

Fabriano: City of Medieval and Renaissance Papermaking, by Sylvia Rogers Albro, Oak Knoll Press, New Castle, Delaware, and The Library of Congress, Washington DC, 2016, 229 pp., \$95 (hardcover, dust jacket) ISBN:

In this compelling history of Fabriano Sylvia Rogers Albro - Senior Paper Conservator at the Library of Congress for the past thirty years and mentor to many conservation students - reflects on the many contributing causes that made the papermaking industry flourish in this area towards the end of the 13th century, bringing together her study of papermaking, her experience of looking closely at works on paper, and ultimately her familiarity with Italy and the Italian language.

Rogers Albro's richly illustrated narrative starts by setting the scene in Fabriano and the surrounding region, a highland area in the north central part of the Italian peninsula, known as Marche. It is in this location, the author reminds us, that the earliest documented paper mills start to appear from the late 13th to the early 14th centuries with a business model that combined investment in mill construction by the monasteries and management of the operation by the guilds.

Rogers Albro explores how papermaking travelled from the Arab world to the Italian peninsula amid the favourable conditions of emerging city states, vital merchant activities and a network of monastic communities. She considers the role played by Genoa and its 11th century outpost in Antioch, Syria, by the Adriatic town of Ancona and the nearby Fabriano and by Amalfi, a major sea power, with a colony in Jerusalem under the direction of the Benedictines since the 11th century. Paper made in the Middle East, Moorish Spain and North Africa was definitively imported to Italy before 1200 and used among merchants and eminent figures such as the Holy Roman Emperor Frederick II, even though it was not regarded yet as of adequate quality and durability for use in official documents as papyrus and parchment.

The author goes on to describe how in the 13th century a gradual change from Arab style to Italian style papermaking occurred and how by the 14th century Fabriano was producing a remarkably beautiful paper with reliable thickness, texture and colour in a series of standardized sizes that papers from the Arab world could no longer rival. She takes the reader to the Museum of Paper and the Watermark to look at a notable collection of handmade paper sample sheets from 1280 to 1600, assembled in the 19th century by Aurelio and Augusto Zonghi, in order to observe Fabriano's progress in paper manufacturing.

Rogers Albro explains how technical advances in agricultural engineering, craft technologies and innovations contributed to Fabriano's prominence in the papermaking industry. She guides the reader through the mechanized stamping system used for the pulp preparation process; the gelatine sizing containing a small quantity of Roman alum which provided the paper with a smooth writing surface and greater substance and rattle; and the watermark which identified the maker of the paper sheet from late 13th century with simple imagery, very much in keeping with other craft practices in the medieval period. Finally she discusses the mould and its making: a fixed cover of closely spaced horizontal wires (laid lines) and vertical wires (chain lines) spaced more widely apart, development associated with the local availability of drawn metal wire. By the mid-14th century when the moulds become longer, the chain lines were supported underneath by wooden ribs guaranteeing a very even pulp deposition which in combination with the reduced diameter of the wires made a very desirable sheet with an even more uniform surface, a sheet substantially different from that made with the flexible woven fibre screens predominantly used earlier in Asia, Middle East, North Africa and Spain.

The author's research asserts the importance of the original sources of information about early papermaking kept in the city archives and of figures as Aurelio Zonghi who, in the late 19th century,

organized the archives, identified individual original sources and laid the foundation for a series of subsequent studies. Other sources, such as the paper itself in manuscripts, books, drawings and maps together with inspections of early mill sites, contribute to the author's understanding of paper manufacturing and its materiality making up for the scarce early technical information, since papermakers were not necessarily literate and trade secrets were the norm.

The papermaking process in Fabriano is brought to life across the author's descriptions of the itinerant rag vendor at the bottom of the trade; the fermenting piles of rag taken to the stamping mill to produce a pulp of uniform consistency under the pressure of three stamping sets; the esteemed vatman who formed the paper using two moulds with a deckle working in pair with the coucher, who laid the individual sheets onto woollen felts to drain; the sheets of paper pressed and hung over hemp cords to dry before being dipped in a warm copper bath of gelatine size; and the finisher's workshop in the city, where quality control took place and sheets were polished, with a smooth glass on a marble table covered with sheepskin before being folded and packaged into quires.

Rogers Albro discusses how from the 14th to the 17th century high quality Fabriano paper was exported in growing quantities to both the East and the West, thus reversing the earlier trade pattern as printers, artists and personalities of considerable renown desired it. High quality Fabriano paper continued to be used for luxury printed editions whilst thinner cheaper paper produced from mills elsewhere in Italy was used more widely by the continuously growing printing industry. Soon other centres of paper production surpassed Fabriano in their output, such as Genoa where large scale mills established a new model with papermakers, workshop keepers and rag merchants all under one roof.

The book ends by describing how by the late 17th century papermaking knowledge and expertise had spread well beyond Italy to Holland, Germany, France and England and came full circle with Fabriano's return to prominence in the late 18th century when a master papermaker, called Pietro Miliani, managed to modernize the remaining old paper mills into a more efficient industrial complex. Miliani harnessed all the aspects that had made Fabriano a successful papermaking centre in the first place: local engineering skill, an abundant and excellent water supply, high quality raw materials and well established ties with merchant centres.

In the appendices the reader is guided to revisit the evolution of the distinctive features of Fabriano paper; the watermark; the creamy white colour; the even surface polished to a high degree; the considerable rattle; the lively texture with clearly visible felt and wire marks; the flexibility due to the length of the fibres; and the durability thanks to the protection against acidity offered by the high percentage of calcium deposited in the paper as well as the gelatine coating that sealed the paper against pollutants and oxidation. The author completes the book with a most valuable list of references on Fabriano's history and its papermaking industry, largely in the Italian language, as well as a glossary of Italian terms related to papermaking showing the obvious part played by the Italian language in the development of this craft's terminology.

With this remarkably well documented book unfolding the gradual evolution and influence of Fabriano papermaking within its historic context, the author goes beyond her intention of filling the void of books in the English language on this subject. She contributes an important research towards the advancement of scholarship, including many original discoveries and personal observations, of great relevance to those of us engaged in the conservation of works on paper. Furthermore this book with its engaging prose is a beautiful celebration of the seemingly fragile paper which triumphantly gives immortality to man, as evidenced by Persio's sonnet which opens the book, and promises to appeal to historians of technology and art, rare book and print librarians, curators, and collectors of books, manuscripts and artworks as well as anyone interested in Italian art and history.

Marinita Stiglitz
Head of Paper Conservation, Bodleian Libraries,
Oxford UK
marinita.stiglitz@bodleian.ox.ac.uk