# UiO: Universitetet i Oslo



After the Black Death: Painting and Polychrome Sculpture in Norway, 1350–1550

**Report of project results**: After the Black Death: Painting and Polychrome Sculpture in Norway, 1350–1550 (FRIHUMSAM)

NFR project no: 231592

**Project period**: 01.08.2014 – 31.12.2018

Report date: 2019

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### I. Project objectives and background

The 'After the Black Death' project (ABD) was launched in 2010 and funded from mid-2014 to the end of 2018. Funding allowed an international multi-disciplinary network to focus on late-medieval folding altarpieces, shrines and sculptures from Norwegian churches. Research efforts concentrated especially on circa 25 objects that have been categorised as imports from northern Germany to Norway in the period after the first wave of Bubonic Plague (1349) until the early years of the Reformation in Denmark-Norway (from 1536).

Initial aims were two-fold: to investigate the ways in which late-medieval liturgical objects were made in advance of being installed in Norwegian churches, and to examine how they have changed, some profoundly, over time. Physical changes, changes in status as Catholic objects in Protestant church rooms, as well as categorisation as Hanseatic objects in Norwegian museums have determined past and contemporary attitudes to them. The point of departure was the problematic category of 'import' and the theory first aired 1878 that too few craftsmen survived after the Black Death to meet demand for religious objects. According to this theory, traders from northern Germany and the Netherlands filled the void, delivering objects for churches to the detriment and exclusion of local sources. In the era of national-Romanticism, allusions to loss were furthermore conflated with negative ideas about Hanseatic traders. The objects under investigation during the ABD project have therefore been more closely associated with Norway's 400-årsnatten (the '400-year night') than national narratives, despite their importance to Norwegian cultural heritage (Streeton 2014; Streeton 2016/17; Ebert 2019). The ABD network redirected interpretations of this category of object, charting the circumstances under which late-medieval objects in Oslo and Bergen were produced, which formed foundations for decoding damages and tracing transformations over time.



### II. Results with respect to objectives

Investigations focused first on original structural components, paint and gilding, which yielded results with respect to how individual elements and surfaces were produced (Daly and Streeton 2017; Streeton 2016/17; Ebert 2017; Streeton et al. 2018). Dendrochronology indicated dates for oak boards, as well as sources for the wood, while imaging and chemical characterisation offered essential data for assessing composition and degradation (Platania et al. 2018; Platania et al. Forthcoming(a); and (b)).

This work established firstly that the category of 'import' is far too simple, primarily because it appears that numerous workshops were responsible for producing various parts over many decades, and probably in multiple locations (Streeton 2016/17; 2018; Daly and Streeton 2017; Streeton et al. 2018; Streeton et al. Forthcoming). While workshops in northern Germany undoubtedly were responsible for some elements in multi-component altarpieces and epitaphs, it is likely the many individual components were shipped separately, mainly to Bergen, then assembled and finished on arrival. For this reason, labels like 'north German', or 'Norwegian' are unhelpful, as locations for production were complicated and multi-national (Streeton et al. 2018; Streeton 2018).

Materials research furthermore clarified the mechanisms by which copper-green and lead-based paints have degraded, e.g., in sea-side churches (Platania et al. 2018). Among the findings, it is now evident that metal soaps can re-mineralise within oil paints, which complicate the interpretation of original components more than previously acknowledged (Platania et al. Forthcoming(a)). Diverse investigations into the nature of support structures, repairs and overpaints have furthermore redrawn the lines of previous art-historical narratives (Ebert 2019).

Beyond this, the aforementioned studies of original materials, fragmentation and degradation have led to new questions, which in turn have opened paths for enquiries into how parishioners over hundreds of years experienced these objects in their churches and in their daily lives. For example, physical evidence of repetitive touching, likely to activate a saint sculpture, or deliberate damage to test, deactivate and/or shame it, can now be 'read' alongside historical and legal sources. Specific evidence for nasal mutilation, coupled with specific punishments found in Norwegian civil law, which supports broader enquiries into the ways that hybrid liturgical practices were halted during the protracted Reformation, long after 1536 (Streeton 2017; Bjerregaard ed. 2018; Streeton Forthcoming). A transition from Catholicism was not achieved within three generations, as is so often stated.

### III. R&D tasks and research collaboration

Addressing topics that span cultural heritage, history, material culture and analytical chemistry required a diverse network and collaboration between conservators, historians, chemists and museum professionals. The ABD network at University of Oslo (UiO) spanned three faculties: the Humanities (Conservation Studies, History and History of Art), Mathematics and Natural Sciences (Department of Chemistry and SINTEF), and the Museum of Cultural History (KHM). Those within Conservation Studies and Chemistry worked closely with scientists and conservators at KHM and the laboratory at Saving Oseberg. UiO staff also worked closely with scientists at the Centre for Art Technological Studies and Conservation (CATS) in Copenhagen; with the conservation section at University Museum of Bergen; and with art historians in Norway, Sweden and northern Germany, among others.

This project drew on vast existing research networks that were developed over many years in advance of the project, which smoothed the way for fieldwork across Norway, in Sweden, Denmark and northern Germany. Post-Doc and PhD fellows benefited immensely from these established and diverse networks, which were represented during the project kick-off 'Archaeology of the Object' held over three days in October 2014. Subsequent network meetings were held in Bergen (September 2015) and Oslo (October 2016), while smaller author meetings in Oslo and Copenhagen were held more frequently. As the project progressed, an exhibitions group was assembled by Peter Bjerregaard (KHM) to prepare coordinate and mount the exhibition, *Forvandling/Transformation*, which opened in January 2019 (see VI. Dissemination and use of results).

## IV. Project implementation and use of resources

The project was implemented largely in accordance with the original plan outlined in the project proposal. Resources were allocated to University of Oslo, Department of Archaeology, Conservation and History (IAKH) for salary for PhD fellow (Bettina Ebert); for limited 'buy-outs' for the Project Manager (Tine Frøysaker) and PI (Noëlle Streeton); as well as for a 20% position for administrative support. Salary for a Post-Doctoral fellow (Elena Platania) was paid to the Department of Chemistry at



the start of the project, along with overheads for scientific instrumentation. Both the PhD and Post-Doc were delayed due to illness and maternity leave, respectively.

Funds paid to CATS (partner) early in the project period covered research time, scientific instrumentation and laboratory overheads. These funds also met costs for dendrochonological investigations (CT scanning) at Norges Geotechnical Institute in Oslo. KHM was also a partner, and while funding for a KHM researcher was included in the original budget, these funds were diverted to R&D for the *Forvandling/Transformation* exhibition. The research budget also covered meetings (Oslo, Bergen, Copenhagen), costs related to fieldwork, travel to international conferences and data entry/database development.

### V. Anticipated significance and benefits of the results

Collaborative research between conservators, heritage scientists and historians drew on methodologies in the humanities and physical sciences to expose hidden histories, mainly within profoundly damaged objects that have been held in storage for many years. Bringing such objects back into the public sphere required combinations of state-of-the-art techniques for imaging and surface characterization, in-depth materials research, archival studies and outreach to recover information about how they were made and how they have changed over time. In this way, the project group has re-invested a small number of late-medieval church objects with meaning in the present.

This kind of multidisciplinary collaboration has advanced heritage research on many levels, and has fostered two-way knowledge transfer between cultural heritage communities in Oslo, Bergen and Copenhagen. These communities were essential for the success of Elena Platania's Post-Doc research, as they were for Bettina Ebert, who successfully completed her PhD research and defended her thesis in June 2019. The project furthermore developed research frameworks and models for ongoing transatlantic collaborations devoted to similar objects, which will be essential for ongoing historical re-interpretation, conservation treatments, and long-term preservation.

### VI. Dissemination and use of results

In total the ABD network reports the following publications that are directly related to NFR-funded work (see VIII. Appendix – Publications):

- 1 PhD thesis
- 1 monograph
- 11 journal articles published in peer-reviewed journals or edited books (incl. 4 from the PhD)
- 1 gallery guide, with 7 short contributions (2–6 pp.)
- 1 museum exhibition (permanent, from January 2019)
- numerous articles under review or in progress

The Appendix is divided into seven sections to aid in the evaluation of the project's research landscape. Publications related to project preparation are excluded from the tally above (Appendix, i). Publications in the Appendix are followed by a full list of invited lectures and conference papers delivered by the ABD network throughout the funding period and into 2019.

ABD research was disseminated in other ways too. The kick-off symposium was open to the public, and research themes have been featured in published interviews and short 'popular science' pieces. For example, Bård Amundsen's article for Forskning.no, 'Middelalderkunsten som ble gjemt', was based on an interview with Tine Frøysaker and Noëlle Streeton at the moment that funded research commenced (<a href="https://forskning.no/middelalderkunsten-som-ble-gjemt/544308">https://forskning.no/middelalderkunsten-som-ble-gjemt/544308</a>, 4 September 2014). Thereafter, Bjarne Røsjø's article 'Kaster nytt laserlys over senmiddelaldersk kirkekunst' appeared in Titan.uio.no (<a href="https://titan.uio.no/node/1975">https://titan.uio.no/node/1975</a>, 28 October 2016) and as 'Hvem malte kunsten i kirkene?' on the Forskning.no pages (<a href="https://forskning.no/partner-kunst-og-litteratur-kunsthistorie/hvem-malte-kunsten-i-kirkene/385379">https://forskning.no/partner-kunst-og-litteratur-kunsthistorie/hvem-malte-kunsten-i-kirkene/385379</a>, 10 November 2016).

The KHM exhibition *Forvandling / Transformation*, which opened in January 2019, <sup>1</sup> is itself a notable result that will ensure continued use of project data and publications. KHM agreed to create the exhibition as an organ to communicate results together with those from another NFR-funded project, 'Religion and Money' led by Svein Gullbekk. During planning and execution of the galleries and gallery guide (Bjerregaard ed. 2018), the curatorial team drew on rich experience of historical

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<sup>&</sup>lt;sup>1</sup> <u>https://www.khm.uio.no/besok-oss/historisk-museum/utstillinger/faste/forvandling/index.html</u> (accessed 30 May 2019).

modes of display for medieval church objects (Liepe 2018) while also confronting display challenges posed by profoundly damaged religious instruments. The gallery guide and gallery texts highlight issues of making, continued use, partial destruction and constant re-interpretation after the Reformation and up to today. In addition, and to coincide with the exhibition opening, Yngve Vogt interviewed Svein Gullbekk and Noëlle Streeton for *Apollon*. The article was published under the title 'Reformasjonen tok flere hundre år' (<a href="https://www.apollon.uio.no/artikler/2019/khm\_reformasjonen.html">https://www.apollon.uio.no/artikler/2019/khm\_reformasjonen.html</a>, 29 April 2019). Vogt's article featured on the Forskning.no pages and the UiO home page, 30 April—4 May 2019 (<a href="https://forskning.no/historie-kulturhistorie-middelalderen/reformasjonen-tok-flere-hundre-ar/1330886">https://forskning.no/historie-kulturhistorie-middelalderen/reformasjonen-tok-flere-hundre-ar/1330886</a>, 2 May 2019). With ongoing support from KHM, the exhibition will remain part of the permanent spaces of the museum, where gallery talks and organised events will continue to feature the work of ABD researchers for the foreseeable future.

### VII. Results to be finalized after project completion

Many of the research results have already been published or will be shortly, but those that remain under review or in progress include two led by Elena Platania; one led by Anna Vila, formerly at CATS; one led by Tine Frøysaker and three led by Noëlle Streeton. These are labelled 'Forthcoming' in the references below. Of these, several are being developed for a collaborative book that is provisionally entitled *Medieval Church Art and Its Afterlife in Scandinavia: Tracing Material and Cultural Transformations*. The book will be edited by Streeton, Bjerregaard and Frøysaker, who have agreed to publish with Brill in 2022, pending a positive review of the manuscript.

Finally, raw data generated during the project and data that remains unpublished will be accessible after the project period. Data relevant to KHM objects is available via the museum database, while data relevant to objects from other museums has been shared with these institutions. Long-term data preservation is assured via UiO IT, and with sharing possibilities pending a database designed for Conservation Studies (IT, UiO). To KHM alone, over 16 400 files in 840 folders were uploaded to a KHM database between Spring 2018 and Spring 2019,<sup>2</sup> a total of 54,6 GB of data (58 647 872 042 bytes).

N.L.W. Streeton, 11 June 2019 / revised 20 November 2019

#### References

Bjerregaard, P. ed. 2018. Forvandling: Tro og hellige gjenstander i middelalderen / Transformation: Faith and Sacred Objects in the Middle Ages. Trondheim: Museumsforlaget.

Daly, A., & Streeton, N.L.W. 2017. Non-invasive dendrochronology of late-medieval objects in Oslo: refinement of a technique and discoveries, *Applied Physics A*. 123:431. <a href="https://doi.org/10.1007/s00339-017-1019-x">https://doi.org/10.1007/s00339-017-1019-x</a>

Ebert, B. 2017. Composite wainscot block construction in medieval sculptures: A question of quality? In *ICOM-CC 18th Triennial Conference Preprints, Copenhagen, 4–8 September 2017, Linking Past and Future*. Paris: International Council of Museums, ICOM-CC. See <a href="http://icom-cc-publications-online.org/">http://icom-cc-publications-online.org/</a>

Ebert, B. 2019. Biographies carved in wood: Reconstructing narratives for medieval polychrome sculptures. PhD thesis, vols I and II. University of Oslo: Faculty of Humanities.

Frøysaker, T., Streeton, N.L.W., Lukasova, H., Bøhme, A., Hajdas, I. and Caruso, F. Forthcoming. Interpreting and misinterpreting appearances of age in the processional banners in Bergen and Växjö. In *Medieval Church Art and Its Afterlife in Scandinavia: Tracing Material and Cultural Transformations* [working title], eds. N.L.W. Streeton, P. Bjerregaard and T. Frøysaker. Leiden: Brill.

Platania, E., Streeton, N.L.W., Kutzke, H., Karlsson, A., Uggerud, E. & Andersen, N.H. 2018. Infrared, Raman and Computational study of a crystalline mononuclear copper complex found in the pigment verdigris, *Journal of Vibrational Spectrocopy*. https://doi.org/10.1016/j.vibspec.2018.05.004

Platania, E., Streeton, N.L.W., Vila, A., Buti, D., Caruso, F. & Uggerud, E. Forthcoming(a). Investigation of mineralization products of lead soaps in a late medieval panel painting. *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy*.

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<sup>&</sup>lt;sup>2</sup> These figures do not include data from Bettina Ebert's PhD project, which were uploaded separately.



Platania, E., Streeton, N.L.W., Llluveras, A., Vila, A., Buti, D., Caruso, F., Kutzke, H., Karlsson, A., Columbini, M.P. & Uggerud, E. Forthcoming(b). Identification of green pigments and binders in late medieval painted wings from Norwegian churches. *Microchemical Journal*.

Liepe, L. 2018. A Case for the Middle Ages: The Public Display of Medieval Church Art in Sweden 1847–1943. Stockholm: Kungliga Vitterhets Historie och Antikvitets Akademien.

Streeton, N.L.W. 2014. Preface to *Paint and Piety: Collected Essays on Medieval Painting and Polychrome Sculpture*. Eds. N.L.W. Streeton & K. Kollandsrud, pp. vii–x. London: Archetype Publications.

Streeton, N.L.W. 2016/17. Writing histories for late-medieval objects: the engagement of conservation with theoretical perspectives on material culture. *Studies in Conservation* 62(7): 419–431. DOI: 10.1080/00393630.2016.1210752 <a href="http://www.tandfonline.com/doi/full/10.1080/00393630.2016.1210752">http://www.tandfonline.com/doi/full/10.1080/00393630.2016.1210752</a>

Streeton, N.L.W. 2017. Decoding damages to late-medieval cult sculpture from Norwegian churches. In *ICOM-CC 18th Triennial Conference Preprints, Copenhagen, 4*–8 *September 2017, Linking Past and Future.* Ed. J. Bridgland. Paris: International Council of Museums, ICOM-CC. See <a href="http://icom-cc-publications-online.org/">http://icom-cc-publications-online.org/</a>

Streeton, N.L.W. 2018. Perspectives (old and new) on late-medieval church art in Norway: questioning the hegemony of Lübeck workshops. *Scandinavian Studies* 90:1: 50–77. <a href="https://muse.jhu.edu/article/701920">https://muse.jhu.edu/article/701920</a>

Streeton, N.L.W. Forthcoming (2020). An afterlife for cult sculpture from Norwegian churches: tradition, continuity and partial mutilation after the Reformation. In *The Cult of Saints in Niðaróss Archbishopric*, eds. Ragnhild Bø and Jón Viðar Sigurðsson. Turnhout (BE): Brepols.

Streeton, N.L.W., Platania, E., Daly, A., Vila, A. & Buti, D. 2018, Tapte relasjoner? / Long-Lost Relations? In Bjerregaard, P. ed. *Forvandling: Tro og hellige gjenstander i middelalderen / Transformation: Faith and Sacred Objects in the Middle Ages*, pp. 30–43. Trondheim: Museumsforlaget.

Streeton, N.L.W., Platania, E., Daly, A., Vila, A., Buti, D., & Wadum, J. Forthcoming(a). Long-lost relations and new-found distinctions: Redefining Lübeck attributions for three fragments in Norway. In *Medieval Church Art and Its Afterlife in Scandinavia: Tracing Material and Cultural Transformations* [working title], eds. N.L.W. Streeton, P. Bjerregaard and T. Frøysaker. Leiden: Brill.

Streeton, N.L.W., Frøysaker, T., Caruso, F. and Kjesrud, K. Forthcoming(b). Desecrating and reanimating Anne *selv tredje* (KHM, C23312). Forthcoming. Interpreting and misinterpreting appearances of age in the processional banners in Bergen and Växjö. In *Medieval Church Art and Its Afterlife in Scandinavia: Tracing Material and Cultural Transformations* [working title], eds. N.L.W. Streeton, P. Bjerregaard and T. Frøysaker. Leiden: Brill.

Vila, A., Platania, E., Buti, D. & Streeton, N.L.W. Forthcoming. A spectroscopic study of metal leaves and layering in a group of medieval objects from Norwegian churches.



### VIII. Appendix – Publications and public lectures related to project 231592

Many of the research results are already published, or are cleared for publication (post-peer review). Others are currently under review or in progress. Publications are divided into seven categories as a way to visualise the project's research landscape (as opposed to simply listing publications by date). Categories include:

i. Project preparation (2012–2016)
ii. Research background
iii. Post-doctoral research in Conservation Science (UiO & CATS, Copenhagen)
iv. PhD dissertation (UiO)
v. CATS collaborations, Technical Art History
vi. Exhibition, Museum of Cultural History (KHM, UiO)
vii. Added value: extra publications that contribute to the ABD research portfolio

Key: Orange = preparation, pre-project publications or added value; Green = 'deliverables'; Blue = added value. NB: Works-in-progress are highlighted in yellow.

A full list of invited lectures and conference papers follows the list of publications. These have been delivered by members of the research network throughout the funding period.

Publicatio	ons associated with the ABD project (project-preparation-2018)		
i. Project	preparation (2012–2016)		
Theme	Contribution		
Panels and wood	Wadum, J. & Streeton, N. eds. 2012. History and use of panels and other rigid supports for easel paintings. In <i>Conservation of Easel Paintings</i> . Eds. J.H. Stoner & R. Rushfield, pp. 51–115. London & New York: Routledge. Esp pp. 86–97, Northern European panel paintings.		
Project description	Streeton, N.L.W. 2013. Project description: After the Black Death: Painting and Polychrome Sculpture in Norway, 1350–1550, Oslo: Norwegian Research Council.		
	http://www.hf.uio.no/iakh/english/research/projects/medieval-painting/index.html		
Paint and Piety	Streeton, N.L.W. 2014. Preface to <i>Paint and Piety: Collected Essays on Medieval Painting and Polychrome Sculpture</i> . Eds. N.L.W. Streeton & K. Kollandsrud, pp. vii–x. London: Archetype Publications.		
Paint and Piety	Hohler, E. & Streeton, N.L.W. 2014. The medieval collection of the Museum of Cultural History, University of Oslo: a tradition of scholarship. In: <i>Paint and Piety: Collected Essays on Medieval Painting and Polychrome Sculpture</i> . Eds. N.L.W. Streeton & K. Kollandsrud, pp. 3–12. London: Archetype Publications.		
Panels and wood			
ii Researc	ch background		
Theory	Streeton, N.L.W. 2016/17. Writing histories for late-medieval objects: the engagement of conservation with theoretical perspectives on material culture. <i>Studies in Conservation</i> 62(7): 419–431. DOI: 10.1080/00393630.2016.1210752  http://www.tandfonline.com/doi/full/10.1080/00393630.2016.1210752		
Research history	Streeton, N.L.W. 2018. Perspectives (old and new) on late-medieval church art in Norway: questioning the hegemony of Lübeck workshops. <i>Scandinavian Studies</i> 90:1: 50–77. <a href="https://muse.jhu.edu/article/701920">https://muse.jhu.edu/article/701920</a>		

	octoral research in Conservation Science (UiO & CATS)	Status
Verdigris	Platania, E., Streeton, N.L.W., Kutzke, H., Karlsson, A., Uggerud, E. &	Published
& damage	Andersen, N.H. 2018. Infrared, Raman and Computational study of a	2018
	crystalline mononuclear copper complex found in the pigment verdigris,	
	Journal of Vibrational Spectrocopy.	
	https://doi.org/10.1016/j.vibspec.2018.05.004	
Paint &	Platania, E., Streeton, N.L.W., Vila, A., Buti, D., Caruso, F. & Uggerud, E.	Accepted
damage	Forthcoming(a). Detection and investigation of mineralization products of	November
	lead soaps in painting cross-sections. Spectrochimica Acta Part A:	2019
	Molecular and Biomolecular Spectroscopy.	
Unstable	Platania, E., Streeton, N.L.W., Llluveras, A., Vila, A., Buti, D., Karlsson,	Under review
green	A., Columbini, M.P., Kutzke, H., Andersen, N.H., & Uggerud, E.	
pigments	Forthcoming(b). Identification of green pigments and binders in late-	
C'1 1'	medieval painted wings from Norwegian churches. Under review.	
Gilding	Vila, A., Platania, E., Buti, D. & Streeton, N.L.W. Forthcoming. A	In progress
	spectroscopic study of metal leaves and layering in a group of medieval	
	objects from Norwegian churches.	
v PhD di	ssertation (UiO)	Status
v. 1 1112 (II	Article-based dissertation:	Defended
	Ebert, B. 2019. Biographies carved in wood: Reconstructing narratives for	17 June 2019
	medieval polychrome sculptures. PhD thesis, vols I and II. University of	17 84110 2017
	Oslo: Faculty of Humanities.	
	Ebert, B. 2017. A skewed balance? Examining the display and research	Published
	history of the medieval collection at the Museum of Cultural History,	2017
	University of Oslo. <i>Journal of the History of Collections</i> , 30(1): 139–151.	2017
l e	https://doi.org/10.1093/jhc/fhx021	
	Ebert, B. 2017. Composite wainscot block construction in medieval	Published
	sculptures: A question of quality? In ICOM-CC 18th Triennial Conference	2017
	Preprints, Copenhagen, 4–8 September 2017, Linking Past and	
	Future. Paris: International Council of Museums, ICOM-CC.	
	Ebert, B. 2018. Saintly relationships or grounds for divorce? An	Published
	examination of workshop links between two medieval polychrome	2018
	sculptures. Journal of the Institute of Conservation 41(2): 95–112.	
	Ebert, B. 2018. Biographies carved in wood: Turning points in the lives of	Published
	two medieval Virgin sculptures. <i>Journal of Material Culture</i> (online): 1–32.	2018
	https://doi.org/10.1177/1359183518811355	
	collaborations, Technical art history	Status
Dendro-	Daly, A., & Streeton, N.L.W. 2017. Non-invasive dendrochronology of late-	Published
chronology	medieval objects in Oslo: refinement of a technique and discoveries, Applied	2017
	Physics A. 123:431. https://link.springer.com/article/10.1007/s00339-017-	
	<u>1019-x</u>	
Chemistry	Streeton, N.L.W., Platania, E., Daly, A., Vila, A. & Buti, D. 2018, Tapte	Published
in context	relasjoner? / Long-Lost Relations? In Bjerregaard, P. ed. Forvandling: Tro	2018
	og hellige gjenstander i middelalderen / Transformation: Faith and Sacred	
	Objects in the Middle Ages, pp. 30–43. Trondheim: Museumsforlaget.	
Chemistry	Streeton, N.L.W., Platania, E., Daly, A., Vila, A., Buti, D., & Wadum, J.	In progress
in context	Forthcoming(a). Long-lost relations and new-found distinctions: Redefining	
	Lübeck attributions for three fragments in Norway. In Medieval Church Art	
	and Its Afterlife in Scandinavia: Tracing Material and Cultural	
	Transformations [working title], eds. N.L.W. Streeton, P. Bjerregaard and T.	
	Francokor Loidon: Brill	
	Frøysaker. Leiden: Brill.  NB: Collaborative articles with Platania et al. are listed with category iii.	

	tion, Museum of Cultural History (KHM, UiO)	Status
Exhibition	'Forvandling', Kulturhistorisk mueum, UiO (from 31 January 2019)	Open
Gallery	Bjerregaard, P. ed. 2018. Forvandling: Tro og hellige gjenstander i	Published
guide	middelalderen / Transformation: Faith and Sacred Objects in the Middle	2018
	Ages. Trondheim: Museumsforlaget. ISBN 9788283050615	
	a. Streeton, N.L.W. Menneskebarn / Human Child (Christ child from	
	Åmotsdal Church C26120), pp. 10–13.	
	b. Ebert, B. En biskop / A bishop (C2913), pp. 14–16.	
	c. Streeton, N.L.W. Tre generasjoner / Three Generations (The Virgin and	
	Child with St Anne, C23312), pp. 17–21.	
	d. Ebert, B. Mens far hjelper til / While father helps (Enthroned Virgin	
	with Nativity, C 2686), pp. 22–25.	
	e. Ebert, B. Anna selv tredje / Virgin and Child with St Anne (C2912), pp.	
	26–29.	
	relasjoner? / Long-Lost Relations? (Shrine from Bygland, C6113;	
	Altarpiece from Skjervøy, C3000; Shrine doors from Røldal C5067),	
	pp. 30–43 (listed also with group v. CATS publications).	
	g. Streeton, N.L.W. & Liepe, L. En pilegrimsreise / A Pilgrimage (Relief	
	from Borre Church, C6131), pp. 48-51.	
Monograph	Liepe, L. 2018. A Case for the Middle Ages: The Public Display of Medieval	Published
Wionograph	Church Art in Sweden 1847–1943. Stockholm: Kungliga Vitterhets Historie	2018
	och Antikvitets Akademien. 265 pages, ISBN 9789174024616	2010
	och mittikvitets madeinien. 200 pages, ibbiv 9709174024010	
		Canana
	value: extra publications	Status
Workshop	Streeton, N.L.W. 2016. Late-medieval workshops: making art in Lübeck.	Published
practice	Kumla Altar Project webpages <a href="http://kumlaaltarproject.historiska.se/#/home">http://kumlaaltarproject.historiska.se/#/home</a>	2016
	(outcome from Kumla Altar Project)	
Case study	Sæter, L., Skaaland, T.E., Stoveland, L.P., Grønnesby, O., Streeton, N.	Published
	2017. Visual and technical study of the Kumla altar (c. 1439), Swedish	2017
	History Museum, Stockholm. In ICOM-CC 18th Triennial Conference	
	Preprints, Copenhagen, 4–8 September 2017, Linking Past and Future. Ed.	
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saints	Norwegian churches: tradition, continuity and partial mutilation after the	2021
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	Reformation. In <i>The Cult of Saints in Niðaróss Archbishopric</i> , eds. Ragnhild	
	Bø and Jón Viðar Sigurðsson. Turnhout (BE): Brepols.	
Case study	Frøysaker, T., Streeton, N.L.W., Lukasova, H., Bøhme, A., Hajdas, I. and	In progress
	Caruso, F. Forthcoming. Interpreting and misinterpreting appearances of age	
	in the processional banners in Bergen and Växjö. In <i>Medieval Church Art</i>	
	and Its Afterlife in Scandinavia: Tracing Material and Cultural	
	Transformations [working title], eds. N.L.W. Streeton, P. Bjerregaard and T.	
	Frøysaker. Leiden: Brill.	
Case study	Streeton, N.L.W., Frøysaker, T., Caruso, F. and Kjesrud, K. Forthcoming.	In progress
	Desecrating and reanimating Anne selv tredje (KHM, C23312). In Medieval	
	Descerating and realimating Affice serv trease (Kriw, C23312). In Medieval	



### Public lectures delivered by members of the ABD network (2014-2019)

Streeton, N.L.W. 2019. Curatorial Discourses on Medieval Art, Past and Present: The exhibition 'Transformation', Museum of Cultural History, University of Oslo, presented 11 May 2019, International Congress on Medieval Studies, Kalamazoo (USA).

Scharffenberg, K. 2019. 'Forvandling/Transformation', public tour offered 12 March 2019, Museum of Cultural History, University of Oslo.

Streeton, N.L.W. 2019. 'Transformation: Faith and Sacred Objects in the Middle Ages'. Lecture offered 15 February 2019 to the Conservation research group, Department of Archaeology, Conservation and History, University of Oslo.

Streeton, N.L.W. 2019. 'Transformation: Faith and Sacred Objects in the Middle Ages'. Exhibition tour offered 15 February 2019 to the staff of the museum of Cultural History, University of Oslo.

Streeton, N.L.W. 2019. 'Transformation: Faith and Sacred Objects in the Middle Ages'. Public lecture presented 2 February 2019, Museum of Cultural History, University of Oslo.

Streeton, N.L.W. 2019. 'Forvandling: Tro og hellige gjenstander i middelalderen'. Exhibition tour offered 2 February 2019, Museum of Cultural History, University of Oslo.

Streeton, N.L.W. 2017. 'New light on lost lustre. Results from the project "After the Black Death: Painting and Polychrome Sculpture in Norway"', presented 21 November 2017 to the IAKH research seminar, University of Oslo.

Streeton, N.L.W. 2017. 'Decoding damages to late-medieval cult sculpture from Norwegian churches' (Part II), presented 5 September 2017, ICOM-CC Triennial Conference, Copenhagen.

Ebert, B. 2017. 'Composite wainscot block construction in medieval sculptures: A question of quality?', presented 5 September 2017, ICOM-CC Triennial Conference, Copenhagen.

Sæter, L., Skaaland, T.E., Porsmo Stoveland, L., Grønnesby, O. & Streeton, N.L.W. 2017. 'Visual and technical study of the Kumla altar (c. 1439), Swedish History Museum, Stockholm', presented 5 September 2017, ICOM-CC Triennial Conference, Copenhagen.

Vila, A., Platania, E., Buti, D. & Streeton, N. 2017. A spectroscopic study of metal leaves and layering in a group of medieval objects from Norwegian churches. Technart, Bilbao (Spain).

Streeton, N.L.W. 2017. 'After the Black Death: Painting and Polychrome Sculpture in Norway c. 1350-1550. Conservation Research & Its Implications', presented 11 May 2017, NIKU, Oslo

Streeton, N.L.W. 2017. 'Imitation game: rethinking the links between Lubeck painters and their workshop prototypes', presented 27 January 2017, Schiffahrtsmuseum/Leibniz-Institut für Deutsche Schiffahrtsgeschichte/Netzwerk Kunst und Kultur der Hansestädte, Bremerhaven (Germany).

Streeton, N.L.W. 2016. 'Decoding damages to late-medieval cult sculpture from Norwegian churches' (Part I), presented 13 October 2016 during the symposium The Cult of Saints in the Archdiocese of Niðaróss in its European Context, University of Oslo.

ABD network meeting, Museum of Cultural History, University of Oslo (14 Oct 2016):

- Streeton. 'ABD in progress, 2015–2016'
- Platania, E. 'Materials analyses and CATS collaboration'
- Ebert, B. 'PhD project: Current work'
- Bjerregaard, P. & Lindoøe, E. 'KHM exhibition, progress and planning'

Platania, E. 2016. 'Analyses and characterization of painting cross-sections from Scandinavian medieval altarpieces', presented 7 October 2016, CTCC (Centre for Theoretical and Computational Chemistry), Dept of Chemistry, University of Oslo.

Daly, A. 2016. 'Dendroarchaeology', presented 22 September 2016, Aarhus University, Moesgaard (Denmark).

Daly, A. 2016. 'Beyond chronology – the material evidence for past timber trade', presented at the workshop, 15–17 June 2016, Gender and Material Culture in Ecclesiastical Spaces during the (long) Middle Ages, National Museum, Copenhagen.

Daly, A. 2016. 'Dendrochronology and dendroprovenance', lecture series presented 24–28 May 2016, University of Wales, Trinity Saint David, Lampeter (UK).

Streeton, N.L.W. 2016. 'XRF mapping of the altarpiece from Kumla (Historiska museet, Stockholm)', presented 3 May 2016, Kumla Altar Seminar, University of Gothenburg (Sweden).



Platania, E. 2016. 'Applications of Raman Spectroscopy in Conservation Science', presented 25 April 2016, Department of Cultural History, University of Bergen / Nordic Conservator Association, Hordaland.

Daly, A. and Streeton, N.L.W. 2016. 'Non-invasive tree-ring analysis – archaeology and art', presented 21 March 2016, InArt, 2nd International Conference on Innovation in Art Research and Technology, Ghent (Belgium).

Streeton, N.L.W. 2015. 'The making and transformations of the Bygland shrine: a test case for a theoretical framework', presented 4 December 2015 during the research seminar, Matter and Materiality in the Study of Medieval Art, organised by Lena Liepe and Kaja Kollandsrud, Department of Philosophy, Classics, History of Art and Ideas, University of Oslo.

Platania, E. 2015. 'Scientific analyses of artistic materials in late medieval Scandinavian altarpieces', presented 13 November 2015, CTCC (Centre for Theoretical and Computational Chemistry), Dept of Chemistry, University of Oslo.

Streeton, N.L.W. 2015. 'Making art, circa 1500: refinement and revision of Lübeck attributions for church art in Norway', presented 31 October 2015 during the Conference: Lübeck 1500 - Kunstmetropole im Ostseeraum, Lübeck (Germany).

ABD network meeting, Bergen (24–25 Sept 2015):

- Streeton. 'Re-shaping ideas about late-medieval church art in Norway'
- Bonsdorff, J.v. 'The dissemination and organisation of specialist artisans in the medieval Baltic Sea area'
- Wadum, J. 'The making of altars 1350-1550: Cologne, Lübeck, Antwerp, and Utrecht'
- Platania, E. 'Case study: objects from Skjervøy Bygland and Røldal'
- Daly, A. 'Dendrochronology: early results'
- Bjerregaard, P. 'The renewal of the first floor at Historical Museum, Oslo'
- Karlsson, A. 'Advanced Material Characterisation and Modelling at SINTEF Materials and Chemistry'

Daly, A. 2015. 'Beyond chronology a tale of tall trees', presented 15 September 2015, Laboratory of Tree-Ring Research, University of Arizona, Tucson (USA).

Platania, E. 2015. 'Suitability of DFT modelling for Raman spectral interpretation of copper complexes', presented during the International Congress on the Application of Raman Spectroscopy in Art and Archaeology (RAA), 1–5 September 2015, Wroclaw (Poland).

Streeton, N.L.W. 2015. 'Conservators and the "After the Black Death" project', presented 7 July 2015, Department of Conservation, The Art Institute of Chicago (USA).

Daly, A. 2015. 'Timber trade in Northern Europe – Stories from a world of wood', presented 16 June 2015, New York University Summer Institute in Technical Art History for Doctoral Students in Art History, New York (USA).

Daly, A. 2015. 'Non-invasive dendrochronology – stories from Scandinavia', presented 15 June 2015, Metropolitan Museum of Art, New York (USA).

Daly, A. 2015. 'Non-invasive dendrochronology, high tech to low tech', presented at Konferansen i nordisk marinarkeologi 2015, Norsk Maritimt Museum, Oslo, 16-18 April.

Streeton, N.L.W. 2015. 'The "After the Black Death" project: early results and Hanseatic enquiries', presented 8 March 2015 during the Hansische Identitäten Conference, 4-7 March, Ernst-Moritz-Arndt-Universität, Greifswald (Germany).

Daly, A., 2015. 'Beyond chronology – stories from a world of wood', presented 16 February 2015, Niguliste Museum, Tallinn (Estonia).

Daly, A., 2015. 'Timber trade in Northern Europe – a tree-ring journey', presented 17 February 2015, Niguliste Museum, Tallinn (Estonia).

Daly, A., 2015. 'Wood and Art. Methods of technical art history: wood analysis for interpretation of art works', workshop, 16–18 February 2015, Niguliste Museum, Tallinn (Estonia), organised in collaboration with CATS, <a href="https://nigulistemuuseum.ekm.ee/en/wood-and-art-methods-of-technical-art-history-wood-analysis-for-interpretation-of-art-works/">https://nigulistemuuseum.ekm.ee/en/wood-and-art-methods-of-technical-art-history-wood-analysis-for-interpretation-of-art-works/</a>

Wadum, J., 2015. 'Wood and Art. Methods of technical art history: wood analysis for interpretation of art works', workshop, 16–18 February 2015, Niguliste Museum, Tallinn (Estonia), organised in collaboration with CATS, <a href="https://nigulistemuuseum.ekm.ee/en/wood-and-art-methods-of-technical-art-history-wood-analysis-for-interpretation-of-art-works/">https://nigulistemuuseum.ekm.ee/en/wood-and-art-methods-of-technical-art-history-wood-analysis-for-interpretation-of-art-works/</a>



Wadum, J., 2015. 'The metamorphosis of a tree into an altar or panel', presented 18 February 2015, Niguliste Museum, Tallinn (Estonia).

Platania, E. 2015. 'New micro-sampling techniques: gel extraction', presented 11 February 2015, Conservation Studies, University of Oslo.

Daly, A., 2014. 'Dendrochronology'. presented 16 December 2014, CATS Seminar on Provenance and Dating of Cultural Heritage Objects, Statens Museum for Kunst, Copenhagen.

Streeton, N.L.W. & Frøysaker, T. 2014. 'Reading damage: conservators and the multi-disciplinary project 'After the Black Death: Painting and Polychrome Sculpture in Norway', presented 13 November 2014 to the working group for the Corpus Project 'Wooden Medieval Sculptures and Painting in Schleswig-Holstein', Sønderborg Slot, Sønderborg (Denmark).

ABD kick-off symposium (15–17 October 2014): Archaeology of the Object: Conservation, Material Culture and the Creation of Historical Knowledge for Pre-Reformation Church Inventories, organized by Noelle Streeton and Tine Frøysaker, Conservation Studies, University of Oslo:

- Abstracts available at: <a href="https://www.hf.uio.no/iakh/english/research/projects/medieval-painting/symposium-october-2014/abstracts\_symposium2014.pdf">https://www.hf.uio.no/iakh/english/research/projects/medieval-painting/symposium-october-2014/abstracts\_symposium2014.pdf</a>
- Streeton, N.L.W. 'After the Black Death: Painting and Polychrome Sculpture in Norway. Conservation and its contemporary context'
- Frøysaker, T. 'Interpreting the surface in light of re-painting, treatments and repair'
- Wadum, J. 'Wood, paint and their art-historical contexts: boxmakers, painters and technical art history'
- Daly, A. 'Non-invasive dendrochronology: an experimental method for the analysis of Baltic oak in late-medieval multi-component altarpieces'
- Kutzke, H. 'Alteration of copper pigments'
- Sigurdsson, J.V. 'Understanding the cult of saints in the century before the Reformation'
- Bø, R. 'What about devotion? Devotional and liturgical practices in late medieval Norwegian churches'
- Fredriksen, P.D. 'What counts as heritage? Archaeology, history and recent pasts'
- Bjerregaard, P. 'COLLAPSE and the renewal of the first floor of KHM'
- Kausland, K. 'Notes from the field: challenges for PhD research'
- Liepe, L. "The material turn". A dispatch from the frontlines of medievalist art history
- Sandmo, E. 'The Champion of the North. History, religion and prophecy in Olaus Magnus' *Carta Marina* (1539)'
- Marincola, M. 'Do books on conservation practice still have value? Information dissemination in an accelerating context'
- Streeton, N.L.W. 'Writing histories for late-medieval things: the engagement of conservation with theoretical perspectives on material culture'

Streeton, N.L.W. 2014. 'Transcending the material: writing histories from late-medieval things', presented 2 September 2014 to Collegium Medievale, University of Oslo.



