

Resource guide | "From Eye to XRF: Material Investigation of the Islamic Manuscript Heritage"

Materials & Technologies, 'Introducing Islamic Manuscripts' Seminar Series, 5th February 2014

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Introductory Bibliography (Analytical material investigation of the Islamic manuscript heritage)

Artioli, Gilberto. *Scientific Methods and Cultural Heritage: An Introduction to the Application of Materials Science to Archaeometry and Conservation Science*. Oxford: Oxford University Press, 2010.

Ciliberto, E. and G. Spoto, Eds. *Modern Analytical Methods in Art and Archaeology*. New York: Wiley, 2000.

Déroche, François et al. *Islamic Codicology: An Introduction to the Study of Manuscripts in Arabic Script*. London: Al-Furqān Islamic Heritage Foundation, 2006.

Guineau, Bernard and Jean Vezin. "Laboratory Techniques for Studying Manuscripts." In François Déroche, et al, *Islamic Codicology: An Introduction to the Study of Manuscripts in Arabic Script* (London: Al-Furqān Islamic Heritage Foundation, 2006): 20-23.

Jarjis, Raik. "Ion Beam Codicology: Its Potential in Developing Scientific Conservation of Islamic Manuscripts." In *The Conservation and Preservation of Islamic Manuscripts. Proceedings of the Third Conference of al-Furqān Islamic Heritage Foundation, 18-19th November 1995*, Ed. Yusuf Ibish and George Atiyeh. (London: al-Furqān Islamic Heritage Foundation, 1996): 93-117.

Nesmerak, Karel and Irena Nemcova. "Dating of Historical Manuscripts Using Spectrometric Methods: A Mini-Review." *Analytical Letters* 45, 4 (2012): 330-344.

Stuart, Barbara H. *Analytical Techniques in Materials Conservation*. Hoboken, NJ : John Wiley & Sons, c2007.

Tanselle, G. Thomas. *Bibliographical Analysis: A Historical Introduction*. Cambridge: Cambridge University Press, 2009.

Conference Proceedings

International Conference on Natural Sciences and Technology in Manuscript Analysis. Centre for the Study of Manuscript Cultures (CSMC), University of Hamburg, 4-6 December 2013.

<http://www.manuscript-cultures.uni-hamburg.de/cal-details/Natural%20Sciences%202013%20Programme.pdf>

Les techniques de laboratoire dans l'étude des manuscrits [actes du colloque international], Paris, 13-15 septembre 1972. Paris: Centre National de la Recherche Scientifique, 1974.

Fossier, Lucie and Jean Irigoin, Eds. *Dechiffrer les écritures effacées: actes de la table ronde*. Paris: Centre National de la Recherche Scientifique, 1990.

Pigments et colorants de l'Antiquité et du Moyen Âge: Teinture, peinture, enluminure, études historiques et physico-chimiques. Paris: Editions du CNRS, 1990.

Maniaci, Marilena Maniaci and Paola F. Munafo, Eds. *Ancient and Medieval Book Materials and Techniques (Erice, 18-25 September 1992)*. Studi e Testi 357-358. Città del Vaticano: Biblioteca Apostolica Vaticana, 1993. 2 vols.

Brownrigg, Linda L., Ed. *Making the Medieval Book: Techniques of Production. Proceedings of the Fourth Conference of the Seminar in the History of the Book to 1500, Oxford, July 1992*. Los Altos Hills, CA: Anderson-Lovelace; London: Red Gull Press, 1995.

Enclosures

(see also the numerous structural studies, esp. for the codex format, many of which are referenced under “Bindings and Bookmaking” at <http://guides.lib.umich.edu/islamicmsstudies/readinglists>)

Abdel-Maksoud, Gomaa. "Analytical Techniques Used for the Evaluation of a 19th Century Quranic Manuscript Conditions." *Measurement* 44, 9 (November 2011): 1606-1617

Espejo, Teresa, et al. "Microscopic and Spectroscopic Techniques for the Study of Paper Supports and Textile Used in the Binding of Hispano-Arabic Manuscripts from al-Andalus: A Transition Model in the 15th Century." *Journal of Cultural Heritage* 11, 1 (2010): 50-58.

Hayez, V., S. Denoël, Z. Genadry, and B. Gilbert. "Identification of Pigments on a 16th Century Persian Manuscript by Micro-Raman Spectroscopy." *Journal of Raman Spectroscopy* 35, 8-9 Special Issue: Raman spectroscopy in Art and Archaeology (August-September 2004): 781-785.

Media

Artists' Pigments: A Handbook of Their History and Characteristics. Washington : National Gallery of Art, c1986-

Barkeshli, Mandana, Ghasem Ataie, and Mahmood Alimohammadi. "Historical Analysis of Materials Used in Iranian Paper Dyeing With Special Reference to the Effect of Henna Dye on Paper Based on Scientific Analysis." *ICOM Committee for Conservation, 15th Triennial Conference, New Dehli, 22-26 September 2008, preprints vol.1* (2008): 255-263.

Bell, Ian M., Robin J.H. Clark, and Peter J. Gibbs. "Raman Spectroscopic Library of Natural and Synthetic Pigments (pre- ~1850 AD)." *Spectrochimica Acta Part A* 53 (1997): 2159-2179.

>> cached copy of spectroscopic library available at <http://www.chem.ucl.ac.uk/resources/raman/index.html>

Burgio, Lucia, Robin J.H. Clark, Vania S.F. Muralha, and Tim Stanley. "Pigment analysis by Raman microscopy of the non-figurative illumination in 16th- to 18th-century Islamic manuscripts." *Journal of Raman Spectroscopy* 39, 10 (2008): 1482-1493.

Clarke, Mark. "The Analysis of Medieval European Manuscripts." *Reviews in Conservation* 2 [= *Studies in Conservation* 46, Supplement 1] (2001): 3-17.

Guineau, Bernard (with François Déroche, Marie-Geneviève Guesdon, and Annie Vernay-Nouri). "Colouring materials in Maghribi manuscripts from the sixth/twelfth to the ninth/fifteenth century: fundamentals of identification and comparison." In François Déroche, et al, *Islamic Codicology: An Introduction to the Study of Manuscripts in Arabic Script* (London: Al-Furqān Islamic Heritage Foundation, 2006): 119-153.

Hayez, V., S. Denoël, Z. Genadry, and B. Gilbert. "Identification of Pigments on a 16th Century Persian Manuscript by Micro-Raman Spectroscopy." *Journal of Raman Spectroscopy* 35, 8-9 Special Issue: Raman spectroscopy in Art and Archaeology (August-September 2004): 781-785.

Kakuee, Omidreza, et al. "External PIXE analysis of an Iranian 15th century poetry book." *Nuclear Instruments and Methods in Physics Research Section B: Beam Interactions with Materials and Atoms* 273 (2012): 178-181.

Muralha, Vania S.F., Lucia Burgio, and Robin J.H. Clark. "Raman spectroscopy analysis of pigments on 16-17th c. Persian manuscripts." *Spectrochimica Acta Part A* 92 (15 June 2012): 21-28.

Pallipurath, Anuradha, Jonathan Skelton, Paola Ricciardi, Spike Bucklow, and Stephen Elliott. "Multivariate Analysis of Combined Raman and Fibre-optic Reflectance Spectra for the Identification of Binder Materials in Simulated Medieval Paints." *Journal of Raman Spectroscopy* 44, 6 (June 2013): 866-874.

Porter, Cheryl. "The Science of Color: Color Analysis and the Roles of Economics, Geography, and Tradition in the Artist's Choice of Colors for Manuscript Painting." In *And Diverse are Their Hues: Color in Islamic Art and Culture*, Eds. Jonathan Bloom and Sheila Blair (New Haven & London: Yale University Press, 2011): 205-221.

Ricciardi, Paola, John K. Delaney, Michelle Facini, and Lisha Glinsman. "Use of Imaging Spectroscopy and In Situ Analytical Methods for the Characterization of the Materials and Techniques of 15th Century Illuminated Manuscripts." *Journal of the American Institute for Conservation* 52, 1 (2013): 13-29.

Ricciardi, Paola, John K. Delaney, Michelle Facini, Jason G. Zeibel, Marcello Picollo, Suzanne Lomax, and Murray Loew. "Near Infrared Reflectance Imaging Spectroscopy to Map Paint Binders In Situ on Illuminated Manuscripts." *Angewandte Chemie International Edition* 51, 23 (2012): 5607-5610.

Ricciardi, Paola, Anuradha Pallipurath and Kristine Rose. "'It's Not Easy Being Green': A Spectroscopic Study of Green Pigments Used in Illuminated Manuscripts." *Analytical Methods* 5, 16 (2013): 3819-3824.

Writing material

(see also the more numerous morphological studies many of which are referenced under "Papers & Papermaking" at <http://guides.lib.umich.edu/islamicmsstudies/readinglists>)

Bicchieri, Marina. "Paper." In Gilberto Artioli, *Scientific Methods and Cultural Heritage: An Introduction to the Application of Materials Science to Archaeometry and Conservation Science* (Oxford: Oxford University Press, 2010): 384-395.

Irigoin, Jean. "Les papiers non filigranés: état présent des recherches et perspectives d'avenir." In *Ancient and Medieval Book Materials and Techniques* (Erice, 18-25 September 1992). *Studi e Testi* 357-358, Eds. Marilena Mariaci and Paola F. Munafo (Città del Vaticano: Biblioteca Apostolica Vaticana, 1993), vol. I 265-315.

Kropf, Evyn and Cathleen Baker. "A Conservative Tradition? Arab Papers of the 12th-17th Centuries from the Islamic Manuscripts Collection at the University of Michigan." *Journal of Islamic Manuscripts* 4, 1 (2013): 1-48.

Other Bibliographies & Databases

AATA Online Abstracts of International Conservation Literature
<http://aata.getty.edu/Home>

BCIN Bibliographic Database of the Conservation Information Network
http://www.bcin.ca/English/home_english.html

Brill, Laura. Indian Handmade Paper Bibliography. Available online at
<http://www.islamicmanuscript.org/extresources/bibliographies/IndianHandmadePaper.pdf>

Hepworth, Paul. Bibliography on Islamic Papers, Book Structures, Pigments and their Conservation. Available online at <http://www.islamicmanuscript.org/extresources/bibliographies/ConservationBibliographies.html>

Infrared & Raman Users Group (IRUG) | <http://www.irug.org/>
Spectral Database | <http://www.irug.org/search-spectral-database>
Bibliography | <http://www.irug.org/search-irug-bibliography>

Jacobs, David. Islamic Bibliography [Bookbinding, Conservation, Paper, Painting, Calligraphy and Qurans, History]. Available online at <http://www.islamicmanuscript.org/extresources/bibliographies/ArtsOfTheBook.pdf>

Kropf, Evyn. Islamic Manuscript Studies Research Guide. Available online at <http://guides.lib.umich.edu/islamicmsstudies>
esp. "Reading Lists" at <http://guides.lib.umich.edu/islamicmssstudies/readinglists>
and "Bibliographical Resources" at <http://guides.lib.umich.edu/islamicmsstudies/bibres>

Opportunities for Further Training

- Introductory codicology courses offered by François Deroche, Jan Just Witkam, and Adam Gacek, many of which are sponsored by The Islamic Manuscript Association (TIMA) in collaboration with a local university or institute. A number of American universities have recently begun hosting such courses as well (e.g. Stanford, Princeton).
 - More advanced codicology courses occasionally sponsored by TIMA and/or offered at universities, institutes, and book schools.
 - Courses involving hands-on workshops for making structural models and pigments (and even applying them in illuminations, etc.) such as:
 - those organized by Cheryl Porter at the Montefiascone Summer Study Programme (esp. her "Re-creating the Medieval Palette" and book structure courses offered by John Mumford, Ana Beny, Marco di Bella, Kristine Rose with Elaine Wright, Alison Ohta etc.)
 - Anita Chowdry's occasional seminars
 - "A Look at the World of Islamic Bookbinding" (offered at last summer's Paper and Book Intensive in Saugatuck, MI) and similar courses with Yasmeen Khan
 - "Islamic Bookbinding" with Katherine Beaty (offered last year by the American Academy of Bookbinding)
 - conservation institute workshops (such as "Legatura MediOrientale" given by last year by Kristine Rose at the International Institute of Conservation / Gruppo Italiano) and "Identification of Paper" with Peter Bower organized by International Academic Projects in London and to be offered later this summer (<http://www.academicprojects.co.uk/course-details.php?courseID=727>)
 - Bench training, practicums or internships with practicing conservators and research scientists at local institutions
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Organizations & Research Initiatives to Follow

The Islamic Manuscript Association (TIMA), Cambridge, UK
<http://www.islamicmanuscript.org/>

- Sponsored courses and workshops, annual conference, bibliographies, Twitter feed, etc.

Comparative Oriental Manuscript Studies (COMSt)
<http://www1.uni-hamburg.de/COMST/index.html>

Team 1 "Material aspects: codicology and palaeography" (<http://www1.uni-hamburg.de/COMST/team1.html>)

Team 5 "Preservation and conservation" (<http://www1.uni-hamburg.de/COMST/team5.html>)

- Closing conference to be held next month (18-20 March 2014, Hamburg) but initiative has offered mailing list, newsletter, and workshops and will soon release a handbook for work with Oriental MSS

Centre for the Study of Manuscript Cultures (CMSC), Hamburg, Germany
<http://www.manuscript-cultures.uni-hamburg.de/>

- Formal courses and research fellowships, lectures, conferences and workshops including the recent international conference "Natural Sciences and Technology in Manuscript Analysis" held last December

MINIARE (Manuscript Illumination Non-Invasive Analysis Research and Expertise), Cambridge UK
<http://www.miniare.org/index.php>

International Institute for Conservation of Historic and Artistic Works
<http://www.iiconervation.org>

l'École de l'Institut d'histoire du livre

<http://ihl.enssib.fr/cole-de-l-ihl>

- School offered annually with courses in French or English, this year's school (the 11th) features a course on Oriental bindings ("coptes, éthiopiennes, syriaques, islamiques, byzantines et arménienes") taught by François Vinourd of the Centre de Conservation du livre à Arles (which also offers annual training courses).

Centre de Conservation du livre à Arles

<http://www.ccl-fr.org/>

- Unfortunately recently declared bankruptcy but still to offer training courses from May of this year (2014)