

Publishing and Technical Culture in Italy: 1863–1947

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ABSTRACT

This analysis offers a partial view of the technical press within the wider changes in publishing during the considered period (1863–1947). Through examples of various titles, an integrated exposure is proposed, which demonstrates the context in which books and periodicals from subjects such as civil engineering, earth sciences, and transportation were published.

Introduction

Developments in the technical press that took place in the eighteen and nineteen hundreds reflected the cultural changes that occurred during an epoch in which, within a few decades, technological innovation transformed the civil life of the countries of the Western world. The examples discussed in the present paper concern the periodical press, in part one, and book production, in part two. These representative examples offer historical evidence of areas of gradual expansion, as well as some areas promoted by important associations within the academic, institutional, and professional spheres.

Periodical Press

A significant characteristic of the period is the wide range of topics found in the abstracts of journals. Although each journal seems to have a specific area of focus, a quick tour of the indices reported in journals such as *The Civil Engineering and Industrial Arts* (1) or *The Technical Monitors* (2) shows the large contribution made by information related to subjects such as construction, electrical engineering, hydraulics, and transport, to name just a few. Over time, with the gradual expansion of the individual disciplines and the advent of new areas of research, the periodical press gradually moved towards a publishing model that was more focused and specialized. For example, more attention was paid to choosing and developing more defined thematic guidelines, and periodicals were promoted by specific organizations involved in different areas such as transport, technical expertise, or science, and came from diverse cultural backgrounds.

The *Journal of Civil engineering department* (3) played a significant role in the aforementioned process. From its debut in 1863, its purpose was to highlight interventions that had been consistently implemented within the Italian territory, operated by the Department (2) Construction and maintenance of canals, bridges and roads were some of the topics included in the issues published in the second half of the nineteenth century, from which emerges the broad level of expertise of the department. During the 1860s and early 1870s, *The Journal of Civil engineering department* changed printers and publishing houses several times, moving from Turin to Florence for a short period and then settling in Rome (Civil genius press). Because the Department and other technical organizations had different interacting components, the Civil genius press was used by several organizations for the production of texts and journals, such as *The Official Collection of Documents Relating to the Royal General Inspectorate of Railways* (4), a serial publication of a legislative nature, which summarized the activities of the Inspectorate in the passing of laws and regulations. Between 1888 and 1896, *The Official Collection* was printed by Botta and Bertero, by later by Union Typography in Rome, where publication continued until the end of the century. From the beginning of the twentieth century, the journal was put out by the same typography as *The Journal of Civil engineering department*.

Another journal that followed a similar course was *Railway Engineering* (5), which first came out in 1904. It was initially printed in Florence by Civelli, and then in Rome, where it was published by the Civil genius press until 1917, when the first version of the journal was closed (1). The edition of the journal was

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assigned to the cooperative formed within the National Board of Italian Railway Engineers (CNIFI Collegio Nazionale degli Ingegneri Ferroviari Italiani) from the first year of publication.

The Union Typography, in addition to being responsible for the ongoing publication of *The Official Collection of Documents Relating to the Royal General Inspectorate of Railways*, acted as the publisher for other titles, such as *The Journal of Communications* (6), in 1910, and *The Technical Journal of Italian Railways* (7), between 1912 and 1918. *The Journal of Communications*, as other examples presented in this paper, belongs to the class of publications that are of an institutional nature. In this case, the Ministry of Posts and Telegraphs was the institutional backer. The journal was put out in its original form from 1908 to 1924, with a focus on sectors that were expanding during this period, such as motoring, aviation, and telephony. *The Technical Journal of Italian Railways* was thematically addressed, like explicitly reveals the header, inside of rail transport, and was also sponsored by CNIFI (Collegio Nazionale degli Ingegneri Ferroviari Italiani) with the involvement of the State Railways. Published in its original form from 1912 to 1943, it changed over time, different printing structures after the Union Typography, printing organ during its first period of edition.

Associationism, in its various forms, was significant within the general development of printing. Technical and scientific organizations became closely connected with publishing, because such organisms were substantial contributors to and promoters of the books and periodicals through which they manifested their own cultural guidelines. Between the nineteenth and the early twentieth century, the birth of several journals was closely related to the formation of academic organizations, which went on to sustain them. The two events were sometimes almost simultaneous, as in the case of *The Bulletin of the Italian Geological Society* (8). The first issue was published in 1882, a few months after the formation of its namesake, which took place in 1881. At other times, long periods of time elapsed between the founding of an organization and the publication of the associated journal, as in the case of the *Railway Engineering Magazine*, whose first issue was published a few years after the formation of the Board in 1899. These journals originated from the experience of a specific group of scientific experts like the *Bulletin of the Italian Glaciological Committee* (9). This Bulletin published its first editions from 1914 to 1932, and was promoted by the association of the same name. The Italian Glaciological Committee was formed at the beginning of the second decade of the twentieth century as a result of a gradual awareness within scientific circles and public administration of the importance of studies of glaciation and related phenomena, because these could have major economic impacts on, for example, hydroelectric power, agriculture, and navigation. The Bulletin was planned in Turin, headquarters of the Committee, with the support of the Italian Society for the Advancement of Science and the Italian Alpine Club. This two associations was listed in the initial pages of the journal as a supporting organizations. Over the years, the publisher move from Rome (Bertero Typography) to Turin (Turin Social Typography).

The examples discussed so far different in setting and cultural background, however they found a common denominator in the city where printing took place. In fact, although there were temporary variations (Florence, Turin) in the locations of the printers, Rome was involved in the publication of almost all journals *The Polytechnic*, whose 1928–1937 edition was entirely published in Milan, is a notable counterexample (10). References to the prestigious past of the renewed journal, published at the end of the 1920s, are well stated in the preface. However, the year in which the journal was founded (1852), which was reported on the opening page, coincides with the initial publication of the *Journal of Engineer, architect and agronomist* (later *Journal of Civil and mechanical Engineer*). In 1869, these two titles merged into a single journal, directed by Brioschi. The final version of the magazine was entrusted to the publisher Vallardi Francesco, who in the 1930s consolidated several branches in Italy and abroad. This publishing house was active in many technical and scientific sectors, in both books and periodicals. *The Polytechnic* is an interesting example, within the production of Vallardi, for the reputation acquired by the journal during its lifetime.

The last periodical that will be reviewed in the present paper, *The Bulletin of Royal Geological Department of Italy* (11) (1922–1946), related to earth sciences. Promoted by the Royal Geological Department of its title, it was culturally integrated with the Italian Geological Society. In fact, the Department was part of the Italian Geological Committee in which there were prominent members of the Society itself. During the 1920s, the Bulletin reported on its cover, as publisher, the General Superintendency of the State, which was later replaced by the Polygraphic state Institute. This is the period (the second and third decades of the twentieth century) in which the unification of various publishing and printing structures for the state administrations began. With the law of 1928, organizations and individuals associated with the same subject were assigned specific tasks within the overall publication process. From the production of paper to

the final printing, more recent institutions came together to form The Polygraphic, which gradually became an important reference for periodical and book production promoted by public institutions.

Book Publishing

The publication of texts on transportation grew between the nineteenth and twentieth century in response to new mobility systems and their infrastructure in the Italian territory.

This period saw the origin and formation of the two sectors that are most integrated into civil life: the railroad and the automotive system. An initial evaluation of the press of this period suggests considerations of different nature. The most evident aspect is the remarkable impact of the technological revolution on the transport sector.

The earlier advent of rail transport made possible an editorial opening on the subject already in the eighteenth century.

Although railroads came late to the Italian territory, compared with some other European countries with more favorable conditions, railroad transport expanded on the Italian peninsula relatively quickly (12). Scholarly publications accompanied this gradual territorial growth and became an instrument of knowledge and general information on the development of the railway system. The titles cited below, published between 1876 and 1913, address the various aspects of the subject and give examples of different editorial situations.

On the one hand, the promotion of books was supported by the traditional publishing environment, whereby a variety of organizations through which passes the partial or entire training cycle of the book; on the other hand, publishing initiatives were supported by companies directly involved in the transport sector (as was seen in some examples in the preceding section on the periodical press).

In this latter sense, the most emblematic case is surely the State Railways, which became a promoter of a discrete type of technical publication, without, however, forgetting other topics of a more cultural nature. The 1876 text, *The state and the railways: Reacquisition and operation* (13) highlights two major points. The first was the political division on the railway question following the passage of a law that promoted a public management model for operating the rail lines. The second concerned Treves, a significant figure in nineteenth century activism in the publishing field. Probably more inclined towards productions of a more literary nature, however, he published in a variety of areas, as shown in the 1876 text, *The state and the railways*. Treves was a prominent member of a group of publishers who pursued an innovative policy that resulted in greater cultural diffusion. This was notable in a period not free of problems, not least of which was the high illiteracy rate persisting in Italy in the second half of the nineteenth century.

In 1885, *Operation of the Mediterranean, Adriatic, and Sicily networks and construction of complementary railways* (14) was published, in conjunction with the new organizational structure of the railway system. This book discussed the new structure, characterized as it was by a different management system in which the activities of the rail network were entrusted to three companies and divided geographically into three parts. This is an example of a publication directly promoted by transportation agencies. It also highlights the type of structure used by the rail sector in its editorial role. The frontispiece cites the Ministry of Public Works and the specific department that commissioned the volume (in this instance, the General Directorate of Railways), with the name of the printer at the bottom.

Through the press, the various aspects affecting the whole railways system could be compared with what was happening abroad, including technological, economic, and infrastructural developments. A recurring theme was territorial growth, and the geographic expansion of the rail network in more advanced countries. The 1898 text *The development of the rail network in the United States and its variations* (15) introduced this topic with an analysis of the railways in the United States, highlighting the development of transnational lines during the nineteenth century.

The turn of the century was an important time for the railway sector because there was a series of significant reforms. This began with the 1905 law (16) that terminated the existing system of conventions

and promoted a new type of corporate organization. The 1907 text *The state and the contract for rail transport* (17) defined the situation of the company as “a seemingly mixed system, it is not completely autonomous and neither totally dependent.” (18) In this text, changes in management were presented as generating intense political debate about the direction and legal status of railroads during the first decade of the twentieth century.

The two monographs just mentioned, published only a few years apart, were both included in Bocca's catalogue. Bocca was a dynamic publisher and book promoter, who also distinguished himself by his involvement in the field of associationism within the nascent world of publishing organizations. Like the Publishing Press Union of Turin (UTET Unione Tipografico-Editrice Torinese) (19), Bocca was present in the sector from the end of the eighteenth century. The publisher produced several series, including the “Library of Social Sciences” which was part the 1898 text, mentioned above. The UTET published the normative text *Principal Laws governing the railway operation: Practical interpretation* (20) in 1911. This last publishing house was established by the end of eighteenth century and the first half of the nineteenth century. After its initial phase as a Bookstore, it merged (between 1854 and 1855) with other companies involved in book production and assumed a more important role, expanding its editorial division and opening new branches.

Even companies that would go on to become established publishing houses in the twentieth century often started with limited structural and economic standing. Industrialization was affirmed as a major factor, probably from the twenties and thirties. Beginning in the early twentieth century, changes were instituted that would go on to affect the growth of this sector in the following decades. Another exponent of the publishing industry between 19th and 20th century (in this case, in Turin), was the National Publishing Company (21). Despite having no established tradition in technical publications—until the early twentieth century, this company focused mainly on historical, economic, and legal publications—it produced several exemplary publications, including the 1913 manual, *Braking at high speeds* (22). The title just mentioned introduces the technical and professional press undertaken by railway companies. Series of handbooks included books and booklets of various sizes and dimensions, covering topics related to maintenance and operation. Economic, statistical, and financial subjects were also addressed in serial publications (23), photographing periodic events and verifying contingency plans for mobility, infrastructural, and financial matters. Generally, these publications took the form of long handouts presented as reports, created by agencies like the Central Statistical Service of State Railways.

As already mentioned, the motoring industry differed from the railway industry in assuming preeminence only in the twentieth century. Therefore, publications about motoring concerned the expansion of infrastructure and technological developments in the twentieth century.

One type of well-documented publication related to motoring was produced in response to conference activities. For example, the text from 1912 *Proceedings of the Second National Conference of the Road* (24), edited by the Italian Touring Club (TCI), anticipated the themes already planned for the next International Congress of the Road, which was held in London in 1913.

Less than twenty years after its birth (25), the Italian Touring Club (TCI) was already well placed in what may be termed the modernist philosophy of that epoch. They were committed to promoting a culture of transport that optimized the technological progress available. Club activities were characterized by the promotion of a futuristic vision of the interaction between new systems of mobility and social organizations. The 1920 text *The ordinary ways of communication* (26) came to life outside the editorial circuits in larger urban centers, such as Milan, Turin, Florence, and Rome, which had strong publishing traditions and many publishing houses. However, *The ordinary ways of communication* was produced outside these cities, and represents an interesting compendium devoted to various issues on the road network. This book examines the technical aspects associated with the construction and maintenance of the road system, administrative organization and management, and economic concerns. It also devotes an entire chapter to road classification.

In Italy, the issues related to the road network (design, construction, maintenance), were addressed differently in light of the progressive development of motor transport. The image presented by early twentieth century publishing was still linked to a mixed use of the road, namely through a classification system that took into consideration the different transport alternatives. This was supported by some texts published at the beginning of the 20th century, in which animal traction was analyzed as well as mechanical

traction, its primary focus. Even in 1929, by which time motor transport had consolidated its position considerably, the Autonomous State Company of the Road (AASS Azienda Autonoma Statale della Strada), in the preface of their book, *Statistics of haulage along first class roads* (27) (which discussed mobility in 1928), reported that “The passing vehicles on the roads are divided into two categories: cars and animal-drawn vehicles....” Tables with numerical data confirmed the continuing significance of traditional haulage, with interesting numbers of cars and trucks used for transport. The statistical synthesis prepared by the AASS was conceived with the assistance of another organization with direct knowledge of the road network, The Civil engineering department. This organization has already been mentioned in the preceding section describing the editorial activism of journals, even in the support of other institutions.

Statistical surveys of mobility and related phenomena did not just concern the AASS—which remains an important point of reference in this area. The Royal Automobile Club of Italy (RACI) also addressed this matter in *Motoring in Italy: Data and Figures*, published in 1933 (28). Their analysis was performed on the regional and provincial levels, and was related exclusively to motoring and its alternatives. The RACI was active on the issue of road signage (reflected in several texts) (29) and traffic regulation, as seen in the proceedings (30) of conferences held in Palermo in 1932 and Naples in 1935. In cooperation with the TCI, they also promoted national conferences on transport (31).

In conclusion, the relationship between press and technical culture offers an interesting representation of a sector whose publishing activities resulted in concrete changes.

The approach used drew attention to lesser known aspects and highlighted different situations. The editorial activism of institutions, associations, and companies in the areas of transport, civil engineering, and earth sciences had a significant impact in this period of great technological and cultural ferment.

Notes

- (1) *The Technical Monitors*. Milan: Scientific and Technical Publishing Company, 1894-1945.
- (2) *Civil Engineering and the Industrial Arts*. Turin: Polytechnic Publishing Company, 1875–.
- (3) *Journal of Civil engineering department*. Ministry of Public Works. Rome: Civil Genius Press, 1863-1923.
- (4) *The official collection of documents concerning the Royal General Inspectorate of Railways*. Rome: Civil Genius Press, 1885–1905.
- (5) *Railway Engineering*. National Board of Italian Railway Engineers. Rome: Civil Genius Press, 1904–1917.
- (6) *Journal of Communications*. Ministry of Posts and Telegraph. Rome: Union Typography, 1908–1924.
- (7) *Technical Journal of Italian Railways*. National Board of Italian Railway Engineers. Rome: Union Typography, 1912–1943.
- (8) *Bulletin of the Italian Geological Society*. Rome: Italian Geological Society, 1882–.
- (9) *Bulletin of the Italian Glaciological Committee*. Italian Glaciological Committee. Turin: Turin Social Typography, 1914–1932.
- (10) *The Polytechnic*. Milan: Vallardi, 1928–1937.
- (11) *Bulletin of Royal Geological Department of Italy*. Rome: Polygraphic State Institute, 1922–1946.
- (12) Although some lines were constructed in the late 1830s, the territory was still divided into several states. It was only after the founding of the nation of Italy and the consequent establishment of territorial and administrative units during the second half of the 19th century that a national rail network was truly created.
- (13) Spaventa, S. (1876). *The state and the railways: Reacquisition and operation*. Milan: Treves.
- (14) Ministry of Public Works (1885). General directorate of railways: *Operation of Mediterranean, Adriatic, and Sicily networks and the construction of complementary railways*. Rome: Ripamonti Royal Press.
- (15) Barberis, L. (1898). *The development of the rail network in the United States and its variations*. Turin: Bocca.
- (16) Law 137 of April 22, 1905.
- (17) Ottolenghi, E. (1907). *The state and the railway transport contract*. Turin: Bocca.
- (18) Chapter 3, page 115.
- (19) The company founded by G. Pomba became the Publishing Press Union of Turin (UTET Unione Tipografico-Editrice Torinese) between 1854 and 1855..
- (20) Colombo, E. (1911). *Principal laws governing railway operation: Practical interpretation*. Turin: Publishing Press Union of Turin (UTET Unione Tipografico-Editrice Torinese).

- (21) National Publishing Company. This name was given in 1905 as a result of corporate reorganizations relative to Roux Publishing.
- (22) Gamba, M. (1913). *Braking at high speeds*. Turin: National Publishing Company.
- (23) State Railways, Central Service and Statistical Office (1912). *Operation statistics: 1910*. Rome: Bertero; State Railways, Central Service and Statistical Office (1913). *Operation statistics: 1911*. Rome: Bertero; State Railways, Central Service and Statistical Office (1914). *Operation statistics: 1912*. Rome: Bertero.
- (24) Italian Touring Club (1912). *Conference proceedings: The Second National Conference of the Road*. Florence: Province and Municipality of Florence.]
- (25) The Italian Touring Club was founded in 1894 as Italian Cycling Touring Club.
- (26) Zingarelli, F. (1920). *The ordinary ways of communication*. Città di Castello: Leonardo da Vinci printing company.
- (27) Autonomous State Company of the Road (AASS Società Autonoma Statale della Strada) (1929). *Statistics of haulage along the first-class roads: April–May 1928*. Rome: Roman working typography.
- (28) Royal Automobile Club of Italy (RACI) (1933). *Motoring in Italy in 1933: Data and figures*. Rome: Novissima
- (29) Royal Automobile Club of Italy (RACI) (1933). *Conference Proceedings: Fourth Conference for the Unification of Norms and Signals for Urban Circulation, Genoa 1933*. Rome: Sansaini
- (30) Royal Automobile Club of Italy (RACI) (1932). *Conference Proceedings: Third Conference for the Regulation of Road Traffic, Palermo, 1932*. Rome: Royal Automobile Club of Italy.
- RACI (1935). *Conference Proceedings: Fifth Conference for the Regulation of Road Traffic: Volume 1: Discussions and conclusions, Naples, 1935*. Rome: Sansaini
- (31) Automobile Club of Milan (1947) *Conference Proceedings: First Congress of Italian Transport*. Promoted by the Automobile Club of Milan in collaboration with the Board of Engineers of Milan and the Italian Touring Club. Milan: Stucchi

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Appendix A

| LIST OF ORGANIZATIONS MENTIONED IN THE TEXT | |
|--|--|
| Genio civile | Civil engineering department |
| Tipografia del Genio civile | Civil Genius Press |
| Regio Ispettorato generale delle strade ferrate | Royal general inspectorate of railways |
| Tipografia dell'Unione | Union Typography |
| CNIFI Collegio Nazionale degli Ingegneri Ferroviari Italiani | National Board of Italian Railway Engineers |
| Ministero delle Poste e dei telegrafi | Ministry of Posts and Telegraphs |
| Ferrovie dello Stato | State Railways |
| Società geologica italiana | Italian geological society |
| Comitato glaciologico italiano | Italian glaciological committee |
| Società italiana per il progresso delle scienze | Italian Society for the Advancement of Science |
| Club Alpino Italiano | Italian Alpine Club |
| Tipografia Bertero | Bertero typography |
| Tipografia sociale torinese | Turin social typography |
| Casa editrice Francesco Vallardi | Francesco Vallardi publishing house |
| Regio Ufficio geologico d'Italia | Royal Geological Department of Italy |
| Comitato geologico italiano | Italian Geological Committee |
| Provveditorato generale dello stato | General Superintendency of the State |
| Istituto poligrafico dello stato | Polygraphic state institute |
| Treves Editore | Treves publisher |
| Ministero dei Lavori pubblici | Ministry of public works |
| Direzione generale delle strade ferrate | General Directorate of Railways |
| Bocca Editore | Bocca Publisher |
| UTET Unione Tipografico-Editrice Torinese | Publishing Press Union of Turin |
| Società tipografica editrice nazionale | National Publishing Company |
| Servizio centrale di statistica delle ferrovie dello stato | Central Statistical Service of State Railways |
| TCI Touring Club Italiano | Italian Touring Club |
| AASS Azienda Autonoma Statale della Strada | Autonomous State Company of the Road |
| RACI Reale Automobile Club d'Italia | Royal Automobile Club of Italy |