

The water system of Pinerolo: reading an industrial landscape through unpublished documents

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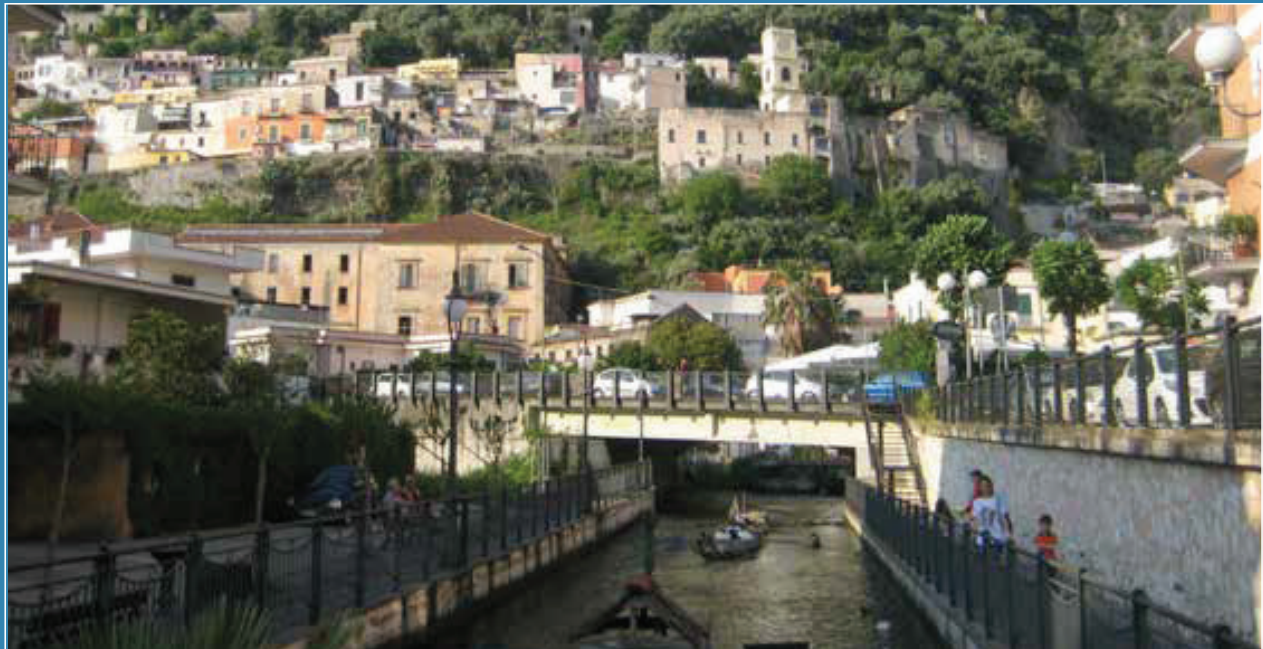
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The Water System of Pinerolo: Reading an Industrial Landscape Through Unpublished Documents

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 **KEYWORDS:** Pinerolo, river and flume landscape, industrial heritage

ABSTRACT

The town of Pinerolo, ideally located close to the Alps and on the outskirts of Turin, in the millennium of its history underwent expansions and contractions, transformations, but above all demolitions, which have substantially modified its appearance. Like many urban medieval centers, the water has strongly oriented the development of the settlement: this element has been the sign that mainly characterizes its landscape, both suburban, and urban. A peculiar component of the water system is the *Rio Moirano*, a renowned canal since the first two decades of the Thirteenth Century. *Rio Moirano* was the driving force to a series of activities that made the city a popular industrial center. These architectural and water systems have lost much of their peculiarities. Today, this heritage requires prompt protective actions, since the speculation is slowly but surely destroying or hiding it, element by element.

To preserve this system it is important to rethink this canal and all the components of the water system of the town, made by the Chisone and Lemina rivers and other flumes (like *Beale della Motta Grossa* and *Bealera di Bisognette*), as an engine for conservation.

The aim of the paper is to highlight the important changes of this landscape between mid-nineteenth and early twentieth century, through the reading of several unpublished documents concerning the reorganization of the waters, kept in the Historical archive of the city.

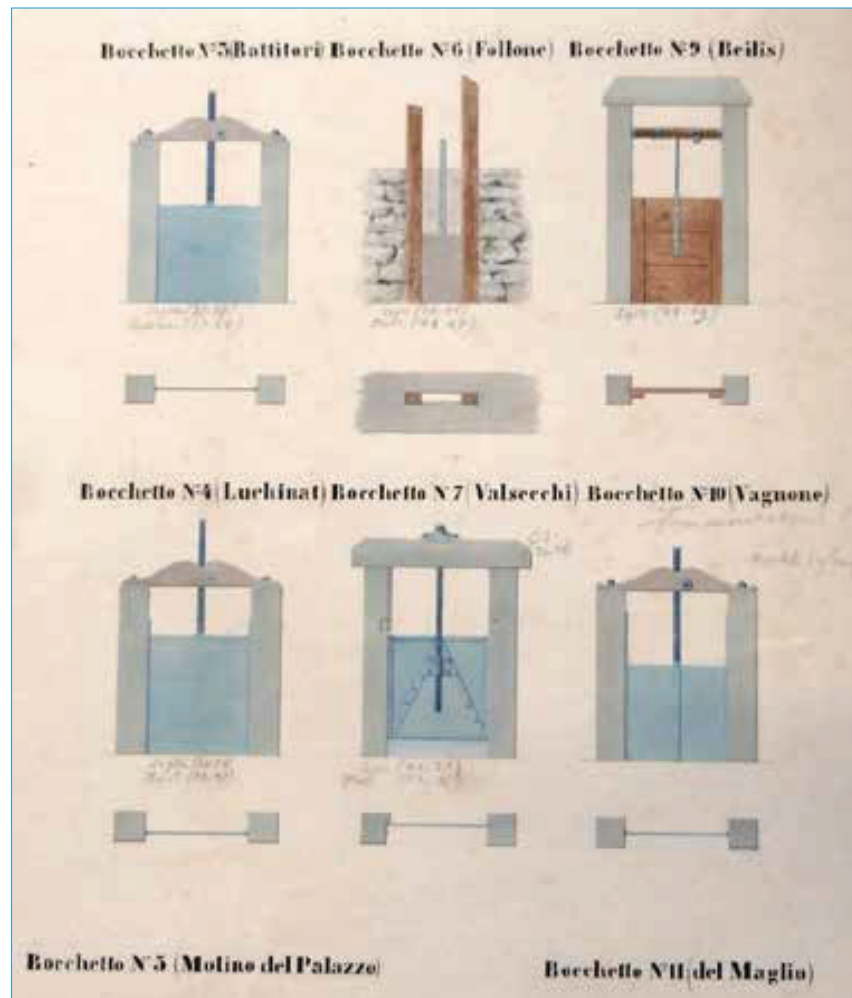
From this starting point, the study wants to propose an enhancing strategy that focuses on preservation actions for this industrial system, made by factories and water supplies. In order to make this happen it is necessary, in addition to an organic project, to include adequate information campaigns and popular involvement, to ensure that this heritage can be recognized, appreciated, and consequently safeguarded.

As in many urban centers of medieval origin, the water has strongly orientated the settlement of the town of Pinerolo: this element, in fact, has been, for almost a millennium, the main feature of its landscape, both suburban, and urban. As emphasized by Vera Comoli, «la ricchezza primaria della zona dipende dalla possibilità di combinare la coltivazione intensiva delle campagne (le derivazioni di irrigamento furono sempre importantissime) con la disponibilità di energia motrice mediante lo sfruttamento del salto d'acqua del Chisone, del Lemina e dei canali derivati (e quindi l'industria manifatturiera)» (Comoli Mandracci, 1982). The substantial amount of agricultural and manufacturing activities (handicraft industry, proto-industrial and industrial) that have developed along the *Rio Moirano*, a canal of which we have information from the second decade of the XIII century (Demo, Tosel, 1950) seems to be one of the most important topics that we have to focus upon. In this regard, the artificial branches – the water of which, since the early statutes, was considered a belonging of the community – have been object of special attention through time, for their importance as a source of income for the

town council and a strategic asset for the whole economy of the city. In a similar manner the project of enlargement of the fortifications designed by Vauban (1692), which would have extended the perimeter to enclose *Rio Moirano* and activities on its banks, for example, could be interpreted in this way.

More recently, in a period of overall urban transformations - that should have been set by the Regulatory Plan that never became executive, designed by the engineers Borella and Camusso (1856-63) (Fantino, Menusan 2002) - the canalizations were the subject of a detailed study, the majority of which is still unpublished, that became known as “*Riordinamento del regime delle acque pubbliche scorrenti nel Territorio*” (“Rearrangement of the public water system flowing in the Territory”). This survey was approved in the meeting of September 2, 1881, according to a requirement set forth by the mayor that had informed the City Council «[...] sulle indebite appropriazioni ed altri abusi che al giorno d’oggi specialmente si lamentano circa le acque scorrenti nel nostro Territorio, di esclusiva proprietà del Municipio e sulla necessità altresì di veder modo di ricavare da queste acque quel profitto che giustamente può competere all’Erario Civico sia dall’industria che dalla irrigazione»² (Archivio Storico di Pinerolo, 1881). For this purpose, in 1884 a Technical and Legal Commission was established, and the whole procedure was entrusted to the municipal engineer, Virginio Garneri. His main task would be to provide appropriate documentation on water status, detect riverbeds, derivations and related courses, and to establish, at a later stage, an adequate license fee for both industrial and irrigation exploitation (Archivio Storico di Pinerolo 1884).

The engineer handed over his job to the City Council four years later, having fully completed the survey of the municipal branches of water supply coming from the Chisone and Lemina streams (Archivio Storico di Pinerolo, 1888). The task was then given to the engineer Ernesto Camusso, along with a detailed list of what had already been done. This document confirms the presence of several albums or folders containing the surveys, according to the following list: I. *Torrente Chisone, beale Chisonetto e Rio Moirano*; II. *Beale della Motta Grossa e Bealera di Bisognette*; III. *Beale di Riva e Beali delle Basse e delle Motte*; IV. *Beale di Buriasco*; V. *Bealera del Ponte Sanino*; VI. *Torrente Lemina*; VII. *Beale di Ferro* (Archivio Storico di Pinerolo, 1865-1894). In the historical archives of the city of Pinerolo, drawings of the first two were traced: a binded album (Archivio Storico di Pinerolo, Album XI h) containing 12 colored plates with planimetric survey (1:1000 scale), longitudinal profile of the lengths (1:1000) and heights (1:100), transverse sections (1:1000) and details of the derivation structure (scale 1:100) concerning the *Moirano* stream; a folder (Archivio Storico di Pinerolo, Album XI i) containing 18 colored plates, with the same assessments (except the details of the derivation structures) for the *Beale della Motta Grossa* and *Bealera delle Bisognette* (the present village of Pascaretto). The hand that executed the drawings should be the same, as we can deduce from the Garneri’s report to the Municipal Council in which he points out the extraordinary drawing skills of the assistant surveyor: «A coadiuvarmi nel disimpegno di queste operazioni l’onorevole Consiglio, colla citata sua deliberazione delli 15 febbraio 1884, non credeva potermi assegnare che un solo ed unico collaboratore, nella persona di un Geometra disegnatore straordinario» (Archivio Storico di Pinerolo, 1888).



Examples of functional buildings: edifici di derivazione (bocchetti) (Archivio Storico di Pinerolo, Album XI h, TAV. XII)

Both series, notably the plans, picture the situation along the canals in these years of major changes linked to industrial production and provide important information regarding the structures: in the south - east section of the city, for instance, some activities built or renovated in the second half of the nineteenth century, such as the Usina-gas (1854) the Poccardi foundries (1872) and the Beltramo silk factory (1870), can be seen in detail. The latter are part of the tables of the *Beale della Motta Grossa and Riva* (Album XI i, Motta Grossa f. I; Beale di Riva I°), which can be considered the logical and immediate extension of the urban album; in fact, the divider (*partitore*), which gave origin to the flume system, was located just beyond the railroad for Torre Pellice (built in 1882 - the drawing of the TAV.V of *Moirano's* album is subsequent).

For the study of Pinerolo's industrial system, and for the evaluation of the changes occurred in the last decade of the XIX century, it might be interesting to compare these tables with the best known nn. XVII-XVIII of the album *Città di Pinerolo. Sviluppo edilizio ed industriale 1848-1924* (Archivio Storico di Pinerolo, Album P III), drawn in 1898 to highlight the growth of the town in a half-century (the interval from 1898 to 1924 is the result of a subsequent session of works). The letter attached to this work, written by the engineer Vittorio Alberto Storchi, emphasizes the role of the City Council, which «con provide disposizioni permise di ottenere

dall'antichissimo Canale Moirano la forza motrice bastevole ad animare ben 14 diversi opifici mediante tenuissimi canoni annui»³ (Fantino, Menusan, 2002).

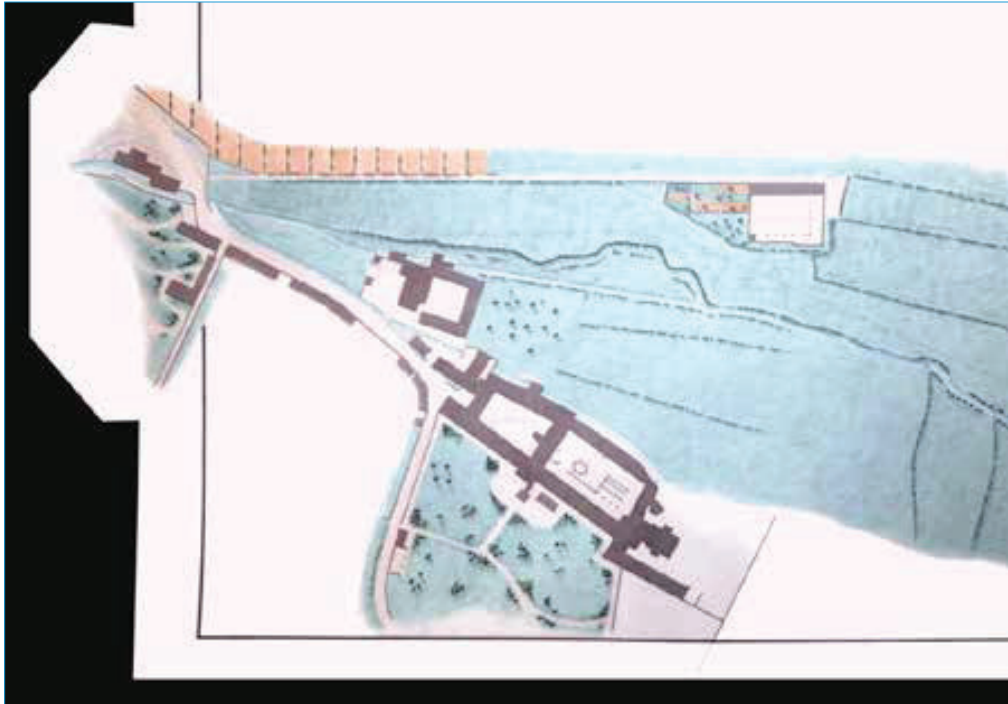
According to this statement, considering the fact that the last payments to Camusso for his works of *Riordinamento* date back to the mid-nineties, it can be deduced that the project of rate adjustment wasn't concluded at the end of the century.



The Rio Moirano from the Mulino Nuovo to the Fabbrica Elettrodi. (Archivio Storico di Pinerolo, Album XI h, TAV.V)

Storchi continues: «E così oltre alla trasformazione di vari antichi stabilimenti di limitata importanza in opifici moderni e più vasti, si videro in questo mezzo secolo sorgere nuovi e grandiosi stabilimenti nei vari rami delle industrie specialmente tessili, che sono illustrati con la tavola in cui planimetricamente è riportato il corso del Moirano cogli stabilimenti cui somministra la forza motrice, i principali dei quali vi son attorno rappresentati da fotografie del Cav. Pietro Santini»⁴ (Fantino, Menusan, 2002).

Unfortunately, the industrial history now seems to have suffered a sharp reversal and the industrial heritage, pride of the city, has become almost a disgrace to be deleted by a systematic destruction. (Rudiero, 2014). The crisis of the productive sector, which began at least in the thirties of the last century have left the city with a large number of buildings and industrial areas that in recent decades, have undergone several damages and unrepairable losses. Hasty demolitions and pervasive renovations have essentially dissipated the peculiarities of this system of architecture and water, characterized by a strong functional aspect. However, the *Moirano*, with the factories and the connections they have with the territory, has a huge set of values, which should be protected and



The Rio Moirano after the Partitore: the Poccardi foundries and the Beltramo silk factory along the Canale di Riva and di Buriasco (Archivio Storico di Pinerolo, Album XI i, Beale di Riva I°)

enhanced. Saying this I do not want to suggest an uncritical and extremist preservation of all the heritage of industrial archeology, but rather a guideline for a future redevelopment strategy by means of historical-documentary analysis which are already numerous (Demo, Tosel 1950; Comoli Mandracci 1982; Cerrato, Ronchetta 1996). Urban planning designed with these requirements may ensure a series of punctual interventions of conservation, integrating the unique value of the architecture with the city value, or the one of the productive sector of reference, because the industry must be considered an urban phenomenon on large scale.

The awareness of industrial heritage should lead to a new season of shared urban planning, taking advantage of the opportunity of a necessary revision of the *Piano Regolatore Generale* dated 1998, that significantly overestimates building capacity. On that occasion, a city route that enhances the whole proto-industrial and industrial system along the *Moirano* and the other suburban canals could be conceived with the aim of safeguarding the main emergencies thus encouraging the restoration; a tour that evokes the irrecoverably lost structures but, in any case, promoting a wider understanding of this very important network. Then, in order to foster cultural tourism, it would be useful to design pedestrian paths or cycling tracks alongside the canals, highlighting not only the architectural wealth but also the water jumps and water catchments: this would lead to a comprehensive upgrading which would concern Pinerolo in all its entirety, allowing the existing tourist routes to connect with the one related to the industrial archeology. It is clear, however, that a proposal of this extent can be achieved effectively only if the needs related to the preservation are included into the urban planning system. But this is not enough: the potential of the industrial heritage should be understood by all citizens and local administrators.

Notes

¹ The primary wealth of the area depends on the possibility of combining intensive farming (the irrigation derivations were always very important) with motive power through the exploitation of the water falls of the Chisone, the Lemina and derived canals (and, consequently, with the manufacturing industry).

² [...] About the undue appropriations and other abuses regarding the waters that flow on our territory, exclusive property of the municipality, and about the necessity of the tax authorities of making a profit through agricultural and industrial use.

³ Exploiting the ancient Canale Moirano, obtained, with appropriate steps, the sufficient power to run 14 different factories collecting reasonable annual fees.

⁴ And so, as well as the conversion of various older estates of minor importance in modern and larger factories, in this half a century we can witness the establishment of new and larger plants in different branches of industry, especially textiles as outlined on the table where the course of Moirano stream is shown along with the factories that take advantage of the motive force, photographed by Cav. Pietro Santini.

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ASPi, Album XI h. *Città di Pinerolo. Riordinamento delle acque. Rio Moirano*.

ASPi, Album XI i. *Terreni irrigati dal Rio Moirano. Piante a tinte naturali*.

ASPi, Album P III I. *Città di Pinerolo. Sviluppo edilizio ed industriale 1848-1924*.