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## Excerpts of the 1st Convention in Italy on industrial paper archaeology

The Industrial Paper Heritage in Italy: Its history, places and enhancement

Fabriano (Italy), May 27-28, 2016

Giancarlo Castagnari

Vicepresident of Fondazione G. Fedrigoni ISTOCARTA

### News on the acquisition of the sample-collection "Raccolta Augusti Zonghi"

We are delighted to inform you of the acquisition of the collection "Antiche carte fabrianesi" thanks to the generous financial contribution of a supporting member of the Fondazione "Gianfranco Fedrigoni" Istituto Europeo di Storia della carta e delle Scienze cartarie foundation. This collection of historical importance, created by Prof. Augusto Zonghi (1840-1916) and illustrated by his brother, Aurelio, a clergyman, (1830-1902), both currently renown in Europe for their research on the study of watermarks, consists in 10 collections of 198 files each containing samples of ancient watermarked papers dating from XIII to XVIII century. Along with the collection, a detailed handwritten inventory and a precious album consisting in 134 plates that assemble 1887 watermarks (watermarks in light) finely outlined by Augusto Zonghi. The collection was evaluated as being "unique in its type" worldwide at the Universal Exhibition in Paris, in 1900. A rather exhilarating judgment passed on a corpus (collection) consisting in watermarked sheets of paper, on the basis of which we are not only able to trace back the time-line and pertinence, but also where they have been manufactured i.e. in Fabriano, the cradle of Western paper in Europe.

## Introduction

### A status report of historical studies of european paper

Anna-Grethe Rischel

President of International Association of Paper

Historians IPH

National Museum of Denmark

The art of European papermaking is presented 1761 in De La Lande's publication "L'Art de faire le Papier" with illustrations of tools and technology similar to Diderot's Encyclopédie - the greatest publication in the Age of Enlightenment. European paper history

had hitherto built on written information, when Augusto and Aurelio Zonghi's historical studies of Italian paper start the registration of watermarks according to motifs. They publishes two catalogues, while Charles Moïse Briquet documents handmade paper production in Swiss paper mills.

The first scientific paper analysis completely changes European paper history 1887, when Wiesner's microscopic analyses of Arabic manuscripts documents that these 10th century papers consist of recycled linen and hempen fibres just as European rag paper. His chemical spot tests illustrate that Arabic paper is sized with starch, and his comparative analyses of Arabic and European paper demonstrate that gelatin replaces starch in Italy. The fibre condition illustrates development during the 14th century of the Italian stamping process. The Fabrianese mould with a fixed metal wire cloth, where the sign of origin and genuineness of the paper is mounted, results in impression of the watermark during sheet formation of the paper.

The discovery of the importance of watermarks for the origin of archival papers have united filigranologists and paper historians in a new research field of watermarks, paper mills, paper makers and paper materials. European filigranologists follow in Zonghi's footstep with regional watermark studies, and Briquet's catalogue "Les Filigranes" from 1907 illustrates the importance of watermarks for paper trade information. A watermark terminology and registration method is needed and documentation of paper makers and mills.

The interest for European paper history communication results 1951 in the international publication platform 'Papiergeschichte' in Mainz with paper historical contributions in English, German and French. IPH, the international association of paper historians and filigranologists is organized 1959 in Bamberg and founded 1960 in Mainz with 'Papiergeschichte' as the official IPH organ. IPH periodicals serve since 1966 as the international communication platform. Inspired by IPH's biennial congresses are eight national associations organized with annual conferences and periodicals for regional paper historical studies, and 50 paper museums established with exhibitions of equipment and paper making in original buildings. Paper conservation, developed since the Florence flood 1966, is a new international field within paper history for preservation of valuable collections, and education is established at universities and

academies of Fine Arts.

Paper historical studies are communicated in English, German and French in IPH publications, in bilingual publications and in multilingual databases with further languages added. Publications in other languages about European and Oriental paper historical topics are comprehensible for numerous readers and not only for a limited group, if summaries in English, German or French are added.

### The development of the industrial heritage of paper from XVIII century

Ivo Mattozzi

University of Bolzano, Italy

How did the existing industrial heritage of paper come to be transformed into an archaeological and industrial heritage during XIX and XX centuries? In reply to this question, I would like to answer with a sort of prologue to the conference, a prologue that would provide an overall view on the future prospects of industrial archaeology of paper-mills. I shall hence highlight their presence throughout the Italian states in the late eighteenth century as well as describe their outdated structures. I shall then outline the sequence with which some industrial innovations took place during the nineteenth century that replaced these outdated methods of paper-manufacturing. Which and how many Italian paper-mills were able to transform their own production structures by adopting innovations? When? How many of them did resist the changes brought in by political regimes and by state boundaries? At what pace did the economic convenience and entrepreneurial tendencies take place which led to the creation of new paper-mills or to the restoration of some of the existing ones? These queries are going to help me tracing the dynamics that developed along with the outdated paper-mills that were in disuse, the setting up of new plants, as well as plants that had been restored and expanded in order to adapt them to new technologies, the eventual decline of the new industries. The transformation of the Italian paper-mills to new production methods was slow, periodic, scattered, to the extent that in 1862, there were still 687 vats and only 59 continuous papermaking machines, with a productive output estimated at 24.000 tons a year. But in the second half of the nineteenth century, the foundation of capitalist-based enterprises and the subsequent setting up of both large mills as well as the new sites, facilitated by the introduction of electric-power supply, were to

determine the creation of both an industrial heritage that would rank the Italian paper manufacturing industry amongst the top industrial powers in Europe and worldwide, and of a cultural heritage to be enhanced with the creation of museums. Lastly, I would like to express some of my considerations as regards to industrial archaeology.

### First Session:

#### The paper production in Italy between history and industrial heritage

Giancalo Castagnari

Vice-president of Fondazione G. Fedrigoni ISTOCARTA  
Chairman of the 1st session of the Convention

The historical and territorial scenario of the industry and archaeology of paper-manufacturing in Italy is a topic that inevitably leads us to have a wider vision aimed at standardising our global perception and knowledge of this reality, which is widespread throughout Italy both in terms of time and space. It goes without saying then, that putting together the stories of each place concerned under a single work, could represent the 'natural' view of a historiographical research-study which was perceptible during the first session of the conference held on 'Patrimonio industriale della carta in Italia. La storia, i siti, la valorizzazione' (The Industrial Paper-Heritage in Italy. The History, the sites and its Enhancement). Therefore three important geo-historical areas were identified: North Italy – Genoa and Liguria, Lombardy, Venetia; Central Italy – Tuscany, regions that made up the Papal States; Southern Italy in a broader sense – Sicily.

#### Paper and paper-mills in Liguria (XV-XX centuries)

Roberto Tolaini University of Genova, Italy

The study aims at outlining the essential stages in the rise and decline of the paper manufacturing industry in Liguria over the years. Of medieval origin, paper manufacturing between the fifteenth and sixteenth century was mainly concentrated in the valleys around the small city of Voltri and would witness a long and steady growth over much of the seventeenth century. During these decades, the paper from Voltri would gain a foothold on European markets and in South America, by virtue of a very efficient technical-productive model which also featured a constant growth in productivity that resulted from an increase in the yields of rags used for paper-manufacturing.

The combination of technical and mercantile skills was the key factor that contributed to this success. During the eighteenth century this model managed to face up to the competition, adapting to the changing requirements made by international demands, however, the majority, for the most part, missed out on this opportunity with the industrial transformations taking place. During the nineteenth century, few entrepreneurs brought in the essential innovations and expanded the production-scale, while within this context, the number of paper-mills and workers were significantly being reduced. Today, the paper-manufacturing sector occupies a marginal place in the economic framework of Liguria.

### Manufacturing and trading of paper around the area of Lombardy (XIV-XX centuries)

Luca Mocarelli

University of Milano Bicocca, Italy

This essay briefly deals with the events taking place in the paper-manufacturing sector within the economic framework of Lombardy in a long-term view, from the Early Middle Ages to the present day. A worthy starting point for this analysis is the exceptional economic condition in Lombardy, which has represented one of the strongest regions in European development since the Middle Ages, whose paper-manufacturing industry, however, though gathering significant momentum, has never taken on a major role. The analysis then deals with the paper industry-related events that took place over the long pre-industrial period in Lombardy, characterized by economic criteria typical of the region itself, and then describes the existing production-sites, each different in size and each possessing its own organizational features, and underlines the reasons why the Riviera of Garda, the most important paper-manufacturing centre in Italy, after Voltri in Liguria, did not monopolise the entire production sector in Lombardy, thus leaving room for other sites to gain economic affirmation in this sector. Finally, an in-depth study is made on the changes that took place during the first industrial revolution era that saw a significant increase in the setting up of paper-manufacturing sites in the western part of the region during nineteenth century, then to be followed by a slow and steady decline, especially since the Post Second World War, of which the main triggering factors are described.

### The manufacturing of paper in the Venetian area from the Middle Ages to contemporary times

Giovanni Luigi Fontana

President of Associazione Italiana del Patrimonio

Archeologico Industriale AIPAI

The work examines the phases and focal points of paper-manufacturing in Veneto from the Middle Ages to contemporary times, by analyzing factors like location (first and foremost the wealth in water sources and proximity to markets) and the consolidation of paper mills over the centuries, covering an area that stretches from the area of Verona (San Martino Buonalbergo) to Trevigiano (suburb, Carbonera, Ceneda, Villorba-Vas), passing through Vicentino (Vicenza, Dueville, Arsiero, Lugo, Oliero) and Padovano (Battaglia, Carmignano), alternating between “models” of diffusion and concentration of production; the former contribution brought by the master papermakers of Fabriano and Salò; the intense migration of professionals along with the wide spreading of know-how, technical innovations and corporate unions among the different poles of papermakers; the causes leading to the increase in the demands and the capacity of innovating production as well as fulfilling market demands; the variable relations between those who possessed know-how and those who possessed real estate/financial resources including interests in land-ownership, the management of energy resources and entrepreneurship skills in manufacturing; the alteration between favorable economic conditions and periods of recession and subsequent repercussions on the creation of new paper mills, accompanied by the shifting of the sector centre from west to east of the region; the profound technological changes brought in, the birth of a new entrepreneurship of the bourgeoisie class between the eighteenth and nineteenth centuries (from Remondini to Nodari, from Rossi to Fedrigoni and the ‘variegated’ universe of the entrepreneurship in Treviso) as well as the associated ‘concentration’ phenomena typical of the twentieth century (Gruppi Burgo and Marchi), who consolidated the paper-manufacturing poles in Vicenza and Treviso thus confirming the capacity to expand and modernize the production basis of the sector. The solidity and duration of the manufacturing tradition in these provinces leads us seamlessly straight to the present day.

## An Insight in the Tuscan paper manufacturing sector in the modern and contemporary era

Renzo Sabbatini

University of Siena, Italy

The essay reconstructs the first traces of paper-mills in Tuscany: in Prato, Colle di Val d'Elsa, Poggibonsi, Bagni di Lucca, Borgo San Sepolcro, Pescia, Villa Basilica, Vorno. It also provides an overview of the smaller manufacturing sites (Papiano and Pratovecchio in Casentino, Castiglione d'Orcia, Massa-Lunigiana), significant manufacturing centres but with a reduced number of buildings: Prato (with its big 'cartiera della Briglia' dating back to the eighteenth century), Pistoia, Bagni di Lucca, Vorno, San Marcello Pistoiese (with the 'Cini', water-powered stamping mills, forerunners of the Dutch beater roll and paper-making machine); to then focus on the three major areas of the modern era and nineteenth hundreds: Colle di Val d'Elsa, Pescia and Villa Basilica. In the years 1427-28, the land registry office was already registering ten small paper-mills at Colle, which then increased to about twenty, midway through the eighteen hundreds. Nevertheless, - due to a lack of capital, reduced proportions in the numbers between the stamping-mills/vats, a hostile social resistance to innovation - the sector would miss out on the opportunity to take a foothold on the international market. The development of the two valleys of the river Pescia, and precisely Villa Basilica-Collodi and Pietrabuona-Pescia, took place in a similar manner, thanks to the arrival - from the early seventeen hundreds - of capable and skilled master papermakers from Genoa. Mid-way through the eighteen hundreds, there were 4 paper-mills in the area of Pescia and 12 in Lucca; in the early nineteen hundreds, despite the Napoleonic wars, the paper-mills amounted to around 20 in each area. In the late nineteenth century, the Tuscan paper-manufacturing scene presented three situations: a flourishing modern industry of 'Cini', water-powered stamping mills, on the Mountain of Pistoia; the old and decaying manufacturing paper-mill of Colle di Val d'Elsa; a widespread and yet viable entrepreneurship - that however lacked any significant prospects of innovation - of the valleys of Villa Basilica (that specialized in straw-paper) and Pescia, producer of excellent handmade paper that was appreciated in the Americas as well.

## The paper-manufacturing network in the Papal States in the modern era

Augusto Ciuffetti

Marche Polytechnic University, Italy

The study provides an insight into the various historical phases that have brought to a definition of the early industrial network of paper existing in the Papal States between the seventeen and eighteen hundreds, where there were more than seventy paper-manufacturing factories already operating. They not only regarded a group of manufacturing plants that were not merely reminiscent of a production system that had been established in the late Middle-Ages (as in cities like Fabriano, Camerino-Pioraco and Foligno), but also revealed original and typical features. In brief, these are the features that were typical to the paper-manufacturing network in the Papal States: a) it concerned a manufacturing network that was widespread throughout the Papal States, possessing fixed and circulating capital/assets which were more substantial than in the textile manufacturing sector; b) it boasted of real and proper factories (like the chartered paper-mill of San Sisto Vecchio in Rome, in Subiaco, or even the factory-sites in Fermignano, Jesi, Chiaravalle, Ascoli Piceno), with a significant work-force and a particularly advanced internal organisation, both in the management of spaces allocated to the various production activities and in terms of workers hierarchy and distribution of functions according to the different wage-brackets. c) While considering this sector as being backward and technologically rudimentary, some paper-mills such as the one in Bracciano, between the eighteenth and nineteenth centuries, did demonstrate the capacity to provide themselves with the latest machinery, like the so-called Dutch cylinder mould machine. d) This network of paper mills could count on a significant provision and availability of energy-sources needed for operating the machines, as well as of raw materials: rags that were collected from the countryside and the cities throughout the Papal States.

## Paper and paper-mills in Southern Italy. Notes on a historiographical evaluation

Roberto Parisi

University of Molise Region, Italy

Following the first relevant 'critical' works by Franca Assante and Anna dell'Orefice on the history of paper in Southern Italy, which were published towards the end of the 70's and mid-80's of the 20<sup>th</sup>

century, the history on paper-manufacturing relating to this important sector in the South of Italy, has further been upgraded in the following decades, with other research and published works. In some cases they were the result of in-depth documentary research activities, conducted in public or private archive-libraries or of field surveys/works carried out with the end-goal of safeguarding sites, artefacts and existing historical machineries, which would otherwise have been left abandoned and oblivious to the public; these studies have contributed to keeping a watchful eye over tangible and intangible aspects that make up this specific sector of the Italian cultural heritage, not only as regards to experts in the field, but also and primarily within those local communities, which, especially thanks to their paper-manufacturing activities, have moulded their life environments and enlivened their 'métier' of paper-manufacturers in their territory over the centuries. Besides numerous works published on the two main manufacturing sites of Amalfi and Vale del Liri, further studies have been carried out on minor production-sites, from the historiographical view-point that were operating in various provinces throughout the ancient Kingdom of Naples, along with early in-depth studies on some quite recent entrepreneurial initiatives, like the ones in Puglia and in Calabria during the early nineteen hundreds. Nonetheless, during the course of almost four decades since the pioneering works of Assante and dell'Orefice, we have rarely perceived the need to produce a historiographical evaluation on the subject. With this essay, the author wishes thus to put forward some critical observations on the status of the art in relation to these studies, with the purpose of giving impetus to the drawing up of an archaeological-industrial 'road-map' of paper-manufacturing sites that were set up and that have developed in Southern Italy over time.

### Paper-manufacturing sites in Sicily

Domenico Ventura

University of Catania, Italy

Even though there is documentary evidence that an excellent papyrus paper was being manufactured during the Arab reign over Sicily, the same cannot be said of there being a subsequent paper-manufacturing industry, as beyond any assumption or conclusive evidence all related to Palermo and its hinterland viz., - Apprenticeship Contract (1299), Guild of master paper-makers (1385), some news

about a mill called "di li Carti" (1420) – no testimony speaks of paper-mills existing either throughout the Arab reign or the Middle-Ages. It was to be only in the early eighteenth century, when we would see an unexpected series of initiatives in this sector. In this way, on the basis of documents preserved in the archives, we are able to trace back to the stories of the most important paper-mills on the islands, starting from the one based in Comiso (Ragusa), the first in line (1730 ca.), followed by those in Mezzomonreale (Palermo, 1744), Bronte (Catania), 1799), Fiumedinisi (Messina, 1809), Palazzo Adriano (Palermo, 1800 in.), Castelbuono (Palermo, 1823). Built for the most part out of noble initiatives – right from scratch or just simply reviving country residential homes or existing buildings that were provided with hydraulic facilities/ systems, all resorted to engineers and expertise from Liguria, supported by local apprentices. All of them met up with the same fate that, owing to various difficulties (supply of rags, excessive transport costs, high management costs, lack of capital, liberal custom legislation etc.), first brought them to reduce the production, which meant putting themselves at the level of other small existing paper-mills – around twenty during the 40s of the nineteenth century – in other words, they were reduced to manufacturing only scrap paper, to then being closed down definitely and finally being left in total abandonment to decay till they completely vanished from the Sicilian landscape.

## Second Session:

### The paper production sites and eco museums: examples, filling and valorization proposal

#### Eco-museums for Local Sustainable Development

Andrea Galli

Director of CIRP

If we consider the landscape as a complex system that provides a wide range of territorial functions and services (ecological, economic and social), the eco-museum institutions appear an ideal tool for enabling a local sustainable development. An eco-museum, indeed, can be defined as the expression of a community that regains possession of own territory. It undertakes to take care of it by identifying key elements of identity through a participatory experience aiming at

enhancing cultural heritage, tangible and intangible, as a contribution to local sustainable development (Chart of Catania, 2007). These premises highlight links between the eco-museum and the landscape for integrating conservation and local development, as the European Landscape Convention claims in considering the landscape as heritage and resource at the same time. Despite wide heterogeneity of the international experiences, an eco-museum's general model has some essential ideal features: 1) a unique link with the territory; 2) an interpretation of the territory and the heritage in their broadest sense by adopting scientific and empirical approaches in a dynamic and diachronic perspective; 3) the direct involvement of the population not only as final user or study subject, but also as player who, supported by a team of experts, is called on to express own needs, expectations and values. The idea to setting up an eco-museum often comes from team of experts and local authorities that have to communicate, share and agree the project and related activities with inhabitants. Building an eco-museum is a process that leads to the re-discovery, enhancement and shared management of the heritage of a community through an integrated development project that envisages strategic activities ranging from research and training until social initiatives and economic diversification, for instance via the recovery of traditional crafts (e. g. paper craft) or the development of new activities (e.g. sustainable tourism). Regional and national laws on eco-museums have an important role in order to give to stakeholders a general framework about rules and financial supports.

### The eco-museum 'Valle delle Cartiere': the narration of six centuries on the history of paper in an open-air museum

Lisa Cervigni

Fondazione Valle delle Cartiere di Toscolano Maderno, Italy

The 'Valle delle Cartiere' in Toscolano Maderno covers several centuries of the history of paper-manufacturing, which bears its roots in the XIV century; in fact, the first news relating to the consolidated presence of paper mills dates back to 1381. The Valle (The Valley of Paper mills), truly abundant in paper mills, as well as mills and blacksmith shops, enjoyed a flourishing period between the XV and XVI century, so becoming the leading paper-manufacturing area in the Republic of Venice. Despite the abrupt interruption caused

by the Plague in 1630, which decimated a large part of the population and professionals connected to the paper-manufacturing industry, by the turn of the century, it was the playground of new revival and successful entrepreneurial initiatives throughout the XVIII century. The decline followed in the century after, when the majority of papermakers in Toscolano unsuccessfully managed to keep pace with the innovations brought by the Industrial Revolution, bound to the traditions that till that moment had been proved successful. The 'Valle delle Cartiere', which today lie at the heart of the eco-museum 'Valle delle Cartiere in Toscolano Maderno', has long since been the subject of constant enhancement, nevertheless, not without problems related to the maintenance of an abundance of existing archaeological industrial remains, a thriving vegetation, the same geological structure of the rocks and soil that characterize it. The essay provides a general overview of the works and enhancement projects, as well as research activities that have been undertaken to date, from archaeological excavations to the transforming of paper mills into museums, to the creation of educational, naturalistic and cultural pathways.

### The eco-museum as a synonymous of local development. Culture and entrepreneurship for a socio-economic revival of the territory

Filippo Cantoni

Fondazione Valle delle Cartiere di Toscolano Maderno, Italy

The eco-museum 'Valle delle Cartiere' is the seat of an important, if not rather unique paper tradition. Along with the archaeological, historical and cultural value, this strip of land, lying enclosed within the banks of the Lake of Garda and the highlands of the pre-Alps of Brescia, bears an interesting potential, favorable for a revival of the local economy. The element on which the eco-museum bases itself on is actually something which is tangible: the manufacturing of paper. A historical tradition of interest, both of historical-documentary value (enhanced by the paper museum 'Museo della Carta', and through study and research activities linked to the production processes, technological developments, analyses of archaeological sites and local events...), however, just as valuable for the product itself that is strictly linked to it. A product, whose discovery can lead to a concrete revival of a tradition that has so

far only been “narrated” and “re-discovered”. In the same eco-museum, an artisanal-enterprise was born, which, as in the past centuries, manufactures that same handmade-product: paper, narrated by the exhibition rooms of the museum. There is a positive exchange between culture and enterprise, where narration, research and its diffusion go hand in hand with the product itself, with the market and with trade. All this can contribute to the creation of an eco-museum, which not only is a place, but a set of material and immaterial objects, which can contribute to creating occupation in every sense. The art of paper-manufacturing in Valle delle Cartiere, is not only a memory, but is a living present at the same time. The report illustrates on the basis of past experience the main actions that an eco-museum should put in place in order to start an enterprise related to it. This is followed by an analysis on the strengths and critical points, as well as some final considerations on the development of the topic over the long period.

### The road-map of paper in Tuscany

Enrico Fontana

Director of LUCENSE

The area, comprised between the two branches of the river Pescia that lies in the municipality of Villa Basilica and Pescia, and which borders on the provinces of Lucca and Pistoia, has witnessed the birth and development of a flourishing paper-manufacturing industry in the last 8 centuries, which today has turned into one of the most important paper-manufacturing districts in Europe, accounting for over 120 active industries and 6.000 employees. The ongoing project-assignment ‘La Via della Carta in Toscana’ (The road-map of paper in Tuscany), includes three distinctive steps of action:

- 1) A Paper-mill Museum to be set up in the ancient paper-mill “Le Carte” in Pescia – built in the first decade of the XVIII century at Pietrabuona - , which also envisages a requalification of all the environments and restoration of the machineries.
- 2) A revival of the close-net roadmap of paper existing in the area of Villa Basilica, along the ancient path of the ‘master-papermakers’ in conjunction with the area of the municipality of Pescia, covering a total distance of about 20 Km.
- 3) Restoration of the paper mill ‘F.lli Nardi’ in Villa Basilica, which up until the 80s had produced straw-paper invented by a local pharmacist in 1834. This project also envisages the restoration of machineries

on the ground-floor as well as adapting the structure to tourist reception and accommodation activities. The ‘Via della Carta’ in Tuscany is a project that intends identifying the places, promoting the culture of work and enterprise which places have an emphasis on the economic value of the industrial heritage.

### Menotre, a river, a valley, an eco-museum along the Umbrian Apennine Chain

Fabio Bettoni

Scientific Board of “Proposte e Ricerche”

The valley of Menotre, situated in the municipality of Foligno (Umbria), which blends in at a right-angle with the central Apennine Chain in the southern part of it, appears compact and well-defined by the carving of the little river from which it takes its name. On the whole, the catchment basin of the river Menotre covers a surface area of 113 km<sup>2</sup> and its perimeter measures approximately 73 km, a gradient averaging about 40 per cent; the river course is 28 km long, and almost entirely covers (for 26 km) the internal area of Foligno. Owing to its geographical-historical and historical-economic features,, the Valle has been identified as being a particularly suitable place to host an eco-museum de facto named ‘Ecomuseo della Valle del Menotre’. It constitutes a sort of ‘Antenna’ (since 2015) with the information ‘office’ located in the hamlet of Scopoli in the municipality of Foligno; this ‘Antenna’ is part of the eco-museum that lies on the Umbrian Apennine Chain (since 2010) with its headquarters in Cerreto of Spoleto (Umbria). The presentation in this congress illustrates the various phases during the creation of the eco-museum of Valle del Menotre, articulating over defined themes with particular reference to century old activities of paper-manufacturing, outlining the difficulties the system has to deal with in consideration of the crisis affecting the administrative life of local bodies.

### In favour of a paper eco-museum in Fabriano. Opportunities and hypotheses

Francesco Chiapparino

Marche Polytechnic University, Italy

Starting from the bibliography on eco-museums, open-air museums and their relationship with the economic and social development throughout the area of Fabriano, this essay identifies the features that can contribute to the creation of a ‘Paper-Eco-museum’ in Fabriano. In this sense, this essay

resolves into being just the first step in outlining the wealth of resources and the variety of opportunities offered by the territory of Fabriano and surrounding places for the realization of a similar project. After laying out a report on the archaeological-industrial testimonies and already existing archival-documentary structures as well as new ones, which can be created in relation to paper-tradition, an outline is given on the abundance of the most general artistic, historical, architectural, natural and landscape heritage, which only a widespread museum-culture and the creation of an open-air museum would be able to enhance, both strictly in terms of economy and tourism as well as in instilling a civil awareness of the cultural and social identity of the local communities. Lastly, particular emphasis has been placed on the role that local government bodies can have in fostering the development of local agriculture, which would enhance the urban and rural landscape and also promote an active participation, both economic and entrepreneurial, in the creation of an open-air museum in the territory. Paper-heritage and rural development can in this way be the key factors to a revival of the area, such as that of Fabriano, which has recently been heavily hit by the economic recession.

### The paper-manufacturing industry of Lazio and its paper mills

Edoardo Currà

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The paper-manufacturing sector played a leading role in the framework of the industrialization processes that characterized the economic and production development in Italy before and after its unification. Along the lines of a long tradition of craftsmanship and proto-industrialism and with exceptional synchronization compared to France and England, the process of industrialization was to turn the paper industry in no time, into a mechanical and 'continuous' industry (with the invention of the continuous paper-manufacturing machine).

As is known, this same process has its roots in the 'Terra di lavoro' (Land of Work), in the Kingdom of Naples, which for some time had been administered by the region of Lazio. The longevity and significance of the paper-manufacturing sector, has enabled us, on approaching the subject, to learn about the existing relationship between production and the construction of the paper mills, essential in directing management, now that many production

sites have seen their life-long activities abruptly discontinued. In Lazio already, between the XV and XVI centuries, documentary evidence mentioned the existence of paper mills in Grottaferrata, Sant'Elia Fiumerapido, Subiaco, Carnello and Tivoli. The former were surprisingly paper mills belonging to abbeys. In some cases it was to be from these very sites that manufacturing activities would with time come to be consolidated and would be expanded into becoming flourishing industrial basins in XIX and XX. Considering this long history, one wonders whether it would be possible, as preannounced by Quatremère de Quincy, an "elementary principle [...] to identify a sort of nucleus around which, following developments, and the variations of shapes to which "the object is susceptible to", that agglomerates could be established and coordinated.

In this sense Renzo Sabbatini warns: "Despite the impression given through literature of inertia, the term paper mill does not single out a univocal reality with defined features true to all the phases in the modern era and all the areas of production." This would assume a synchronized development of the building structures as well as production-techniques in the sector concerned, some paper mills, however, evolved more rapidly than others adopting new technological solutions, to then perhaps going through long periods of inactivity during periods of local stagnation. Hence, through a synoptic reading of the work, it highlights common denominators of a development that over time concerned new factories, adaptations of other buildings, even monuments in addition to numerous extensions and reuse. Main leading thread of the evolution that took place in the factory was the relationship that it had woven across the centuries with the changes that were taking place in production activities, from the multiple hammer stamping mill from Fabriano, the Dutch beater roll, to the flat-bed continuous and cylinder machine.

### The Amalfi Paper-mills: hypothesis for historical, archaeological and environmental enhancement

Gregorio E. Rubino

The report begins with a critical note towards the tunnel view held on modernity as meaning a continual and radical innovation and illustrates a proposal of an 'Identifying Museum' specifically for the Amalfi coastline, which, out of objective reasons, never underwent the transformation from artisanship to capitalism. At Amalfi, a total of 13

artisan paper-mills were scattered along the banks of the River Chiarito (or better Canneto), today known as “Valle dei Mulini” (Valley of Mills), while at the bottom of the valley, there was an iron-works factory. Worthwhile pointing out the existence of factories with “dual activities” both at Amalfi and Furore, viz. two types of activities that were conducted in the same building (a paper-mill + wheat-mill), that arose both out of the need to use cascading water that was available and to give continual support to the family business during times of stagnation in the paper-manufacturing activity. In an ever-more homogeneous society, it is often affirmed that the only ultimate solution would be ‘eutopia’: the ideal place is the one that has come in possession of its heritage by virtue of tradition. And yet, today, more than ever before, it is our duty to protect our Amalfi

Coastline, which has been declared as ‘World Heritage’ by Unesco in 1997, to protect the historical memory of its places and to consider it as being just one single ‘Identifying Museum’, with a history of its own, its rituals and traditions. Here the people from this coastline can protect their origins and share their traditions with those who have lost them due to the transformation of the world into a global village. In short, not a museum in terms of an eco-museum of paper-mills taken out of context, but rather as one big open-air structure covering the entire area which espouses two cultures: the material and the ideal one – as in the tradition typical of the pre-unification South of Italy – thus reviving the Amalfi Coastline into an ancient medieval Duchy.



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