

Water and the Law. Water Management in the Statutory  
Legislation of Later Communal Italy (Thirteenth and  
Fourteenth Centuries)

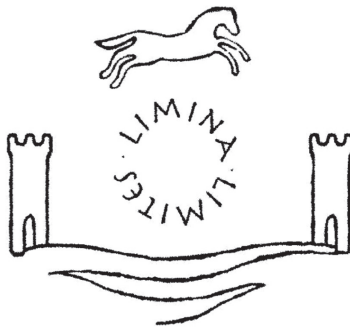




# Water and the Law

Water Management  
in the Statutory Legislation of Later  
Communal Italy  
(Thirteenth and Fourteenth Centuries)

Francesco Salvestrini



*Archaeologies, histories, islands and borders in the Mediterranean 15*

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In Loving Memory of my Mother



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# Limina/Limites

*Archaeologies, histories, islands and borders in the Mediterranean (365–1556)*

*An Archaeopress International Series*

Series Editors

**Miguel Ángel Cau Ontiveros, Demetrios Michaelides, Philippe Pergola,  
Guido Vannini, Enrico Zanini**

The title, subtitle, and chronological span of the series require a few words of explanation. In the first place, the title ‘Limina/ Limites’ echoes the clear assonances between the root of two Latin words that respectively indicate ‘thresholds’ and ‘boundaries’ (and thus ‘frontiers’), as well as that of the Greek word for ‘harbour’ (λιμὴν), which, for an island – and, more broadly speaking, for any coastal city – is both a point of connectivity and a boundary of isolation.

Islands and boundaries/borders are two of the many possible keys through which we can study the post-Classical Mediterranean. Ever since the Mediterranean ceased to be a great Roman ‘lake’, that same Sea became an often-uncrossable boundary that both separated and protected the many worlds that developed in different ways and at a different pace along its extensive coast. At the same time, however, the Mediterranean continued to be a unifying element: it provided a shared identity to communities that were culturally and geographically distant; and it could still be crossed to reach other frontiers, and even beyond.

From this point of view, islands and borders, forming connecting lines and lines of separation, and offering unified identities but also socio-cultural diversities, can become spaces for reflection. As such, they are ideal for disciplines that seek to understand the past but also aim to make much more widely available the tools with which to interpret some of the basic needs of the contemporary world.

The subtitle – with all nouns in the plural – alludes to the need for a multiplicity of different approaches. Today, history and archaeology – especially in the Mediterranean – are understood as multiple disciplines – disciplines that search not so much for an a priori monolithic, specific definition, but rather for an exploration of the limits that must be overcome and the intersection points that need to be exploited.

The chronological span, 365–1556, providing a long-term vision, is essential for exploring in timedepth the multiple themes of study. AD 365, or, more precisely, the 21st of July 365, the day of the most violent tsunami documented in the literary sources, marks the moment at which, in the midst of transformation of the ancient world, the Mediterranean seems to reclaim its physical centrality. This was due to the devastating effects of this natural disaster and, above all, to its global visibility, as is evident from the many different witnesses describing the event, from both the eastern and the western shores of the Mediterranean. At the other end of the chronological span, January 16th, 1556, the day of the coronation of Philip II of

Spain, symbolically marks the date on which the Mediterranean enters contemporary historiography, as understood through the vision of the historian Fernand Braudel and his rewriting of the rules of historiographical analysis, pursuing directions that often cross paths with archaeology.

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*Miguel Ángel Cau Ontiveros, Demetrios Michaelides, Philippe Pergola, Guido Vannini, Enrico Zanini*

# Limina/Limites

*Archeologie, storie, isole e frontiere nel Mediterraneo (365–1556)*

*An Archaeopress International Series*

Series Editors

Miguel Ángel Cau Ontiveros, Demetrios Michaelides, Philippe Pergola,  
Guido Vannini, Enrico Zanini

Titolo, sottotitolo e ambito cronologico di una serie editoriale richiedono qualche parola di spiegazione da parte dei curatori. Il titolo gioca evidentemente sull'assonanza della radice delle parole latine che indicano rispettivamente soglie e confini, dunque frontiere, con quella della parola greca che indica il porto, che per un'isola – e in senso lato per ogni città che si affacci sul mare – è al tempo stesso una soglia di connettività e un confine di isolamento.

Isole e frontiere sono due delle tante possibili chiavi di lettura per provare a studiare il Mediterraneo post-antico. Da quando cessa di essere un grande lago romano, il Mediterraneo diviene una frontiera spesso invalicabile, che separa e protegge reciprocamente i tanti mondi che si sviluppano con ritmi e forme diversi lungo le sue coste. Al tempo stesso però il Mediterraneo continua ad essere un elemento di unità: fornisce una identità condivisa a comunità culturalmente e geograficamente distanti; può essere attraversato per spingersi verso, e al di là di, altre frontiere.

Isole e frontiere, linee di connessione e linee di separazione, identità unitarie e molteplicità socioculturali divengono da questo punto di vista spazi di riflessione per discipline volte alla conoscenza del passato, ma che intendono mettere a disposizione della collettività strumenti per interpretare alcune esigenze fondamentali della contemporaneità, risolvendo, ad esempio, in termini di 'Archeologia Pubblica' spunti, risultati ed esiti delle ricerche proposte o almeno di alcune di esse, fra ricerca pura e ricerca applicata.

Il sottotitolo, tutto al plurale, allude alla necessità di una molteplicità di approcci diversi. Storia e archeologia – a maggior ragione nel Mediterraneo – sono discipline che appaiono oggi declinabili solo in forma plurale, alla ricerca non di una monolitica definizione disciplinare a priori, ma di un'esplorazione di limiti da superare e di punti di intersezione da sfruttare. Luogo di incontro tra le discipline non può che essere il territorio, inteso come prodotto della interazione tra culture e natura: unità minima di osservazione del fenomeno storico e unità minima di contestualizzazione delle tracce archeologiche.

Le date di riferimento (365–1556) – in un'ottica di 'lungo periodo' – sono sembrate ai curatori una possibile conseguenza logica delle premesse e possono quindi rendere più esplicito il progetto. Il 365 – per la precisione il 21 luglio del 365, giorno del più violento maremoto narrato dalle fonti letterarie – segna il momento in cui, nel bel mezzo della trasformazione del mondo antico, il Mediterraneo riconquista, quasi per metafora, la sua centralità fisica, fatta di

onde e di venti, dando vita a un fenomeno epocale, per i suoi effetti disastrosi e soprattutto per la sua visibilità globale, come dimostrano i tanti testimoni diversi che dalle sponde orientali e occidentali descrivono lo stesso evento con lingue e voci differenti. Il 1556 – per la precisione il 16 gennaio 1556, giorno dell’incoronazione di Filippo II di Spagna – segna simbolicamente la data in cui il Mediterraneo entra nella storiografia contemporanea attraverso la grande lezione di Fernand Braudel, riscrivendo le regole del gioco storiografico in una direzione che ha molti punti di intersezione con l’archeologia.

*Limina/Limites* accoglie ormai atti di convegni e seminari, singole monografie e studi collettivi che, indipendentemente dalla loro origine disciplinare, si propongano come obiettivo l’integrazione di fonti e sistemi di dati diversi in funzione di una ricostruzione globale orientata alla lunga durata e alla dimensione spaziale mediterranea.

Tutti volumi sono sottoposti a una doppia peer review anonima.

# Limina/Limites

*Archéologies, histoires, îles et frontières de Méditerranée (365-1556)*

Titre, sous-titre et arc chronologique d'une collection éditoriale ont besoin que leurs responsables s'en expliquent. Le titre joue à l'évidence autour de l'assonance des racines des mots latins qui indiquent à la fois des lieux de passages et des limites, donc des frontières, comme pour le mot grec qui indique le port, lequel représente, pour une île -et plus largement pour toute ville qui donne sur la mer- un lieu de connexion et à la fois une limite qui isole.

Iles et frontières sont deux des innombrables clés de lecture pour tenter d'ouvrir les portes de l'étude de la Méditerranée post antique. A partir du moment où elle cesse d'être un grand lac romain, la Méditerranée devient une frontière parfois insurmontable, qui sépare et protège réciproquement les nombreux mondes qui se développent à des rythmes et sous des formes différentes le long de ses côtes. Au même moment, la Méditerranée continue à être un élément d'unité : elle fournit une identité partagée par des communautés culturellement et géographiquement distantes ; elle peut être traversée pour aller vers, et au-delà, d'autres frontières.

Iles et frontières sont à la fois des lignes qui unissent et qui séparent, des identités unitaires et des multiplicités socio culturelles. Elles deviennent ainsi de vastes espaces de réflexion pour des disciplines tournées vers la connaissance du passé, mais qui entendent mettre à la disposition des collectivités des instruments pour interpréter certaines exigences fondamentales du monde contemporain, en résolvant, par exemple, en des termes d'Archéologie publique, des pistes, des résultats et des issues pour les recherches proposées, ou du moins pour une part d'entre elles, entre recherche pure et recherche appliquée.

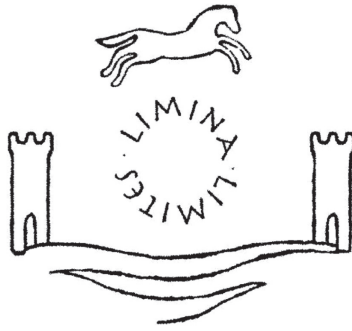
Le sous-titre, entièrement au pluriel, est une allusion à la nécessité d'une multiplicité d'approches différentes. Histoire et archéologie - à plus forte raison en Méditerranée - sont les disciplines qui apparaissent devoir être aujourd'hui déclinées au pluriel, non pas à la recherche a priori d'une définition disciplinaire monolithique, mais qui doivent explorer les limites à dépasser et les points de rencontre à exploiter. Le lieu de rencontre entre les disciplines ne peut qu'être le territoire, entendu comme le produit de l'interaction entre cultures et nature, à savoir des unités minimales où contextualiser les traces archéologiques.

Les dates de référence se situent dans une optique de longue durée et se sont imposées comme l'une des conséquences logiques possibles de notre postulat de départ, pour rendre plus explicite encore notre projet. L'année 365 - et pour être plus précis, le 21 juillet 365, jour du raz-de-marée le plus violent qu'aient jamais rappelé les sources littéraires - marque le moment où, au beau milieu de la transformation du monde antique, la Méditerranée reconquiert, de manière quasiment métaphorique, sa centralité physique, faite de vagues déchaînées et de vents violents, pour donner vie à un phénomène qui marque cette époque par ses effets désastreux et surtout par la visibilité globale qu'il acquiert, comme le prouvent le grand nombre des témoins qui décrivent les dévastations de ce même phénomène, depuis les rives orientales et occidentales, en des langues et avec des voix différentes.

L'année 1556 – et pour être plus précis, le 16 janvier 1556, jour du couronnement de Philippe II d'Espagne – marque symboliquement la date retenue pour l'entrée de la Méditerranée dans l'historiographie moderne à travers la grande leçon de Fernand Braudel, en réécrivant les règles du jeu historiographique dans une direction qui a de nombreux points d'intersection avec l'archéologie.

*Limina/Limites* accueille désormais à la fois des actes de congrès et colloques, de séminaires, des monographies et des études collectives lesquelles, indépendamment de leur discipline d'origine, ont pour objectif l'intégration de sources et de systèmes, autour de données différentes, en fonction d'une reconstruction globale, orientée vers la longue durée et la dimension de l'espace méditerranéen.

Tous les volumes sont soumis à une double évaluation anonyme.



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# Introduction

A recent report by the World Meteorological Organization updated to January 2022 showed that around 11% of the world's population has no access to sufficiently safe sources of water. In addition, drought in some regions of Africa, Central Asia and the American continent is hastening the expansion of the desert belts and is causing serious difficulties in a growing number of countries, thereby contributing to migratory activity among so-called climate refugees, triggered elsewhere by ever more intense and frequent flood episodes.<sup>1</sup> Furthermore, sustainable use of water resources and the need to limit the damage caused by floods have long been problematic for the regions and societies of southern Europe. With their long, hot and mostly dry summers, intense rainfall in springtime and autumn, and sudden freezes in winter, Mediterranean coastal areas have all too often experienced issues related to the supply of water and sudden, excessive rainfall. Today, with the march of global warming and soil consumption, they are seeing an intensification of these well-known phenomena.<sup>2</sup>

As far as the Italian territory is concerned, the report of the Italian Institute for Environmental Protection and Research (ISPRA) issued in December 2021 revealed that more than 90% of municipalities across the entire country are affected by acute situations or hydrogeological instability. The report also levelled the criticism that more than eight million people live in areas defined as highly dangerous from this point of view.<sup>3</sup>

Efficient use of water has thus become a dramatically urgent requirement in this post-industrial age.<sup>4</sup> Nevertheless, an analysis of historical sources shows that this issue has a decidedly long history, suggesting that, leaving aside the gradual rise in temperatures, recent critical issues have mainly escalated, exacerbated, and made pervasive the impact of the phenomena that human groups have repeatedly and tragically had to contend with on account of their impact, great or small, on the ecosystem.<sup>5</sup>

Public opinion, environmental associations and government institutions often call for legislative intervention as a means to defend the environment and to protect populations from their own harmful actions. In other words, there appears to be an established idea that only when there is targeted, well-structured legislation is it possible, at least for planning purposes, to protect the natural and social environment. Conversely, critical situations are mostly blamed on what is often called a 'legislative void'. Verifying the validity of this thesis in the contemporary world is beyond the scope of this work.<sup>6</sup> The aim here is to investigate the reasons why this conviction has gradually taken hold, beginning more or less in the thirteenth and fourteenth centuries when, for the first time since the Roman era, Italy underwent a period of widespread rules-setting in which human use of environmental resources, particularly

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<sup>1</sup> [Public.wmo.int/en/our-mandate/water](https://public.wmo.int/en/our-mandate/water) (access October 2023).

<sup>2</sup> Cassi and Tinacci Mossello (eds) forthcoming.

<sup>3</sup> Triglia, Iadanza, Lastoria, Bussetini and Barbano 2021.

<sup>4</sup> McNeill and Engelke 2016. See also Damiani 1994: 9-12; Mocarelli 2011: 83-84, 88-93.

<sup>5</sup> Alexandre 1987; Miglio 1989: 63-64; Delort and Walter 2001: 162-171; Sabaté (ed.) 2007; Squatriti (ed.) 2007; Bebermeier, Hennig and Mutz (eds) 2008; Janku, Schenk and Mauelshagen (eds) 2012; Ballut and Fournier (ed.) 2013; Ito, Scaroni and Matsuda (eds) 2017; Ricci 2017; Prodi and Zaccaria 2019.

<sup>6</sup> See Kidd *et al.* (eds) 2014; Gentilcore *et al.* (eds) 2023.

water, became subject to regulation. Indeed, by referring to that period we intend to verify the supposed effectiveness of legislation and to assess whether and to what extent it has been a useful means of ensuring access to and proper distribution of water for communities, and flood prevention.

In order to know the structures and the dynamics of the environment in the Middle Ages, scholars frequently refer to legislative texts, which are abundant and detailed on this subject. The usefulness of laws in historiographical investigations should not, however, be evaluated merely in terms of the extent to which rules aligned with or deviated from practice. Getting to know the norms of the past that were established to protect environmental resources can, in fact, be more useful for investigating the will of the ruling classes in this regard and discovering when the idea of a link between the law and protection of resources was first put forward. All the while, it is important to stress that the difficult balance between norms and their application should be traced back to medieval times, the first period from which, as we have said, a relatively large number of written records have come down to us.<sup>7</sup>

This work is part of a larger project pursued for several years now and related to the social impact of statutory legislation formulated in local settings in communal Italy. Specifically, it aims to highlight the intentionality of the ruling classes when it came to managing water resources and regulating piped water, from the perspective of the most recent historiographical considerations on the very meaning of the term ‘water’. Indeed, for the legislative sources of the late Middle Ages, this was not considered in relation to its singular identity (that is, as one of the four elements of creation), but rather in a plural sense referring to its quality as clean and dirty, useful or harmful, inland – like rivers – or marine; and therefore water controlled by the public authorities (*aqua publica*), private property, or a resource available to all (*res communis omnium*).<sup>8</sup> In this regard, the book examines and compares the choices made by town and, to some extent, rural governments within the geographical area lying approximately between Rome and the Alps in the final centuries of the Middle Ages. The territory and the period chosen are, as we will see, relatively uniform in terms of their institutions and represent the most urbanised section of medieval Italy, with almost all the major cities of the time. These included: Milan, with a population of over 100,000 before the 1348 plague; Florence and Venice with about 100,000 inhabitants each; Genoa (over 50,000); Bologna, Siena and Verona (about 50,000); Brescia, Lucca, Pisa, Padua, Rome (35/40,000); Pavia, Parma, Perugia, L’Aquila, Ancona (20/30,000).<sup>9</sup> The areas under examination are also home to most of Italy’s rivers and water resources, albeit with important internal differences which, we can already say, led to a suspicion on our part that a ‘water frontier’ existed between the north of the peninsula and the centre. In purely geographical terms, this would have been between continental Italy – the Po area, generically referred to as ‘Lombardy’ in the past, locked between the Alps and the Apennines – and peninsular Italy and the islands (*Tuscia*, Roman countryside, the kingdom of Naples, Sicily and Sardinia). The two macro-regions were distinct in terms of climate, production, economy and settlements.<sup>10</sup>

<sup>7</sup> For some recent historiographical overviews concerning various European countries, see Caracciolo 1988; Cortonesi and Montanari (eds) 2001; Armiero and Barca 2004: 45-55; Schenk 2008; Hoffmann 2014; Nanni 2017; Canzian and Grillo 2019; Grillo 2022. On water management, Bevilacqua 2001: 41-46.

<sup>8</sup> See Strang 2004; Linton 2010; Cazzola 2021; Fiorentini 2023: 141-142. On the polymorphism of water, Mastrelli 2008: 43-44. See also chapters 4 and 7 of this book.

<sup>9</sup> Ginatempo and Sandri 1990: 100, 148, 224; Cherubini 2009: 45-46; Faini, Terenzi and Zorzi (eds) 2023.

<sup>10</sup> Cfr. Traina 1992: 13-14; Andenna 1996; Garzella (ed.) 1998.

With these considerations in mind and as a preliminary matter, it is necessary to emphasise that this book is not about how water was used in the Italian Middle Ages, but rather that it examines the attitudes of legislators towards its use, particularly with regard to its supply and to flood prevention. In other words, the aim is to cast light on what, according to legislators in towns and cities and, to a lesser extent, in rural areas, needed to be regulated in water management.<sup>11</sup> On the other hand, the emphasis will not only be on what today's reader can deduce directly from legislative sources of the period, but also on what cannot be found in the records because legislators did not consider it important, even though other evidence confirms its significance for the environmental and social structures of the period.

The first chapter in this volume presents the statutes – the chief sources of law in communal Italy – and their potential to reveal information about the governance strategies of the ruling classes regarding water use and flood prevention. The next section (chapter 2) verifies one of the central hypotheses of the entire work, namely whether there was a 'water frontier' between central and northern Italy in that period. Two chapters (3 and 4) examine urban and rural laws and highlight the complex interrelations between them. Later sections look into the conflicts arising from access to the resource and attempts to resolve them through specific norms (chapter 5); the absolute and relative quality of water (chapter 6); hydraulic machines (chapter 7); waterways and timber rafting (chapter 8); laws aimed at preventing – albeit with profound contradictions – river floods and overflows (chapter 9); and finally, some of the religious and symbolic dynamics linked to the purifying and redemptive properties of water – a sacramental element invoked by legislators as a means for expiating guilt and, at the same time, punishing an offence.

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<sup>11</sup> See, in this regard, the considerations of Saragosa 2005: 13-20, 89-90; and Keller and Busch (eds) 1991.