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Bibliographie

Orientation bibliographique : identification et traitements des encres ferrogalliques (2007-2017)

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Cette bibliographie présente des références d'articles et ouvrages parus dans la dernière décennie portant sur la problématique des encres métallo-galliques. Elle propose ainsi une vision d'ensemble des différentes orientations de la recherche, en France et à l'international, visant à trouver des solutions de conservation, traitements curatifs et restauration des documents graphiques attestant la présence de ces encres.

2017 - 2016 - 2015 -2014 -2013 - 2012 - 2010- 2009 - 2008- 2007

2017

BAZEMORE, A. «Chelatin soluble iron (II) from iron gall ink using calcium phytate in agar gel». In *Gels in the Conservation of Art*. London: Archetype Publications : 2017, p. 116-118.

GALEOTTI, M., Montalbano, L., Spera, E. «Le problematiche degli inchiostri metallo gallici. Considerazioni e nuove tipologie di applicazione a dieci anni dalla sperimentazione del fitato di Calcio». In *OPD restauro*, Vol. 28, p. 174-183, ill.

JOLY, O., Bouvet, S., Le Bourg, E. «Phytate treatment: from Study to Practice» [poster]. In *Actualités de la conservation*, no. 34, 2017. [En ligne]: http://www.bnf.fr/fr/professionnels/lettre_conservation_34/x.lettre_conservation_34.html [consulté le 28/12/2017]

MILLER Z., Whitby, G., Garside, P. «Investigating the ability of phytate gel systems to treat iron gall ink at the British Library». In *Gels in the Conservation of Art*. London: Archetype Publications : 2017, p. 77-81.

REHÁKOVÁ, M., Gál, Lukáš et al. Identification of iron-gall inks in historical drawings by Fibre Optics Reflection Spectroscopy – Extension to the NIR spectral range (Dedicated to Professor Ľubomír Lapčík, in honour of his 80th birthday). In *Journal of Cutural Heritage*, vol. 27, October 2017, p. 137-142.

SISTACH, M.C., Marin, E. et Garcia, J. «Evaluation of Alkaline Compounds Used for Deacidification and Simultaneous Lining of Extremely Degraded Manuscripts.» *Restaurator. International Journal for the Preservation of Library and Archival Material*. <https://www.degruyter.com/view/j/rest.2017.38.issue-3/res-2016-0034/res-2016-0034.xml?format=INT. >[Consulté le 28/12/2017]

YUN LIU, Kralj Cigic, I., Strlic, M., 2017. «Kinetics of accelerated degradation of historic iron gall ink-containing paper». In *ScienceDirect. Polymer Degradation and Stability* 142, 255–262. DOI: https://doi.org/10.1016/j.polymdegradstab.2017.07.010 [consulté le 28/12/2017]

2016

JOLY, O., Bouvet, S. , Le Bourg, E. « Phytate treatment : from study to practice [Abstract] ». *Experience and evidence ICOM-CC graphic documents working group interim meeting*, 1-3 June 2016 / ICOM. Committee for conservation.

POGGI, G., Sistach, M. C., Marin, E. and al., 2016. « Calcium hydroxide nanoparticles in hydroalcoholic gelatin solutions (GeolNan) for the deacidification and strengthening of papers containing iron gall ink». In *Journal of Cultural Heritage*, n. 18, p. 250-257.

SURMAK, A. « Study of discoloured iron-gall ink inscriptions – case of the Gradual of Lviv Benedictines from Krzeszow », In *CeROArt* [En ligne], EGG 5 | 2016, mis en ligne le 25 février 2016, consulté le 28 décembre 2017. URL : http://journals.openedition.org/ceroart/4909

2015

BAGLIONI, P., Chelazzi, D., Giorgi, R. «Deacidification of Paper, Canvas and Wood» in *Nanotechnologies in the conservation heritage. Springer*, (2015) Chap.5, p. 117-144. DOI: https://dx.doi.org/10.1007/978-94-017-9303-2

DESREUMAUX, A. «Des couleurs et des encres dans les manuscrits syriaques». In *Manuscripta Syriaca: des sources de première main* - Cahier d'études Syriaques, no. 4/ Edité par Françoise Briquel Chatonnet et Muriel Debié, p. 161-193.

MARÍN, E., Sistach M.C., Jiménez M.C., Garcia G., Garcia J.F., 2015. Distribution of Acidity and Alkalinity on Degraded Manuscripts Containing Iron Gall Ink. In *Restaurator* 36 (3), p.229-247.

OULFA, B., Vez, S., Meslet-Struyve, S. «The Dutch Fe-migration mending test». In *Journal of Paper Conservation* Vol. 15, N. 1, p. 9-15, ill.

ROUCHON, V, Bernard, S., 2015. «Mapping iron gall ink penetration within paper fibres using scanning transmission x-ray microscopy.» In *Journal of Analytical Atomic Spectrometry*, vol. 30 (3), 635-641.

2014

BELHADI, O., Phan Tan Luu, C., Jacobi, E., Meslet-Struyve, S., Vez, S., Reissland, B. and Rouchon, V. « The Dutch Fe-migration mending test ». In *Journal of Paper Conservation*, 15 (1): 9-15.

CIGLANSKÁ, M., Jancovicová, V., Havlínová, B., Machatová, Z., Brezová, V., 2014. «The influence of pollutants on accelerated ageing of parchment with iron gall inks.» In *Journal of Cultural Heritage*, vol. 15 (4).

GOULD, A. «The treatment of archaeological papers affected by iron corrosion using calcium phytate». In *Journal of the Canadian Association for Conservation* = Journal de l' Association canadienne pour la conservation et la restauration Vol. 39, p. 17-30, ill.

MALESIC, Jasna, Sala, Martin, Selih, Vid S., Kocar, Drago, 2014. «Evaluation of a method for treatment of iron gall ink corrosion on paper.» In *Cellulose*, vol. 21 (4), p 2925-2936.

MILLS, David, Curtis, Antoinette, Davis, Graham. «Apocalypto : revealing the Bressingham roll.» In *Journal of Paper Conservation*, Vol. 15, N. 3, p. 14-19, ill.

MOŽIR, Alenka, Cigić, Irena Kralj, Marinšek, Marjan, Strlic, Matija. «Material properties of historic parchment : a reference collection survey». In *Studies in conservation* Vol. 59, N. 3, p. 136-149, ill.

OULFA, B. et al. « Un nouvel outil pour évaluer le risque de migration d'encre ferrogalliques : possibilités et limites ». In *Support Tracé*, 61-67, 2014.

VELIVASAKI, G. «Investigation of the deterioration degree of parchment marked with iron gall inks», *CeROArt* [En ligne], HS | 2014, mis en ligne le 08 septembre 2014, consulté le 28 décembre 2017. URL : http://journals.openedition.org/ceroart/4447

ZEKRGOO, S. «Methods of creating, testing and identifying traditional black Persian inks.» In *Restaurator, International journal for the preservation of library and archival material*, Vol. 35, N. 2, p. 133-158, ill.

2013

DIETZ, G., Brahms, I., Eser, T., Hahn, O. «Dürer's early master drawings : a technical analysis of his inks and papers.» In *Journal of paper conservation*, Vol. 14, N. 3, p. 5-14, ill.

ENG, C. «Examination of an ink drawing by Vincent van Gogh : non-invasive techniques have produced unexpected results». In *Journal of paper conservation*, Vol. 14, N. 4, p. 19-25, ill.

FERRER, N., Sistach, M. C. «Analysis of sediments on iron gall inks in manuscripts.» In *Restaurator: international journal for the preservation of library and archival material*, Vol. 34, N. 3, p. 175-193.

GIACOMELLO, A., Pesaro, A. «Restauro di due codici del XV secolo.» Trieste : Regione Autonoma Friuli Venezia Giulia, Centro di catalogazione e restauro dei beni culturali 2013.

JACOBI, E. «The Dutch Fe-migration mending test». In *Journal of paper conservation*, Vol. 14, N. 4, p. 38, ill.

ROUCHON, V., M. Duranton, O. Belhadj, M. Bastier Desroches, V. Duplat, C. Walbert, B. Vinther Hansen, 2013. «The use of halide charged interleaves for treatment of iron gall ink damaged papers». In *Polymer Degradation and Stability*, 98 (2013).

VEZ, S. «Probatio Pennae : conservation-restauration de deux manuscrits carolingiens dans une reliure gothique remaniée : De Astra Celi et Comes de Murbach, Ms 184, Bibliothèque municipale de Besançon : mise en évidence de l'influence des traitements humides de mise à plat des parchemins sur la migration des encres ferrogalliques». Mémoire de fin d'étude, diplôme de restaurateur su patrimoine. Aubervilliers : Institut national du Patrimoine, 2013.

2012

GUILD, S., Tse, S., Trojan-Bedynski, M. «Technical note on treatment options for iron gall ink on paper with a focus on calcium phytate.» In *Journal of the Canadian Association for Conservation* (CAC), Vol. 37, p.17-21.

MALESIC, J., Kocar, D., Fabjan, A. B. «Stabilization of copper- and iron-containing papers in mildly alkaline environment.» In *Polymer Degradation and Stability*, Vol.97 No.1, p.118-123.

MOZIR, A., Gonzalez, L., Kraij Cigic, I., Wess, T., J., Rabin, I., Hahn O., Strlic. «A study of degradation of historic parchment using small-angle X-ray scattering, synchrotron-IR and multivariate data analysis». *Analytical and Bioanalytical Chemistry*, vol.402, pp. 1559–1566.

PROCEEDINGS EUROPEAN WORKSHOP ON IRON-GALL INK CORROSION, June 16 – 17, 1997, Rotterdam: Museum Boijmans van Beuningen. Amsterdam: Netherlands Institute for Cultural Heritage, 1997, 64 p.

ROUCHON, V. , Letouzey, M., Desroches, M., Duplat, V., Duranton, M., Pellizzi, E., Stordiau-Pallot, J. «Traitement de restauration des manuscrits endommagés par des encres ferrogalliques : atouts et limites du traitement au phytate de calcium.». In *Support tracé*. Revue de l'association pour la recherche scientifique sur les arts graphiques, 2011, 11, pp.106-115. <hal-01447275>

ROUCHON, V., Duplat, V., Desroches, M. «An Aqueous Treatment for Highly Damaged Manuscripts: Minimising the Risk of Mechanical Damage.» In *Journal of paper conservation*, Vol. 13, n° 1.

ROUCHON, V., Duranton, M., Belhadj, O., Cauliez, N., Joly, O., Walbert, C., Vinther Hansen, B. «Conservation de manuscrits altérés par les encres ferrogalliques : faisabilité d'un traitement antioxydant par contact en milieu humide.» In *Actes du colloque Sciences des matériaux du patrimoine culturel* – 2 • Paris, 20 et 21 novembre 2012. Actes publiés en ligne (pdf): <http://www.culturecommunication.gouv.fr/Thematiques/Enseignement-superieur-et-Recherche/La-recherche/Archives/Programme-de-recherche-sur-les-materiaux-du-patrimoine-2003-2013/Actes-du-colloque-Sciences-des-materiaux-du-patrimoine-culturel> [Consulté le 16 janvier 2018]

SIROST, J.-C. *L'encre d'imprimerie : composition, fabrication, propriétés*. Paris : Dunod, 1997, 281 p.

TINTENFRABSCHÄDEN UND IHRE BEHANDLUNG, hrsg. von G. Banik und H. Weber, Stuttgart : W. Kohlhammer, 1999, 308 p. : ill. (Werkhefte der Staatlichen Archivverwaltung Baden-Württemberg. Serie A, Landesarchivdirektion , 10).

TSE, S., Guild, S., G., A. «A comparison of aqueous versus ethanol modified calcium phytate solutions for the treatment of iron gall ink inscribed paper». In *Journal of the Canadian Association for Conservation* (CAC), Vol.37, p. 3-16.

VAN BERGE-GERBAUD, M. «Bistre, encre métallogallique, sépia, encre au carbone ? Tentative de caractérisation de ces encres anciennes» Mària Van Berge-Gerbaud, Alain Duval, Hélène Guicharnaud, Carlo James. In *Technè*, 2007, n° 25, p. 38-44.

2010

DURANTON, Maroussia et al. «Impact de l'anoxie sur la conservation des manuscrits endommagés par les encres ferrogallliques.» In *Support tracé*, 2010, n° 10, p. 114-121.

GERSTEN, T. «La problématique des encres ferro-galliques à travers l'observation d'un manuscrit musical non autographe du 18e siècle», *CeROArt* [En ligne], EGG 1 | 2010, mis en ligne le 17 novembre 2010, consulté le 28 décembre 2017. URL : http://journals.openedition.org/ceroart/1698

HAHN, Oliver. «Analyses of Iron gall and Carbon Inks by Means of X-Ray Fluorescence analysis: a non-detructive approach in the field of archaeometry and conservation science.» In *Restaurator*, 2010, Vol. 31, n° 1, p. 41-64.

ORLANDINI, Valeria. «Affects of aqueous treatments on Nineteenth-Century Iron-Gall-Ink documents: Calcium phytate treatment: optimisation of existing protocols.» In *The Book and paper group annual* : vol. 29 : papers presented at the Book and Paper session, AIC' 38th Annual Meeting, May 11-14, 2010 , Milwaukee, Wisconsin / AIC, 2009, p.137-146.

STEFANIS, E., Panayiotou, C. «Deacidification of documents containing iron gall ink with dispersions of Ca(OH) 2 and MgOH)2 nanoparticles». In *Restaurator*, 2010, vol. 31, n° 1, p. 19-40.

SCIANNA, Nicolangelo. «Restoring paper documents». Chapitre 2. In *Solving cases : books and paper artefact restoration*. Brepols, 2010. p. 41-57.

TSE, S. et al. «Calcium phytate treatment on 19th century iron gall ink documents : overall summary of research results and implications on treatment decisions» [résumé]. In *The Book and paper group annual* : vol. 29 : papers presented at the Book and Paper session, AIC' 38th Annual Meeting, May 11-14, 2010 , Milwaukee, Wisconsin / AIC, 2009, p. 79.

2009

AALDERINK, B. et al. «Clearing the image: a quantitative analysis of historical documents using hyperspectral measurements.» In *The Book and paper group annual* : vol. 28 / AIC. The Book and paper group annual, 2009, n° 28, p. 115-120.

BANIK, G. «Scientific conservation : transfer of scientific research on ink corrosion to conservation practice : does it take place?» In *Restaurator*, 2009, vol. 30, n°s 1 & 2, p. 131-146.

GAMBARO, A. «Study of 19th century inks from archives in the Palazzo Ducale (Venice, Italy) using various analytical techniques». In *Microchemical Journal*, March 2009,Volume 91, Issue 2, p. 202-208.

GLOTZ, D. «Visible (420-720nm) Hyperspectral imaging techniques to access inks in historical documents.» In *Restaurator*, « 2009, vol. 31, n° 3, p. 199-221.

MEYER, F., Neumann, A. «Recombinant proteins, a new material for the chemicalstabilisation of copper pigment corrosion on paper.» In *Restaurator*, 2009, vol. 30, n°s 1 & 2, p .96-130.

PATAKI, A. «Remoistenable tissue preparation and its practical aspects». In *Restaurator*, 2009, vol. 30, n°s 1 & 2, p. 51-69.

ROUCHON ,V. et al. «The Water sensitivity of Iron Gall Ink and its Risk Assessment» In *Studies in conservation*, 2009, vol. 54, n° 4, p. 236-254.

ROUCHON, V., E. Pellizzi, et J. Stordiau. « Les traitements de restauration employés sur des manuscrits comportant des encres ferrogalliques Partie 2 : pertinence des tests préliminaires et migrations de fer provoquées par l'apport d'eau ». *Actualités de la conservation*, nº 28 (2009). http://www.bnf.fr/fr/professionnels/anx_actu_conservation/a.cn_act_num28_art1.html. [Consulté le 9 janvier 2018]

ROUCHON, V. et al. «Restauration de manuscrits comportant des encres ferrogalliques : les risques liés à l'apport d'eau.» *Support Tracé*, 2009, n° 9, p. 90-100.

SEASON, Tse et al. «Effects of Aqueous treatments on 19th c. Iron gall Ink Documents: assessment using hyperspectral imaging.» T*he Book and paper group annual* : vol. 28 /AIC. The Book and paper group annual, ed. Jim Hinz, Whitney Baker, Richard Homer, Orelia Dann, 2009, n° 28, p. 75-82.

TITUS, S. et al. «Stabilising local areas of loss in iron gall ink copy documents from the Savigny Estate.» In *Restaurator*, 2009, vol. 30, n°s 1 & 2, p. 16-50.

2008

ALBRO, S. et al. «Developing guidelines for Iron Gall Ink treatment at the Library of Congress.» In *AIC. The book and paper group*, vol. 27, 2008, p. 129-166.

COURAL, N. et al. «Conservation and digitization of the Lamberty manuscript: the problem of opacity induced by lining [Poster].» In ICOM-CC. Preprints (15 , New Delhi , 2008). 15th Triennial Conference New Delhi, 22-26 September 2008: preprints, p. 325.

DELKE, C., Haude, M. E. «Iron gall ink treatment at the Library of Congress : Old Manuscripts : new tools.» In *AIC. The book and paper group*, vol. 27, 2008, p. 15-26.

HAHN, O. «Influence of aqueous calcium phytate, calcium hydrogen carbonate treatment on the chemical composition of iron gall inks.» In *Restaurator*, 2008, vol. 29, n° 4, p. 235-250.

HUHSMANN, E., Hähner, U. «Work standard for the treatment of 18th and 19th century iron gall ink documents with calcium phytate and calcium hydrogen carbonate.» In *Restaurator*, 2008, vol. 29, n° 4, p. 274-318.

HENNIGES, U., Potthast, A. «Phytate treatment of metallo-gallate inks : investigation of its effectiveness on model and historic paper samples.» In *Restaurator*, 2008, vol. 29, n° 4, p. p. 219-234.

KOLAR, J. et al. «The Study of two humidification and flattening methods for albumen prints to determine their Impact on the Evolution of the Cracks in the Albumen layer.» In *Restaurator,* 2008, vol. 29, n° 3, p. 45-69.

KOLAR, J., Možir, A., Balažic, A., et al. (2008). «New Antioxidants for Treatment of Transition Metal Containing Inks and Pigments.» *Restaurator*, 29 (3), pp. 184-198. Retrieved 15 Nov. 2017, from doi:10.1515/rest.2008.013

LEE, A. S. et al. Identification of iron-gall inks with near-infrared Raman microspectroscopy. In *Journal of Raman spectroscopy* , 2008, vol. 39, no. 8, p. 1079-1084.

REISSLAND, B. «Preparation of 500 ml of 2 % of gelatine» [document électronique) : May 2007 /, 2 P. Document en ligne : < https://irongallink.org/images/file/pdf%207_gelatine%20solution_ok.pdf> [consulté le 16 janvier 2018]

ROUCHON, V. et al. «Iron gall ink aqueous treatments:

measurement of elemental changes by proton induced x-ray emission.» In *PapierRestaurierung: Mitteilungen der IADA* 9, 2008, no. 2, p. 18-28

ROUCHON, V.. «La table ronde : de la théorie à la pratique.» In *Support tracé*, 2008, n° 8, p. 145-148.

ROUCHON, V. «La restauration des manuscrits comprenant des encres ferrogalliques : État de la recherche.» Présentation aux Journées du Patrimoine écrit, 25-26 septembre 2008. Pdf en ligne: <http://www.patrimoineecrit.culture.gouv.fr/files/jpe/2008/rouchon.pdf> [consulté le 16/01/2018]

ROUCHON, V. et al. «Possibilities and impossibilities of aqueous treatments performed on severely damaged manuscripts» [poster] / [Poster] In ICOM-CC. Preprints (New Delhi , 2008) 15th Triennial Conference New Delhi, 22-26 September 2008: preprints , p. 326.

TSE, S. and Waller, R. «Developing a risk assessment model for iron gall ink on paper.» In ICOM. CC. 15th triennial conference, New Delhi, 22-26 September 2008: preprints/ Bridgland, Janet (Editor). ICOM Committee for Conservation, 2008, p. 301-309

TITUS, S. et al. «Stabilising local areas of loss in iron gall ink copy documents from the Savigny Estate.» In *Restaurator*, 2008, vol. 30, n°s 1 & 2, p. 16-50.

2007

CSÉFALVAYOVÁ, L. et al. « The influence of iron gall ink on paper ageing ». In Restaurator, 2007, 28, no. 2, p. 129-139.

FAUBEL, W. et al. «Non-destructive analysis for the investigation of decomposition phenomena of historical manuscripts and prints» . In Spectrochimica Acta Part B: Atomic Spectroscopy , July 2007, Volume 62, Issues 6-7, p. 669-676.

HAVLÍNOVÁ, Bohuslava et al. «The influence of iron gall ink on paper ageing.» In Restaurator: 2007, vol. 28, n° 2, p. 129-139.

HUHSMANN, Enke & Hähner, Ulrike. «Work standard for the treatment of 18th and 19th century iron gall ink documents with calcium phytate and calcium hydrogen carbonate .» In Restaurator, 2007, vol. 29, n° 4, p. 274-318.

HUHSMANN, Enke ,Hähner, Ulrike. «Technical note : Application of the non-woven viscose fabric paraprint OL 60 for float screen washing of documents damaged by iron gall ink corrosion». In Restaurator, 2007, vol. 28, n°2, p. 140-151.

JAKUBÍKOVÁ, Z. «The influence of iron gall ink on paper ageing». In Restaurator, 2007, vol. 28, n°2 p. 129-139.

JANCOVICOVA, V., Ceppan, M., Havlinova, B., Rehakova, M., Jakubikova, Z. « Interactions in iron gall inks » in Chemical Papers, vol. 61, 2007, pp. 391-397.

KOLAR, J. et al. «Historical iron gall ink containing documents : Properties affecting their condition.» In Analytica chimica acta, 2006, n° 555, p. 167-174.

KOLAR, J. et al. «Stabilisation of iron gall ink : aqueous treatment with magnesium phytate.» In e-Preservation, 2007, n° 4, p. p. 19-24.

KOLAR, J. et al. «The conservation of historical documents carrying iron gall ink by antioxidants.» In Restaurator, 2007, vol. 28, n°2 p. 112-128.

LA CAMERA, D. «Crystal formations within iron gall ink: observations and analysis.» In Journal of the American Institute for Conservation, 2007, vol. 46, n° 2, p. 153-174.

MAITLAND, C. L. «Where archival and fine art conservation meet : antioxidant and deacidification treatments of corrosive copper watercolours and copper- containing iron gall inks.» Kingston, Ont. : Queen's University (Kingston, Ont.), 2007, 19 p.

ROGER, P., Barrandon, J.-N. «Étude technique d'encres de manuscrits du 12e siècle conservés à la bibliothèque de Troyes. In Matériaux du livre médiéval : colloque du groupement de recherche 2836», mercredi 7 et jeudi 8 novembre 2007, Brepols, 2010, p. 279-316.

SMITH, C. «George Washington's last will and testament: the manuscript and a pioneering restoration». In Journal of the American Institute for Conservation, Spring 2007, vol. 46, n°1, p. 1-14.

SMITH, C. George Washington's last will and testament: conservation and rehousing. In Journal of the American Institute for Conservation, Spring 2007,vol. 46, n°1, p. 15-26.

ROUCHON, V., B. Durocher, M. Letouzey, et S.T. Pallot. 2007. «Les traitements de restauration employés sur des manuscrits comportant des encres ferrogalliques. Partie 1/ examen visuel des phénomènes de migration provoqués par l'emploi d'eau». In *Actualités de la conservation*, nº 26 (janvier-décembre). http://multimedia.bnf.fr/actus_conservation/cn_act_num26_art1.htm. [Consulté le 9 janvier 2018]

VEST, M., Jacobsen J., Larsen R. « Accelerated ageing: effect of heat and relative humidity », Improved damage assessment of parchment (IDAP) : Assessment, data collection and sharing of knowledge, Research Report No.18, 2007, pp.67-68.