

Citation

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Bologna and Siena during the Dantean Anomaly (1309-1321)

by Martin Bauch

1000 Worte Forschung: *Ongoing subproject in the Dantean Anomaly JRG, GWZO Leipzig*

The common consensus seems to suggest that Italy was spared from the Great Famine (1315–1321).¹ While it is certainly true that fewer people starved there than in contemporary England, however, the absence of massive famine does not necessarily mean that the meteorological conditions were better than in the rest of Europe, as chronicle quotations suggest:

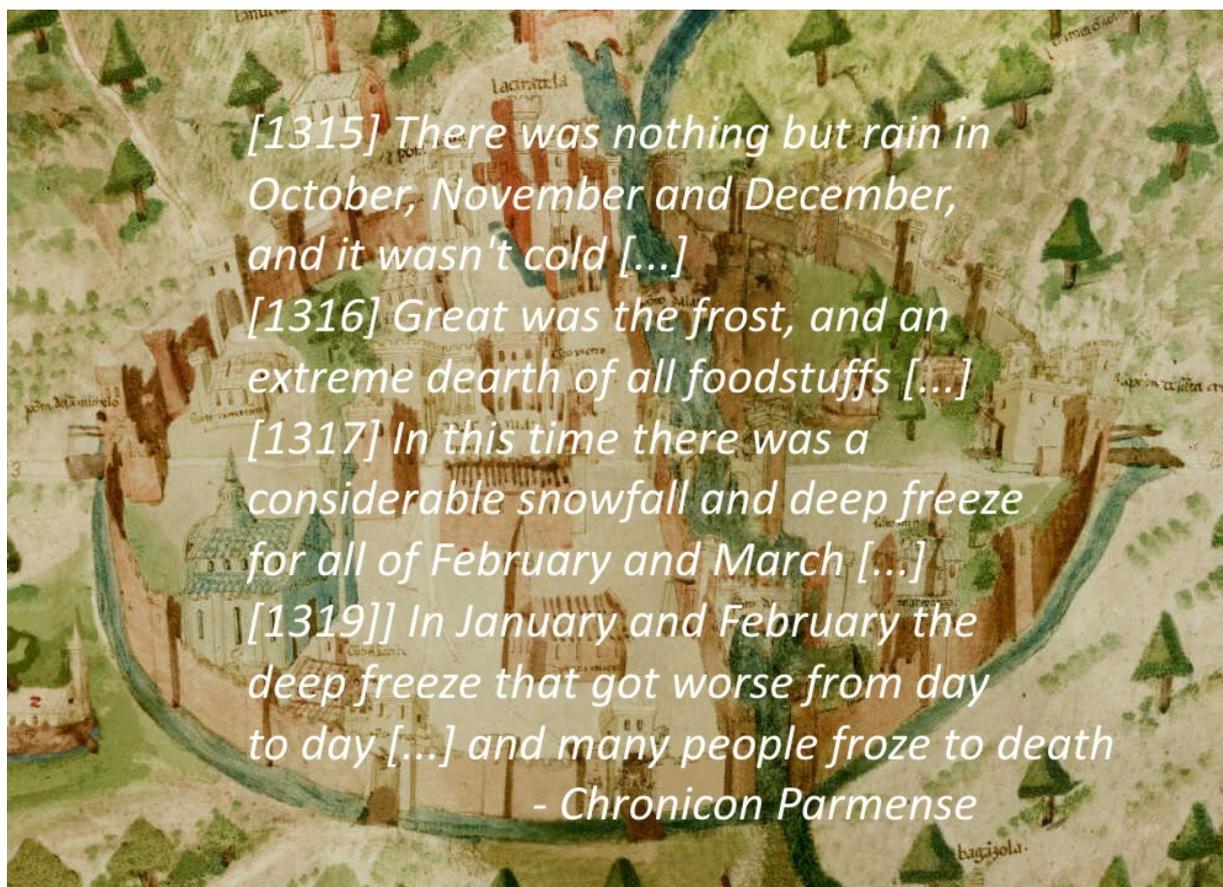


Figure 1: Depiction of the city of Parma, 15th century. Public domain, [Wikimedia Commons](https://upload.wikimedia.org/wikipedia/commons/d/dc/Parma_nel_XV_secolo.jpg?uselang=de)
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Although Italian scholars were amongst the first to work in the field of climate history, the

¹ William C. Jordan, *The Great Famine: Northern Europe, in the Early Fourteenth Century*, Princeton 1996, pp. 173-174; *Les disettes dans la conjuncture de 1300 en Méditerranée occidentale. Études réunies par Monique Bourin, John Drendel, François Menant*, Roma 2011.

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historiography on Italian climate history of the Middle Ages is actually quite lacking.² Italian narrative sources for the thirteenth and fourteenth centuries are incredibly dense, but, with few exceptions,³ they have not been evaluated for climate history. Even better, the rich archival documentation in Italy allows for study of climate history at practically the local level.⁴ Historians of other European regions can only dream of such rich source material.

This is one reason that I have chosen two Italian cities—Bologna and Siena—for my study. Neither belongs to the major Italian cities around 1300, although they were already of considerable size and economic, political, and cultural importance. For most of the time covered by this study, communal governments ruled over both cities. In Siena and Bologna, local chronicles, both edited and unedited, allow for a first approach to the communal history for the Dantean Anomaly. But more importantly, the municipal archives in these two cities have preserved dense administrative documentation. This includes nearly continuous records of the city council (*Consiglio Maggiore/Generale*) for the entirety of the Dantean Anomaly. While Bologna offers additional administrative documentation with details on what happened inside and outside the city walls, Siena is famous for its detailed financial accounts that provide information (like costs) on specific reactions to extreme events.

But the cities have also been chosen for what they do not have in common: They represent different microclimates in Italy—the Po valley and Tuscany—and while Siena was, in normal times, self-sufficient thanks to its domestic grain production, Bologna constantly needed to import grain. Neither city initially possessed its own harbor to import crops, although in 1302 this changed in the case of Siena with the acquisition of Talamone on the Tyrrhenian Sea.

My focus is on changes to infrastructure and institutions in response to the rising frequency of extreme events. These include the establishment of new authorities (e.g., to develop infrastructure around Bologna) and the institution of new laws to stabilize grain availability (e.g., new statutes in Siena). The institutions—whether traditional or newly created—often proved to be at the heart of

² See for an overview: *Nella spirale del clima. Culture e società mediterranee di fronte ai mutamenti climatici*, a cura di Emanuela Guidoboni, Antonio Navarra, Enzo Boschi, Bologna 2010; the significant body of publications by Dario Camuffo and Silvia Enzi, mostly on the Veneto and the Early Modern period, should be mentioned here. Also Emanuela Guidoboni took up her first research in the 1980s.

³ Silvia Enzi, Mirca Sghedoni, Chiara Bertolin, Temperature Reconstruction for North-Eastern Italy over the Last Millennium: Analysis of Documentary Sources from the Historical Perspective, in: *The Medieval History Journal* 16/1 (2013), pp. 89-120; Trevor Dean, Natural encounters: climate, weather and the Italian Renaissance, in: *European Review of History/Revue européenne d'histoire* 18/4 (2011), pp. 545-561.

⁴ Laurent Litzenburger, *Une ville face au climat: Metz à la fin du Moyen Âge. 1400-1530*, Nancy 2015.

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the municipal government: the *Domini bladi* in Bologna became the most important council in Bologna, and aspiring politicians aimed to be part of this institution. The granary even became the seat of the city's government. In the case of Bologna's first crypto-signore, the banker Romeo Pepoli, his (almost) successful path to power was closely connected to the offices he held in bodies responsible for water infrastructure and the money he provided to his fellow citizens (or, more precisely: to the grain welfare system) in times of famine. Finally, the economic ascent of his family in the 1310s was coupled with a shift from money lending to real estate acquisitions in the *contado*, most pronounced in settlements which had been repeatedly devastated by flooding.



Figure 2: Bologna's City Hall (*Palazzo del Comune*), built in the late 13th century on the former home of Accursius. The oldest part to the left served as the city's granary (*Palazzo della Biada*) and became the seat of the communal government in 1336. Image: Public Domain, [Wikimedia](#)

[Commons](#):

[https://commons.wikimedia.org/wiki/Category:Palazzo_d%27Accursio_\(Bologna\)?uselang=de#/media/File:Palazzo_d%27Accursio_-_Facciata_addobbata_per_la_visita_del_Papa_1.jpg](https://commons.wikimedia.org/wiki/Category:Palazzo_d%27Accursio_(Bologna)?uselang=de#/media/File:Palazzo_d%27Accursio_-_Facciata_addobbata_per_la_visita_del_Papa_1.jpg)

Infrastructure mattered in several ways: In some cases, these measures were direct reactions—the

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building of new river dikes in the plains around Bologna after major floods, for example, or the construction of new granaries around Siena in 1314. In other cases, the reconstruction of infrastructure which had been destroyed in natural disasters—roads, bridges, mills, and canals—consumed considerable sums of the communal budget. Finally, the impact extreme events had on the afflicted cities varied a great deal depending on the preexisting infrastructure: harbors, for example, provided access to imported grain, while a sophisticated and well-financed system of dikes helped control flood damage.

Despite the many opportunities for such study in the historical record of the Italian peninsula, there are also a few unfortunate lacunae. Unlike for England and France, the sources for Italy do not include information on yields and prices of grain and wine for the years 1309–1321. In addition, few natural proxies are available: Dendrochronological results are scattered, and lake sediments likewise lack the needed temporal resolution. Furthermore, there is little research on historical erosion, although chronicles prominently mention it:

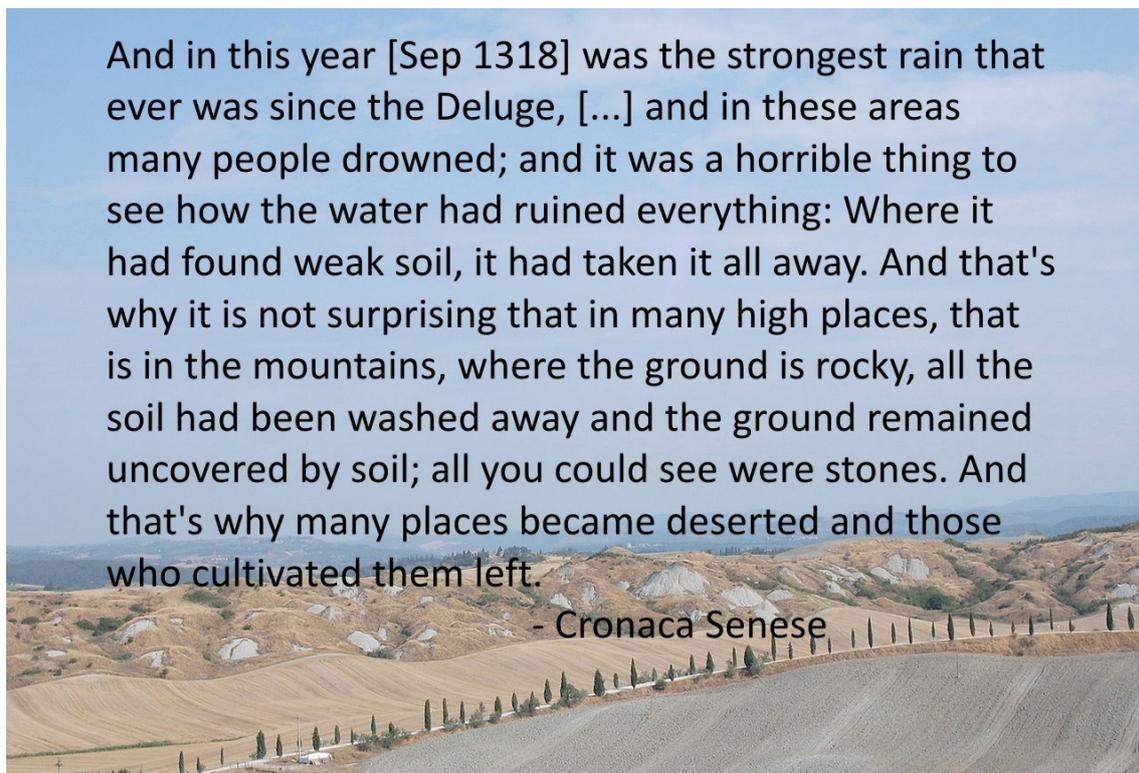


Figure 3: So-called “Desert of Accona” between Siena and Buonconvento, known by this name since the Middle Ages. Image: Public Domain, [Wikimedia Commons](https://commons.wikimedia.org/wiki/File:Deserto_di_Accona-1.jpg):

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To summarize, the project aims first to reconstruct climate change based on narrative sources for the

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Duecento and Trecento in Northern and Central Italy, and to represent these findings using climate indices that will facilitate comparison of these results to findings for other regions.

Second, the project will produce a regionalized study of climate history for two important Italian cities, demonstrating how Italian communes were affected by and reacted to a rising frequency of extreme events. Thanks to their economic power, trade networks, infrastructure, and established systems of grain management, the Italians were undoubtedly better prepared to handle such problems than most other Europeans. The connections between crop failure, dearth, and harsh weather conditions which have been demonstrated for other regions can also be established for Italy. In the third step, the project intends to demonstrate that socio-cultural, economic, and political reasons explain why Italy was hit less hard by the Great Famine during a period of serious meteorological deterioration; this is paramount in explaining the role cultural preconditions played in the relatively low vulnerability to climate phenomena we find in Italy compared to the other sub-projects and comparable regions.