

# UCLQG213: Introduction to Conservation Practice

[View Online](#)

- 
1.  
Caple, C. Conservation skills: judgement, method and decision making. (Routledge, 2000).
  2.  
Cleaning [Science For Conservators]. vol. 2 (Conservation Unit of the Museums & Galleries Commission in conjunction with Routledge, 1992).
  3.  
Adhesives and coatings [Science For Conservators]. vol. Science for conservators (The Conservation Unit of the Museums & Galleries Commission in conjunction with Routledge, 1992).
  4.  
Buys, S. & Oakley, V. The conservation and restoration of ceramics. (Butterworth-Heinemann, 1993).
  5.  
Cronyn, J. M. The elements of archaeological conservation. (Routledge, 1990).
  6.  
Davison, S. Conservation and restoration of glass. (Butterworth-Heinemann, 2003).

7.

Hansen, E. A review of selected inorganic consolidants and protective treatments for porous calcareous materials. *Studies in conservation* **48**, 13–25 (2003).

8.

Stephen P. Koob & Corning Museum of Glass. *Conservation and care of glass objects*. (Archetype in association with the Corning Museum of Glass, 2006).

9.

Larson, J. The conservation of stone sculpture in museums. in *Conservation of building and decorative stone* (eds. Ashurst, J. & Dimes, F. G.) vol. Part 2 197–207 (Butterworth-Heinemann, 1998).

10.

*Restoration: is it acceptable?* (British Museum Department of Conservation, 1994).

11.

Price, C. A. Conservation of architectural sculpture. in *The Romanesque frieze and its spectator: the Lincoln symposium papers* (ed. Kahn, D.) (H. Miller Publishers, 1992).

12.

Pye, E. *Caring for the past: issues in conservation for archaeology and museums*. (James & James, 2001).

13.

Buys, S. & Oakley, V. Examination and recording. in *The conservation and restoration of ceramics* vol. Butterworth-Heinemann series in conservation and museology 40–59 (Butterworth-Heinemann, 1993).

14.

Cleaning [Science For Conservators]. vol. 2 (Conservation Unit of the Museums & Galleries Commission in conjunction with Routledge, 1992).

15.

Buys, S. & Oakley, V. Cleaning. in The conservation and restoration of ceramics vol. 1993 (Butterworth-Heinemann, 1993).

16.

Koob, S. P. Cleaning glass. in Conservation and care of glass objects (Archetype in association with the Corning Museum of Glass, 2006).

17.

J. Johnson et al. Identification of chemical and physical change during acid cleaning of ceramics. in Materials issues in art and archaeology IV: Cancun, Mexico, May 16-20, 1994 (ed. Pamela B. Vandiver et al.) 831-837 (Materials Research Society, 1995).

18.

Costaras, N. & Turnbull, R. Master Bertram's Apocalypse triptych: to clean or not to clean. Conservation journal (2009).

19.

Williams, N. Dismantling and cleaning. in Porcelain repair and restoration: [a handbook] 30-47 (British Museum, 1983).

20.

Paterakis, A. B. The deterioration of ceramics by soluble salts and methods for monitoring their removal. in Recent advances in the conservation and analysis of artifacts: jubilee conservation conference papers 67-72 (Summer Schools Press [for] University of London Institute of Archaeology, 1987).

21.

Paterakis, A. B. The desalination of consolidated ceramics. in Glass, ceramics and related materials (ed. Paterakis, A. B.) 144–153 (EVTEK Institute of Art and Design, Dept. of Conservation Studies, 1998).

22.

Julie Unruh. A revised endpoint for ceramics desalination at the archaeological site of Gordion, Turkey. *Studies in Conservation* **46**, 81–92 (2001).

23.

Jang, S. et al. Desalination characteristics for ceramics excavated from Tae'an shipwreck, Korea. *Journal of Cultural Heritage* **14**, 229–237 (2013).

24.

Koob, S. P. & Ng, W. Y. The desalination of ceramics using a semi-automated continuous washing station. *Studies in Conservation* **45**, 265–273 (2000).

25.

MacLeod, I. D. & Davies, J. A. Desalination of glass, stone and ceramics recovered from shipwreck sites. in Preprints [of the] 8th Triennial Meeting ICOM Committee for Conservation, Sydney, Australia, 6–11 September 1987 vol. 3 (Getty Conservation Institute [on behalf of the ICOM Committee for Conservation], 1987).

26.

Muros, V. & Hirx, J. The use of cyclododecane as a temporary barrier for water-sensitive ink on archaeological ceramics during desalination. *Journal of the American Institute for Conservation* **43**, 75–89 (2004).

27.

Burden, L., Smith, C., Calcutt, P. & Henderson, M. The reconservation of 105 Bronze age ceramics. *The Conservator* **28**, 37–46 (2004).

28.

Down, J. L., MacDonald, M. A., Tétreault, J. & Williams, R. S. Adhesive Testing at the Canadian Conservation Institute: An Evaluation of Selected Poly(Vinyl Acetate) and Acrylic Adhesives. *Studies in Conservation* **41**, 19–44 (1996).

29.

Horie, C. V. *Materials for conservation: organic consolidants, adhesives and coatings*. (Butterworth-Heinemann, 2010).

30.

Koob, S. P. Paraloid B-72: 25 years of use as a consolidant and adhesive for ceramics and glass. in *Holding it all together: ancient and modern approaches to joining, repair and consolidation* (ed. Ambers, J.) 113–119 (Archetype Publications in association with the British Museum, 2009).

31.

Nel, P. A preliminary investigation into the identification of adhesives on archaeological pottery. *AICCM Bulletin* **30**, 27–37 (2006).

32.

P. Nell et al. New conservation, education and research roles for a university Cypriot pottery collection. *Museums Australia National Conference 2010. Interesting times: new roles for collections 28 September–2 October 2010 University of Melbourne* (2010).

33.

Alexiou, K., Müller, N. S., Karatasios, I. & Kilikoglou, V. The performance of different adhesives for archaeological ceramics under mechanical stress. *Applied Clay Science* **82**, 10–15 (2013).

34.

Holding it all together: ancient and modern approaches to joining, repair and consolidation. (Archetype Publications in association with the British Museum, 2009).

35.

Feller, R. L. & Wilt, M. Evaluation of Cellulose Ethers for Conservation (1990) - ethers.pdf. (The Getty Conservation Institute, 1990).

36.

Michaela Neiro. Adhesive replacement: potential new treatment for stabilization of archaeological ceramics. *Journal of the American Institute for Conservation* **42**, 237–244 (2003).

37.

Restoration: is it acceptable? (British Museum Department of Conservation, 1994).

38.

Buys, S. & Oakley, V. Replacement of lost material. in *The conservation and restoration of ceramics* vol. Butterworth-Heinemann series in conservation and museology 119–138 (Butterworth-Heinemann, 1993).

39.

Koob, S. Detachable plaster restorations for archaeological ceramics. in *Recent advances in the conservation and analysis of artifacts: jubilee conservation conference papers* 63–66 (Summer Schools Press [for] University of London Institute of Archaeology, 1987).

40.

Stephen Koob. Obsolete fill materials found on ceramics. *Journal of the American Institute for Conservation* **37**, 49–67 (1998).

41.

Risser, E. A New Technique fo the Casting of Missing Areas in Glass Restoration. *Journal of Conservation and Museum Studies* **3**, (1997).

42.

Jonathan Thornton. A brief history and review of the early practice and materials of gap-filling in the west. *Journal of the American Institute for Conservation* **37**, 3-22 (1998).

43.

Restoration: is it acceptable? (British Museum Department of Conservation, 1994).

44.

Davison, S. & Newton, R. G. *Conservation and restoration of glass*. vol. Butterworth-Heinemann series in conservation and museology (Butterworth-Heinemann, 2003).

45.

Davison, S. Historic cut-glass chandeliers: recording and conservation. in *The conservation of glass and ceramics: research, practice and training* (ed. Tennent, N. H.) 208-216 (James & James, 1999).

46.

Fletcher, P. J., Freestone, I. & Geschke, R. Analysis and conservation of a weeping glass scarab. *The British Museum technical research bulletin* **2**, 45-48 (2008).

47.

Oakley, V. Five years on: a reassessment of aspects involved in the conservation of glass objects for a new gallery at the Victoria and Albert Museum. in *The conservation of glass and ceramics: research, practice and training* (ed. Tennent, N. H.) 217-228 (James & James, 1999).

48.

Oakley, V. Vessel glass deterioration at the Victoria and Albert museum: Surveying the collection. *The Conservator* **14**, 30–36 (1990).

49.

Altavilla, C., Ciliberto, E., La Delfa, S., Panarello, S. & Scandurra, A. The cleaning of early glasses: investigation about the reactivity of different chemical treatments on the surface of ancient glasses. *Applied Physics A* **92**, 251–255 (2008).

50.

Koob, S. P. Cleaning glass. in *Conservation and care of glass objects* (Archetype in association with the Corning Museum of Glass, 2006).

51.

Carmona, N., Wittstadt, K. & Römich, H. Consolidation of paint on stained glass windows: comparative study and new approaches. *Journal of Cultural Heritage* **10**, 403–409 (2009).

52.

Davison, S. & Newton, R. G. *Conservation and restoration of glass*. vol. Butterworth-Heinemann series in conservation and museology (Butterworth-Heinemann, 2003).

53.

Sandra Davison. Reversible fills for transparent and translucent materials. *Journal of the American Institute for Conservation* **37**, 35–47 (1998).

54.

Koob, S. Detachable plaster restorations for archaeological ceramics. in *Recent advances in the conservation and analysis of artifacts: jubilee conservation conference papers* 63–66 (Summer Schools Press [for] University of London Institute of Archaeology, 1987).



55.

Martinez, B., Pasies, T. & Peiro, M. A. Reversibility and minimal intervention in the gap-filling process of archaeological glass. e-conservation magazine (2011).

56.

Costa, V. The deterioration of silver alloys and some aspects of their conservation. Studies in Conservation **46**, 18–34 (2001).

57.

Radiography of cultural material. (Elsevier Butterworth-Heinemann, 2005).

58.

English Heritage. Guidelines on the X-radiography of archaeological metalwork. (2006).

59.

Watkinson, D. Conservation, corrosion science and evidence-based preservation strategies for metallic heritage artefacts. in Corrosion and conservation of cultural heritage metallic artefacts (ed. Philippe Dillmann ... [et al.]) (Woodhead Publishing, 2013).

60.

Bertholon, R. Archaeological metal artefacts and conservation issues: long-term corrosion studies. in Corrosion of metallic heritage artefacts: investigation, conservation and prediction for long term behaviour (ed. P. Dillmann ... [et al.]) vol. European Federation of Corrosion publications (Woodhead Pub, 2007).

61.

Khatibul Huda. A Note on the efficacy of ethylenediaminetetra-acetic acid disodium salt as a stripping agent for corrosion products of copper. Studies in Conservation **47**, 211–216 (2002).

62.

Matteini, M., Lalli, C., Tosini, I., Giusti, A. & Siano, S. Laser and chemical cleaning tests for the conservation of the Porta del Paradiso by Lorenzo Ghiberti. *Journal of Cultural Heritage* **4**, 147–151 (2003).

63.

Glenn Wharton, Susan Lansing Maish and William S. Ginell. A comparative study of silver cleaning abrasives. *Journal of the American Institute for Conservation* **29**, 13–31 (1990).

64.

The Getty Conservation Institute. Gels cleaning research (1998-2003).  
[http://www.getty.edu/conservation/our\\_projects/science/gels/](http://www.getty.edu/conservation/our_projects/science/gels/).

65.

Wolbers, R. *Cleaning painted surfaces: aqueous methods*. (Archetype, 2000).

66.

Wolbers, R. *The use of gels in aqueous conservation of paper*. (2013).

67.

*Cleaning [Science For Conservators]*. vol. 2 (Conservation Unit of the Museums & Galleries Commission in conjunction with Routledge, 1992).

68.

Cano, E. & Lafuente, D. Corrosion inhibitors for the preservation of metallic heritage artefacts. in *Corrosion and Conservation of Cultural Heritage Metallic Artefacts* 570–594 (Elsevier, 2013). doi:10.1533/9781782421573.5.570.

69.

Golfomitsou, S. Synergistic effects of additives to benzotriazole solutions applied as corrosion inhibitors to archaeological copper and copper alloy artefact. (University College London Institute of Archaeology, 2006).

70.

Golfomitsou, S. & Merkel, J. F. Synergistic effects of corrosion inhibitors for copper and copper alloy archaeological artefacts. in Metal 04 [Proceedings of the International Conference on Metals Conservation: Canberra, Australia, 4-8 October 2004] (eds. Ashton, J. & Hallam, D.) 344–367 (National Museum of Australia, 2004).

71.

Rimmer, M., Watkinson, D. & Wang, Q. The efficiency of chloride extraction from archaeological iron objects using deoxygenated alkaline solutions. *Studies in Conservation* **57**, 29–41 (2012).

72.

Guilminot, E. et al. Influence of crucial parameters on the dechlorination treatments of ferrous objects from seawater. *Studies in Conservation* **57**, 227–236 (2012).

73.

Rimmer, M., Watkinson, D. & Wang, Q. The impact of chloride desalination on the corrosion rate of archaeological iron. *Studies in Conservation* **58**, 326–337 (2013).

74.

Watkinson, D. & Lewis, M. T. Desiccated storage of chloride-contaminated archaeological iron objects. *Studies in Conservation* **50**, 241–252 (2005).

75.

Watkinson, D., Rimmer, M. B. & Kergourlay, F. Alkaline desalination techniques for archaeological iron. in *Corrosion and Conservation of Cultural Heritage Metallic Artefacts* 407–433 (Elsevier, 2013). doi:10.1533/9781782421573.5.407.

76.

Costa, V. The deterioration of silver alloys and some aspects of their conservation. *Studies in Conservation* **46**, 18–34 (2001).

77.

Drews, M. J., González-Pereyra, N. G., Mardikian, P. & de Viviés, P. The application of subcritical fluids for the stabilization of marine archaeological iron. *Studies in Conservation* **58**, 314–325 (2013).

78.

Sease, C., Selwyn, L. S., Zubiate, S., Bowers, D. F. & Atkins, D. R. Problems with coated silver: whisker formation and possible filiform corrosion. *Studies in Conservation* **42**, 1–10 (1997).

79.

Justo-Estebarez, A. et al. Analysis of the restoration of an historical organ: the case study of the Cavaillé-Coll organ of La Merced Church in Burgos, Spain. *Studies in Conservation* **57**, 21–28 (2012).

80.

Dorothy H. Abramitis. Statue of an old woman: a case study in the effects of restorations on the visual aspect of sculpture. *The Metropolitan Museum of Art Bulletin* **55**, 30–37 (1998).

81.

Cooper, M. & Larson, J. The use of laser cleaning to preserve patina on marble sculpture. *The Conservator* **20**, 28–36 (1996).

82.

D'Armada, P. & Hirst, E. Nano-lime for consolidation of plaster and stone. *Journal of Architectural Conservation* **18**, 63–80 (2012).

83.

Dinsmore, J. Conservation and storage: stone. in *Manual of curatorship: a guide to museum practice* (ed. Thompson, J. M. A.) 364–368 (Butterworth-Heinemann, 1992).

84.

Price, C. A. & Doehne, E. F. *Stone conservation: an overview of current research* [2nd edition]. vol. *Research in conservation* (Getty Conservation Institute, 2010).

85.

Eric Hansen et al. A review of selected inorganic consolidants and protective treatments for porous calcareous materials. *Reviews in conservation* (2003).

86.

*Stone conservation: principles and practice.* (Donhead, 2006).

87.

Jenkins, I. *Cleaning and controversy: the Parthenon sculptures 1811-1939.* vol. *The British Museum occasional paper* (British Museum, 2001).

88.

Larson, J. The conservation of stone sculpture in museums. in *Conservation of building and decorative stone* (eds. Ashurst, J. & Dimes, F. G.) vol. Part 2 197–207 (Butterworth-Heinemann, 1998).

89.

Michele Marincola. A standing virgin at the cloisters: the conservation and restoration of a medieval alabaster. *The Metropolitan Museum of Art Bulletin* **55**, 38–45 (1998).

90.

Price, C. A. & Getty Conservation Institute. Stone conservation: an overview of current research. (Getty Conservation Institute, 1996).

91.

Agnew, N. & Maekawa, S. Preserving Nefertari's legacy. Scientific American (1999).

92.

Allanbrook, T. & Normandin, K. C. The restoration of the Fifth Avenue facades of the Metropolitan Museum of Art. APT Bulletin **38**, 45–53 (2007).

93.

Allemand, L. & Bahn, P. G. Best way to protect rock art is to leave it alone. Nature **433**, 800–800 (2005).

94.

Conservation of building and decorative stone. vol. Butterworth-Heinemann series in conservation and museology (Butterworth-Heinemann, 1998).

95.

Cardiano, P., Ponterio, R. C., Sergi, S., Lo Schiavo, S. & Piraino, P. Epoxy-silica polymers as stone conservation materials. Polymer **46**, 1857–1864 (2005).

96.

Franco Cariati, Laura Rampazzi, Lucia Toniolo and Andrea Pozzi. Calcium oxalate films on stone surfaces: experimental assessment of the chemical formation. Studies in Conservation **45**, 180–188 (2000).

97.

Charola, A. E. & Ware, R. Acid deposition and the deterioration of stone: a brief review of a broad topic. in Natural stone, weathering phenomena, conservation strategies and case studies (eds. Siegesmund, S., Weiss, T. & Vollbrecht, A.) vol. Geological Society special publication 393–406 (Geological Society, 2002).

98.

Constantinides, I. Traditional lime plaster: myths, preconceptions and the relevance of good practice. The Building Conservation Directory (1995).

99.

Cooper, M. I., Emmony, D. C. & Larson, J. Characterization of laser cleaning of limestone. Optics & Laser Technology **27**, 69–73 (1995).

100.

Degryse, P., Elsen, J. & Waelkens, M. Study of ancient mortars from Sagalassos (Turkey) in view of their conservation. Cement and Concrete Research **32**, 1457–1463 (2002).

101.

Delegou, E. T., Avdelidis, N. P., Karaviti, E. & Moropoulou, A. NDT&E techniques and SEM-EDS for the assessment of cleaning interventions on Pentelic marble surfaces. X-Ray Spectrometry **37**, 435–443 (2008).

102.

Rodrigues, J. D. & Valero, J. A brief note on the elimination of dark stains of biological origin. Studies in Conservation **48**, 17–22 (2003).

103.

Eric Doehne et al. Evaluation of poultice desalination process at Madame Johns' Legacy, New Orleans. Proceedings of the 11th International Congress on Deterioration and Conservation of Stone, 15–20 September 2008, Toruń, Poland (2008).

104.

Doherty, B. et al. Efficiency and resistance of the artificial oxalate protection treatment on marble against chemical weathering. *Applied Surface Science* **253**, 4477–4484 (2007).

105.

Preventive conservation of stone historical objects. (Wydawnictwo Uniwersytetu Mikołaja Kopernika, 2003).

106.

M. Favaro et al. A novel approach to compatible and durable consolidation of limestone. in 11th International Congress on Deterioration and Conservation of Stone, 15-20 September 2008, Torun, Poland: proceedings: volume 2 (eds. Łukasiewicz, J. W. & Niemcewicz, P.) 865–872 (Uniwersytetu Mikołaja Kopernika, 2008).

107.

Getty Conservation Institute. Preservation of Lime Mortars and Plasters Bibliography. (2003).

108.

Carol A. Grissom. Neolithic statues from 'Ain Ghazal: construction and form. *American Journal of Archaeology* **104**, 25–45 (2000).

109.

Grossman, J. B., Podany, J., True, M., & J. Paul Getty Museum. History of restoration of ancient stone sculptures. (J. Paul Getty Museum, 2003).

110.

Kerstin Elert, Carlos Rodriguez-Navarro, Eduardo Sebastian Pardo, Eric Hansen and Olga Cazalla. Lime Mortars for the Conservation of Historic Buildings. *Studies in Conservation* **47**, 62–75 (2002).



111.

Larson, J. Sculpture conservation: treatment or reinterpretation? in Sculpture conservation: preservation or interference? (ed. Lindley, P.) 69–81 (Scolar Press, 1997).

112.

Stone deterioration in polluted urban environments. (Science Publishers).

113.

Stone decay in the architectural environment. vol. Special paper / Geological Society of America (Geological Society of America, 2005).

114.

Price, C. A. Predicting environmental conditions to minimise salt damage at the Tower of London: a comparison of two approaches. *Environmental Geology* **52**, 369–374 (2007).

115.

Price, C. & Brimblecombe, P. Preventing salt damage in porous materials. in Preventive conservation: practice, theory and research : preprints of the contributions to the Ottawa Congress, 12-16 September 1994 (eds. Roy, A. & Smith, P.) 90–93 (International Institute for Conservation of Historic and Artistic Works, 1994).

116.

Clifford Price, Keith Ross and Graham White. A further appraisal of the 'lime technique' for limestone consolidation, using a radioactive tracer. *Studies in Conservation* **33**, 178–186 (1988).

117.

Rowe, S. & Rozeik, C. The uses of cyclododecane in conservation. *Studies in Conservation* **53**, 17–31 (2008).

118.

Sweek, T. & Simpson, S. J. An unfinished Achaemenid sculpture from Persepolis. The British Museum technical research bulletin **3**, 83–88 (2009).

119.

Webb, A. H., Bawden, R. J., Busby, A. K. & Hopkins, J. N. Studies on the effects of air pollution on limestone degradation in Great Britain. Atmospheric Environment. Part B. Urban Atmosphere **26**, 165–181 (1992).

120.

Wheeler, G. & Getty Conservation Institute. Alkoxysilanes and the consolidation of stone. vol. Research in conservation (Getty Conservation Institute, Windsor, 2005).

121.

Giovanni Verri et al. Assyrian Colours: pigments on a neo-Assyrian relief of a parade horse. The British Museum technical research bulletin **3**, 57–62 (2009).

122.

Zafiropulos, V. et al. Yellowing effect and discoloration of pigments: experimental and theoretical studies. Journal of Cultural Heritage **4**, 249–256 (2003).

123.

Doyal, S. Condition survey of Barkcloth at Exeter Museums, with particular reference to the African collections. in Barkcloth: aspects of preparation, use, deterioration, conservation and display : seminar organised by the Conservators of Ethnographic Artefacts at Torquay Museum on 4 December 1997 (ed. Wright, M. M.) vol. Conservators of Ethnographic Artefacts 10–19 (Archetype, 2001).

124.

Johnson, A. Evaluation of the use of SC6000 in conjunction with Klucel G as a conservation treatment for bookbinding leather: notes on a preliminary study. Journal of the Institute of Conservation **36**, 125–144 (2013).

125.

Kite, M. Collagen products: glues, gelatine, gut membrane and sausage casings. in Conservation of leather and related materials vol. Butterworth-Heinemann series in conservation and museology 192–197 (Butterworth-Heinemann, 2006).

126.

Kite, M. & Thomson, R. Conservation of leather and related materials. vol. Butterworth-Heinemann series in conservation and museology (Butterworth-Heinemann, 2006).

127.

Norton, R. E. Conservation of artifacts made from plant materials. in The conservation of artifacts made from plant materials 195–286 (Getty Conservation Institute, 1990).

128.

Smith, C. & Winkelbauer, H. Conservation of a Māori eel-trap: practical and ethical issues. Studies in Conservation **51**, (2006).

129.

Leather wet and dry: current treatments in the conservation of waterlogged and dessicated archaeological leather. (Archetype for the Archaeological Leather Group, 2001).

130.

Canadian Conservation Institute. Care of alum, vegetable, and mineral tanned leather - CCI Notes 8/2. <http://www.cci-icc.gc.ca/resources-ressources/ccinotesicc/8-2-eng.aspx>.

131.

Canadian Conservation Institute. Care of rawhide and semi-tanned leather - CCI Notes 8/4. <http://www.cci-icc.gc.ca/resources-ressources/ccinotesicc/8-4-eng.aspx?pedisable=true>.

132.

Painted wood: history and conservation. (Getty Conservation Institute, 1998).

133.

Driggers, J. M., Mussey, R. D. & Garvin, S. M. Treatment of an ivory-inlaid Anglo-Indian desk bookcase. Wooden Artifacts Group of the American Institute for Conservation (1991).

134.

I. M. Godfrey, E. L. Ghisalberti, E. W. Beng, L. T. Byrne and G. W. Richardson. The analysis of ivory from a marine environment. *Studies in Conservation* **47**, 29–45 (2002).

135.

Hocker, E., Almkvist, G. & Sahlstedt, M. The Vasa experience with polyethylene glycol: A conservator's perspective. *Journal of Cultural Heritage* **13**, S175–S182 (2012).

136.

Kennedy, A. & Pennington, E. R. Conservation of chemically degraded waterlogged wood with sugars. *Studies in Conservation* **59**, 194–201 (2014).

137.

Esmay, F. & Griffith, R. An investigation of cleaning methods for untreated wood. Wooden Artifacts Group of the American Institute for Conservation (2004).

138.

Gregory, D., Jensen, P. & Strætkvern, K. Conservation and in situ preservation of wooden shipwrecks from marine environments. *Journal of Cultural Heritage* **13**, S139–S148 (2012).

139.

MacGregor, A. Bone, antler, ivory & horn: the technology of skeletal materials since the Roman period. (Croom Helm, 1985).

140.

Macchioni, N., Pizzo, B., Capretti, C. & Giachi, G. How an integrated diagnostic approach can help in a correct evaluation of the state of preservation of waterlogged archaeological wooden artefacts. *Journal of Archaeological Science* **39**, 3255–3263 (2012).

141.

Canadian Conservation Institute. Care and cleaning of unfinished wood - CCI Notes 7/1. <http://www.cci-icc.gc.ca/resources-ressources/ccinotesicc/7-1-eng.aspx>.

142.

Canadian Conservation Institute. Care of furniture finishes - CCI Notes 7/2. <http://www.cci-icc.gc.ca/resources-ressources/ccinotesicc/7-2-eng.aspx>.

143.

Hacke, M. Weighted silk: history, analysis and conservation. *Studies in Conservation* **53**, 3–15 (2008).

144.

Landi, S. The Ardabil carpet. in *The textile conservator's manual* vol. Butterworth-Heinemann series in conservation and museology 277–285 (Butterworth-Heinemann, 1998).

145.

Johnson, E. The deacidification and conservation of a Samoan tapa at the Manchester Museum. in *Barkcloth: aspects of preparation, use, deterioration, conservation and display* : seminar organised by the Conservators of Ethnographic Artefacts at Torquay

Museum on 4 December 1997 (ed. Wright, M. M.) vol. Conservators of Ethnographic Artefacts (Archetype, 2001).

146.

Tetley, H. Underfoot and overlooked: conservation treatment of eighteenth- and nineteenth-century British carpets in historic houses. *Studies in Conservation* **57**, S295–S304 (2012).

147.

Brooks, M., Lister, A., Eastop, D. & Bennett, T. Artifact or information? Articulating the conflicts in conserving archaeological textiles. *Studies in Conservation* **41**, 16–21 (1996).

148.

Hocker, E., Almkvist, G. & Sahlstedt, M. The Vasa experience with polyethylene glycol: A conservator's perspective. *Journal of Cultural Heritage* **13**, S175–S182 (2012).

149.

Hoffmann, I. et al. The influence of polymers, surfactants and salt on the fine structure of cotton revealed by SANS. *Colloids and Surfaces B: Biointerfaces* **91**, 175–180 (2012).

150.

P. Orlofsky [...et al.]. Recording change: 1978-2008: the cleaning of a needlework sampler. in *Textile conservation: advances in practice* (eds. Lennard, F. & Ewer, P.) vol. Butterworth-Heinemann series in conservation and museology 163–171 (Butterworth-Heinemann, 2010).

151.

Toth, M. Lessons learned from conserving metal thread embroidery in the Esterházy Collection, Budapest, Hungary. *Studies in Conservation* **57**, S305–S312 (2012).

152.

Carter, D. & Walker, A. K. Care and conservation of natural history collections. (Butterworth-Heinemann, 1999).

153.

The Convention on Biological Diversity. About the Nagoya Protocol.  
<https://www.cbd.int/abs/about/>.

154.

Collins, C. Standards in the care of wet collections.  
<http://conservation.myspecies.info/node/33>.

155.

Eklund, J. A. & Thomas, M. G. Assessing the effects of conservation treatments on short sequences of DNA in vitro. *Journal of Archaeological Science* **37**, 2831–2841 (2010).

156.

Hebert, P. D. N., Cywinska, A., Ball, S. L. & deWaard, J. R. Biological identifications through DNA barcodes. *Proceedings of the Royal Society B: Biological Sciences* **270**, 313–321 (2003).

157.

The care and conservation of geological material: minerals, rocks, meteorites and lunar finds. vol. Butterworth-Heinemann series in conservation and museology (Butterworth-Heinemann, 1992).

158.

López-Polín, L., Ollé, A., Cáceres, I., Carbonell, E. & Bermúdez de Castro, J. M. Pleistocene human remains and conservation treatments: the case of a mandible from Atapuerca (Spain). *Journal of Human Evolution* **54**, 539–545 (2008).

159.

Marte, F., Pequignot, A. & von Endt, D. W. Arsenic in taxidermy collections: history, detection, and management. *Collection forum* **21**, (2006).

160.

Natural Sciences Collections Association. A matter of life and death: natural science collections: why keep them and why fund them? (2005).