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Contents / Inhalt / Contenu

Letter from the IPH president and editor of Paper History	3
Brief der IPH-Präsidentin und Redakteurin von Paper History	4
Lettre de la Présidente de l'IPH et Editeur de Paper History	5
Fibre loading in papermaking*	6
Paper at the Jesuit Missions of South America	12
Network for Paper Makers in Sweden	19
Report from North America to IPH	23
Nachruf Heiner Schmidt-Westman	24
General information/ Mitteilungen/ Communications	24
Tales Along The Paper Road	25
Guidelines for authors	26
Complete your paper historical library now! Ergänzen Sie jetzt Ihre papierhistorische Bibliothek!	
Completez aujourd'hui votre bibliothèque de l'Histoire du papier!	27

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Letter from the IPH president and editor of Paper History

Dear members of IPH

2009 is an interim year between two IPH congresses and at the same time a jubilation year! Our International Association of Paper Historians was founded 50 years ago on the 19th of September in Bamberg, and I cannot imagine a better way to celebrate these 50 years than by the publications of Congress Book 2006 in February and Congress Book 2008 in April and by the continuation of our periodical Paper History with this first spring issue.

It has been possible, thanks to our web-site www.paperhistory.org, to spread information between the IPH congresses and to keep contact with most of our members, in spite of the lack of the periodical since 2003. Except for the Congress Books, however, IPH has been invisible in the libraries, and we have not reached every IPH member through the web-site. For us all it was therefore obvious, that a renewal of the periodical had the highest priority for our International Association of Paper Historians, because we could share information again in stead of being isolated and be inspired to cooperate and obtain a fruitful debate and development of IPH.

I am very grateful that my attempt to revive the periodical as a new general editor has been met with so positive reactions from our Council members, from the School of Conservation, the Royal Academy of Fine Arts in Copenhagen, and from all the IPH members that I have contacted. The IPH delegates have most kindly accepted to be co-editors, and their contribution as collectors of information of the national activities within paper history and related subjects is vital for the valuable continuation of Paper History.

The periodical is planned to be published twice a year in spring like this issue and in the autumn. 2/3 of the periodical will contain articles of scientific importance such as research in watermarks, technology, conservation, graphic art and printing with summaries in English, German and French and 1/3 will present general information about activities of the international as well as the national associations of paper historians, shorter notes, personals, literature, call for papers, agenda for the IPH general assembly, congress invitations, programs and reports.

It was obvious from the impression of the very successful and well organized IPH congress in Stockholm and Uppsala in May 2008 that we are many that share the same interest. Members of the Scandinavian Association of Paper Historians NPH, that organized the Congress, met with the members of IPH and members from the British Association of Paper Historians BAPH, from Deutscher Arbeitskreis für Papiergeschichte DAP, from the Belgian Paper Historians BPH and from the French AFHEPP – L'Association Française pour l'Histoire et l'Etude du Papier et des Papeteries.

I look forward to vivid activities within the field of paper and paper history. Let us keep in touch with each other and with our friends in the national associations the next 50 years and learn about all the activities through national and international contributions to Paper History.

Anna-Grethe Rischel

Fibre loading in papermaking*

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*To the memory of Dr John S.G. Simmons (1915-2005),
of All Souls College at Oxford, with whom I had the
good fortune to cooperate*

Summary

Recent attempts to introduce inorganic fillers into the interior of papermaking fibres are shortly reviewed. The fibre loading, the so called 'internal filling', was accomplished in these modern experiments before the forming of the paper, and therefore the lower bonding ability of the cell wall loaded fibres resulted in a paper with lower strength. It differs by comparison with the ancient Italian practice in which the fibre loading process began after consolidation of the paper structure, without damage to its strength. This kind of alkaline papermaking – invented in medieval Italy – has laid a solid foundation for the successful development of the European papermaking craft. Aspects of technology are discussed and SEM micrographs prepared for historical samples of the alkaline paper are presented, documenting the fibre loading with particles of carbonate pigments.

Zusammenfassung

Neuere Versuche, anorganische Füllstoffe während der Papierherstellung ins Faserinnere zu bringen, werden kurz im Überblick dargestellt. Bei diesen jüngeren Experimenten erfolgte das „Fibre Loading“, bzw. sogenannte „interne Füllen“ vor der Blattbildung. Die geringere Bindungsfähigkeit von Fasern mit gefüllter Zellwand hatte somit eine geringere Papierfestigkeit zur Folge. Das unterscheidet diese Versuche beispielsweise

von einem uralten italienischen Verfahren, bei dem das Befüllen der Fasern erst nach der Ausbildung der Papierstruktur erfolgte, d.h. ohne deren Festigkeit zu beeinträchtigen. Diese aus dem Italien des Mittelalters stammende Methode der alkalischen Papierherstellung hat den Grundstein für die erfolgreiche Weiterentwicklung des Papierhandwerks in Europa gelegt. Es werden technologische Gesichtspunkte diskutiert und REM-Aufnahmen von Proben alter, alkalisch hergestellter Papiere vorgestellt, die das Einbringen von Carbonatpigment-Teilchen in die Faser dokumentieren.

Résumé

Une brève synthèse des travaux récents visant à introduire des charges à l'intérieur des fibres papetières est présentée. L'introduction de charges dans les fibres, ou «fibre loading», était réalisée lors de ces expériences modernes avant la formation du papier, et, de ce fait, la diminution du potentiel de liaison des fibres chargées en surface de leurs parois conduisait à une réduction de la résistance du papier. Ce procédé diffère de l'ancienne pratique Italienne dans laquelle l'introduction de charges dans les fibres était réalisée après la phase de consolidation du papier, sans de ce fait altérer sa résistance. Ce type de fabrication en milieu alcalin – inventé dans l'Italie médiévale – a constitué une base de succès solide pour le développement de l'art de la fabrication du papier en Europe. Les aspects technologiques sont discutés et des micrographies MEB, préparées à partir d'échantillons historiques de papier alcalin sont présentées, pour illustrer l'introduction de pigments de carbonate de calcium dans les fibres.

According to Hunter¹, the first documented use of filler (china clay) in European papermaking took place in England about the year 1807; by 1870 this method of "loading" became a common practice. The loading or filling of paper with finely powdered white mineral materials has been common practice in the manufacture of white papers, although in the early days it was considered as adulteration. It is now well recognised that fillers improve the printing properties of paper and result in a better finish on calendering; however, the presence of filler particles between the fibres results also in the impairment of inter-fibre bonding and thus reduces paper strength².

Nevertheless, the role of white pigments as a low-cost way of adding value to the paper sheet becomes crucial to competitive paper production. This mainly refers to pigments such as kaolin and calcium carbonate, the latter both as a natural ground

mineral and as a precipitate³. Kaolin and carbonates can reach almost 40% of the content of the sheet in filled papers, and can exceed 50% in coated papers. So the first twenty years of the third millennium could easily be the age of the 'White Forest', based on the potential role of minerals in the manufacture of white papers⁴.

Nonetheless, different ways of incorporating fillers *inside* fibres, before the forming of the paper, were also the subject of interest and of serious research. The first investigations were reported in the 1950s by Craig⁵, who experimented with the precipitation of insoluble inorganic materials in the presence of pulp by the admixture of two soluble salts, such as calcium chloride and sodium silicate. His experiments had focused on preparing "fibrous filler", a new type of filler which was made to consist of 20% fibres and 80% inorganic precipitate⁶. U.S. Patent 3,029,181 to Thomsen⁷, describes a modification of Craig's

patent, using a 10% solution of calcium chloride to saturate the fibres which were then compressed to a moisture content of 50% and sprayed with a solution of ammonium carbonate to precipitate calcium carbonate.

Allan and associates₈ presented many examples of inorganic precipitates, not only white but also colourful (blue, violet, red, yellow, green, and black), usable for the loading of fibres. Among the potential candidate precipitates, calcium carbonate was one of the most appealing, in their opinion, because of its rapid growth in importance in neutral/alkaline papermaking and keeping in mind the easiness of its precipitation from various combinations of soluble salts. Their initial experiments (with precipitating nickel carbonate of green colour) were aimed at establishing that the precipitation actually occurred inside the fibre-wall and not on the surface or within the lumen exclusively, using energy-dispersive X-ray spectroscopy to analyse cross-sections of the fibre. They proved that the loading of the fibre cell-wall by the precipitation of insoluble salts within the cell-wall pores of never-dried pulp was feasible.

In their further experiments, Allan and associates₉ studied the properties of paper handsheets made from pulp fibres internally filled with calcium carbonate. This filler was precipitated in reaction of calcium chloride with sodium carbonate, and finally, the pulp was thoroughly washed to remove the excess filler not attached, or attached loosely, to the outer surfaces of the fibres. Handsheets formed from internally loaded pulps had greater tensile, burst, and tear strength than conventional paper in which the filler is located between the fibres; in both cases the same never-dried pulps were used.

Scallan and associates₁₀ successfully initiated transferring particles of titanium dioxide into the lumens of softwood fibres by means of the vigorous agitation of an excess of titanium dioxide with pulp slurry. At equal filler levels, their lumen-loading technique yields handsheets with better properties than those shown by conventionally filled paper. However, the lumen-loaded fibres cannot be beaten because of the "reversibility" of such loading. Adding cationic polyacrylamide to already lumen-loaded fibres conferred much increased resistance of the fibres to filler loss during mechanical action. Up to 25 % loading was achieved. Nonetheless, the

necessity of employing huge filler-to-fibre ratios during the lumen-loading step is such a serious drawback of this method, which (in addition) is limited to pigments having a small enough particle size to reach the lumens.

The most promising method of loading fibres was the so-called carbon dioxide process, utilising relatively inexpensive raw materials, i.e. carbon dioxide from stack gases and calcium oxide (called quick lime), the latter first slaked with water to form slurry of calcium hydroxide (called lime). Klungness and associates₁₁ conducted fibre loading experiments using the carbon dioxide process on industrial-scale equipment. High-consistency refiner used as a mixer and refiner was followed by high consistency pressurized refining (under carbon dioxide pressure) of the fibrous slurry with the lime admixture up to 30% (!) to the pulp. The fibre-loaded pulp (up to almost 28% ash content) was processed on a pilot papermaking machine. So large lime-to-fibre ratio, required to reach higher levels of the fibre loading in the semi-commercial scale, revealed some technical obstacles in the papermaking process, namely a surprisingly great degree of web shrinkage during its consolidation on the papermaking machine, an unexpected yellowing of the fibre-loaded paper and potential problem with its dimensional stability. There was a lack of information about other problems and about the strength of fibre-loaded paper as well. Probably, the inter-fibre bonding in this paper was impaired by the particles of calcium carbonate precipitated on the surface of the fibre, keeping in mind that the internally loaded fibres had not been washed after the precipitation step, to remove the external particles of calcium carbonate.

Lindström and associates₁₂ reported the results of their laboratory experiments, at low pulp consistencies between 1% and 2%, with bleached birch kraft pulp beaten until 20°SR and 31°SR before the precipitation experiments. Lime was added directly to the stirred pulp, and the precipitation was started by the carbon dioxide inflow. Precipitations were done at initial temperatures at 20, 35, and 50°C. The initial temperature of precipitation had an effect on the size and shape of the calcium carbonate crystals obtained. A cell-wall loading level of 13% could be achieved under the studied conditions. The optical properties of paper were approximately equal for fibre wall loaded paper and conventionally

filled paper; however, the use of the cell wall loaded pulp decreased the strength of paper. In the opinion of the authors: Precipitation of the pigment also on the fibres, causing chemical changes to the fibre surfaces, weakened the hydrogen bonding ability of the fibres during papermaking. Nevertheless, calcium carbonate was located mainly within the fibre-walls, as it was documented with SEM micrographs.

The reviewed methods and processes focused on incorporating fillers inside fibres have not been implemented into industrial practice, also the carbon dioxide process, which was practically most promising. In this process, the fibre loading is accomplished in fibrous slurry *before* the forming of the paper, together with the inevitable precipitation of calcium carbonate particles also on the fibre surfaces. Finally, the lower bonding ability of the fibres resulted in a paper with lower strength. In this way the main idea of such experiments failed, namely: Replacing the conventional filling - in the manufacture of high ash and ultra-high ash papers - with the fibre loading.

In general, these ways focused on incorporating fillers inside fibres *before* the forming of the paper differ by comparison with the ancient Italian practice in which the fibre loading process began *after* consolidation of the paper structure, without damage to its strength. This kind of alkaline papermaking - introduced to regular practice in medieval Italy, at Fabriano - has laid a solid foundation for the successful development of the European papermaking craft.

Firstly, however, there is a need for explanation of the analytical data strongly suggesting that early European papers contain carbonate pigments. Probably the first reference to the presence of calcium carbonate in historical samples of European papers was published in 1935 by Budka¹³ in his article on the Balice paper mill near Krakow. Better known is a publication by Hanson¹⁴ of 1939.

However, it was Barrow¹⁵ who documented very thoroughly the alkaline character of early European papers, especially in sixteenth-century Italian prints, as well as the presence of carbonate pigments in part of these papers. Among 11 sixteenth-century books had been printed on acid-free papers containing carbonate pigments, as detected by Barrow, 9 was published in Italy (mainly in Venice) and 2

in Switzerland, at Basel. The cold extract of these papers (for samples taken from unprinted areas) had the pH value such as: for 2 papers within the range 7.0-7.5, for 7 papers within the range 8.3-8.7, and for 2 papers the results gained in determinations of the pH value were as high as 9.0 and 9.3, these 2 papers had been printed at Florence (in 1521) and at Venice (in 1541) respectively¹⁶.

Later on, the alkaline character of early European papers, also Italian papers manufactured in the fifteenth century, has been confirmed by Barrett¹⁷ in his careful studies.

In contrast to so successful documenting the presence of carbonate pigments in alkaline papers made in accordance with the Fabriano technology, the explanation of the process of filling the paper with carbonate pigments but without these pigments being added to the fibrous slurry has proved a more difficult problem. More thorough explanations have been elaborated together with Dr Simmons¹⁸, after discussion of the earliest known historical sources in Europe informing about the addition of lime, i.e. calcium hydroxide, to the fibrous slurry before the beating process, and highlighting the slow reaction of the lime retained in old papers with atmospheric carbon dioxide, keeping in mind the very restricted access of the gas to the internal structures of the papers when in book-form, as well as the very low concentration of atmospheric carbon dioxide (about 0.05 per cent by mass). In the Fabriano technology, the rags were beaten in water with an admixture of lime for about 24 hours. During the beating a thorough penetration of the fibre-wall by the lime took place. Part of the lime was retained within the fibre-wall after forming the paper sheet. A further reaction of the lime residues with atmospheric carbon dioxide, outside the paper-mill, led to the precipitation of minute particles of calcium carbonate at the points where the lime had been located, i.e. mainly within the fibres. This was an ancient version of the modern carbon dioxide process, in which however atmospheric carbon dioxide reacted with the lime-residues present within the fibre walls. From the evidence of the studied historical sources and from the analytical data as well, it is clear that it was regular papermaking practice to beat the fibres in water with a lime blend, and this resulted in the fibre loading with calcium carbonate particles. However, the fibre loading process began *after* consolidation

of the paper structure, progressing outside the paper-mill and not decreasing the paper strength.

In my 2007 account¹⁹, I have presented four SEM micrographs prepared for the historical sample of the alkaline Italian paper, taken from the book printed in 1548 at Venice; documenting the presence of carbonate pigments in the paper structure and inside its fibres as well. The surface pH determinations of this paper fell within the range of pH=8.7 to pH=9.4.

Two additional SEM micrographs prepared for the same historical sample are presented here in Fig. 1. The particles of calcium carbonate are visible in these SEM micrographs as white objects contrasted with the grey fibres. The particles of carbonate pigments appear to be 'growing' from the fibre-walls; see the SEM micrograph 1(a). In addition, the SEM micrograph 1(b) clearly documents the fibre loading with particles of the carbonate pigments seen inside the fibre-walls.

So we see that the fibre loading with the carbonate pigment, which have not been introduced into machine papermaking, took place in ancient European papers manufactured in accordance with the Fabriano technology. This almost unknown fact, i.e. the fibre loading with the carbonate pigment in early European papers, was also of significance for their permanence. The use of lime as an additive during the beating - the most important process in papermaking - shows that the Italian technology of early European papermaking was fully alkaline. But

modern neutral/alkaline papermaking is based on the alkalinity of the carbonate filler dispersion which is added to a beaten fibrous slurry before the paper is formed, and the pH determinations of the slurry during formation of the paper web fall within the range of pH=7 to pH=8. Nevertheless, pH values of the water extract of the machine made papers with about 20% carbonate filler in their content become higher, about pH=9.0-9.3.

It does not mean, however, that the historical samples of the alkaline paper made in accordance with the Fabriano technology, such as the above-mentioned paper of the book printed in 1548 at Venice with the surface pH determinations within the range pH=8.7-9.4, are filled with calcium carbonate in the same degree as modern machine-made papers showing similar levels of the pH determinations of their water extracts. Probably residues of the lime in the fibres were able to cross-link the proteinaceous chains of the animal glue (gelatine), introduced in Fabriano to paper sizing, reducing both its solubility and hospitality to micro-organisms. The interaction of gelatine and lime, however, may be quite complex. Fig. 2 shows part of the X-ray trace prepared for the historical sample of the domestic paper dated 1509/1510, with the peak characteristic of portlandite, i.e. calcium hydroxide, which is visible at angle 2 theta of about 34 degrees²⁰. It means that small residues of the lime (calcium hydroxide) have been detected in this paper in the crystalline form of portlandite. The residues of lime in ancient papers may result in such pH determinations of their water extracts which are inadequate to the content of carbonate pigments in

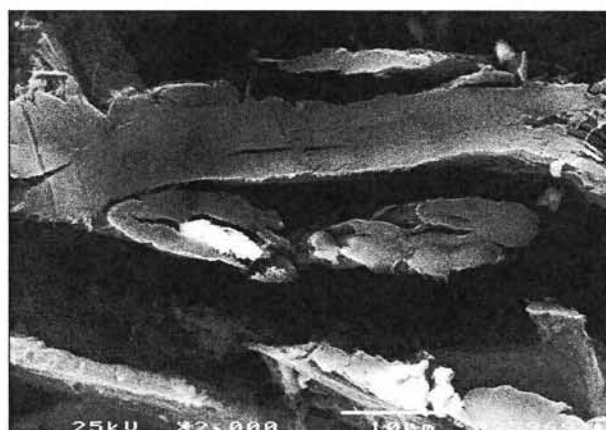
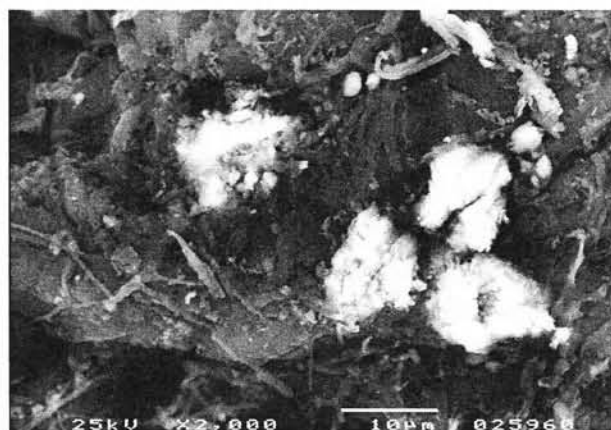


Fig. 1: SEM micrographs (at magnification 2000x) prepared (with the Bei-Compo detector) for the historical sample of the Italian paper, taken from the book printed in 1548 at Venice:

(a): SEM micrograph showing calcium carbonate particles on the fibre surface;

(b): SEM micrograph of a cross-section of the fibres in this paper, showing calcium carbonate particles situated inside the fibre-wall.

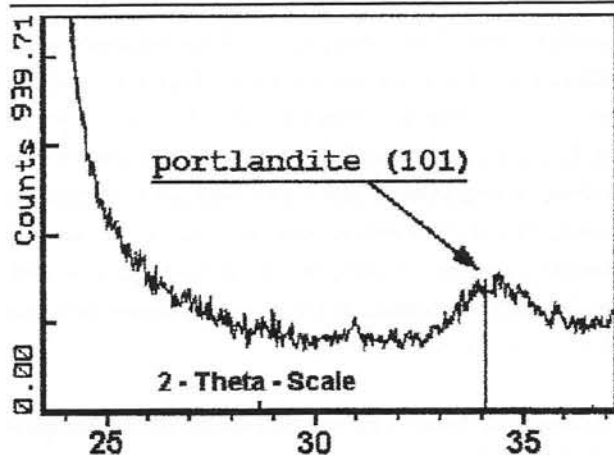


Fig. 2: Part of the X-ray trace prepared for the historical sample of the domestic paper dated 1509/1510, documenting the presence of residues of the calcium hydroxide in the crystalline form of portlandite in this paper; (cf. note 20).

these papers. The analysed paper, with its surface pH determinations about $\text{pH}=7.5\text{--}7.8$, is from the Prądnik Czerwony mill, established in 1491₂₁, now within the boundaries of Krakow.

The stock preparation for papermaking with a calcium hydroxide blend is at present possible also in machine papermaking, after the shift to the acid-free technology of printing and writing papers. The addition of the lime to the slurry should reinforce the beating action upon fibres thanks to their better swelling in an alkaline medium; as this has recently been proved in the laboratory experiments carried out also with the calcium hydroxide blend₂₂. Finally, after consolidation of the paper structure made from such prepared pulp, it should also result in the fibre loading with the particles of calcium carbonate, thanks to the reaction of residues of the lime with atmospheric carbon dioxide. And what goes on in the fibre-wall is decisive for paper permanence during its ageing.

However, the pH measurements do not precisely evaluate the situation. The pH value of the water extract of paper always turns on the evenness of the distribution of hydrogen ions between the external liquor and the fibre-wall. But the evenness may be altered by the use of the neutral salt solution, such as potassium or sodium chlorides, instead of distilled or de-ionized water, thus the results of the pH measurements will alter too, and for acidic papers lower values are reported: in the glass electrode spot-test about 0.4 pH units lower₂₃, and there is an even greater difference in the pH measurement of paper

dispersed in the salt solution₂₄. And therefore it is somewhat uncertain whether the pH measurements could clearly differentiate papers carrying identical carbonate pigment contents introduced by fibre-loading or paper-filling. Nevertheless it seems rather obvious that the particles of calcium carbonate (the so-called alkaline reserve) present in the fibre-wall protect the fibre against acidification during storage more efficiently than the particles located between the fibres during a typical filling process.

In summary, we may describe the discussed matter in the following terms:

The modern carbon dioxide process of loading fibres was focused on the development of that rather inappropriate idea to replace the conventional paper-filling - in the manufacture of high ash and ultra-high ash papers - with the fibre-loading. Large lime-to-fibre ratio, up to 30% of this strong base to the pulp, was required in the semi commercial scale to receive higher levels of the ash content, and this resulted in undesirable changes both in the course of the papermaking process and in the properties of the paper.

Nonetheless, in modern neutral/alkaline fine paper systems using higher levels of fillers, incorporated into paper by means of the conventional paper-filling, it is possible to utilise additionally the ancient version of such fibre-loading, which was started in Fabriano, with the addition of lime to the beating process and with precipitating inside the fibre-wall the particles of carbonate pigments by atmospheric carbon dioxide, after consolidation of the paper-structure, without damage to its strength, but with the improving of the permanence of the internally-filled fibres. Such moderate amounts of calcium hydroxide added to the modern beating process would additionally result in savings of the energy consumed in this process.

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Notes

- * Paper presented during the 16th Int. Papermaking Conference PROGRESS '08, held in Krakow, Poland, 24-26 Sept. 2008.
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Paper at the Jesuit Missions of South America

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Summary:

Short account of studies on paper used by Jesuit Fathers for printing the first books edited in South America, especially in Misiones (Argentina-Paraguay) until the expulsion of the Order in 1767, and of paper-making in Argentina. Quotations from the works of Petrus Martyr, Diego de Landa, Fernandez, Lopez de Gomara, Benaducci and Lorenzana conclusively prove the use of bark fibres as "paper" among the Mayas, Nahuas and Aztecs in the Middle America from the time of the conquest by Cortez until in the late 18th Century. In the Jesuit reserves of Paraguay, Argentine and Brazil a printer's office was operated from 1705 to 1727. Though the Jesuits asked for paper makers to be sent out from Spain, they could not start a paper mill in the South American territories of their order. The first industrial manufacture to produce newsprint was founded in 1876 at Oliva, Province of Cordoba. Up to 1897 another nine works have followed.

Zusammenfassung:

Kurze Darstellung der Untersuchungen über Papier, das die Jesuiten-Pater für den Druck der ersten Bücher verwendeten, die in Süd-Amerika erschienen, vor allem in Misiones, (Provinz in Argentinien- Paraguay) bis zur Vertreibung des Ordens im Jahr 1767, und über die Papierherstellung in Argentinien. Zitate aus den Werken von Petrus Martyr, Diego de Landa, Fernandez, Lopez de Gomara, Benaducci und Lorenzana ergeben den Nachweis

When following the steps of the Conquerors initiated by Christopher Columbus one notices that very soon a printing press is set up at every stop. I was especially interested in knowing where the earliest presses of South America found their paper and I wondered too, if any paper mill ever worked in these places.

The first printing press was set up in Mexico, the second one in Peru 1584. The latter was organized by Jesuit Fathers. Later on printing presses were set up in Juli (earlier Peru, today Bolivia) 1612, Guatemala 1660, Paraguay 1700, Argentina 1705, Havana, Cuba 1707, Sta. Fé de Bogotá, Columbia 1736, Rio de Janeiro, Brazil 1747, Santiago in Chile 1748, Ecuador 1754, Haiti 1781, Montevideo in Uruguay 1807, Caracas in Venezuela 1808 and Panama 1820. At the beginning, everything was imported from Spain or Italy, and later one borrowed

für die Benutzung von Rindenbast als "Papier" bei den Mayas, Nahuas und Azteken in Mittelamerika von der Eroberung durch Cortez bis Ende des 18. Jahrhunderts. In den Jesuiten-Reduktionen Paraguays, Argentinien und Brasiliens wurde von 1705 bis 1727 eine Druckerei betrieben. Obwohl die Jesuiten die Entsendung von Papiermachern aus Spanien erbaten, gelang es ihnen nicht, in ihrem südamerikanischen Missionsgebiet eine Papiermühle zu eröffnen.

Die erste Papierfabrik Argentinien wurde 1876 in Oliva, Provinz von Cordoba zur Herstellung von Zeitungspapier gegründet. Ihr folgten bis 1897 neun weitere.

Résumé:

Bref récit de recherches sur les papiers des livres imprimés dans les Réductions jésuites de l'Amérique du Sud, principalement dans la région de Misiones, (Argentine – Paraguay) jusqu'à l'expulsion des Jésuites en 1767, et de la fabrication du papier en Argentine. Citations de récits de Petrus Martyr, Diego de Landa, Fernandez, Lopez de Gomara, Benaducci et Lorenzana prouvent de façon concluante qu'en Amérique Centrale les Mayas, Nahuas et Aztecs utilisaient les fibres d'écorces d'arbres comme « papier » lors de la conquête de Cortez jusqu'à la fin du 18e siècle. Une imprimerie a fonctionné de 1705 à 1727 dans les Réductions jésuites dans ce qui est aujourd'hui Argentine-Paraguay. Les Pères jésuites demandaient qu'on leur envoie d'Espagne des frères papetiers. Ceux-ci vinrent jamais. En Argentine, la première manufacture industrielle qui produisit du papier d'imprimerie fut fondée en 1876 à Oliva, Province de Cordoba. Jusqu'ici 1897 on compte neuf installations.

from already existing printing works, produced printer's ink, casted the founts and instructed the natives that made the wood or cobber engravings for the illustrations of the new books.

Printing, means Paper

Written laws ruled the way the press should operate, so many sheets of paper were delivered, with papal or royal permission for very definite printing purposes. Some books explain that every sheet of paper costs so much:

"Doctrina Cristiana y catecismo "...por Antonio Ricardo. Ano de MDLXXXIII anos. Está tasado un Real por cada pliego de papel (Houghton Library at Harvard University, Cambridge. USA)

"Primer parte del Arauco domado"...impreso por Ricardo de Turín – 1596- está tasado 3 cuartillos

el pliego de papel. (Houghton Library at Harvard University. Cambridge. USA)

Many times the Jesuit Fathers asked for brother printers. Later they asked for brother paper-makers. It was thought that paper-makers from Tarragona would come over, but in spite of it all, no paper-mill was ever built. Some presses stopped working. It is believed that it was due to lack of paper. Ruins of early Jesuit Missions in the Province of Misiones in Argentina as well as those in Paraguay and Brazil are beautifully described in a book edited by UNESCO: "Las Misiones Jesuíticas del Guayra". (1993).

I was born in that region. From early on I was fascinated by the work of these Jesuit Fathers. I especially wanted to know more about the remarkable books first printed in this remote sub-tropical region. Their Colophon said: "Printed in Santa Maria la Mayor"; "en el pueblo de San Javier"; "Nuestra Señora de Loreto"... I wondered how books could be printed, on pages of white paper which had traveled so many miles under such difficult conditions.

It is known that in the Missions of the Upper Parana River, books were printed since the year 1700. The Fathers Miguel Streicher and Antonio Sepp confirm the edition of "Martirologio Romano" in 1700. The inventories of the Society of Jesus mention as a

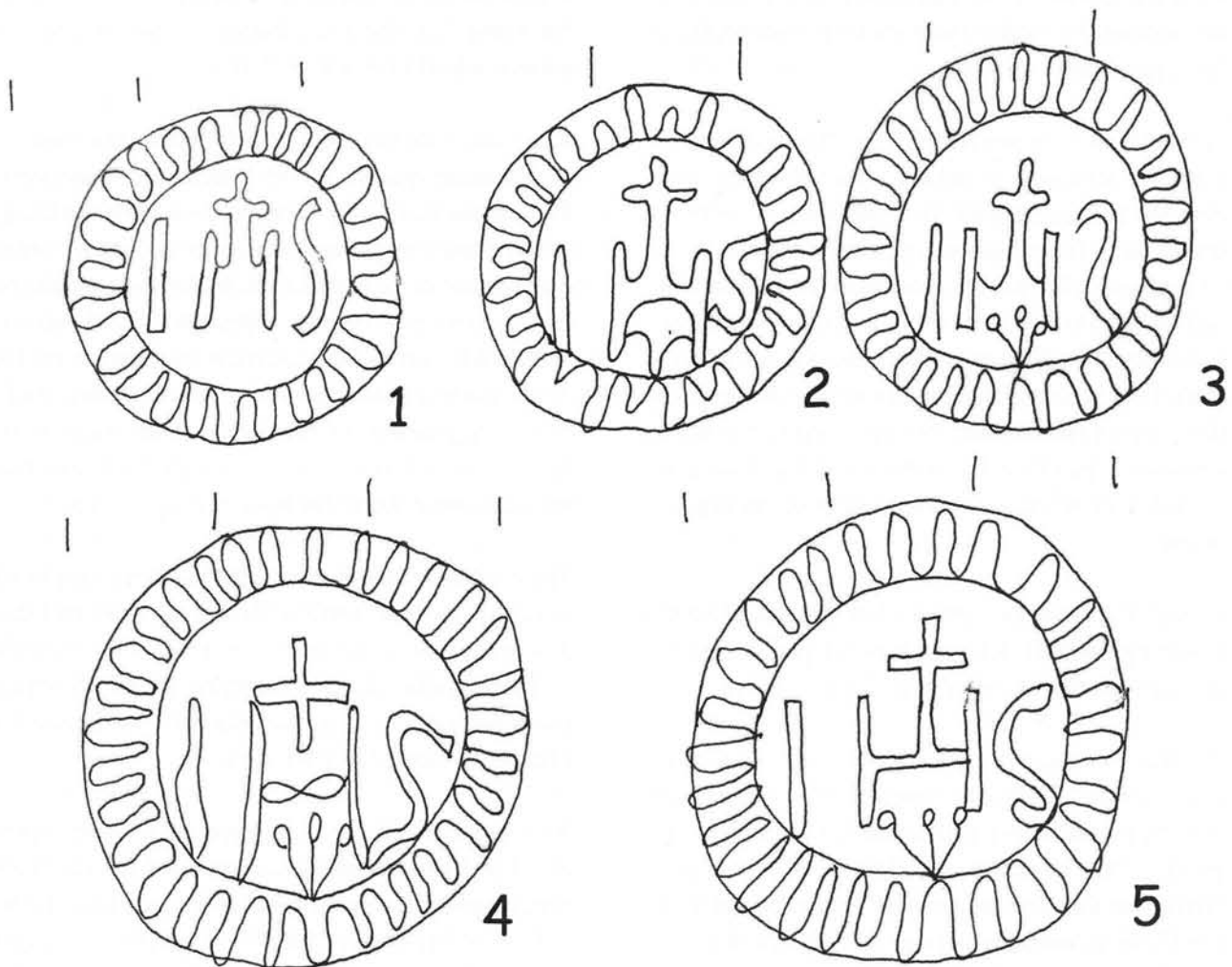


Fig.1: Watermarks with Jesuit emblems. Ref. Dr. Jadwiga Siniarka-Czaplika (1980). At the time, she had not identified the mill they came from. These are only 5 out of 23 she sent me. They are the only watermarks I have ever seen with the HIS emblem. (BN – Warsaw National Library, BUL – Łódź University Library)

Location	Date	Printers office	Library and classification
1 – Cracow	1642	M.Schedel	BN XVII 3.1007
2 – Cracow	1643	Fr.Cezary	BUL 1021516
3 – Cracow	1644	K.Schedel	BN XVII 3.664
4 – Cracow	1642	A. Piotrkowczyk	BN XVII 3.4752
5 – Cracow	1644	Fr.Cezary	BN XVII 3.71

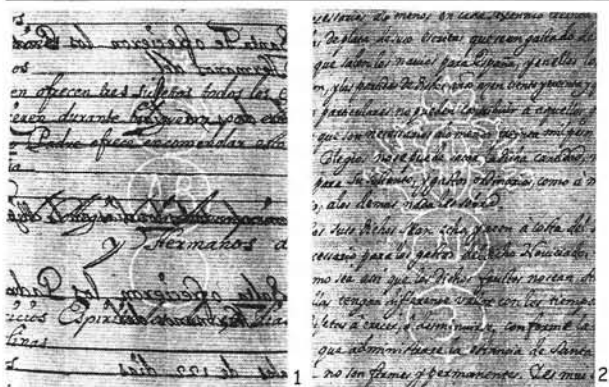


Fig. 2: Watermarks from Jesuit Archives in Rome
(Archivium Romanum Societatis Jesu)

1 – Rome, 1693 Paraq. II – F.492

2 – Rome, 1694 Paraq. II – F.482

second book the “Flos Sanctorum” of Father Pedro de Rivadaneira. So far, there are no known copies of these two books.

A third book was printed in 1705: “De la diferencia entre lo temporal y eterno...por el Padre Juan Eusebio Nieremberg de la Compañía de Jesús y traducido en lengua guaraní por el P. Joseph Serrano de la misma Compañía... Impreso en las Doctrinas. Año de M. D. C. C. V.”. Only two complete copies of his book are known so far. I had no peace until I could hold each of them in my own hands and study the paper, printing, etc. of this remarkable work. Edmond Lamalle S.J., Archivist at the Company of Jesus in Rome, was most helpful during my research.

In the IPH Yearbook N° 4 (1983/84 pp.373-385) edited by Dr. H.B. Kälín in Basel, I gave a detailed description, cited here of what I came across:

“In the continuation of previous studies of paper manufacture in South America, the third book printed in the Jesuit Reductions in Argentine and entitled “De la diferencia entre lo temporal y lo eterno” is the first to survive in two copies from the Jesuit missionary region. In April 1983 I have had this book in my hands in Luján at the Complejo Museográfico Enrique Udaondo in the Province of Buenos Aires. I have not had time to study this book page after page, but I can tell that from the first page to the last one the paper is of good quality and in good condition. The watermarks are not completely identical, but three circles are present in them all. One has the impression that this book has been printed on selected paper of the same quality. This

copy is decorated with gilding and the decorated parts are trimmed on three sides. Before its arrival to Luján, the book was part of the Enrique Pena Collection.

The second copy has returned to Argentina after having changed hands in Europe. It is part of the Horacio O. Porcel Collections. This book was found as Nr. 546 in the sale catalogue of Maggs. Bos, London 1930. On one of the first pages of the book I discovered this pencil inscription:

“R.D.Woddislove, Madrid 1777

This book brought from Spain by the late very R.D.Woddislove, Dean of Rippon is presented to the Right Rev. the Lord Bishop of Brechin by his grandson H.H.Oxley, Oct. 5 1872”.

The book is in excellent condition and the paper is of the same quality as the previously mentioned. The sections are also decorated, not with gilding, but with marbling. The book cover is of much older age than the copy from Luján. In the second volume of “Historia del Arte en Argentine” (1983, pp.95-119), published by La Academia Nacional de Belles Artes, Adolfo Luis Ribera presents a detailed study of the engravings of this book. This study is of furthermore interest, because it is the first time that the engravings from this book are reproduced.

The copy from Musée de Luján has been examined in details by José Toribio Medine in 1892 and this description is to be found in his book “Historia y Bibliografía de la Imprenta en la América Espanola”, printed and published by Muséo de La Plata, Province of Buenos Aires.

A quick examination of the paper of the two copies of P.J.E. Nieremberg allowed me to point out three watermarks of great resemblance with Nos. F.190 (1710), F 431 (1683) and F 497 (1700). The eight X-ray photos originate from documents in La Compagnie de Jésus in Rome (R.P. Lamalle) and they correspond all with papers from the Guarani Mission. Horacio Oscar Porcel had very generously allowed reproductions to the IPH Yearbook 1983/84, Vol. 4, pp.379-382 of the six photos from Père Juan Eusebio Nieremberg’s “De la diferencia...”

In "Museo Histórico Nacional" in Buenos Aires I have found documents accompanying the donation of what is said to have been part of the first printing press, installed in Buenos Aires LOS NINOS EXPOSITOS (1766-1820). At the time of the donation the greater part of the paper that accompanied the printing office as well as other manuscripts from this period had the following watermark inscriptions:

Indiana Mills Fine (1893), Kensington Mills, Original Margaret Mill (1893), Antique Parchment Note Paper (1891), Romani I (1895) and Charta Regia Ansonia (1892)".

In 1767, Charles III of Spain decreed the expulsion of Jesuits from all Spanish possessions. It was suggested that one of the reasons for the royal anger was the fact that these Jesuit fathers were too independent. They published their own works without the papal and royal authorization. It was even suggested that they made their own paper. So, I looked for watermarks which would reveal the truth. It is confirmed that no paper mill existed at that time in these regions. With the expulsion of the Order, their possessions were looted and scattered everywhere. I decided to try to find as many books as possible, printed in South America before the Jesuit's expulsion.

Part of my research on that subject was published in the IPH Yearbook N°2 (1981 pp. 117-126) published by Dr. H.B. Kälin in Basel. A summary is quoted here:

In the Indian reserves of South America the Jesuits established printing offices. In the region of Misiones (Paraguay/Argentina) printing was started in 1700, but the first conserved book dates from 1705. The research of these books is described together with watermarks of three books and two manuscripts. Though the Jesuits asked for papermakers to be sent out from Spain, they could not start a papermill in their South-American mission area.

Further details of my research were published in the New Year Booklet, offered to its members by the Swiss Paper Historians in 1976. Translation of shorter extractions of *Le Papier en Amérique Latine* is quoted here:



Fig. 3: From left to right: Edmundo Guerra, Suzanne Addor, and M. Guerra

It was during the restoration of a book of Manuel Perez "Farol Indiano y guia de curas indios" printed in Mexico by Francisco de Rivera Calderon in 1713 that I asked myself if there had been paper mills in Mexico.

My search in *Encyclopaedia Britannica* gave me the following information: "the first samples of American paper that came into the hands of the Spaniards were found at the coasts of Vera Cruz immediately after the arrival of Cortez. On Moctezuma's list to Cortez for the Spanish monarch occur among others..." "Two books of those made by the Indians" and "six samples of designs, another piece that is red or on which some circles are painted, and two samples painted with blue colours". The imperial adviser Petrus Martyr studied these books very closely and he described them for the Pope Hadrian with these terms: "They are not read in our way – sheet after sheet – but they extend one sheet with the length of several connected, not loosely, but glued together with a kind of resistant and flexible pitch. They seem to have passed between the hands of a very skilled bookbinder. Whenever the book is seen open, two written pages are presented, two faces appear and behind these, another two, so that when the folio is not placed at full length, there are many other pages underneath each other. We have said that these indigenous people possess books".

"The messengers that were leaders of the new colony Coluacana brought a great many similar to the others presented here (in Spain). The pages of these books that they write on are made of a membrane, formed below the outer bark of trees that are said to be very rare. This membrane does not seem to us to

be either like the one from the willow nor from the elm tree, but rather like the interior of certain edible palm trees. This looks like a rough tissue separating the intersections of the leaves like a net. They cover these porous membranes with pitch; they can be stretched as desired, hardened and covered with a kind of gypsum. I believe that every time that they (the messengers) have prepared the paper, it was done with a substance similar to plaster, pounded and sifted like fine flour with which you prepared a substance. These can be written upon, when desired and then erased with a sponge or cloth so as to be used again”.

Although the name of the tree from which they used the membrane was not mentioned in the book of Petrus Martyr, one agrees that it without any doubt is Castiloq Elastica with the ancient name “Amatl”. The name of Amatl that indicates this tree, has survived until today in the language of the population of Central America. In his edition of Diego de Landas “Relation des choses de Yucatan”, Paris 1864, Brasseur de Bourbourg calls the attention of the reader to the fact that a sample of this amatl paper conserved “is as a sort of papyrus prepared with great care” and “the notes of Petrus Martyr and Diego de Landas are the only ones that we have found mentioning the paper made of tree bark.” Both authors write that the paper was only used by the Mayas living at the coasts of East Mexico and they don’t throw any hints to other methods of paper making.

The immediate neighbours to the Mayas, the Nahoas speaking people living in the high regions of Anahuac, make paper in a quite different way. According to the reports they pound the plant fibres of the Maguey until they obtain a sticky substance and then spread it out to form a sheet of paper. There are numerous variations of Maguey and Francisco Fernandez mentions 18 varieties, but he does not point out which one they use to make paper.

Among the first writers that mention this paper, we find Lopez de Gomara, the secretary of Hernan Cortez: “Metl is a tree that is named Maguey by some people and Chardon by others. It is much bigger at the base than in height as a cypress ... of the leaves of this Metl they make paper that is found everywhere. It is used for offerings and for their painting. It grows to the double height of a man and is also as big at its base as the thigh of a man.”

In spite of the first accounts we have not found the description of the production of Maguey paper.

It is not until 1746 that Cavaliere Lorenzo Boturini Benaducci (collector of Mexican relics) informs us, without mentioning his source, that “the Indian paper is made with the leaves of the Maguey, called “Metl” in the indigenous language and “Pita” in Spanish. They let the leaves ferment, then washed the fibres that, when softened one time were stretched in a shape to compose a thick or thin paper. In order to paint on this paper, they polished it. They also made paper with the leaves of palms. I have some samples that are also flexible and thin as silk”.

In 1780, Francisco Antonio Lorenzana mentions in a section with the title “Paper on which they write” that “they make the paper with the leaves of maguey or pita, as it is called in Spanish. They let them ferment in water, wash the fibres, then make them flexible and then stretch them in order to form their rough paper that they afterwards polish in order to make it fit for painting. They also make fine and white paper of palms similar to silk. I have seen them. They collect palm leaves, grind them, pound them and then polish them”. None of these writers seem to have seen the production of the paper.

The Geographical Society in New York has an ancient Mexican painting in its collection. The origin of the paper has been dated to approximately 1572. That is the date when the Indians still made their own paper. A detailed examination of the piece of paper has revealed the following:

The average thickness of the sheet does not exceed 2 mm; the painted surface has a yellowish shade and the opposite surface is more greyish; the edges of the



Fig. 4: Suzanne Addor. Vat No 5. Hayle Mill. Kent. UK. 1972

sheet look like a rough tissue when torn lengthwise; by regarding through the sheet in backlight, the material looks patchy, some places more dark with traces of fibres and one special dark area indicates a knot, formed by a lump of fibres; nearly the whole surface of the paper looks as it has been treated with an instrument similar to a comb; however, the "lines" are marked in the middle that looks like a parallelogram. This seems to indicate that they are marked with an instrument used to make a uniform impression on the sheet of paper during the preparation. A tiny specimen of this paper, examined by N.E. Waller at N.Y. Columbia School of Mines, gave the following results: The material did not contain any cotton fibres; it consists of fibres still enclosed of a thin membrane, sporadically broken.

Having so far studied the paper used in the earliest books printed in that part of South America, I wondered how paper production had started in Argentina. What I could find I published in the New Year Booklet from 1976 and in the IPH Yearbook N° 1 (1980, pp. 157 - 169) published by Dr. H. B. Kälin in Basel. Translation from the Booklet of another part of the section "Le papier en Argentine" is quoted here:

According to the information that I have been able to collect, the first paper mill is installed in Argentina 1876 in Oliva, Province of Cordoba and it belonged to Gustavo Brauver. In order to make paper agriculture products such as straw was used for the production of newspapers. 13th of January 1877 M. Alcantara installed his paper mill, named "La Primitiva", and in July 1884 M. Maupas started the production of chemical pulp. For this material he used hemp and esparto. The establishment "La Argentina" was founded with the production of various sorts of paper for packing. The same year the first paper mill for the production of rag paper was established in Zarate, Province of Buenos Aires and the paper mill "La Platense" at Riachelo.

Around 1890 the paper mill Andino in Santa Fé was build to provide the paper for the domestic publications of the country, and in 1897 M. Enrique Veretta started a paper mill for the production of "papier maché" in Buenos Aires, Suipacha Street, nr.362.

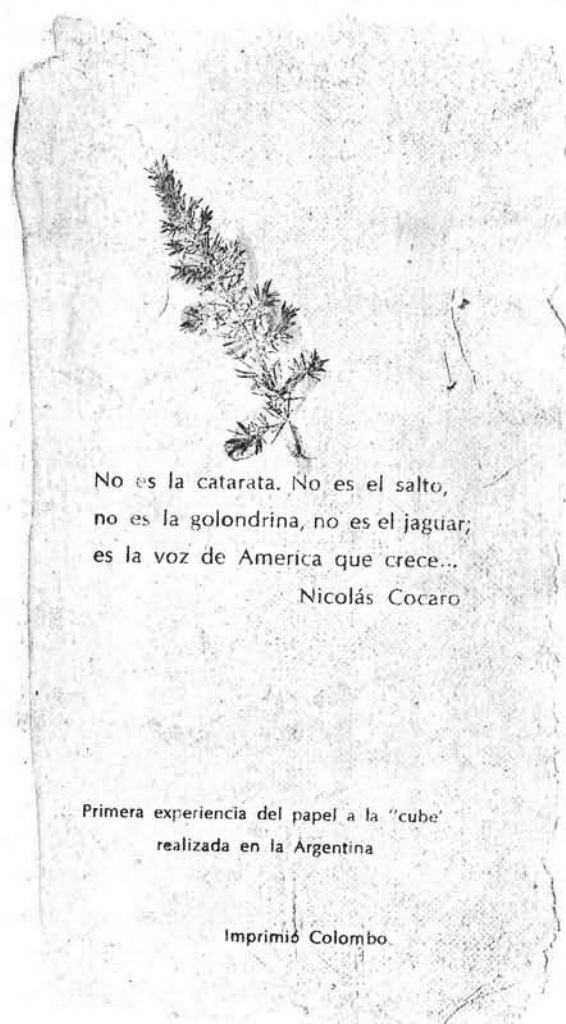


Fig.5: The first sample of handmade paper in Argentina – 1969 –

In the 19th century, a group of Argentine intellectuals decided to invite a master-printer from Florence to come to Buenos Aires and set up a printing press which would produce books of bibliophile quality. His name was Francisco Colombo. When Francisco died, his sons took over the press. One of his sons, Osvaldo Colombo still had an interesting clientele of bibliophiles.

During the presidency of Juan Domingo Peron, some opponents to his regime printed a few lampoons which were bitterly opposed to his government. Argentina produced some paper of poor quality, only fit for cardboard or for packing, so for any printing purposes, one used imported paper, and Peron stopped the import of paper. That included fine rag paper which the Colombos needed for their bibliophile editions.

As an artistic bookbinder and restorer I was very much in contact with this kind of book-world. My travels to Europe were mostly related to books. My

friends asked me to find a way to make handmade rag paper which could allow them to produce interesting work. I had good friends in England, and I had heard of John Mason who had published a little book, explaining how he had managed to make "home-made" paper for his students at Leicester College of Art during the war. ("Paper Making as an artistic craft", Faber and Faber, 1959). I got in touch with him, but he was very ill and directed me therefore to John Barcham Green, of Hayle Mill in Kent. They were still making hand-made paper of pure linen at the mill in those days. I saw the mill at work, the process of rag beating, sizing and beautiful sheets of paper being drawn by their expert vatman.

In Argentina, we produce very good cotton. We have fields of growing linseed. So, I started beating pulps! Quite a challenge! I saw all kind of beaters in use where paper was still made by hand. Finally, the first little sheet of pure cotton was produced in Argentina. A poet, Nicolas Cocaro, gave us some inspiring lines to be printed on it by Osvaldo Colombo and the 6th of April 1969, the newspaper La Nacion published a good article about it. Every one was optimistic. J.B. Green sent me to Harry Morris. Seeing Harry's work shop in his garage was inspiring and Harry Morris told me about IPH and Henk Voorn. I had moved to Europe in 1968 and in October 1969 I went to the IPH Congress in Amalfi. From then on, although I returned every year to Argentina, I became less involved with book-life in that country. The big hopes for a steady production of handmade paper in Argentina faded away.

My life with paper and books goes on, keeping up with development of conservation, new methods of investigation, modernisation of methods of information and with internet possibilities. IPH offers great opportunities of communications. As long as I can, I will be part of it.

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Network for Paper Makers in Sweden

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Summary

Network of Paper Makers in Sweden consists of museums and professional paper makers. The aim of the network is to cooperate when conducting the heritage of knowledge about paper. When the network was formed in 2003 it became clear that museums, papermakers and artists often share the same experience, when trying to find equipment - or to handle questions about how a certain task should be done.

Network of Paper Makers in Sweden consists of museums and professional paper makers. We are interested in both handmade and machine made paper. Welcome to find out about the paper history in Sweden. We are represented all over the country – do come and visit us!

The art of papermaking was carried out by paper makers who moved from one mill to the other, within the country, but also between different countries. They brought with them new methods, tools and ideas. It took several years to become a skilled paper maker.

The first Swedish paper mills were established as early as in the 16th century. In 1832 the first paper machine was built in Sweden, so before that all paper was made by hand. From then on, the production became more and more automated.

Through the years, many changes have taken place regarding the industrial production of paper. The development of technique and methods has been immense. In the beginning all papers were made out of rags, hacked and grinded into pulp. In the 19th century it became possible to use wood as a raw material due to new methods. This meant that paper could be produced considerably cheaper, and also in substantial quantities.

Each of the members of the network conducts the heritage of knowledge about paper in their own way, in accordance with their specific interest and tradition. A mutual desire among the members is however to share this with anyone who might be interested.

Network of Paper Makers in Sweden also has a common interest in marketing. In 2008 *the World Pulp & Paper Week* was held at Stockholm International Fairs in Älvsjö, Sweden. Network of Paper Makers in Sweden participated and organised an exhibition which presented each member of the network. A booklet was also produced and handed out to visitors.

The network will participate in an exhibition in Mölndal, Sweden at Kvarnbyn during the "kvarnby day" in April 2009. In July 2010 the exhibition will be presented in Gränna.

Fröåsa Handpaper Mill

Fröåsa Handpaper Mill was established in 1802 at the stream of Fröåsa. The farmers from the villages Kråketorp and Slagdala carried out this task. During the first half of the 19th century the mill produced, among other things, good writing paper made out of linen rags as raw material. The paper from Fröåsa can easily be recognised by its watermarks "Fröåsa" and "Fröåsaström", also with the addition of a beautiful beehive watermark.

Paper from Fröåsa has been used locally in the area when writing inventories of estates, bill of sales, and other important documents. The lists from the catechetical meetings in the parish of Leksberg in Västergötland are also written on paper from Fröåsa between 1830 and 1845, as well as the accounting records of the Church in Virserum between 1832 and 1844. In the beginning of the 20th century the production shifted towards coarser qualities of paper and cardboard.

The production came to a halt in 1921, and the mill was disassembled and moved to Liseberg in Gothenburg where it was exhibited at the world exhibition in 1923. In the end the mill was brought back to Virserum and reassembled in the local History Park in 1950. Since 1970 the art of paper making by hand is demonstrated every summer, and the moulds bear the same watermark as they did 200 years ago.

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Frövifors Paper Mill Museum

This is a well-preserved paper mill from the turn of the last century. It is the only industrial paper museum in Sweden, and everything looks very much the same as when the last workers left the premises in 1980. The museum aims to preserve to posterity the history of paper as a material, its ways of production and use. The last paper roll still remains at the up roll part of the machine.

The living surroundings with its manorial estate, school and housing have a heritage derived from as early as the 16th century. There are three paper machines, as well as an old grinder. Exhibitions of packaging, both as history and art, and a unique exposition of 22,000 beer cans complete the visitors' experience. Apart from this, you can also participate in courses and visit the papermaker.

The modern factory where packaging board is made today is situated right next to the museum. Guided tours are offered both in the factory and in the museum.

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The Printing Museum in Helsingborg

The Printing Museum in Helsingborg is the largest of its kind in Scandinavia. Exhibits and demonstrations include typesetting, letterpress, lithography, intaglio printing, bookbinding and hand papermaking.

Handmade paper is produced sheet-by-sheet from rags of cotton and linen, type is set by hand or with composing machines and printed in hand presses and machine presses. Illustrations are drawn on stone or engraved in copper and printed in lithographic and intaglio printing presses. Books are bound and decorated by a bookbinder.

A permanent exhibition displays the history of the printing industry, from Gutenberg's invention of the movable metal type to the advent of the computerized age. Each season, temporary exhibitions on special themes associated with the printing trade are shown at the museum.

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info@grafiskamuseet.se
www.grafiskamuseet.se

Svartvik Handmade Paper

Gunnar "Gandalf" Bergström – paper magician in the trade since 1972, owns and runs Svartvik Handmade Paper. The business is situated within "Svartviks Industrial memorial site", 10 km south of Sundsvall. Sheets of paper, stationary, paper art, and moulds are produced here as well as printing being done.

Groups of visitors are welcome, and courses are held. Also, commissions are taken. Specialities to Svartvik handmade paper are relief's with monogram, portraits etc – rich in detail with a height up to 8 millimetres and rag paper with fillings of for example wood- and grass fibres, flowers, Spanish moss, moose droppings, hair and...stuff!

Handpappersbruket, Svartvik, Svartviksvägen 22,
SE 862 33 Kvissleby
Tel: +44 (0) 70 685 28 63
info@svartvikpaper.com
www.svartvikpaper.com

Handpaper Mill Sanny Holm

How was paper made in the old days, before automated process and roaring giant machines made paper to an undistinguished common article? By hand, of course. Sanny Holm is one of the few papermakers that still possess knowledge of the art of making paper by hand out of textile fibres, beaten in a Hollander beater, just like it used to be done at Tumba Bruk (The Tumba Paper mill).

Bespoke orders are welcome for water stamped letter writing paper, lithography, watercolour and wall paper all made in accordance with how it would have been made in the 18th and 19th century. We are also able to produce water stamps, moulds and deckles. Using the old printing technique letterpress we can also offer hand printed business cards, letter-head printed sets, envelopes and invitations. Groups are recommended to partake in our courses or to make a study visit.

Handpappersbruket
Framste Gård, Hällesjö, SE 840 64 Kälarne
Tel: + 44 (0) 696 421 60, + 44 (0) 70 581 80 70

sanny@handpappersbruket.se
www.handpappersbruket.se

Kvarnby Handpaper Mill

Kvarnbyns Handpaper Mill is a non-profit organisation making handmade paper according to 17th and 18th century methods. The raw material is primarily cotton and linen rag, but also other organic fibres from the Swedish flora. In the cases when Asiatic fibres are used other techniques are required. We produce everyday paper as well as paper art.

The aim with our organisation is to develop and spread the knowledge of the craftsmanship of paper making by hand, about the interesting width and opportunities the material in itself offers. Important to us is also to transmit the knowledge about the historical background of paper to people of all age categories, preferable with Moelndals Kvarnby as background. We arrange courses and hold seminars.

Kvarnbyns Handpappersbruk, Norra Forsåkersgatan 4,
SE 431 63 Mölndal
Tel: + 44 (0) 31 27 76 37
info@kvarnbynshandpapper.org
www.kvarnbynshandpapper.org

Lessebo Handpaper Mill

Lessebo Handpaper Mill started manufacturing paper back in 1693. The careful process follows set stages, in accordance with tradition. The raw material, cotton linters, is gradually converted into paper sheets of the highest quality. Our handmade paper has an expression, a personal beauty and a longevity that ensures it is in great demand for a number of purposes.

Among other things, it is used for marriage and baptism certificates, state papers, exam certificates and for watercolour painting. You can also visit our shop and see the production of handmade paper, Monday to Friday from January to December.

Lessebo Handpappersbruk, Storgatan 79, SE 360 50
Lessebo
Tel: + 44 (0) 478 476 91, Fax: + 44 (0) 478 476 90
handpappersbruket@vida.se
www.vidapapper.se

Munksjö Museum

Visit an inviting museum that puts people at the centre. Munksjö Museum is a reflection of the past that is part of the present. Travel through the company's history from 1862 to the present day. You can follow the independent company's history in prosperity and misfortune. Meet the creators, builders and experimenters who united technical genius with true humanist ideals. The museum is divided into three rooms. A time line runs through them taking the visitors back to the major and minor events of each decade.

A large area is devoted to the first managing director Ottonin Ljungquist, his family and household. Do not forget to look at Ottonins copper box which was found in a chimney!

Munksjö Museum
Post address: Box 624, SE 551 18 Jönköping,
Visitors: Barnarpsgratan 41, Jönköping
Tel: + 44 (0) 36 30 33 00
britt-marie.borjeson@se.munksjo.com
www.munksjo.com

Paper Art

Erling Gustafsson is an Artist who uses the handmade paper as an artistic form of art and as a carrier of graphical printings. In his own Studio he makes paper pulp from domestic and Asian raw materials.

The pulp, consisting of cotton and flax, is used for printing of graphic editions and of original printed books. The printing modes are intaglio printing and high-pressure printing. Flax, especially the raw fibres, is used for making sculpturing art. The Asian raw materials come mostly from Japanese plants like Kozo, Mitsumata and Gampi. They are used to create visual arts from natural and coloured fibres, but also for woodcut printing and for sculptures. Visitors are welcome on appointment.

PaperArt, Kaserngatan 3, SE 575 35 Eksjö
Tel: + 44 (0) 381 16060, + 44 (0) 70 323 1533
erling@paperart.se
www.paperart.se

The Paper Workshop in Gränna

At Hallska Gården in Gränna, a picturesque 19th century locale, Pappers-Versta'n is situated. Here, helped by nature, Eva Sandegren makes beautiful paper products. The paper pulp is made from cotton

fortified with linen. Into this is mixed fresh flowers, grass and herbs, making every sheet unique.

Pappers Verksta'n's courses and workshops are a great way to get a taste of the craft. Here the participants get a chance to make paper on their own. The courses are excellent as further education for teachers of arts and handicrafts or as a base for personal creativity. The workshops are open for children as well as for adults. Workshops, courses or guidance may be booked all year round.

Pappers-Verksta'n, Gränna

Postadress: Sjöгатan 34, SE 563 31 Gränna, Visitors:

Hallska Gården (entrance from Hahngränd)

Tel: + 44 (0) 390 418 84, + 44 (0) 706 738048

pappersverkstan@home.se

www.pappersverkstan.nu

The Printing Museum in Gränna

This living Printing Museum from prehistoric times would like to take part in the future. Olle Larsson has built and runs the museum in Gränna. The Museum has an authentic, unique history showing the art of printing that pre-dates the age of computers. Here printing applies in an admirable and old-fashioned way by setting letters one by one. The museum produces a number of different printed matter, for example: letter paper, correspondence- and business cards, invitation cards for weddings or to special anniversaries – all of which are printed on handmade paper. You are welcome to visit us! Groups are welcome by appointment.

Tryckeri-Museet, Gränna

Brahegatan 28, SE 563 32 Gränna

Tel: + 44 (0) 390 101 90, + 44 (0) 70 35 40 477

cicero@oldprinting.se

www.oldprinting.se

Tumba Paper Mill Museum

Tumba Paper Mill was built by the Swedish Central Bank (Sveriges Riksbank) in 1755 in order to meet the need for a more secure bank note paper. Today Tumba Paper Mill is owned by the Crane Company and still produces the bank note paper. Since the early 1970:es the bank notes are also printed in Tumba.

Tumba Paper Mill Museum is located right in the heart of the works area. The museum re-opened in 2005 after an extensive renovation, and in three buildings the visitor finds modern exhibitions. The

history of papermaking, bank notes and the history of the mill are the core of subjects covered.

The production of handmade paper at the museum solely rests on the use of cotton as raw material. Here you will find an environment filled with tradition enriched with modern interior design and architecture. Among other interesting items, the museum have close to 400 hand moulds – an amount rarely seen. Conference rooms, café and a museum shop as well as guided tours are offered.

Tumba Bruksmuseum

Post address: Box 5428, SE 114 84 Stockholm

Visitors: Sven Palmes väg 2, Tumba

Tel: + 44 (0) 8 5195 5346

info@tumbabruksmuseum.se

www.tumbabruksmuseum.se

Ösjöfors Handpaper Mill

Ösjöfors Handpaper Mill is situated some 25 km northwest of Vimmerby in Småland. Discover this peaceful oasis where you can imagine old time Sweden. Lars Dristig, an army drummer and farmer, to complement his agricultural efforts, founded the paper mill in 1777.

This combination of farming and small-scale industry was very common in the 18th and 19th centuries – there were more than 50 paper mills in Småland during the 19th century. Ösjöfors was in uninterrupted operation until 1926 when it finally was shut down. The mill was then donated to National Museum of Science and Technology in Stockholm.

Since 1984, Ösjöfors is run as a foundation and open during summer as a museum. In 1993 the Kalmar County Administrative Board declared Ösjöfors a historic site. Although the paper mill building was destroyed in a fire in 2005, the rest of the premises remain, and Ösjöfors is indeed worth a visit.

Ösjöfors Handpappersbruk

Post address: Tekniska museet, Box 278 42,

SE 115 93 Stockholm

Visitors: Ösjöfors

Tel: + 44 (0) 8 450 56 46

www.tekniskamuseet.se (documentation and industry memorials)

Report from North America to IPH

Elaine Koretsky,
paperroad@gmail.com

The North American organization of papermaking, "Friends of Dard Hunter" (FDH), annually sponsors a lively conference. The last one, "Paper in Paradise", was held in October, 2008, in Kona, Hawaii. It featured workshops on papermaking, including use of native Hawaiian plants to make paper using Western/Japanese techniques, and also the making of tapa cloth in the traditional Hawaiian fashion.

Since the organization's membership encompasses all aspects of papermaking, there were a number of lectures on paper history, paper art, and the properties of paper, presented by FDH members as well as invited international speakers.

The next FDH conference will be held October 15-18, 2009, at the Robert C. Williams Paper Museum in Atlanta, Georgia. The focus will be on the museum's greatest resource, its Dard Hunter collection. The organization publishes a tri-yearly newsletter, *Bull&Branch*, one in printed form, the other two by Internet.

The major papermaking publication in the U.S. is *Hand Papermaking*, which publishes two issues each year. The magazine contains many illustrations, some in color. Paper samples often accompany the articles. Also published are four newsletters annually. The newsletters provide information on up-coming events, such as classes and workshops, exhibits, and publication of books on papermaking. In addition, each newsletter features several regular columnists. For instance, in the most recent issue, Elaine Koretsky's article, *Along the Paper Road*,

described the IPH conference in Stockholm, followed by her expedition to China, where she explored the unusual beating of the bark of the poisonous tree, *Antiaris toxicaria*, for the making of clothing, worn by the Dai farmers of Xishuangbanna in Southwest China; and she furthered her documentation of "rice paper", the unusual material that is neither paper nor made from rice, produced in Taiwan and southern mainland China for the making of artificial flowers and small souvenir paintings. An article on paper history was contributed by Maureen and Simon Green, emphasizing Hayle Mill and the history of rags in papermaking. The American hand papermaking mill, Twinrocker, was described by Susan Gosin. Sidney Berger wrote his column, *Decorated Paper*, about the work of Takejiro Hasegawa. The final article, *For Beginners*, was written by Mary Tasillo.

In addition to the Paper Museum in Atlanta, there is only one other museum in the U.S. devoted to paper history. It is the Museum of International Paper History, located in Boston, Mass. The museum collection includes handmade papers, tools used in traditional hand papermaking, books, writing materials, and many other artifacts collected by the Koretsky family over a period of 35 years in expeditions throughout the world.

In 2008 The International Paper Museum opened a new exhibit, "Before Paper", featuring an unusual French comedy film (with English sub-titles) "A World Without Paper", at 245 Kent Avenue in Williamsburg, Brooklyn, New York. This exhibit, the first of a series on traditional hand papermaking, shows how mankind communicated through writings and art before the invention of paper. Calligraphy on bone, stone, animal skins, papyrus, bark cloth and bark paper from China, Burma, Nepal, Indonesia, and other countries throughout the world are on display, together with the tools used in producing these materials.

Obituary/ in memoriam/ commémorative

Nachruf Heiner Schmidt- Westman

Am 15. März 2008 verstarb, nach langer Krankheit, unser langjähriges Vorstandsmitglied und erfolgreicher Redaktor der sph-Kontakte, Heiner Schmidt

Heiner war, wie kaum jemand, Redaktor aus Leidenschaft. Als Sohn eines deutschen Vaters und einer Schweizer Mutter, verheiratet mit einer Schwedin, was sein internationales Interesse gegeben.

Von seinem Großvater, dem Stadtachivar Basels, Rudolf Wackernagel, erbte er das Interesse für die Geschichte und den Druck.

Sein erster Beruf als Typograph und seine Tätigkeit im Verkauf für die Papierindustrie vermittelten die Liebe zum Druck und Papier. Über viele Jahre durften wir als Schweizer Papierhistoriker von seinen hervorragenden Artikeln und vielfältigen Kontakten profitieren.

Wir sind Heiner Schmidt zu größtem Dank verpflichtet und sein Wirken werden wir in bleibender Erinnerung behalten.

Aktuar Rolf Maisch
Sph-Kontakte

General information/ Mitteilungen/ Communications

Publications

Carr, Debra, Cruthers, Natasha, Smith, Catherine & Myers, Tom: Identification of selected vegetable fibres
IIC Reviews in Conservation, Number 9, 2008, pp.75-87
Icon News. The Magazine of Icon – Institute of Conservation, London/UK

Chamberlain, Daven: History of paper test instrumentation
part 11: fold strength testers
The Quarterly No.70, pp. 39-46
The Journal of the British Association of Paper Historians

Crocker, Alan & Franklin, Geraint: Banknote Papermaking
at Portal's Laverstoke Mill in 1854
The Quarterly No. 70, pp.1- 12.
The Journal of the British Association of Paper Historians

Dagnall, Harry: An historical model papermaking machine
restored: an Australian industry's icon
The Quarterly No. 70, pp.13-17
The Journal of the British Association of Paper Historians

Hills, Richard L.: The 1807 Act
The Quarterly No.70, pp.18-26
The Journal of the British Association of Paper Historians

Mühlbacher, Ilse: Buntpapier-Einbände der Österreichischen
Nationalbibliothek
Restaurierung, Dokumentation und moderne
Einbandpapiere,
Journal of Paper Conservation IADA Reports Vol. 10
(2009) – No. 1, pp.21- 26

McClintock, T.K.: Observations on the Mutual Influence of
Asian and Western Paper Conservation Practices
The Book and Paper Group Annual, vol. 25 (2006), pp.13-
22
The Journal of the American Institute for Conservation
of Historic and Artistic Works, Washington, DC/US

Schaarschmidt-Richter, Irmtraud: Washi: Handwerk,
Kunst und Gebrauch des japanischen Papiers
[In Zusammenarbeit mit dem Deutschen Buch- und
Schriftmuseum, Die Deutsche Bibliothek, Deutsche
Bücherei Leipzig] ISBN 978-3-929181-71-5

Schmidt-Bachem, Heinz: Beiträge zur
Industriegeschichte der Papier-, Pappe- und Folien-
Verarbeitung in Deutschland
Die Untersuchungsergebnisse liegen in digitaler
Form vor und können auf dem Server der Eberhard-
Karls-Universität Tübingen abgerufen werden:
[http://tobias-lib.ub.uni-tuebingen.de/frontdoor.
php?source_opus=3675&la=de](http://tobias-lib.ub.uni-tuebingen.de/frontdoor.php?source_opus=3675&la=de)
[http://tobias-lib.ub.uni-tuebingen.de/
volltexte/2009/3675/pdf/Schmidt_Bachem_
Papierverarbeitung.pdf](http://tobias-lib.ub.uni-tuebingen.de/volltexte/2009/3675/pdf/Schmidt_Bachem_Papierverarbeitung.pdf)(ca. 12,5 MB).

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Hauptstaatsarchiv Stuttgart und der Österreichischen
Akademie der Wissenschaften, Kommission für
Schrift- und Buchwesen des Mittelalters, Wien 2009
ISBN 978-3-00-026752-9
www.bernstein.oeaw.ac.at

Tradition and Innovation: proceedings of the 6th IDP conservation conference, Beijing 2005
Dept. of Rare Books and Special Collections, The National Library of China & The International Dunhuang Project, The British Library.
ISBN 978-7-5013-3460-5/G 704

Events/Veranstaltungen/ Manifestations

23.05.2009 Basel, Switzerland:

SPH Exkursion in eine experimentelle Pergament-Werkstatt in der Basler Papiermühle (contact: hans-peter.limacher@sunrise.ch)

03-05.06.2009 Silkeborg & Aarhus, Denmark:

NPH Annual meeting of the Nordic Association of Paper Historians (contacts: rischel@privat.tele.dk or kdl@silkeborgmuseum.dk)

08.06.09 & 21.09.2009 Berlin, Germany:

Identifizierung historischer Papiere (G. Ulbricht) Werkstatt für Papier Gangolf Ulbricht, Mariannenplatz 2, 10997 Berlin, DE
Gangolf.ulbricht@p-soft.de

28.07.2009, London, United Kingdom:

BAPH Group visit to the Linnean Society Library
(contact: rod.morley@gateway.net)

19-21.08.2009, München, Germany:

IFLA Preconference, Early Printed Books as Material Objects – Principles, Problems, Perspectives, Bayerische Staatsbibliothek, Dr. Bettina Wagner, Ludwigstr. 16, 80539 München, Germany
(contact: IFLA2009@bsb-muenchen.de)

31.08.2009, Milano, Italy:

Conservation and Preservation of Library Material in a Cultural-heritage oriented context, IFLA, Headquarters, P.O. Box 95312, 2509 CH The Hague, The Netherlands
www.ifla.org/IV

24- 27.09.2009, Celle & Lachendorf, Germany:

DAP-Tagung, Die 18. Tagung des Deutschen Arbeitskreises für Papiergeschichte 2009
(contact: F.Schmidt@d-nb.de)

25.09-27.09.2009 Bath, United Kingdom:

Bath University: BAPH 20th Annual Conference of British Association of Paper Historians
(contact: phil.crockett@tinternet.com)

13.10.2009, London, United Kingdom:

Globes: History, Technology and Conservation (S. Sumira & P. Cook) International Academic Projects, James Black, 6 Fitzroy Square, London W1T 5HJ, United Kingdom
www.academicprojects.co.uk

15-18.10.2009, Atlanta, USA:

FDH Conference at the Robert C. Williams Paper Museum in Atlanta, Georgia
(contact: paperroad@gmail.com)

Im Herbst, Engadin, Switzerland:

SPH-Jahresversammlung
(contact: hans-peter.limacher@sunrise.ch)

19-21.11.2009, Paris, France:

Bibliothèque nationale de France & Musée Guimet : 8th IDP Conservation Conference
The conservation and digitisation of Dunhuang and Central Asian Collections
(contact: barbara.borghese@bl.uk/sara.biggs@bl.uk)

Tales Along The Paper Road

The book "Tales Along The Paper Road & Other Short Stories" by Sidney Koretsky has been published by Carriage House Press. The book is a collection of eleven short stories. The first five stories are connected to the subject of paper and the other stories are varied in content.

The first tale "The Mysterious Pregnancy of Wang Lan Li" is a highly imaginative story about the beautiful daughter of a Chinese paper merchant and takes place in China at the end of the Ming Dynasty. The next four stories deal with the daring and exciting adventures of a couple who travel throughout the

world collecting data on paper and paper connected subjects.

The book may be obtained from Carriage House Press, 8 Evans Road, Brookline. MA 02445-21 16 USA. It may also be ordered by email at the address: paperroad@gmail.com. The price of this crimson cloth hard covered book is US\$ 20 plus shipping charge of US\$ 8.50. Please make payment by Visa or MasterCard. The book may also be ordered online at amazon.com.

Guidelines for authors

contributing to the continuation in 2009 of the IPH "Paper History"

Name and address of the author/ authors:

Indicate the name of the main author with a *. Postal address as well as e-mail address is necessary for the contact between the editor Anna-Grethe Rischel (e-mail: rischel@privat.tele.dk) and the author.

Language:

English, German or French according to the statutes of IPH.

Title:

The overall general subject of the article should be stated first, followed by a more detailed description of the topic in two-part format of the title of the paper. For shorter remarks, notes, reviews etc. one informative title is sufficient.

Abstract of articles:

The abstract, not exceeding 1500 units (letters without spaces), must summarise the text with results and conclusions.

Translations of title and the abstract into English, German or French may be made available upon request to the editor.

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The article will be published in two columns in monochrome print.

Submit your manuscript in a single column using a minimum of formatting, using plain text, RTF or Microsoft Word exported as .doc. or as .rtf. Each page should contain approximately 5300 units (letters without spaces). Do not number sections or paragraphs

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Tables should be submitted as separate files-formats for tables: .doc or .xls.

For diagrams the title must be in the caption only and for graphs the background must be white.

In the final publication the widths of the figures will be either 8 cm or 17 cm.

References:

Do not use automatic reference numbering, but refer by numbers in the main text. Do not use foot notes, but include eventually notes with the references at the end of the main text.

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Anna-Grethe Rischel, Stenhøjgaardsvej 57, DK 3460 Birkerød, Denmark.

E-mail: rischel@privat.tele.dk or anna-grethe.rischel@natmus.dk



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Vol. 17, 2008	€ 60, 00

IPH Monographs/ Sonderbände/ Monographies

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Vol. 1, 1993, Dora Doss: Besitzer und Papiermacher auf Papiermühlen in Sachsen und angrenzenden Gebieten, Teil I Paperback – broschiert – broché	€ 18, 40
Vol. 2, 1998 Nils J. Lindberg: Paper comes to the North Paperback – broschiert – broché	€ 48, 10
Hardcover – gebunden – relié	€ 66, 50

Other Publications/ Weitere Veröffentlichungen/ Autres publication

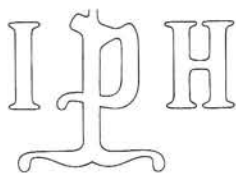
1987 IPH Index (Information and Yearbooks) 1962 – 1987 Paperback – broschiert – broché	€ 27, 40
1997 International Standard for the registration of papers with or without watermarks Version 2.0 (English – German – French – Spanish)	€ 15, 35
1998 Watermark Classification (illustrated) (English – German – French – Spanish)	€ 7, 65

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The IPH gathers professionals of different branches and all friends of paper around the theme of paper history. As an international specialist association it coordinates all interests and activities in this field and provides the necessary means to reach these goals: the periodical "Paper History", the Congresses, the Congress books and the Supplement series.

Die IPH vereinigt Fachleute unterschiedlichster Bereiche sowie die Freunde des Papiers rund um das Thema „Papiergeschichte“. Sie koordiniert alle papierhistorischen Interessen und Aktivitäten als internationale, wissenschaftliche Fachorganisation und stellt zu diesem Zwecke die notwendigen Mittel zur Verfügung: die Zeitschrift „Paper History“, die Kongresse, die Kongressbücher und die Reihe der Sonderbände.

L'association IPH rassemble les professionnels de toutes les spécialités ainsi que les amis du papier autour du thème de l'Histoire du papier. Elle coordonne tous les intérêts et toutes les activités dans ce domaine en tant qu'association scientifique internationale et met, pour atteindre ce but, à disposition les moyens nécessaires: le périodique «Paper History», les Congrès, les Livres des Congrès et la série des Suppléments.

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Brief der IPH-Präsidentin und Redakteurin von Paper History

Liebe IPH-Mitglieder

2009 ist zugleich ein Jahr zwischen zwei IPH-Kongressen und ein Jubiläumsjahr! Unsere Internationale Arbeitsgemeinschaft der Papierhistoriker ist vor 50 Jahren am 19. September in Bamberg gegründet worden, und ich kann mir keine bessere Art und Weise vorstellen, diese 50 Jahre zu feiern, als mit dem Erscheinen der Kongressbände 2006 im Februar und 2008 im April sowie mit der Fortführung unserer Zeitschrift Paper History mit dieser ersten Frühjahrsnummer.

Dank unserer Website www.paperhistory.org war es trotz des Fehlens der Zeitschrift seit 2003 möglich, den Informationsfluss zwischen den Kongressen aufrechtzuerhalten und Kontakt mit den meisten Mitgliedern zu halten. Mit Ausnahme der Kongress-Bände war die IPH jedoch in den Bibliotheken 'unsichtbar', und wir konnten mit der Website nicht alle IPH-Mitglieder erreichen. Uns allen erschien es deshalb offensichtlich, dass eine Wiederbelebung der Zeitschrift von höchster Priorität für unsere Arbeitsgemeinschaft war, damit wir wieder Informationen miteinander teilen können und nicht mehr voneinander isoliert sind, damit wir zur Zusammenarbeit angeregt werden, und damit fruchtbare Diskussionen und die Weiterentwicklung der IPH gewährleistet sind.

Ich bin sehr dankbar, dass mein Versuch, die Zeitschrift als neue Redakteurin wiederzubeleben, so positive Reaktionen seitens der Vorstandsmitglieder, der School of Conservation, der Royal Academy of Fine Arts in Kopenhagen sowie aller IPH-Mitglieder erfuhr, die ich angesprochen habe. Die Kontaktpersonen der IPH in den einzelnen Ländern waren freundlicherweise zur Beteiligung an der Redaktionsarbeit bereit, und ihr Beitrag, den sie durch das Zusammentragen von Informationen über nationale Aktivitäten im Bereich Papiergeschichte

und verwandter Themen leisten, ist lebenswichtig für die sinnvolle Fortführung der Paper History.

Die Zeitschrift soll zwei Mal im Jahr erscheinen, im Frühjahr - wie diese Ausgabe - und im Herbst. Sie soll zu zwei Dritteln aus fachwissenschaftlichen Artikeln bestehen, zum Beispiel Untersuchungen zu Wasserzeichen, Technik, Konservierung, graphischen Künsten und Drucktechniken, mit Zusammenfassungen in Englisch, Deutsch und Französisch. Ein Drittel wird Informationen über Aktivitäten der internationalen und nationalen Vereinigungen von Papierhistorikern bieten, kürzere Mitteilungen, Personalien, Literaturhinweise, Tagungsaufrufe, die Tagesordnungen der Generalversammlungen, Kongresseinladungen, Programme und Berichte.

Der Eindruck des erfolgreichen und gut organisierten IPH-Kongresses im Mai 2008 in Stockholm und Uppsala machte deutlich, dass wir eine große Gruppe mit einem gemeinsamen Interesse sind. Mitglieder der Scandinavian Association of Paper Historians NPH, die den Kongress organisiert hat, trafen auf IPH-Mitglieder und Mitglieder der British Association of Paper Historians BAPH, des Deutschen Arbeitskreises für Papiergeschichte DAP, der Belgischen Papierhistoriker BPH und der französischen AFHEPP - L'Association Francaise pour l'Histoire et l'Etude du Papier et des Papeteries. Ich freue mich auf lebendige Aktivitäten auf den Gebieten des Papiers und der Papiergeschichte. Lassen Sie uns durch nationale und internationale Beiträge zu Paper History in den nächsten 50 Jahren untereinander und mit unseren Freunden in den nationalen Vereinigungen Kontakt halten und uns gegenseitig über alle Aktivitäten informieren!

Anna-Grethe Rischel

Lettre de la Présidente de l'IPH et Editeur de Paper History

Chers Membres de l'IPH

L'an 2009 se situe entre deux années de congrès de l'IPH et est une année jubilaire, notre Association Internationale des Historiens du Papier ayant été fondée il y a 50 ans, le 19 septembre à Bamberg. Je ne peux pas m'imaginer une meilleure manière de fêter ce 50ème anniversaire que par les publications du Livre des Congrès 2006 en février et celui de 2008 en avril ainsi que la poursuite de notre revue périodique Paper History par sa première Parution printanière.

Grâce à notre web-site www.paperhistory.org il a été possible de distribuer l'information entre les congrès de l'IPH et, de cette façon, de garder le contact depuis 2003, entre la plupart de nos membres, malgré l'absence de la revue. Cependant, à l'exception des Livres des Congrès, l'IPH n'était plus présente dans les librairies et nous n'avons pas pu atteindre tous les membres de l'IPH par le web-site. Pour nous tous il était devenu évident que le renouveau de la revue était la principale priorité pour l'Association Internationale des Historiens du Papier à cause de la possibilité de partager l'information, au lieu d'être isolés elle nous inspirerait à collaborer et ainsi à obtenir un débat fécond et le développement de l'IPH.

Je suis très reconnaissante de la réaction positive des membres du Conseil, de l'Ecole de Conservation, de l'Académie Royale des Beaux Arts de Copenhague et de tous les membres de l'IPH que j'ai contactés, à mon essai d'éditeur en vue de faire renaître la revue. Les membres délégués de l'IPH ont très gentiment accepté d'être co-éditeurs. Leur contribution en qualité de récoltants de l'information relative à des activités nationales concernant l'histoire du papier et ses sujets annexes, est vitale pour la pérennité de Paper History.

La revue sera publiée deux fois par an, au printemps comme le présent exemplaire et en automne. 2/3 de la revue contiennent des articles de niveau scientifique tels la recherche en filigranologie, technologie, conservation, les arts graphiques et l'impression. Ces articles seront accompagnés de résumés en anglais, allemand et français. Le 1/3 restant présentera une information générale concernant des activités tant internationales que nationales au sujet des associations d'historiens du papier, de courtes notes concernant des personnes, de la littérature, l'appel à des articles, l'agenda de l'assemblée générale de l'IPH, les invitations aux congrès, les programmes et les rapports.

Il était évident qu'à partir de l'impression laissée par le congrès de l'IPH, bien organisé et très réussi, à Stockholm et Uppsala en mai 2008, nous sommes nombreux à partager le même intérêt. Les membres de l'Association des Historiens Scandinaves du Papier NPH, qui organisèrent le congrès, rencontrèrent les membres de l'IPH, les membres de l'Association des Historiens Britanniques du Papier BAPH, du Cercle Allemand pour l'Histoire du Papier DAP, de l'Association Belge des Historiens du Papier BPH et de l'Association Française pour l'Histoire et l'Etude du Papier et des Papeteries AFHEPP.

J'espère en des activités vivantes dans le domaine du papier et de son histoire. Créons des contacts avec les uns et les autres ainsi qu'avec nos amis des associations nationales dans les 50 prochaines années et apprenons ce qui se rapporte à toutes les activités par l'intermédiaire des contributions nationales et internationales de Paper History.

Anna-Grethe Rischel