

The "**Augusto Zonghi**" Collection (CAGZ) of ancient papers from Fabriano is made up of **10 large envelopes**, divided in turn into **198 files** containing **2,213 papers** dating back from **1267 to 1798**. The **paper samples bearing the whole sign total 1,651, a partial sign 46, while 516 do not bear a sign at all**. There is also an **inventory** and **album** that make up part of the entire collection.

The **inventory** "*on the collection of Watermarks and ancient papers of Fabriano dating from 1267 to 1600*", compiled by the same Zonghi in pencil, who enlisted in a chronological and progressive sequence **3,372 papers, numbering the envelopes** from I to IX, **the files** from 1 to 188), **dating the watermark motif, the number of chain lines, their dimensions, origin**, indication if an original whole watermarked paper existed or if only a sample without a watermark existed, as well as including **observations**. Envelope X has not been mentioned in the inventory, nevertheless, it does include papers that probably had been part of envelope IX (analysing the inventory it is to be assumed that the papers had been removed from other envelopes), but other papers too had been added to the collection in a second moment as for example the **77 papers dating from XVII and XVIII century**.

The **album** "*The marks of ancient papers from Fabriano collected and sketched out by Professor Augusto Zonghi*" (the title-page embellished by **Gaetano Galassi from Fermo**) consists in **134 plates** (cm 45 X 30) containing **1,887 figures of tracings reproduced from original watermarked paper sheets**.

Enhancing all the components of the collection, a digital database was created which would contain a description of all the 2,213 papers, 1,887 figures and signs not physically present but nevertheless described in the inventory. While the data was being introduced some discrepancies arose between the existing information on the paper, album and on the inventory: in these cases, priority was given to the information that had been recorded on the latter document. Where the figure on the album relates to a sample on paper, the procedure followed was of grouping them under one file.

In order to carry out the **digitalization** and **graphic elaboration** of documents, the following was implemented:

- Computer iMac 27" retina 5K 3,3 GHz Intel Core i5
- Scanner Epson Expression 11000XL format A3
- Scanning Programme Silver Fast 8 LaserSoft Imaging
- Adobe Creative Suite (Photoshop e Illustrator)

Initially, the **inventory** and relating information included in a digital document was first **digitalized** in order to facilitate research and consultation of data. In view of the physical restoration of the **album**, the plates **have been digitalized** by reflex scanning at **600 dpi**. The 134 files containing plates of the Album have been cleaned digitally of their imperfections in order that the tracings of Zonghi relating to the marks, chains and wires be clearly visible. The papers of the collection initially **underwent reflex scanning** and then **transparency** (backlight) at **300 dpi**. In the transparent scanning a programme SilverFast 8 was internally installed, some parameters implemented to regulate the tones, shades and lights in order to uniform all the scanning regardless of their thickness and weight of the paper. In other cases to prevent an over-exposition on the final result, it was necessary to alter the colour of the paper. Paper whose size measured more than A3 format had to be scanned more than once successively creating various files which were then compiled together: the underlying procedure does not exclude limited margins of error. Reflex scanning and transparency of the same document have also shown a difference in size precisely 0,02 cm to the advantage of the former which resulted in being greater.

The figures on the album have been processed digitally to extrapolate every single sign from the plate concerned in real-life dimensions. Following Zonghi's example in some respects, we have **reproduced tracings of every single sheet of paper: the border, chain lines** (and any eventual backing rods), **watermark, 20 liad lines** (for the measurement).

Only where the papers have been described in the inventory, has the information provided by Zonghi been entered on the database, as for the rest, **digital files relating to the same paper or figure in the album have been over-imposed, thus creating different configurations.**