

Commons and Environmental Regulation in History: The Water Commons Beyond Property and Sovereignty

*Alice Ingold**

Do commons outline a different way of considering historical forms of environmental regulation? Might they represent a sort of alternative, apart from the usual model of environmental law which rests on public authorities and forms of restrictions of private rights? In order to grasp the complex relationship between environmental law and history, it is essential to pay attention to the state's radical transformation in the nineteenth century, especially the separation (and separate definition) of administration and the judiciary. This article aims to historicize the commons, but also the state in order to escape the projected shadow of public administration in considering environmental regulation. It looks into the commons' ambiguous relations with history. A first point is to critically reconsider the opposition between commons and enclosure, inherited from Hardin's thesis. A second point consists in deconstructing mythical accounts of stateless commons. This is done by relying on water commons — which are also a key example in Ostrom's theory. Early histories of water commons by commoners provided the opportunity for a first version of commons' history without the state. This 'discovery' of the water commons presented them as a pertinent response to the aporia of the private property system, but also to the dangers of keeping resources available to the administrative state, which appeared ill-suited to managing scarce

* Associate Professor at the École des Hautes Études en Sciences Sociales (Paris). Translation by Constance Bantman, University of Surrey, GB with the support of ANR Govenpro (ANR-14-CE03-0003).
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natural resources. This positive development translated into a series of fascinating inquiries, undertaken from the 1800s to the 1880s in several places across Europe. They gave rise to the very first ethnogeographic descriptions of the commons' functioning. It was in the context of very acute conflicts over access to the resource that this use of history became enshrined. The historical longevity of these irrigators' communities was highlighted in order to defend their historical and customary rights against the administrative state's will to regulate all water courses, which was more favorable to new users in water sharing. The resource's ecological limit thus served to set boundaries to the administration's intervention. Scarcity was a way to conceive of the resource as unavailable both for property and for state sovereignty. Protecting environmental resources through the courts was a way of conceiving a regulation based on the resource's specific status, rather than on the will of subjects — whether private, collective or public.

INTRODUCTION

The Tragedy of the Commons, as formulated by Garrett Hardin in 1968, represents one of those windmills turned into giants to be fought and still causing pointless battles, generating historiographic overproduction as well as ineffective ways of asking important questions. Let us try to be as pragmatic as Sancho Panza. The enduring posterity of this theory, which has stood in inverse proportion to its rigor, cannot but give food for thought to historians. Garrett Hardin's article, which is cited more often than it is read, uses the example of common land metaphorically, in order to proclaim that any common is doomed to perish, unless it is protected by exclusive property rights or subjected to a state's binding regulation. It is in the field of environmental studies that the discussions of *The Tragedy of the Commons* have been the most vivid, until it became "the dominant framework within which the social scientists have portrayed environmental and resources issues"¹ in the 1980s. However, the resources which Hardin suggested should be regulated were not environmental resources, but rather humankind. Garrett Hardin's target was clear: "the necessity of abandoning *the commons in breeding*."² He attacked

1 Kenneth R. Godwin & Bruce W. Shepard, *Forcing Squares, Triangles and Ellipses into a Circular Paradigm: The Use of the Commons Dilemma in Examining the Allocation of Common Resources*, 32 W. POL. Q. 265 (1979).

2 Garrett Hardin, *The Tragedy of the Commons*, 162 SCI. 1243, 1248 (1968).

the right granted by the UN in 1967, which allowed families to decide by themselves how large they should be. I will not dwell here on the reasons for the diffusion of this unconvincing neo-Malthusian thesis in environmental studies, even as carefully-researched studies have been conducted regarding the fate of environmental commons, especially fisheries.³ Among the oft-cited lines concurring with this environmentalist interpretation are those which Hardin borrowed from an early nineteenth century “obscure Oxford professor of mathematics and economics,”⁴ William Forster Lloyd. In Hardin’s general argument, this historical example of grazing commons only has a very anecdotal status: abstract and symbolical rather than historically-founded, it is followed by a series of other examples, from the regulation of car parks in a U.S. city on Christmas Eve to National Parks open to all, also dealing with oceans in a single sentence. However, it was this historical example which became the icon of Hardin’s thesis.⁵ And yet, William Forster Lloyd’s 1833 paper — which is often known only through Hardin’s citation of it — does not touch upon overgrazing, and even less on the environment! It examines Malthus’s population theory and discusses more specifically the labor market: in England, the question of poor relief and, more generally, the social question were raised afresh at a time of lively discussions triggered by the Poor Laws. Lloyd thus compared a sheep with a jaw for grazing, with a child who has two arms to work. Open commons were the cattle’s field, and the labor market was the child’s. Overgrazing the commons therefore functioned as a metaphor for the saturation of the labor market. Hardin draws parallels between the nineteenth-century debates linking social misery and

3 See Alice Ingold, *Les sociétés d’irrigation: bien commun et action collective* [*Commons and Collective Action from Hardin to Ostrom: Hydraulic Societies*], 50 *ENTREPRISES ET HISTOIRE* 19 (2008) (Fr.).

4 GARRETT HARDIN, *LIVING WITHIN LIMITS: ECOLOGY, ECONOMICS, AND POPULATION TABOOS* 216 (1993).

5 Hardin had already published this text four years earlier in 1964. GARRETT HARDIN, *POPULATION, EVOLUTION, AND BIRTH CONTROL. A COLLAGE OF CONTROVERSIAL IDEAS* (2d ed. 1969). It was part of a patchwork of text fragments, or even aphorisms and short sentences, on population, its growth and birth control, presented randomly without chronological order or contextual element, mingling passages from the Bible, Malthus’s law of population, reports on sterilization in India and Puerto-Rico, opinions on abortion reform in the United States, sayings from Martin Luther and Han Fei Tzu on fecundity, etc. This eclectic publication was intended as a warning against the imminent arrival of a global disaster — overpopulation. This collection has remained — quite rightly — in oblivion, whereas the catchy title of ‘The Tragedy of the Commons’ was newly exhumed in 1968, and has since assured a growing success for Hardin’s article.

demographic problems with the debates triggered in the 1960s by a soaring global population. Hardin's article was in fact a "new interpretation" of the "resources/ population"⁶ debate, a first version of which had been formulated within the field of political economy in the eighteenth century. There, Hardin took up without any change the critique of the commons articulated by physiocrats and agronomists, who regarded them as archaic and inefficient.

Beyond Hardin's unconvincing thesis, it is the remarkable vitality of studies *opposed to *The Tragedy of the Commons** which must catch our attention. My call to stick to Sancho Panza's pragmatism concurs with the irony of E. P. Thompson in the face of Hardin's thesis: "despite its commonsense air," Hardin's thesis overlooks the fact "that the commoners themselves were not without commonsense. Over time and over space the users of commons have developed a rich variety of institutions and community sanctions which have effected restraints and stints upon use."⁷ A reliance on case studies and inquiries as well as a grasp of the commons' institutional diversity and complexity have come as welcome answers to Hardin's simplistic neo-Malthusian thesis. Starting from the analysis of instances of lasting successes in commons management, Elinor Ostrom has identified an "empirical alternative to the Tragedy of the Commons."⁸ At the risk of simplifying, Ostrom is usually credited with highlighting a third way between state and market. More precisely, the many works federated over Ostrom's model and the 'Bloomington' school have made it possible to see beyond a "dichotomous world"⁹ at risk of rigidifying 'state' and 'market.' They have drawn attention to concrete forms of political activities and practices underpinning the commons. Ostrom's propositions did not arise in a vacuum, but in a wider constellation of research on commons; works in anthropology are recognized and cited,¹⁰ those from the field of history less so, or indeed hardly known. Following Ostrom's assessment in the first issue of the *International Journal of Commons* in 2007, many authors have lazily taken up the claim that historians do not engage much in these discussions, or only focus their attention on the process of enclosures and liquidation of

6 Ingold, *supra* note 3, at 24.

7 EDWARD P. THOMPSON, *CUSTOMS IN COMMON* 107 (2d ed. 1993).

8 ELINOR OSTROM, *GOVERNING THE COMMONS: THE EVOLUTION OF INSTITUTIONS FOR COLLECTIVE ACTION* 18 (1990).

9 Elinor Ostrom, *Beyond Markets and States: Polycentric Governance of Complex Economic Systems*, 100 AM. ECON. REV. 641, 641 (2010).

10 *See, e.g.*, *THE QUESTION OF THE COMMONS* (Bonnie J. McCay & James M. Acheson eds., 1987); *COMMON PROPERTY RESOURCES: ECOLOGY AND COMMUNITY-BASED SUSTAINABLE DEVELOPMENT* (Fikret Berkes ed., 1989).

commons in the liberal era.¹¹ Focusing exclusively on this line of research is to overlook important historical works which have extensively renewed the approach to commons from the late 1980s onwards, especially in Italy and France. These works in the field of medieval and modern history have turned their backs on the long-prevailing legal-institutional approach. This historiographic reassessment turns its attention to the concrete *functioning* of the commons. The commons were no longer defined by their entitlement (i.e., to whom the commons belong) but were described via their functioning (i.e., what the commons do). Placing the commons at the heart of the agro-pastoral systems in which they operated has led these historians to examine critically the twin oppositions between private property and commons, and between *cultivated* and *uncultivated*, which actually crystallized in the modern period, triggered by discourses from political economy, agronomy and physiocracy condemning the commons. Their research put an end to a vision in terms of ‘marginal economy’ of collective resources, and led to examining the central role of commons in societies’ general economy. Lastly, these works fed into an institutional analysis of the commons, by examining how the latter contributed to the formation of rural towns and urban municipal institutions.¹² By the end of 1980s this body of research made it possible to redefine the debate over commons in a most fruitful way. Here, I will only point to two shifts which must be borne in mind: the first has made it possible to bring the discussion

11 Frank Van Laerhoven & Elinor Ostrom, *Traditions and Trends in the Study of the Commons*, 1 INT’L J. COMMONS 3 (2007). The development of historical programs of research in the wake of Ostrom’s propositions tends to adopt this flawed presentation of the historical contribution to the commons debate. *See, e.g.*, THE MANAGEMENT OF COMMON LAND IN NORTH WEST EUROPE, C. 1500-1850 (Martina De Moor, Leigh Shaw-Taylor & Paul Warde eds., 2002) [hereinafter: THE MANAGEMENT OF COMMON LAND]; LES PROPRIÉTÉS COLLECTIVES FACE AUX ATTAQUES LIBÉRALES (1750-1914): EUROPE OCCIDENTALE ET AMÉRIQUE LATINE [COLLECTIVE PROPERTIES IN THE FACE OF LIBERAL ATTACKS (1750-1914): EUROPE AND LATIN AMERICA] (Marie-Danielle Demélas & Nadine Vivier eds., 2003) (Fr.) [hereinafter: LES PROPRIÉTÉS COLLECTIVES].

12 Regarding these medieval and historical works, which present some convergences with Ostrom’s propositions, see Ingold, *supra* note 3, at 28-29. For the seminal issue on commons, see RISORSE COLLETTIVE [COLLECTIVE RESOURCES], 37 QUADERNI STORICI 613-23 (Diego Moreno & Osvaldo Raggio eds., 1992). On the crucial contribution of this issue to the commons and environmental debate, see Alice Ingold, *Writing Nature. The New Social History? From Social Question to Environmental Question*, 66 ANNALES. HISTOIRE, SCIENCES SOCIALES 11 (2011), https://www.cairn-int.info/article-E_ANNA_661_0011--writing-on-nature-from-social-history.html.

over commons out of a legal and often ahistorical setting, in the wake of the nineteenth-century debates regarding the legal status of commons or the origin of common goods. One of the benefits of Ostrom's propositions was indeed that they did not reduce commons to a specific property regime, and were not restricted to an overly simplistic distinction between individual and collective property. Commons without tragedy can be observed without coinciding with a single form of ownership.¹³ These are as many elements which can appeal only to historians, who are attuned to the existence of 'other modalities of ownership' (*altri modi di possedere*), such as those documented by legal historian Paolo Grossi on the basis of nineteenth-century debates over the origins of collective property.¹⁴ Overall, historians have been more attuned to the historicity of forms of multiple ownership. The second shift consisted in paying attention to the forms of collective action. This invitation to go beyond an analysis which posits individuals and collectives in isolation is akin to approaches that stress agency. The new trend regarding commons in the late 1980s, in the wake of Ostrom and the Bloomington school but also of renewed historical works, has therefore made it possible to bring the debate over commons out of a number of dead-ends.

It is, of course, impossible to summarize the remarkably lively research on commons, and discussing it in a general way does not make it possible to convey its scope and variety. However, I would like to emphasize that studies on commons in the wake of Ostrom have tended to favor a scale of analysis leading to an internalist approach, focused on 'commons governance.' Forms of commons governance are therefore interpreted as responses, in a sort of faceoff between a resource and a community. However, thinking of commons in terms of a faceoff between resource and community does not make it possible to grasp the functioning of logics of exclusion and inclusion which form the very basis of the life of commons. It is especially important not to think of historical commons as the coincidence of a resource, a community, and a territory. One territory can see the coexistence of a plurality of commons which can use a portion of the same resource. In my view, other works make it possible to pick up and extend these questions in a different way, in particular

13 Elinor Ostrom et al., *Revisiting the Commons: Local Lessons, Global Challenges*, 284 *SCI.* 278, 278-79 (1999).

14 PAOLO GROSSI, *AN ALTERNATIVE TO PRIVATE PROPERTY* (Lydia G. Cochrane trans., 1981) (Grossi's Italian original title, *Un'altro modo di possedere*, was borrowed from Carlo Cattaneo, one of the authors on whose work this contribution is based). In 2006, in the presentation of the Italian edition of *Governing the Commons*, Elinor Ostrom cited Paolo Grossi's book as one of the major contributions to her training.

Carol M. Rose's pioneering essay from 1986.¹⁵ Rose delivered a reflection on the economic role of commons, and also opened up research prospects which were broader than Ostrom's: by focusing on open access commons, such as roads, public places or waterways, she really addressed the question of free access and took into consideration the role of the state. She also initiated a questioning of the interactions — including historical ones — between the public and commons.¹⁶

This is the opening up process — or rather the reintegration of the study of commons — which I propose to carry on. My aim is not simply to acknowledge that commons lived under 'tolerant states,' to quote the historian Tine De Moor who, in the wake of Ostrom, stressed the need for a legal recognition of commons on the part of authorities.¹⁷ The proposition is to reconsider the role of states, or of regional powers, in the history of commons. Far from being isolates, commons were inscribed in plural institutional and political environments, where local commons institutions and regional powers were not exogenous entities, but rather were linked by reciprocal *needs*. Opening up or reintegrating the study of commons does not consist only in reproducing the commons' institutional environment. It also means engaging with a different way of approaching the functioning of commons, and finding a way out of an interpretation which described the commons as entities emanating from 'communities,' weakened at one point in their history, either for internal reasons or — more often — for exogenous reasons, embodied specifically by the state. In my proposition, instead, commons are the product of competing logics of asserting rights and legitimate practices over resources. In this sense, the opening up of commons history proposes to turn around the way we consider conflicts: conflicts are not a symptom of crises, but rather of the commons' modalities of existence:¹⁸ these practices of asserting or challenging rights and practices over resources, that is to say the very fabric of the life of commons.

15 Carol M. Rose, *The Comedy of the Commons: Custom, Commerce, and Inherently Public Property*, 53 U. CHI. L. REV. 711 (1986).

16 Cf. EKATERINA PRAVILOVA, *A PUBLIC EMPIRE* (2014) (building on Carol Rose to approach the emergence of new practices of owning "public things" in Imperial Russia and how the belief that certain objects — rivers, forests, minerals, historical monuments, etc. — should accede to some kind of public status).

17 Tine De Moor, *The Silent Revolution: A New Perspective on the Emergence of Commons, Guilds, and Other Forms of Corporate Collective Action in Western Europe*, 53 INT'L REV. SOC. HIST. 179, 209 (2008).

18 The group of Italian researchers around the main Italian journal of history *Quaderni Storici* unpacks this approach, which centers on conflicts to analyze the practices of 'activation' and 'production' of common resources. See Diego Moreno, *Activation Practices, History of Environmental Resources, and Conservation, in*

In my view, this institutional reintegration of commons is all the more important since nowadays the commons route is presented as a possible solution to the crisis of both the market and the state's modern forms. The originality of the commons cannot be understood if one doesn't grasp their links with the state and the way in which the nineteenth century's political and legal upheavals affected not only those links, but also the very entities being discussed (communities, state, and society). Therefore, this contribution aims to work towards historicizing the commons as well as the state, and proposes to reconsider the opposition between society and state as it was thematized in the nineteenth century.

In Part I, I will show that, in order to grasp the complexity of the relationship between environmental law and history, it is essential to pay attention to the state's radical transformation, in particular the separation of administration and the judiciary in order to escape the projected shadow of public administration in considering environmental regulation.

In Part II, I will probe the commons' ambiguous relations with history. A first point is to critically reconsider the opposition between commons and enclosure. A second point consists in analyzing narratives on commons and deconstructing mythical accounts of stateless commons. This will be done by relying on research I have carried out on water commons — which, moreover, are a key example, to which Ostrom returns throughout her work. I will show that early histories of irrigation commons were written from the beginning of the nineteenth century. They provided the opportunity for a first version of commons' history without state. In fact, these histories — coupled with fascinating inquiries — were written precisely in order to defend the specific rights of water management boards in a profoundly changed institutional and legal world under the scrutiny of the administrative state.

Lastly, in the two final Parts I will show that the foil for these water commons was not appropriation by landowners — enclosure — but the interference on the part of administrative states into the management of commons by their users. The ecological limit of the resource — *scarcity* — emerged as the

NATURE KNOWLEDGE: ETHNOSCIENCE, COGNITION, AND UTILITY 386 (Glauco Sanga & Gherardo Ortalli eds., 2003); Angelo Torre & Vittorio Tigrino, *Beni comuni e località: una prospettiva storica* [*Commons and locality: historical view*], 41 *RAGION PRATICA* 333 (2013); Giulia Beltrametti & Vittorio Tigrino, *Comune, collettivo, sconosciuto: La Storia della Proprietà Collettiva e il Paesaggio Rurale Storico* [*The History of Collective Properties and Rural Landscape*], in *OLTRE LA RINATURALIZZAZIONE: STUDI DI ECOLOGIA STORICA PER LA RIQUALIFICAZIONE DEI PAESAGGI RURALI* [BEYOND RE-NATURALISATION: STUDIES IN HISTORICAL ECOLOGY FOR RURAL LANDSCAPES' REQUALIFICATION] 29 (Valentina Moneta & Claudia Parola eds., 2014).

threshold below which the state's administration did not have the legitimacy to intervene. The commons model presented itself as being beyond property and sovereignty.

I. ENVIRONMENTAL LAW AND HISTORY

A. Regulating Environment in History: Continuity or Discontinuities?

Environmental matters have been subjected to rules regarding use, access and sharing since ancient times. However, does this mean that it is possible to recreate a genealogy between forms of regulation of environmental matters attested to by historians and environmental law? To what extent does the history of these regulations allow one to delineate a history of environmental law, resulting in its emergence as an academic field in the 1970s? Examining the links between environmental law and history leads to questioning several paradoxes. It is as a historian that I propose to examine them.

In the case of resources which have been managed for a very long time, such as forests or waters, there remain to this day ancient rules and institutions which are sometimes of centuries' standing. Such a hold of history may have appeared as an obstacle to the emergence of a coherent and unified set of environmental laws. To take but one example, the scattering of inherited texts and diversity of administrative and judicial 'police' regulating waters with a plural legal status — both of which were historical legacies — are represented as needing to be overcome in order to move towards unifying water law.¹⁹ In France, the very old history of resource regulation — for instance, waters or forests — is closely linked with the history of the power embodying public authority. As a result, writing the history of environmental regulations — especially the history of forest, fluvial and mining law — also leads to writing the history of sovereignty.

Environmental law as a field largely came out of this historical construction: first inscribed in public law, it assumes a filiation with administrative law, and tends to develop forms of restrictions over property rights or contractual freedoms. This filiation with administrative law can be found in both facets of environmental law: the management and protection of environmental matters on the one hand, and the regulation of environmental damage (pollutions and nuisances) on the other. The hold thus exerted by public authorities adds strength to an interpretation which stresses historical continuities: contemporary forms of environmental regulation, where the state is in charge of enforcing

19 CONSEIL D'ÉTAT, *L'EAU ET SON DROIT: ÉTUDES ET DOCUMENTS DU CONSEIL D'ÉTAT* [WATER LAW: REPORT OF THE STATE COUNCIL] (2010).

environmental protection, can therefore be seen as heirs to historical regulations under the aegis of public authorities.²⁰ As a historian, I will question this interpretation, which sees the administrative state as the leading actor of environmental protection and presents public law as the main legal form of this protection.

B. Escaping the Projected Shadow of Public Administration

An interpretation focusing on the historical continuity of environmental regulations, overseen by the state, obscures two major shifts to which I would like to draw attention. On the one hand, it tends to downplay the historical role played by other communities in charge of managing environmental resources. This dimension is probably the one that is known best, thanks to the development of studies on commons, which have highlighted the implementation of collective resource management measures on a local or regional scale. These communities and their institutions were overshadowed by the administration and, even more often, were dismissed after the French Revolution's Jacobin moment. In France, the state — haunted by memories of the now-defunct corporations — then became the one spokesperson for the legal will, while society found itself excluded from any form of management of supra-individual and collective interests, including territorial ones. This transformation went hand in hand with the gradual emergence of a public administration, which was directly in charge of managing collective interests.²¹ In this process, *collective* interests had to give precedence to the *general*

20 Jean-Louis Mestre, *Les Etapes et les Objectifs du Droit Forestier du Moyen Âge au Code Forestier de 1827* [Stages and Objectives of Forest Law from Medieval Times to the Forest Code of 1827], 5 L'ACTUALITÉ JURIDIQUE DU DROIT ADMINISTRATIF 4 (1979) (Fr.); Vida Azimi, *Le préfet français, un protecteur "naturel" de la nature?* [The Prefect as a "Natural" Protector of Nature?], in 11 JAHRBUCH FÜR EUROPÄISCHE VERWALTUNGSGESCHICHTE [YEARBOOK OF EUROPEAN ADMINISTRATIVE HISTORY] 279 (1999) (Fr.); Philippe Billet, *L'Etat représentant naturel de l'intérêt environnemental?* [Is the state the natural representative of environmental interest?], 22 VERTIGO (2015), <http://journals.openedition.org/vertigo/16244>; Pierre Legal, *Histoire du Droit de l'Environnement. De la Protection Environnementale à l'Évolution du Droit des Biens* [History of Environmental Law: From Environmental Protection to the Evolution of Law of Property], in L'HISTOIRE DU DROIT EN FRANCE NOUVELLES. TENDANCES, NOUVEAUX TERRITOIRES [LEGAL HISTORY IN FRANCE: NEW PERSPECTIVES AND NEW THEMES] 417 (Jacques Krynen & Bernard d'Aleroche eds., 2014).

21 PIERRE ROSANVALLON, THE DEMANDS OF LIBERTY: CIVIL SOCIETY IN FRANCE SINCE THE REVOLUTION (2007).

interest, and territorial collective interests were only considered through the territorial network of a central administration. This will be seen here through the example of irrigation commons in France: The Loi Le Chapelier (1791) prohibited all forms of association and withdrew all legal existence from territorial institutions, which in some cases were very old, through which water users were organized collectively, in particular the 1500 irrigation boards (*associations syndicales d'irrigation*) extant in France in 1789.

On the other hand, this interpretation does not account for the state's radical transformation between the Old Regime and the modern period; these transformations were introduced in the nineteenth century and changed the commons' existence radically. This interpretation, which is centered on the historical continuity of environmental regulations, overseen by the state, tends to further naturalize administration, presented as the state's first function or even an integral part of the state from its very origin. This dimension has barely received any attention, due to a historiography which prevailed for a long time and kept up the idea that the public authority has always manifested itself in three essential forms — legislation, jurisdiction and administration — and that there has always existed a stable administrative apparatus which was meant to manage collective interests. And yet, this genealogy, which naturalized administration, actually drew its best examples from the regulation of environmental matters: thus a continuity was formed between the rules implemented by centuries-old institutions such as those presiding over waters and forests, and those of the modern forest administration, without fully taking into account the fact that the former institutions were first and foremost contentious judicial authorities. To take just one example, the containment of a river was resolved essentially through the allocation of fair expenditures to be attributed to each civic body benefitting from it: this practice was essentially a legal process, giving each contributor the ability to defend themselves against overly favored neighbors. Public authority drew its legitimacy from the fact that it produced arbitrations and guaranties rather than — as it does today — utilities. Relying on a historiography that has led to a thorough reassessment of the history of the state,²² I propose to take into account this historicity of the state, whose powers were first and foremost jurisdictional. Acknowledging the primacy of the judiciary in the Old Regime

22 LUCA MANNORI & BERNARDO SORDI, *STORIA DEL DIRITTO AMMINISTRATIVO* [HISTORY OF ADMINISTRATIVE LAW] (2001) (It.). Luca Mannori & Bernardo Sordi, *Science of Administration and Administrative Law*, in *A TREATISE OF LEGAL PHILOSOPHY AND GENERAL JURISPRUDENCE: 9 A HISTORY OF THE PHILOSOPHY OF LAW IN THE CIVIL LAW WORLD, 1600-1900*, at 225 (2009).

state can only lead us to write a long history of environmental regulations, outside the public administration's projected shadow.

The growing interest in commons affords original insights into this general questioning of environmental law and history. Do commons outline a different way of considering historical forms of environmental regulation? Might they then represent a sort of alternative model to environmental regulation, apart from the model sketched out above, which rests on public authorities and forms of restrictions of private rights, and in which environmental law is taken to have originated? This inquiry is intended to articulate the two dimensions discussed above: how does the study of commons make it possible to grasp, in history, environmental regulations which did not derive solely from public authorities, but were dealt with by communities active at various scales? What were the consequences of the separation (and separate definition) of authorities — administration and the judiciary — for ways of thinking over the collective management of environmental resources? How, in the nineteenth century, did the autonomization of administration, which defined itself then as a separate space from jurisdiction, radically transform the political and legal conditions in which commons existed?

II. COMMONS AND HISTORY: AN AMBIGUOUS RELATION

History occupies a peculiar place in studies on the commons. Almost all research on the commons, even in anthropology, political studies, geography, and sociology, imply historical analysis as a prerequisite. In Elinor Ostrom's major work, history is one way — the privileged way — to identify the existence of the commons.²³ The exceptional longevity of the commons' institutions is the hallmark of their success: they have been qualified as 'empirical alternatives to *The Tragedy of the Commons*' because these systems survived for long periods of time. The eight "design principles" or "best practices" described in Elinor Ostrom's work could be seen as variations of a prominent unique character: their historical longevity. This longevity has two facets: the first is the sustainability of the resource itself, which is indispensable for the persistence of these systems, and calls for sustainable management of the resource. The second is the robustness of their institutions. This is why Tine De Moor turns the expression 'History will be the judge' inside out, writing that "History

23 Alice Ingold, *Elinor Ostrom (Approche Historique)* [*Elinor Ostrom (Historical Perspective)*], in *DICTIONNAIRE DES BIENS COMMUNS* [THE DICTIONNARY OF COMMONS] 866 (Judith Rochfeld, Marie Cornu & Fabienne Orsi eds., 2017) (Fr.).

has already been the judge.”²⁴ She explicitly presents the historical commons as providing inspiration for future governance models as she observes the failure of both the market and the modern state.²⁵ This temptation to consider history as a *magistra vitae* is very problematic and this use of history raises a number of questions.

A first set of questions deals with the very category of ‘commons’ and its problematic unity. What is the continuity between the historical commons studied by Elinor Ostrom and based on small groups managing natural resources, the global commons such as ocean and air, and the new commons such as information and knowledge?²⁶ This question allows also for a critical reconsideration of the opposition between commons and enclosure. To what extent is the commons vs. enclosure opposition a legacy of the way that Hardin did indeed — badly — set the terms of the debate? In fact, this opposition tends to see commons and enclosure as historical movements or trends, promoting a romantic vision of commons in history, without considering the close ties between ownership and commons in a given historical period. It tends to associate enclosure with exclusion and commons with openness to communities — whereas exclusion was one of the essential features of historical commons, and a collective dimension did indeed feature in private ownership. The second set of questions concerns the historical longevity of the commons and the robustness of institutions, which calls for their effectiveness in getting “the compliance of generation after generation of appropriators” in subjecting to shared rules.²⁷ Moreover the very *longue durée* of the commons systems confirms the success of institutional arrangements, which predate the existence of the modern state. How can we consider the *longue durée* of the commons? We must beware considering this longevity independently of state history. It is all the more important to understand, since nowadays the commons route is presented as a possible solution to the crisis of the state’s modern forms.

24 Tine De Moor, *What do we have in Common? A Comparative Framework for Old and New Literature on the Commons*, 57 INT’L REV. SOC. HIST. 269, 290 (2012).

25 TINE DE MOOR, THE DILEMMA OF THE COMMONERS 161-68 (2015).

26 Ostrom herself tries to cover both main lines of research (the historical and the new commons) thanks to her collaboration with Charlotte Hess. Nevertheless, the pioneering article of Carol M. Rose is likely to be taken as the starting point of research on the new commons of information and knowledge. See Yochai Benkler, *Between Spanish Huertas and the Open Road: A Tale of Two Commons*, in GOVERNING THE KNOWLEDGE COMMONS 69 (Brett M. Frischmann, Michael J. Madison & Katherine J. Strandburg eds., 2014).

27 OSTROM, *supra* note 8, at 90.

A. Commons vs. Enclosures: The Right Way to Set the Debate?

A recent debate has considered the pitfalls of using history in studies on commons. It opposed, among others, Allan Greer, a historian of property formation in North America (New France, New Spain and New England), to a new, strong trend in research on commons in today's world, especially information commons.²⁸ This trend draws a parallel between the historical moment of 'enclosures' in sixteenth-century England and the continued progress of intellectual property, described through an analogy as the "second enclosure movement."²⁹ Allan Greer warned against this historical metaphor coined by James Boyle.²⁹ According to Greer, adopting the historical enclosure metaphor results in neglecting other processes of dispossession, especially in colonial contexts where "the commons functioned as a prime instrument of dispossession."³⁰ Thus, he shows how free access or commons logics have led to dispossessions of autochthonous forms of land development, especially in colonial contexts: "the dispossession came about largely through the clash of an indigenous commons and a colonial commons"; "what used to be known in the United States as 'the frontier' can be redefined as the zone of conflict between indigenous commons and colonial commons."³¹ In fact, making the land open and available to all (especially to conquerors and colonizers, their cattle and hogs) or opening up rivers — for fishing — was certainly a way of depriving native populations of their former ways of using resources.³² Other historians have shown convincingly how, especially in colonial contexts, processes of opening up or giving some resources heritage status were in fact opportunities to redistribute rights over resources and take them away from previous users, often in the name of a universalist logic.

28 Allan Greer, *Commons and Enclosure in the Colonization of North America*, 117 AM. HIST. REV. 365 (2012); ALLAN GREER, PROPERTY AND DISPOSSESSION: NATIVES, EMPIRES AND LAND IN EARLY MODERN NORTH AMERICA (2017); Allan Greer, *Confusion on the Commons*, BOOKS & IDEAS (Dec. 8, 2014), <http://www.booksandideas.net/Confusion-on-the-Commons.html>.

29 James Boyle, *The Second Enclosure Movement and the Construction of the Public Domain*, 66 LAW & CONTEMP. PROBS. 33 (2003); JAMES BOYLE, THE PUBLIC DOMAIN: ENCLOSING THE COMMONS OF THE MIND (2008).

30 Greer, *supra* note 28, at 382.

31 *Id.*, at 366, 376.

32 See ELINOR G. K. MELVILLE, A PLAGUE OF SHEEP: ENVIRONMENTAL CONSEQUENCES OF THE CONQUEST OF MEXICO (1994); VIRGINIA DEJOHN ANDERSON, CREATURES OF EMPIRE: HOW DOMESTIC ANIMALS TRANSFORMED EARLY AMERICA (2004).

I will not restate here all the stages of the debate over the vast area of intellectual property;³³ I will pinpoint a few key elements. The question raised by this discussion could be summed up as follows: is the commons vs. enclosures opposition the right way to set the terms of the debate? This opposition, as discussed above, is largely a legacy of the way that Hardin did indeed — badly — set the terms of the debate through his historical metaphor of a “pasture open to all.” Therefore, I fully endorse Greer’s response when he denounces such a problematic use of history. His response is an invitation to avoid the pitfall of opposing commons and enclosures in an overly simplistic manner: he advocates grasping the plural “ways in which different property systems, each with its particular practices of communing, confronted one another in an unequal struggle.”³⁴ But it seems to me that it is indeed important to hear those who replied to Greer: this is about understanding the forms of resource regulations and the scales over which these regulations were implemented. The issue of regulation lies at the heart of my approach: how were regulation mechanisms put in place? On what scales did they operate? My proposition is original in that it deploys this questioning over two inseparable dimensions: how, and on what scales, should we define *which actors and which communities* have a legitimate access to commons? This question has been analyzed in research undertaken in the wake of Ostrom, which has focused on the modalities of closure or exclusion from the commons. The other side of this question is: how, and on what scales, should we define the *authorities* which can legitimately regulate this access? This question has not — or has barely — been considered: it refers to the major institutional changes brought on by modernity, in the way the relations between public authorities and social communities are conceived, when the administration defined itself as a separate space from jurisdiction.

B. *Longue durée* and Commons History-Writing in the Nineteenth Century

The exceptional longevity of certain irrigation communities, in the context of changing environmental conditions and political regimes, has prompted social scientists to reflect on the conditions that led to the success of these systems. My aim is not to deny the occasionally centennial longevity of such

33 Lionel Maurel, *Communs de la connaissance et enclosures: Réponse à Allan Greer* [*Enclosures and the Commons of the Mind: Response to Allan Greer*], LA VIE DES IDÉES (Sep. 29, 2015), <http://www.laviedesidees.fr/Communs-de-la-connaissance-et-enclosures.html>.

34 Greer, *supra* note 28, at 386.

commons, but to observe the relation that commons bear to history. On which occasions, and why did commoners write their own history? I aim to show that it was especially in the nineteenth century and in the context of very acute conflicts over access to the resource that this use of history became enshrined and the commons' *longue durée* was highlighted. It is all the more important to understand the reasons for these moments of history-writing, since works of social science have largely used this historical material³⁵ without specifying the — conflictual — context in which these histories unfolded.³⁶

I was able to shed light on such a moment of history-writing based on studies on irrigation commons in the nineteenth century. My works shatter to pieces a unified and consensual narrative about the history of commons, in which commons are unanimously regarded as being doomed in the liberal era.³⁷ In the very midst of the nineteenth century — dubbed the “age of property” by novelist E.M. Foster³⁸ — irrigation systems stood out as an exception. In fact, during the nineteenth century these communities were promoted by lawyers and magistrates, agronomists and private owners, as successful models of the articulation of individual action and the common good. In contrast with all the other rural commons, which were condemned unequivocally as inefficient or archaic by political economists and the private owner exclusivity system, irrigation commons not only survived the Revolution and the European diffusion of the Civil Code, but were valued from the very beginning of the nineteenth century. This ‘discovery’ of the irrigation commons presented

35 The first ethno-historic-geographical accounts of irrigation commons and the wealth of archives, documents and observations that were collected in the nineteenth century were used most notably in the first academic doctorates on the subject at the very beginning of the twentieth century. See Alice Ingold, *To Historicize or Naturalize Nature: Hydraulic Communities and Administrative States in Nineteenth-Century Europe*, 32 *FRENCH HIST. STUD.* 385 (2009).

36 This is the case in Elinor Ostrom's work, in particular the two authors she cites to describe Spanish *huertas*, Arthur Mass and Raymond L. Anderson, and the medievalist Thomas T. Glick, who rely on historical material collected in the nineteenth century. While Thomas Glick has carried out historical work on archives, Maas and Anderson based their analysis only on nineteenth-century prints. They mainly used the descriptions and materials gathered by Jaubert de Passa — analyzed in this article — but without noting the legal and institutional controversy which informed all these publications.

37 THE MANAGEMENT OF COMMON, *supra* note 11; LES PROPRIÉTÉS COLLECTIVES, *supra* note 11.

38 Donald R. Kelley & Bonnie B. Smith, *What Was Property? Legal Dimensions of the Social Question in France (1789-1848)*, 128 *PROC. AM. PHIL. SOC.* 201, 227 (1984).

them as a pertinent response to the *aporia* of the private property system, but also to the danger of leaving resources available to the administrative state, which appeared ill-suited to managing scarce natural resources such as water. The commons model presented itself in opposition not only to individualistic property but also to the sovereignty of the state. This positive development was translated, among others, into a series of fascinating inquiries, undertaken from the 1800s to the 1880s in several places across Europe. They gave rise to the very first ethno-geographic descriptions of the commons' functioning. Their authors, who were often themselves linked with the operation of the commons (as landowners, members of the local water management boards, agronomists, legal experts and magistrates), took part in a broad trend of writing their history, and they initiated archival gathering, ancient document translations, inquiries in which history played a crucial role.

Before putting forward a summative analysis of the legal and institutional conflicts in which these inquiries took place, I will indicate here a few salient characteristics of these writings. This assessment will rely on two writers in particular — one French, the other Italian — who wrote about the irrigation commons of Northern Italy, Southern France and Southern Spain.³⁹ François-Jacques Jaubert de Passa was an important local figure, an agronomist and politician who, between the 1820s and 1850s, completed historic and anthropological descriptions of the irrigation systems of Roussillon (Southern France) and Spain. His first study on the Eastern Pyrenees⁴⁰ was awarded a distinction by the *Société d'agriculture*. His book on Spanish irrigation was presented as a travel narrative: the first volume analyzed the irrigation systems of Catalonia, Valencia and Grenada, and the second collected ordinances and legal texts. It was no doubt the most famous book which he published during his lifetime: published in Paris in 1823,⁴¹ it was then translated into Spanish in 1844.⁴² Lastly, in 1846, Jaubert de Passa published a sweeping historical

39 For a more detailed presentation of these authors and their printed works, see Ingold, *supra* note 35.

40 FRANÇOIS JACQUES JAUBERT DE PASSA, MÉMOIRE SUR LES COURS D'EAU ET LES CANAUX D'ARROSEMENT DES PYRÉNÉES ORIENTALES [REPORT ON RIVERS AND CANALS IN THE PYRÉNÉES ORIENTALES] (Paris, Huzard 1821).

41 FRANÇOIS-JACQUES JAUBERT DE PASSA, VOYAGE EN ESPAGNE DANS LES ANNÉES 1816, 1817, 1818, 1819: OU RECHERCHES SUR LES ARROSEMENTS, SUR LES LOIS ET COUTUMES QUI LES RÉGISSENT, SUR LES LOIS DOMANIALES ET MUNICIPALES, CONSIDÉRÉES COMME UN PUISSANT MOYEN DE PERFECTIONNER L'AGRICULTURE FRANÇAISE [TRAVELS IN SPAIN IN 1816, 1817, 1818, 1819: REPORT ON IRRIGATIONS, THEIR LAWS AND CUSTOMS AS A WAY OF IMPROVING FRENCH AGRICULTURE] (Paris, Huzard 1823).

42 FRANÇOIS-JACQUES JAUBERT DE PASSA, CANALES DE RIEGO DE CATALUÑA Y REINO DE VALENCIA, LEYES Y COSTUMBRES QUE LOS RIGEN, REGLAMENTOS Y ORDENANZAS

overview of the ancients' irrigation systems, which represented a sort of universal history of irrigation.⁴³ In Italy, one of the main political thinkers of the nineteenth century, Carlo Cattaneo, offered painstaking descriptions of Lombardy and the success of its agriculture, with a view to replying in particular to plans to transfer irrigation methods to Ireland and India; these ideas were being discussed in the 1840s and 1850s. Within his extensive bibliography, I am mainly focusing on his very well-known depiction of Lombardy published in 1844,⁴⁴ on a series of letters which he wrote in 1846-47 in response to the British government's questionnaire on irrigation practices, aimed at adapting them to Ireland,⁴⁵ and on the reply which he gave in 1857 to the work by Léonce de Lavergne comparing Irish, English and Scottish agriculture.⁴⁶

C. Commons History, Indifferent to the Rhythms of Political History

While they described unique local realities, these two authors deployed very similar arguments. They presented the irrigation commons of Lombardy and Roussillon and also Spanish *huertas* as structures developed in the very *longue durée*: which evolved over generations, through practical experimentation and know-how. Describing the making of the territory as a slow process of construction, Jaubert de Passa repeatedly emphasized that what he called the 'irrigation system' was very old:

Such is the history of our canals and the origin of customs which guarantee their conservation. They are the work of nineteen centuries, and nine different rulers (2) showed to be interested in respecting them.
[note: (2). The Romans, the Goths, the Moors, the second dynasty of

DE SUS PRINCIPALES ACEQUIAS [CANALS OF CATALONIA AND VALENCIA REALM. LAWS AND CUSTOMS] (Alicante, Biblioteca Virtual Miguel de Cervantes 2008) (1844).

43 FRANÇOIS-JACQUES JAUBERT DE PASSA, RECHERCHES SUR LES ARROSAGES CHEZ LES PEUPLES ANCIENS [REPORT ON IRRIGATION IN ANCIENT HISTORY] (Plan-de-la-Tour, Editions d'Aujourd'hui 1981) (1846).

44 CARLO CATTANEO, NOTIZIE NATURALI E CIVILI SU LA LOMBARDIA [NATURAL AND CIVIL DESCRIPTION OF LOMBARDY] (Milano, 1844).

45 Carlo Cattaneo, *D'alcune istituzioni agrarie dell'Alta Italia applicabili a sollievo dell'Irlanda* [Agrarian Institutions of North Italy to Be Applied in Ireland], in *GIORNALE DELL'I. T. ISTITUTO LOMBARDO DI SCIENZE, LETTERE ED ARTI* [J. LOMBARD INST. SCI., ART & LITERATURE] (1847), cited in CARLO CATTANEO, *SAGGI DI ECONOMIA RURALE* [ESSAYS ON RURAL ECONOMY] 81 (1975).

46 Carlo Cattaneo, *L'agricoltura inglese paragonata alla nostra* [English Agriculture Compared to Italian Agriculture], in *IL CREPUSCOLO* [THE TWILIGHT] (1857), cited in CARLO CATTANEO, *SAGGI DI ECONOMIA RURALE* [ESSAYS ON RURAL ECONOMY] 225 (1975).

kings of France, the sovereign counts, the kings of Aragon, the kings of Majorca, the kings of Aragon for a second time, and finally the kings of France.⁴⁷

These systems appeared as the expression of a balance between a given society and its environment. Jaubert de Passa inscribed the immemorial character of the irrigation system primarily in a temporality which he saw as completely impervious to political regimes: the governance of irrigation commons was not dependent on political forms and survived “even under a government which is despotic, feudal, monarchic and constitutional by turn.”⁴⁸

Such political indifference was clearly expressed by Cattaneo, who thematized it as a distinctive feature and even referred to it as the “lynchpin” of Italian history.⁴⁹ The indifference to politics was a central concept for this thinker, who produced one of the key works on the links between territory, state and federalism in a unifying Italy. Cattaneo attributed the success of intensive farming in Lombardy to the mastery of water management techniques. Such “good government” of water ensured the prosperity of what he came to call a “country made by human effort” (*patria artificiale*),⁵⁰ built entirely by anonymous generations. The state was conspicuously absent from this story. Nothing in the construction of this territory was attributed to it, and when the state did appear, it was as an arbitrator preserving an order built from the bottom up. The material and institutional culture associated with irrigated farming was both the evidence and result of this close union between town and countryside (*città e contado*), which, in Cattaneo’s view, accounted for the originality of the Italian case. This reading allowed Cattaneo to construct a continuous history of the Italian peninsula and therefore to propose a model that was an alternative to those centered on power struggles — most notably between the papacy and empire — that were habitually emphasized.⁵¹ Long-running hydraulic arrangements were explicitly depicted as pertaining to a nonpolitical temporality, indifferent to the “spectacular changes in political

47 JAUBERT DE PASSA, *supra* note 40, at 262.

48 JAUBERT DE PASSA, *supra* note 43, at 343.

49 CATTANEO, *supra* note 45, at 121.

50 CARLO CATTANEO, CIVILIZATION AND DEMOCRACY: THE SALVENINI ANTHOLOGY OF CATTANEO’S WRITINGS 96 (Carlo G. Lacaïta & Filippo Sabetti eds., David Gibbons trans., 2006).

51 On writing Italian history from an urban perspective, see Alice Ingold, *Savoirs urbains et construction nationale. La ville, au-delà de l’État-nation?* [*National Building and Urban Knowledge in Cattaneo’s Thought. The City Beyond the National-State?*], 12 REVUE D’HISTOIRE DES SCIENCES HUMAINES [REV. HIST. SCI. HUMAN.] 55 (2005) (Fr.).

surface.”⁵² Cattaneo opposed the “superficial twists and turns” of political circumstances, with their “petty histories,” to a perennial, “fundamental order” which he viewed as residing in the relationship of societies to their land, waters and plants. This rhetoric enlisted both history and nature, in the face of the contingent nature of a new political and legal order. Political indifference was also invoked in a unique way to highlight one of Cattaneo’s main theses: the existence of a “lower tier of institutions,”⁵³ somewhat unseen and yet silently passed on from generation to generation in the very ordering of customary rules and practices. The two authors’ accounts come together in their defense of the authority embodied in specific juridical institutions, this lower tier of institutions, in the face of legislation imposed by a political regime. Of all these institutions, the right of way (*servitude d’aqueduc*) occupies an essential place for both authors in the success of water commons.

D. The State’s Civil Code vs. the Commons’ Customs

The second characteristic feature of these descriptions is that they asserted the commons’ original rules. A recurring theme in Jaubert de Passa’s writings was the contrast between uniform “civil law,” which threatened irrigation, and “rural law” (*loi rurale*), also defined as “community law” (*loi usagère*), which Jaubert de Passa saw as adapted to localities and propitious to the proper use of water resources.⁵⁴ Faced with the law as an expression of the legislative will, Jaubert de Passa defended a conception of the law as the trace, the imprint of practices inscribed in the land and incorporated into farming practices sanctioned by history.⁵⁵ Jaubert de Passa and Cattaneo denounced a legislative order resulting from the will of the lawmaker, which they perceived as a threat to the commons. To this legislative order, they opposed legal customs favorable to the commons. These customs incorporated the history of the struggles through which they had come to be recognized. We shall see below how this opposition between local customs and the legislator’s law also served as the basis for the modification of the draft Civil Code in 1802-1804, in favor of traditional water management boards.

Among these customs, which were specific to irrigation commons, both authors granted a special place to the right of way — whereby a landowner wanting to irrigate or to drain his land was allowed to run his canals through

52 CATTANEO, *supra* note 45, at 120.

53 *Id.*

54 JAUBERT DE PASSA, *supra* note 41, at 299.

55 For Karl Friedrich von Savigny’s citation of these rural customs, see *infra* note 64.

his neighbors' properties. Both authors pleaded for this right to be upheld — or rather, restored after revolutionary laws in France and Napoleonic laws in Italy had undermined it. Thus Jaubert de Passa justified his extensive historical research into the time-honored watering practices of ancient times, as intended to argue for the modification of some articles of the Civil Code rather than to satisfy scholarly curiosity:

My aim is evident when I present, at length, the benefits of irrigation and the great utility of rural laws that antiquity has bequeathed to Oriental peoples: I aim to change one or two articles of the Civil code (...); this change will be, so to speak, a reform, which someone will even consider as an attack against the inviolable rights of property, that our codes set up so well. (...) Demanding that agriculture be granted by the right of way ('servitude de passage') on the possessions of others, the only method for setting up a canal with its rivulets, is, in other words, to foster the growth of public wealth; it is a way of placing the common good over the whims of any single person.⁵⁶

The right of way was at the heart of an important European-wide debate. It clashed with the new forms of absolute and subjective property imposed by the Civil Codes, as Cattaneo recalled: "a right that some of the most civil nations have not been able even now to conciliate with the bold idea of absolute ownership."⁵⁷ In the 1840s all European (and also non-European) states tried to modify their national civil codes in order to introduce right of way, a juridical institution specific to irrigation commons. It was in fact in Piedmont in 1837 that the first water management system, adapted to the irrigation commons, was codified in a civil code.⁵⁸ Although it ran counter to the Napoleonic Code's exclusive principles governing property, this section of the Code saw numerous attempts at adaptation in different national codes between 1840 and 1850.⁵⁹ Thus, in those years, its author, Giacomo Giovanetti, a North-Italian lawyer, was called on as an expert in many countries in and outside of Europe. This included France and Russia, where Nicholas I tried to transform Crimea into an agricultural center for the cultivation of rice, and called on Giovanetti to undertake this mission in 1843. Portugal, Prussia,

56 JAUBERT DE PASSA, *supra* note 43, at 14.

57 CARLO CATTANEO, *LA CITTÀ CONSIDERATA COME PRINCIPIO IDEALE DELLE ISTORIE ITALIANE* [THE CITY AS THE IDEAL RULE OF ITALIAN HISTORY] 234-35 (n.p., 1858).

58 LAURA MOSCATI, *IN MATERIA DI ACQUE: TRA DIRITTO COMUNE E CODIFICAZIONE ALBERTINA* [IN THE FIELD OF WATER: FROM IUS COMUNE TO PIEDMONT CODIFICATION] (1993).

59 For an analysis of the modification of the French Civil Code in 1845-1847 in a manner favorable to the irrigation commons, see Ingold *supra* note 3.

Württemberg and Argentina also took part in these exchanges. All these countries tried to modify their national civil codes in order to introduce right of way, a peculiar juridical institution adapted to the irrigation commons.

III. COMMONS AND CONFLICTS

How should one read the inquiries into irrigation commons carried out in the nineteenth century? They were conducted during very sharp conflicts over resource access. They were militant works of research, at a time of increased anthropic pressure over resources, but also — and primarily — of profound disruption of the conditions of life and opportunities for self-organization of these commons, led by the administrative states. I will point out here two of these major changes: the institutions in charge of commons — the water management boards — became institutional heresies in the new architecture of the administrative state. The administrative state introduced new rules governing resource access. These favored a process of opening up to new users, which was perceived by commoners as ‘collectivization’ and a dispossession of their customary rights.

A. When Commons’ Institutions Became Unidentified Legal Objects

In France, the local institutions in charge of these irrigation commons — the water management boards — saw their legal existence completely eliminated away after the 1791 *Loi Le Chapelier* that prohibited all forms of association. The new administrative architecture was not able to allocate a place to these hybrid institutions, which straddled the private and public spheres. These territorial institutions of the commons brought together all the landowners with an interest in using a canal or part of a water stream, for instance. The board was in charge of distributing water and sharing it out among its members, for instance thanks to regulations for watering and the services of a *bannier* or *garde-vanne* (who worked the sluice gates) in its pay. The board also split the financial charges for the work required by the good functioning of the canal, with a board-appointed accountant-receiver also in charge of collecting funds. Lastly, it functioned via a specific elective mode, regularly voting in managers (*syndics*) during annual general assemblies, on the basis of a headcount vote rather than the size of each landowner’s holding.

Throughout the nineteenth century, this board-based mode of operation remained hard to comprehend for the central state. It was linked to forms of landowner self-organization, which had been inherited from the Old Regime; these territorial boards had features which were connected with Old Regime

corporations. In fact, they owned shared assets such as infrastructures, canals and works of art, even when corporate bodies were no longer supposed to have their own assets after the Revolution.⁶⁰ They also exerted ruling power over their members, through regulations as well as a fine-based penalty system. This posed a challenge to the new administrative state in which only the administrator was allowed to apply penalties, let alone fines. They could raise contributions to cover their management costs, which could be seen as a form of local tax, and eventually led to a string of conflicts over the rules and modalities of these payments — since only the legislative power of the state had the legitimacy to collect tax. Lastly, they functioned according to forms of elective self-organization which were thoroughly original and were considered subversive in the French administrative system. These were the many elements that explain why these water management boards no longer had a place in the post-revolutionary political and legal architecture which, for a long time, did not know where to place these hybrid institutions, straddling the public and private spheres.⁶¹ Commons' institutions became unidentified legal objects in the new administrative state.

B. Irrigation Commons Against the Riparian Doctrine Perceived as a Dispossession

The Civil Code confirmed the possibility for all riverside owners, when the rivers were not in the public domain, to access water sharing. The riparian doctrine, which was enshrined through article 644, elicited numerous criticisms,

60 The commune itself was designated as the last of these territorial corporations. In fact, the acute debate over commons sharing was not only connected with the question of “agrarian individualism,” to quote Marc Bloch’s phrase, but also involved the transformation of the communal corporation into an administrative meshing, and not just the expression of a local community, since it was through its *assets* — the commons — that the commune retained a feature of its earlier identity as a territorial corporation. See STEFANO MANNONI, *UNE ET INDIVISIBLE STORIA DELL’ACCENTRAMENTO AMMINISTRATIVO IN FRANCIA*, T. 1: LA FORMAZIONE DEL SISTEMA (1661-1815) [HISTORY OF ADMINISTRATIVE CENTRALISATION IN FRANCE, T. 1: THE FORMATION OF THE SYSTEM (1661-1815)] 565-86 (1994).

61 For the history of these water boards, see Alice Ingold, *Conflits sur les Eaux Courantes en France au XIX^e Siècle, entre Administration et Justice: de L’enchevêtrement des Droits et des Savoirs Experts* [Conflicts over Water between Courts and Administration in 19th century France], in FAIRE LA PREUVE DE LA PROPRIÉTÉ. DROITS ET SAVOIRS EN MÉDITERRANÉE [CLAIMING PROPERTY, RIGHTS AND KNOWLEDGE IN THE MEDITERRANEAN AREA] 303 (A. Ingold & J. Dubouloz eds., 2012).

in particular on the part of those in favor of irrigation commons. In 1802, in France, commissions formed in each jurisdiction of the Court of Appeal were all surveyed regarding the project of the Civil Code; the Montpellier commission pointed to the real danger of leaving flowing water under the control of riverside owners, as stipulated in the draft of the Civil Code. This southern French commission was not the only commission to remark on this danger, as shown too by the debates during the deliberations of Limoges and Lyon over this matter.⁶² It was the former, however, that best laid out the argument that the Civil Code, in granting rights to riverside owners, would jeopardize existing and historic rights belonging to irrigation communities. Article 644, which granted rights to local riverside owners, risked overturning the system of water sharing (*partage des eaux*), as it had been established, negotiated and implemented from upstream to downstream throughout history. By allowing a riverside owner to take water upstream, it threatened in effect to diminish the flow of water required to supply water to those irrigation commons enjoying historic rights downstream.⁶³

These legal experts, who were in favor of irrigation commons, were successful: the Civil Code project was modified and article 645 was added. It recognized the anteriority and precedence of the rights of communities of irrigation users, as opposed to the new users allowed by the administration. This article also entrusted the judiciary system rather than the administration with arbitrating conflicts regarding access to water.⁶⁴ In 1821 Jaubert de Passa recalled that Revolutionary laws “threatened to subvert the department’s rights,” by granting water rights to riverside owners. He paid homage to Louis Ribes, one of the magistrates from the Montpellier Commission who had been responsible for the modification of the draft of the Civil Code. The Code allowed for the coexistence of article 644, “a work of French law” which granted water rights to riverside owners, with article 645, which

62 Analyse des Observations des Tribunaux D’Appel et du Tribunal de Cassation sur le Projet de Code Civil, Rapprochées du Texte [Report of the Courts of Appeal and the Cassation on the Draft of the French Civil Code] 401-02 (1802).

63 Regarding these conflicts over water access, see Alice Ingold, *Gouverner les Eaux Courantes en France au XIX^e Siècle: Administration, Droits et Savoirs* [Governing Water in 19th Century France: Law, Administration and Knowledge] 66 ANNALES. HISTOIRE, SCIENCES SOCIALES 69 (2011).

64 This modification of the draft of the Civil Code, which was very favorable to old irrigation users’ communities, was applauded in 1814 by Friedrich Karl von Savigny, in his essay which was to become the manifesto of the German historical school of law. See FRIEDRICH KARL VON SAVIGNY, VOM BERUF UNSERER ZEIT FÜR GESETZGEBUNG UND RECHTSWISSENSCHAFT [OF THE VOCATION OF OUR AGE FOR LEGISLATION AND JURISPRUDENCE] (1828).

protected local rules and the historic rights of irrigation associations.⁶⁵ This modification of the draft of the Civil Code in 1804, which gave a place to local customs and courts in the area of water regulation, represented a first step in acknowledging the specific rights of irrigators' communities, in the face of purely administrative regulation.

The project of a Rural Code under the First Empire was a second stage in recognizing rights acquired through irrigation commons and in contesting state sovereignty over scarce resources. Louis Ribes, one of the magistrates from the Montpellier Commission who had taken part in the 1802 Civil Code survey, intervened again. In order to examine the Rural Code project, commissions had been set up in each jurisdiction of the Court of Appeal. This time round, Ribes was not part of the Montpellier commission, but in 1811 he submitted an individual memo to the Ministry of the Interior on *Laws and Uses of Water*, which elaborated on the juridical peculiarities governing the use of water in Roussillon. Jean-Joseph de Verneilh-Puyraseau, who was in charge of collecting the opinions of these commissions, chose to publish the memo in its entirety.⁶⁶ The magistrate developed arguments supporting the historical rights of irrigators in the face of what was viewed as a 'collectivization' of water resources by the state through the riparian doctrine.⁶⁷ There, Ribes deployed in great detail the opposition — already sketched out in 1802 — between *property* and *utility*: rights over water irrigation commons, conceived as property rights, should be given priority over the new uses allowed by the administration.

Lastly, in a third stage, this interpretation was confirmed by the jurisprudence of the Court of Cassation. Several irrigation boards downstream in the plain indeed argued that they had leases dating back to the fourteenth century, granted for a fee by sovereign authorities, to ask for the closure of a canal allowed by the administration and opened up upstream in the mountain. In 1838, the Court of Cassation recognized the validity of the historical rights of the irrigation boards, regarded as untainted by feudality, and the canal

65 JAUBERT DE PASSA, MÉMOIRE SUR LES COURS D'EAU 261 (1821).

66 Louis Ribes, *Lois et Usages sur les Cours d'Eau Servant à l'Irrigation des Terres et au Mouvement des Usines dans le Département des Pyrénées-Orientales* [*Laws and Uses of Water for Irrigation and Industry in the Pyrénées Orientales*], in OBSERVATIONS DES COMMISSIONS CONSULTATIVES SUR LE PROJET DE CODE RURAL, RECUEILLIES, MISES EN ORDRE ET ANALYSÉES, AVEC UN PLAN DE RÉVISION DU MÊME PROJET [OBSERVATIONS OF LOCAL COMMISSIONS ON THE DRAFT OF THE RURAL CODE] 638 (Joseph de Verneilh-Puyraseau ed., 1811).

67 LOUIS ASSIER-ANDRIEU, LE PEUPLE ET LA LOI.: ANTHROPOLOGIE HISTORIQUE DES DROITS PAYSANS EN CATALOGNE FRANÇAISE [PEOPLE AND LAW: ANTHROPOLOGICAL HISTORY OF PEASANT'S RIGHTS IN FRENCH CATALONIA] (1987).

allowed by the administration over twenty years earlier had to be filled up.⁶⁸ This Court of Cassation decision played a pivotal role, in that it inaugurated a jurisprudence which was confirmed throughout the nineteenth century. Not only were the customary rights of historical commons recognized, but state intervention was contested and even reversed.

In the three stages described above — in 1802-1804, at the time of the modification of the draft of the Civil Code; in 1811 in the Rural Code project; and then in the jurisprudence of the 1840s — communities of irrigation users were granted recognition of the precedence of their rights. They also gained the right of access to justice, as the courts were entrusted with regulating conflicts over water resource sharing.

IV. RECONSIDERING THE HISTORY OF ENVIRONMENTAL REGULATIONS IN THE LIGHT OF THE SEPARATION OF ADMINISTRATION AND THE COURTS

A. Shortage and Prior Appropriation: Defending a Specific Space of Intervention for the Courts

The defense of the anteriority of rights of irrigation commons was based on the scarcity of the water resource, and more specifically on a shortage. The ‘shortage’ discourse thus upheld most of the magistrates’ texts in 1802, when the project of a Civil Code was examined. It was along the same lines that magistrate Ribes asserted in 1811, during the discussion of the project of a Rural Code, that “community breeds disagreement.” The jurisprudence of the Court of Cassation in 1838 confirmed that the ‘community of waters’ enjoyed by the community of riverside owners was in fact constrained by historical rights, protected by tribunals. The theme of shortage was repeatedly used by magistrates and legal experts, as well as commoners, in order to restrict the intervention of the administration and preserve a specific area of competence for tribunals.

68 Cour de cassation [Cass.] req. April 10, 1838 (Fr.): tenanciers de Caramany c. tenanciers de Rivesaltes et autres. On this conflict, see Alice Ingold, *Expertise Naturaliste, Droit et Histoire: Les Savoirs du Partage des Eaux dans la France Post-Révolutionnaire* [History, Law and Nature: Knowledge on Scarcity and Water Sharing in Post-Revolutionary France], 48 REVUE D’HISTOIRE DU XIX^E SIÈCLE [HISTORY OF THE 19TH CENTURY] 29 (2014) [hereinafter: Ingold, *History, Law and Nature*].

From the very first years of the nineteenth century, the defense of the historical rights of irrigation commons went hand in hand with denouncing the administration's interference in matters which were supposed to be regulated by civil law only. The usage shared by all, regulated by the administration's police mission, was therefore conceived as only secondary, once the rights acquired by old communities of users were recognized and protected by judicial authorities. If a shortage occurred, only the law court shared the resource among the beneficiaries. The administration was therefore only in charge of regulating waters described as "overabundant" — those that remained "in the reservoir or in the *common resource*, to cater (...) for new needs."⁶⁹ Lawyers and commoners succeeded in defending their own customary rights over water and in contesting the legitimacy of state law and administration to regulate all the water resource. Part of the resource appeared to be *unavailable* to state regulation: the customary part allowed to the commons institution and protected by the courts in cases of scarcity. In that sense, shortages represented the *threshold* below which the administration did not have the legitimacy to intervene. The key concept for understanding the peculiar articulation between the riparian doctrine and prior appropriation has been the ecological limit of the resource — that is to say, *scarcity*. In the event of scarcity, prior appropriation applies in order to protect the historical rights of local irrigation communities. It was only when water was abundant that the state could apply the riparian doctrine and allow new users to access the water resource conceived as *res communes*.⁷⁰

In the nineteenth century, the water sector represented the thorniest area of litigation between the judiciary and administration. Water regulation played a major role in the elaboration of administrative law, according to a model which counters the idea that administrative tribunals were the only source of administrative law.⁷¹ It can be observed that ordinary tribunals and judicial authorities — that is to say, private law — played an essential part in the constitution of conflicts of competency, in which administrative law originated. This investigation contributes to bringing out the potentialities of private law and legal intervention into forms of environmental regulation. This perspective is all the more fruitful since nowadays the limitations of environmental law emanating from administrative law are apparent, as a

69 RIBES, *supra* note 66, at 663. The emphasis was Ribes's own.

70 For this demonstration, see Ingold, *History, Law and Nature*, *supra* note 68.

71 GRÉGOIRE BIGOT, *L'AUTORITÉ JUDICIAIRE ET LE CONTENTIEUX DE L'ADMINISTRATION: VICISSITUDES D'UNE AMBITION 1800-1872* [THE JUDICIAL AUTHORITY AND ADMINISTRATIVE LITIGATION: THE DIFFICULT PATH OF AN AMBITION 1800-1872] (1999).

stacking up of plural rules limiting the free disposition of the land or resources in the name of social interest.

B. History at the Service of the Commons' Historical Rights

The legal recognition of commons' acquired rights gave history a very important role in the resolution of resource access-related conflicts. Conflicts provided as many occasions for surveys to be deployed — in the process, the protagonists engaged in significant operations of archival collection. Commoners dug out, collected and translated ancient sources and documents in order to substantiate their rights.

It was not only in archives that the traces of old rules and customs were sought. Due to the lack of written deeds proving that their uses were legitimate — or not — protagonists conducted actual investigations of the territory: they searched the landscape for the material, topographic, archaeological or ecological traces left by these uses, which were proof of their immemorial ownership (toponyms, the location and size of canal networks, surface areas and clues to cultivation having benefitted from irrigation, technical processes relying on the use of motor force, etc.). Customary rights were therefore vindicated through the elaboration of geographical knowledge about territories, which was presented as having been built up through the long succession of anonymous generations, and through the elaboration of historical knowledge regarding the social institutions presiding over resource allocation, and conceived as not owing anything to the state.

Writing the long history of their institutions, which often far predates that of the modern state, emphasizing a historical continuity which is indifferent to successive political regimes, demonstrating a customary legal legitimacy outside the lawmakers' legal framework — these were the elements mobilized by the communities using the commons in order to defend their rights over water resources and to contest the legitimacy of state law and administration in regulating all of the water resource. This was not a response to a movement of enclosure, but rather to new forms of intervention on the part of administrative states, which could not tolerate having these collective interests handled by corporate boards and outside the administration. Far from being merely erudite research, these early histories were first and foremost opportunities to defend rights. They were an opportunity for a number of protagonists, especially legal experts, historians and landowners, to deliver a sharp critique of the new forms of intervention of the administrative state in environmental resources regulation. The historical longevity of these communities was highlighted in order to defend the historical rights of local societies over water, against

the administrative state's will to regulate all water courses, which was more favorable to *new users* in water sharing.

In order to characterize the role of the state in the face of the environment, a few chronological landmarks are generally emphasized. The prevalence of public authorities in the Old Regime is generally taken to have been called into question by the liberal ideas developed during the eighteenth century, and then implemented during the Revolution, before the state took charge again in France, in the 1810s in mines and in the late 1820s in forests. Public interest was the main reason for the state's supervision: it translated into restrictive rules which limited free access to environmental resources and contractual freedom, and went as far as reserving territories or creating a public domain. At that time, naturalists, forestry workers and engineers asserted themselves as nature experts. Since the Enlightenment, technical knowledge about rivers, overseen by engineers and forestry workers, thus provided justification and support for the reinforcement of the state's prerogatives. By opposing the selfish and stubborn vision of landowners to the state's long-term vision in favor of resource preservation, naturalist knowledge and expertise contributed to thinking and practices which established the state as "nature's protector," to quote the phrase of legal historian Pierre Legendre.⁷² Environmental law largely came out of this historical construct, locating environmental law in filiation with administrative law. Here, I have evidenced a counter-trend, which shows the role of private law in environmental regulation. It was indeed magistrates and legal experts who developed naturalist expertise over issues of scarcity and the resource's ecological limitations. Scarcity thus served to set boundaries to the administration's intervention and to preserve a space of competence specific to tribunals in environmental regulations. The ecological limit of the resource was a way of conceiving the resource as *unavailable* to the sovereignty of both private owners and the state. By highlighting the conflictual and critical dimension of the first wave of water commons history writing in the nineteenth century, it therefore becomes possible to shed light on several blind spots in Ostrom's theory.

CONCLUSION

I have shown here that traditional commons ran counter to top-down state logics of opening up resources, which were perceived as a process of dispossession. Thus, in the nineteenth century, water commons sharply opposed the riparian

72 PIERRE LEGENDRE, *HISTOIRE DE L'ADMINISTRATION DE 1750 À NOS JOURS* [HISTORY OF FRENCH ADMINISTRATION FROM 1750 TO THE PRESENT] (1968).

doctrine of the Civil Code and a range of measures taken by the administrative state, with a view to opening up water sharing to new users. More specifically, it was resource scarcity which served as the basis for these commoners and the magistrates backing them to defend their rights in the face of the administrative state's regulatory ambitions. This inquiry shows that the model which served as a foil for these commons in the nineteenth century was not primarily ownership — enclosures — but above all the interference of administrative states in the management of commons by the users. Overexploitation of these commons was not only the consequence of increased anthropic pressure on resources at the time of demographic completion in the nineteenth century. It was also connected with the profound changes introduced by the transformation of states, particularly the separation of powers and the advent of the administrative state: indeed, the latter redefined *which actors and which communities* were entitled to access the commons — as seen here with water management boards. It also redefined *which authorities* could regulate access to them. In the nineteenth century, the defense of irrigation commons, in the name of ecological, economic and social efficiency, was justified through a critique of the ecologically irresponsible effects of the administration's stronghold over these resources. Such a stronghold did indeed profoundly upset, in the name of *universalist* pretensions, the territorial dynamics of opening or closing of the commons managed locally by the communities themselves.

On this occasion, I have observed an inversion of rhetorical strategies: it was with the lexis of 'ownership' that the commoners' traditional institutions attempted to defend their rights in the face of a logic of opening which dispossessed them, while the 'common' lexis was used by the administration to back up this forced opening, which somehow collectivized a resource, the access to which had previously been managed locally. This kind of process can only be understood by getting a sense of the major institutional transformations whereby it became possible to reposition the commons/ enclosure opposition. The separation of authorities — administration and the judiciary — gave rise to a new conception of environmental regulation. This partition structured environmental regulations lastingly. Nowadays, state administration is recognized as the most legitimate institution — and even the only one — to regulate environmental resources on behalf of public interests; whereas the legitimacy of the courts to intervene became merely a question of protecting property rights. However, the commons cases described here had a more powerful lesson to deliver. The issue was not only to have the rights — even collective rights — of irrigation communities protected by the courts. What was at stake was to show the power of another way of conceiving the regulation of scarce resources by the courts and through

private law.⁷³ Scarcity and the ecological limit of the resource were a way of conceiving the resource as *unavailable* both for property and for state sovereignty. Protecting environmental resources through the courts was a way of conceiving a regulation based on the specific status of the resource and not on the *will* of subjects — whether private, collective or public.⁷⁴

In fact, to open up the discussion, I would like to point to other, more radical and fruitful questionings. As a matter of fact, commons make it possible to probe the subjective legal matrix in which our relationship to the world is inscribed, in particular by reconsidering the dividing line between subjects and objects which has formed the backbone of the modern legal order. We know that with the affirmation and diffusion of civil codes in the nineteenth century, *subjects* became the main protagonists of a history henceforth entirely driven by will. The territory and its resources thus became available for the sovereign state, which organized its national territory and managed its resources, for owners too, who were also sovereign in their lands.⁷⁵ The new mode of relationship to the environment sketched out by civil codes rested not only on the transformation of modes of nature appropriation. It also engaged legitimate forms of coordination between men.⁷⁶ Without reading too much into this phrase, it could be said that in 1789, the injunction to *Free the land*

73 Michele Spanò explores a counter-hegemonic approach to private law in showing its potentialities in commons' issues. See Michele Spanò, *Law Arrangements for the Commons: A New Comparative Perspective*, in *THE COMMONS, PLANT BREEDING AND AGRICULTURAL RESEARCH: CHALLENGES FOR FOOD SECURITY AND AGROBIODIVERSITY* 109-116 (Fabien Girard & Christine Frison eds.) (2018).

74 Regarding the importance of rights *in rem* to preserve scarce resources, see the very peculiar figure of Georges Sorel, who was a state engineer and specialized in hydraulic issues in this region of irrigation boards (1879-1892), before becoming one of the first introducers of Karl Marx in France. This unprecedented part of his life allows me to shed a new light on Sorel's written work and to explain the special role he gave to the Law, and even to private law, which was very rare among socialists or indeed social scientists at this time: Alice Ingold, *Penser à L'épreuve des Conflits: Georges Sorel Ingénieur Hydraulique à Perpignan* [*Thinking Through Conflicts: Georges Sorel's Work as a Hydraulic Engineer*] 32 *MIL NEUF CENT: REVUE D'HISTOIRE INTELLECTUELLE* 11 (2014).

75 Emanuele Conte, *Beni Comuni e Domini Collettivi tra Storia e Diritto* [*Commons and Collective Domains between Law and History*], in *OLTRE IL PUBBLICO E IL PRIVATO: PER UN DIRITTO DEI BENI COMUNI* [BEYOND PUBLIC AND PRIVATE: FOR A LAW OF COMMONS] 43 (M. R. Marella ed., 2012); Stefano Rodotà, *Vers les Biens Communs: Souveraineté et Propriété au XXIe Siècle* [*Towards the Commons: Sovereignty and Property in 21st Century*], 16 *TRACÉS* 211 (2016).

76 For this demonstration: Alice Ingold, *Terres et Eaux entre Coutume, Police et Droit au XIXe Siècle: Solidarisme Écologique ou Solidarités Matérielles?*

also included that of *separating men*. The independence of the land also called for the emancipation of citizens: the abolition of feudal rights also entailed the disqualification of forms of multiple ownership and the anti-model of bonds of dependency between men. Disentangling the land from collective duties, cancelling out multiple overlapping rights to the land to allow one to prevail — this meant putting an end to mutual obligations between men, just as under the Old Regime the use of environmental resources had been characterized by multiple bonds of mutual dependence between the various users of a single resource. This process, which placed the subjective will — be it public or private — at the heart of the relationship to environmental resources, stood in contrast with the judicial and territorial Old Regime system which was centered on *things* and aimed for stability.⁷⁷ This stability inscribed in things outlined spaces which were unavailable to the subjective will. In the Old Regime, environmental resource regulation was part of this matrix which did not depend on the subjects' will, but was inscribed in things. Water regulation, defended by irrigation commons as seen here, outlined spaces which were closed off to both the owners' will and the ruler's arbitrariness. Scarcity was also a way of making the environmental resource unavailable to human will, whether private or public. Commons are interesting, not just insofar as they operated outside the state and outside the market — a claim that any reliable historical study can only challenge — but because they provide insights into forms of regulation based on things which were closed off to the subjective will. In contrast to the liberal concept of property, which was entirely constructed on the concept of availability, the commons gave a new positive value to *unavailability*, favorable to commons practices and cooperation and to environmental preservation. These commons outlined an alternative model to environmental regulation, apart from the model which rests on public authorities and forms of restrictions of private rights, and in which environmental law is taken to have originated. This commons model presented itself as beyond property and sovereignty.

[*Water between Law, Customs and Police in 19th Century France: Ecological Solidarity or Ecological Solidarism?*] 33 TRACÉS 97 (2017).

77 PAOLO GROSSI, IL DOMINIO E LE COSE: PERCEZIONI MEDIEVALI E MODERNE DEI DIRITTI REALI [DOMINIO AND THINGS: MEDIEVAL AND MODERN PERCEPTIONS OF RIGHTS IN REM] (1992); Conte, *supra* note 75.