource status. The question was not in play. Now it is. If Roman law supplies the roots of the American PTD, including air as a PTD resource is not an adaptation. On the other hand, as seen, not all early American cases—indeed, *none* of the canonical PTD cases—actually cite the *RCO* passage as support for formulation of the traditional PTD, so it cannot confidently be asserted that the courts meant for air to be included.

The status of air in the American PTD is an ambiguity we cannot resolve. Air appears in the *RCO* passage as a direct manifestation of the thought of Ulpian and other Roman jurists, but there is virtually nothing more to go on in Roman law to suggest the implications. Even the question of whether it was meant to represent air as space or air as substance cannot be definitively resolved. And the *RCO* passage plays a sporadic role in the early development of the American PTD, rising to prominence only much later, after Sax's article, as a sort of formless meme repeated over and over.

On balance, it strikes us as fair for atmospheric trust advocates to assert that including air as a PTD resource has Roman roots, but what to do with it going forward, as with the Saxian trust, will need to be based entirely on American roots. In short, the first and second premises of atmospheric trust theory—that air is a PTD resource and this has consequences for the state—have support in Roman law, but the remaining premises—that future generations are beneficiaries, the state must protect against substantial impairment of the atmosphere, and the courts must enforce that obligation—are, like the Venetian twist on sovereignty, purely adaptations.

CONCLUSION

Roman roots, or no Roman roots? Which side has the better case? As we have shown, the answer is far more nuanced than either side argues. To be sure, there is considerable distance between Roman law and the atmospheric trust theory in some respects. To put it bluntly, if the atmospheric trust litigants and scholars went back in time and proposed something similar to apply under Roman law—that a citizen could sue the Roman state to require it to regulate public and private actors to protect degrading air, water, or other resources—their arguments and theories, no matter how eloquently presented and pleaded, would have fallen on deaf ears. But that does not mean they cannot with credibility claim that the atmospheric trust doctrine traces some of its roots to Roman law. Air in some form was a core trust resource in Roman law, albeit not one that played an important role in the juristic engagement that is preserved for us, and trust resources were extended some measure of protection against alienation as a legal matter, a feature previously unrecognized in American legal scholarship and judicial treatment. Indeed, we detect these seeds planted by Roman jurists centuries before the publication of Justinian's Institutes, moving

the historical “unbroken line” further back in time than even the most ardent supporters of the atmospheric trust claim.

On balance, therefore, we conclude that the Roman roots narrative has the better case in one important respect—Huffman and his sources underestimate the foundations Roman law laid, long before Justinian, for the eventual development of the traditional American public trust principles. But the debate Huffman fueled by vigorously challenging the Roman roots narrative has revealed the limits of Roman law in guiding where the American PTD can and should evolve. Courts and scholars cannot look to Roman law to decide the merits of the Saxian trust’s or atmospheric trust’s adaptations on the traditional doctrine. These questions will have to be resolved purely as matters of American law and policy.

In the final analysis, and when properly framed, the issue is impossible to answer more conclusively than that. We have done our best in the pages of this Article to define the Roman public trust and compare it to the modern articulation of an atmospheric trust. Concluding that the American PTD has Roman roots does not dictate anything about what the doctrine is supposed to grow into in modern times—should it stop at the traditional version, blossom into the Saxian version, or explode into the atmospheric trust? Roman law holds no answers. Similarly, although we leave fuller analysis to later and encourage others to weigh in, it does not strike us that Roman law on the public trust resources will answer any of the other lingering questions regarding the American PTD. Whether it is a common law or constitutional principle, whether other resources can be added to the category, whether new uses can be protected—Roman authorities offer no guidance on these modern questions.

Of course, the real question posed by the atmospheric trust’s Roman roots claim is how the Romans would have responded in *their* times to a social-ecological challenge of similar magnitude in scale and impact to the modern challenge of climate change? We simply don’t know. They faced nothing like what modern society is facing on its horizon, so it is no surprise we could find no authority even remotely on point to provide a sense of how the Romans would have responded. Would they have evolved their public trust principles to respond to the problem the way atmospheric trust proponents advocate we should today? Would they have forged new doctrines, like those many policy makers and legal scholars today say we need to combat climate change? Who knows? We do have every reason to believe, however, that they would have done something *legal* about it, and it very likely would have been built on the foundations of their public trust principles.

Ultimately, we close by asking: why care? By that, we do not mean to adopt Hope Babcock’s suggestion that the Roman roots narrative, even if wrong, is a useful legal fiction, the truth of which should not be investigated.³⁴⁰ We have

340. See Babcock, *supra* note 79.

shown that the Roman roots narrative is by no means a legal fiction. What we mean is, having done the work for early American courts and scholars as they built out the traditional PTD principles, the job of Roman law is complete. The American doctrine is now fully American, and its extension into new frontiers, whether Saxian, the atmospheric trust, or something else, must depend on American roots. Still, even for such purposes, the very fact of these Roman roots is, in our opinion, worth advertising.