19th Triennial Conference 2021 Beijing

THEORY, HISTORY, AND ETHICS OF CONSERVATION

An integrated conservation approach to a historic collection: The controversial varnishing of Munch's paintings

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conservation histories, display legacies, group case study, integrated conservation approach, Edvard Munch, varnish controversy

Abstract

Since 1909, the collection of 57 Munch paintings at the National Museum of Art, Norway, has been subject to a legacy of specific acquisition and display policies. These run parallel to a largely unwritten, complex and controversial conservation history regarding the application of non-original varnishes. This study adopts an integrated conservation approach involving the re-examination of the paint surfaces in light of the history of conservation and display of the paintings over the past 110 years (1909–2019). The findings of this group case study approach influenced the choice of diagnostic tools and non-invasive methods employed to re-visit the paintings and perform systematic technological and scientific examinations. The study also lays a good foundation for future considerations and allows for a more integral approach to decision-making that takes on board the condition, appearance and history of the collection as a whole.

INTRODUCTION

This paper investigates the impact and benefits of applying an integrated conservation approach to the examination of a collection of paintings by Edvard Munch (1863–1944), belonging to the Norwegian National Museum of Art (NM), as a group case study.¹ The aim of the study was to examine the concept of the group's historical and biographical itineraries over the past 110 years (1909–2019), with renewed visual and scientific observation of the paint surfaces (Joyce and Gillespie 2015). The investigation of the contested practice of non-original varnish layers, applied and re-applied in the past by the Museum's conservators until 1993, was central to the study.

A well-known disadvantage of varnishing easel paintings, especially those meant to be left unvarnished, is how this alters our visual perception of the paintings (Feller et al. 1985, Callen 1994). Furthermore, the ephemeral nature of varnish coatings, which are naturally prone to degradation and discolouration, greatly affects the decision-making regarding their removal (Phenix and Townsend 2012).

The present study aimed to establish the conservation history of the Munch paintings with regard to past varnish application and removal practices. The physical condition of each artwork was assessed in relation to the whole group rather than considered as an isolated case study. This group approach influenced the choice of technical and scientific methods for investigation and contributed to an effective examination process suitable for large collections. Care was taken to acknowledge the additional historical 'complex layers of value and meaning' acquired over time through past conservation treatments (Muir 2009, 2). The aim was to avoid a purely 'clinical' examination approach focussed exclusively on the technical characterisation of the non-original varnish layers.

BACKGROUND

The NM houses one of the most important painting collections by the expressionist artist Munch. It is arguably the best-known section of the NM's collections, and the 57 paintings, dating from the artist's earlier period, have a distinct display history. In June 1909, under the directorship of Jens Thiis (1908–41), a selection of Munch paintings were hung together as a group, on a single wall in the East galleries. This formed part of the re-opening of the newly refurbished south wing of the former National Gallery of Art (Figure 1). Ever since, the Munch collection has continued to be presented

19th Triennial Conference 2021 Beijing

THEORY, HISTORY, AND ETHICS OF CONSERVATION

An integrated conservation approach to a historic collection: The controversial varnishing of Munch's paintings



Figure 1. 'The Munch Wall', National Gallery, Oslo, postcard published in 1909 (O. Væring, Nils Messel)



Figure 2. The Munch Room, National Gallery, Oslo, 1943

and displayed in the same configuration, culminating with the creation of a permanent Munch Room in 1937 (Willoch 1937, Messel 2012; see Figure 2).² Parallel to this, the ensemble became the most controversial group of works in the museum in terms of their restoration history. Public concerns were first raised in 1909 and in reference to the varnishing of unvarnished Munch paintings by the Museum's conservators. This invited the question of how Munch had intended his painted surfaces to look (Rød 1993). Past research focussing on Munch's varied and experimental painting techniques has pointed towards the artist's preference for matt surfaces rather than the overall glossy effect a varnish coating can bring. However, Munch's use of varnish remained a topic for proper investigation (Ormsby et al. 2015, Stein and Rød 2015).

METHODS

Since its foundation in 1837, the NM has had a long history of employing conservators, and the first official conservator position was established in 1870 (Willoch 1937). Despite this tradition, only a limited amount of early conservation documentation survives. Treatments undertaken on the Munch paintings were not recorded before the introduction of conservation reports in 1949. This study included a first in-depth group archival survey of the NM's Munch conservation records and incorporated surviving documentation of past varnishing recipes.³ Given that no analytical identification of the various varnish types had been previously undertaken across the whole Munch collection, this documentary information provided a basis for establishing an initial overview of the NM's historical varnishing practices and the types of varnish resins used. Information for the period prior to 1949 could only be acquired from archival research that addressed the broader historic context. The sources consulted concerned the Museum's acquisition policies, display legacies, exhibitions, activities, historic events, press references, and the attitudes and activities of the conservation community and neighbouring institutions. Archival findings were evaluated in relation to a series of screening tests carried out on a selection of paintings. The tests employed visual assessment and different photographic imaging techniques, such as ultraviolet-induced fluorescence photography (UVA), combined with non-invasive analytical techniques. Portable Fourier transform infrared (pFTIR) spectroscopy was used for the characterisation of the different types of varnish resins present and optical coherence tomography (OCT), for the visualisation of the different layers (Ford et al. 2019).4

FINDINGS

Through this integrated approach, it was possible to chart the NM's changing practices and attitudes towards conservation over the past 110 years (1909–2019) and to divide the conservation history of the Munch collection into three periods.

ACQUISITION AND DISPLAY (1909-44)

The first period was essentially governed by the acquisition and display policies of the first director, Thiis. Given the lack of pre-1949 conservation

19th Triennial Conference 2021 Beijing

THEORY, HISTORY, AND ETHICS OF CONSERVATION

An integrated conservation approach to a historic collection: The controversial varnishing of Munch's paintings

records, it remains unclear how many of the Munch paintings were treated under his directorship. However, documents consulted on his policies suggest that the restoration interventions undertaken were essentially aimed towards presentation. Thiis, who was also a close friend of Munch, made no secret of promoting him as an artist (Messel 2012). He also advocated that Munch's paintings deserved to be displayed as an ensemble and, ideally, in one room dedicated to the artist (Willoch 1937). A total of 33 paintings were acquired under his directorship within a 30-year period (1908–38), either bought directly from the artist or through generous donations. Between 1909 and 1937, Thiis moved Munch's paintings to different locations throughout the building but always displayed them as a group. Prior to the creation of the Munch Room, Munch also surpassed his contemporaries in terms of the total number of his paintings displayed in the gallery (Messel 2012). Archival photographs not only helped to document the earlier displays by Thiis but proved useful in showing the director's early replacement of the original frames (Figure 1). Munch's simple, thin wooden frames were exchanged for new, gilded and ornate 19th-century profiles with metal labels, to give the paintings a grander museum status.⁵

Conservator Harald Brun

Public reactions to the Museum's controversial varnishing of 1909 have also provided a valuable source of information for the early conservation history of the Munch collection. In his press review for the opening and the new Munch hanging, the art critic Jappe Nilssen accused the Museum's conservator Harald Brun (employed 1905-21) of 'vandalism' (Nilssen 1909, Stein and Rød 2015). Serious damage, through varnishing, had been inflicted to the paintings Puberty (Woll M 347), The Day After (Woll M 348) and Ashes (Woll M 378). Nevertheless, a noteworthy letter from Brun to Munch confirmed that he sought both the artist's permission and advice for the critical restoration of The Day After prior to the opening (Brun 1909, Stein and Rød 2015). Information gained from the recent survey combined with a re-examination of the painting's surface confirmed that it had been varnished and lined twice since 1909. Despite the public outcry of 1909, Munch remained silent on the matter. Furthermore, the Museum's archives revealed that there existed a long tradition for the periodic cleaning and varnishing of the painting collections at the NM, which can be dated back to the 1860s (Willoch 1937). Like the changing of frames, the cleaning and varnishing of paint surfaces was essentially carried out for display and presentation purposes. This was probably necessitated by poor indoor air quality and general pollution present in Oslo at that time (Grøntoft et al. 2019). Surface examination of Night in Nice (Woll M 224) and Winter in the Woods, Nordstrand (Woll M 445) confirmed the presence of a first varnish (natural resin) applied to the paintings in their frames. Interestingly, both artworks also feature in the earliest surviving photograph of the Munch hanging of 1909 and it is plausible that they share a similar varnishing history (Figure 1). When revisiting the surface of Night in Nice in 2019, only one thick natural resin varnish was detected. No visual or chemical evidence was found for a second and synthetic varnish layer stipulated in the treatment report

19th Triennial Conference 2021 Beijing

THEORY, HISTORY, AND ETHICS OF CONSERVATION

An integrated conservation approach to a historic collection: The controversial varnishing of Munch's paintings



Figure 3. The return rail transport of evacuated paintings (In *Bilder* 1946, p. 21)

of 1983 (Ford et al. 2019). This contradictory information reaffirmed the importance of aligning documentary research with the outcomes of visual and scientific investigations to reveal the full conservation history.

During his time at the NM, Brun did not varnish the two tempera works, Death in the Sickroom (Woll M 329) and The Scream (Woll M 333). He also left the small oil study Moonlight by the Mediterranean (Woll M 274) and Munch's large Self-Portrait with Cigarette (Woll M 382) unvarnished. Self-Portrait with Cigarette had been acquired by the Museum from Munch in the same year that it was painted, 1895. The painting is neither varnished nor has it undergone any restoration and remains a unique example of an untouched oil paint surface, as Munch had intended. In this light, and contrary to the 1909 criticism, Brun appears to have had an understanding and respect for the matt appearance of Munch's tempera technique, which made it especially unsuited to varnish. Notwithstanding the Museum's tradition for the periodic varnishing of the collections, Brun made exceptions to this practice. His restrained attitude is also evident in later disagreements with Thiis. Brun was reluctant to carry out what he described as the unnecessary periodic cleaning of the collection, which was strongly advocated by the director, a standpoint that finally cost Brun his position in 1921 (Rød 1993).

Conservator Ole Dørje Haug

Thiis quickly replaced Brun with the restorer Ole Dørje Haug (employed 1921–52). Haug had a closer relationship to Munch than Brun and was possibly more in tune with the artist's experimental and challenging techniques. Assisted by his brother, Martin, he had already installed the monumental Munch paintings in the Aula of Oslo University in 1916 (Frøysaker 2008). As for Brun, the lack of conservation reports pre-1949 makes it difficult to discern which Munch paintings Haug restored. However, in 1938 the NM owned 42 Munch paintings, and with the outbreak of World War II Haug is documented as having been responsible for the safe evacuation of the paintings by road and rail (Kongssund 2006). Once more, the NM's archives and articles in the press provided useful written and visual source material relating to the conservation history. The Munch paintings were unframed and packed into 30 makeshift wooden crates, some mixed with other paintings according to their size. The first wave of the evacuation took place in March 1940 with a specific prioritisation of paintings.⁶ Haug claimed to have monitored and reduced the high humidity levels in the silver mines at Kongsberg with weekly checks between 1943 and 1945, although no records exist to substantiate this (Rød 1997). Moreover, the wooden crates were not insulated, and the paintings were exposed to the Scandinavian winter climate during the various transports (Figure 3).

The entangled relationship between the paintings' acquisition, display and controversial conservation histories reflects the importance of understanding the implications of the historical trajectory of the collection.

POST-WAR RESTORATIONS (1945–65)

The second period, two decades after Munch's death in 1944, witnessed the restoration of Munch's paintings on an unprecedented scale throughout

19th Triennial Conference 2021 Beijing

THEORY, HISTORY, AND ETHICS OF CONSERVATION

An integrated conservation approach to a historic collection: The controversial varnishing of Munch's paintings



Figure 4. Wax-lining treatment of *Mother and Daughter* (Woll M 404), National Gallery, Oslo, ca. 1960s

Norway. At the NM, conservation dossiers document several extensive and structural treatments undertaken, such as the consolidation of unstable paint layers through lining. A total of five wax-linings, six glue-paste linings and one marouflage were carried out during this period, and 23 of the Munch paintings were cleaned and re-varnished (Figure 4). These activities were probably prompted by a combination of damages incurred from the evacuation transport and storage conditions combined with the post-war re-hanging of the galleries and loan requests. However, it is also significant that these treatments coincided with neighbouring restoration activities from the three other main Munch public collections. The Munch paintings from the NM, Aula of Oslo University, Munch's studio at Ekely and Rasmus Meyer collection in Bergen (KODE) were all linked together by a small group of conservators. Having either been trained or worked under the guidance of Haug, this group exchanged conservation methods and experiences concerning Munch's paintings. Haug remounted and re-installed the monumental Munch paintings in the Aula of Oslo University in 1946 (Frøysaker 2008). He was also in charge of the restoration of the artworks remaining in Munch's studio after the artist's death. This collection formed the core of the Munch Museum in 1963, where conservation responsibility was given to Haug's NM apprentice, Jan Thurmann-Moe (Thurmann-Moe 2016). Concurrently, the Bergen conservator Bjørn Kaland and his apprentice Leif Plahter are also known to have been both trained and supervised by Haug (Rød 1997). The gain derived from studying the archival conservation records, combined with the physical conservation traces present in the paintings, reveals how artefacts can also assist in documenting the biographies of people and histories related to specific institutions (Rudolph 2011, Ebert 2019).

CONSERVATION AND RESEARCH (1967–2019)

The third period of the conservation history of the Munch collection reflects an attitude of minimal intervention with an emphasis on preventive measures related to loans and display. By 1965, under the leadership of Leif Plahter (employed 1956–99), the NM's paintings conservation department had both photographed and documented the condition of most of the Munch collection. During the 1970s and 1980s, some structural work was undertaken on the Mustad family donation of ten paintings. The recent archival survey confirmed this diversity, revealing that 80 percent of the Munch paintings had been varnished and 40 percent re-varnished by the museum, involving five different types of resin applied using six different recipes between 1909 and 1993. The last painting documented as varnished by the NM was Self-Portrait with Spanish Flu (Woll M1296), in 1993. Throughout the 1980s–90s, a steady increase in loans and the theft of The Scream in 1994 prompted increased security measures. The emphasis shifted towards preventive conservation treatments related to loans and display, with the introduction of protective glazing and conservation framing. However, in contrast to the curatorial group presentation approach (Munch Room), conservation research has remained historically focussed on individual case studies. Between 1970 and 2015, the NM's conservation department was central in establishing conservation research on Munch in Norway (Plahter and Plahter 2015).

19th Triennial Conference 2021 Beijing

THEORY, HISTORY, AND ETHICS OF CONSERVATION

An integrated conservation approach to a historic collection: The controversial varnishing of Munch's paintings



Figure 5. The Munch Room, NM, 2020 (Guicciardini & Magni Architetti)

However, only 6 of the 57 paintings were scientifically investigated and none of them in relation to the rest of the group, or specific to the varnish controversy (Plahter 1999, Aslaksby 2009, Singer et al. 2010, Plahter and Topalova-Casadiego 2011, Aslaksby 2015).⁷

Current activities concerning the planned relocation and recreation of the Munch Room in the new museum building (opening 2022) have influenced new conservation attitudes related to aesthetics and display (Figure 5). With the rediscovery of an original frame for *Study of a Head* (Woll M 98), ongoing research into Munch's original frames further helped to address the collection as a group in terms of a combined conservation and curatorial approach.⁸ This combined group approach also influenced the type of recent scientific examinations employed to identify the historical varnish layers present. Non-invasive diagnostic techniques (UVA, pFTIR and OCT) were chosen to provide effective screening methods for identification of the varnish layers present over the whole surface of the works and enabled comparisons across and within the group of Munch paintings (Ford et al. 2019). A non-invasive approach was favoured for the technical investigations due to the scale of the collection and the examination of large surface areas. The advantage of employing non-invasive techniques overcomes the disadvantages associated with micro-sampling and reproducibility issues encountered with the analysis at a specific spot. This is an important criterion given the intertwining of the group approach with the complex conservation and varnish history, enabling comparison of varnishes that differ among paintings and even between different areas of one painting.

CONCLUSION

The conservation histories of museum institutions are often undervalued as a source when revisiting the surface of complex artefacts. By tracing the controversial conservation history of NM's Munch paintings as a collection, this group case study exemplifies how the integration of a broader historic context allows for a better understanding of an institution's past conservation and working practices. Despite the lack of early conservation records, archival, press, and acquisition and display histories can also act as valuable sources for specific groups or collections. The relevance of historical links and conservation trends concerning Munch's paintings in general was noted across collections and parallel institutions. Acknowledging the collection as an ensemble of 57 paintings and adopting a group approach was significant. It was shown that the often clinical and technical approach to complex conservation issues can be misleading if it is solely evaluated in isolation from both an object's conservation history and its history as part of a group. An example of inconsistency between documental and technical evidence was given by Night in Nice. Piecing together the conservation history of a leading institution also demonstrated its relevance as a marker for the development of a conservation research in Norway. The methodology of integrating the display and conservation histories influenced the choice of a non-invasive approach using specific diagnostic tools to re-examine the paint surfaces. Although the study did not yet give any specific answers as to the type of future conservation treatments, it underlined an important shift in attitudes towards future preservation. The

19th Triennial Conference 2021 Beijing

THEORY, HISTORY, AND ETHICS OF CONSERVATION

An integrated conservation approach to a historic collection: The controversial varnishing of Munch's paintings

value of adopting a group case study approach exemplified the historical complexity of a specific ensemble of artworks, collected over time, sharing a specific group display legacy, and intertwined with a controversial conservation history. Future conservation strategies, such as the removal of the controversial varnishes, can now be more precisely formed in line with the collection's history and specifically tailored for the whole group, parallel to the curatorial approach and to the Munch Room.

Finally, by adopting a more holistic assessment of the conservation issues in question, the integrated approach underlined the additional biographical significance of specific groups or collections in museums. Like the multilayered physical aspect of the varnishes present in the paintings, this study demonstrates that the unique conservation and display histories similarly add inseparable, heterogeneous and complex layers of value and meaning to the works over time.

NOTES

- ¹ Since 2003, the former collection of the National Gallery of Art is now part of the NM. The historical background to the collection is part of the author's PhD study and was revised from an earlier introductory text (Ford et al. 2019).
- ² To date, 18 to 20 Munch paintings have hung in the Munch Room, which will be recreated in the new museum building opening in 2022.
- ³ The NM's historical varnish recipes and Munch conservation dossiers (1949–2019) were examined together as a group by the author and form the basis of his PhD study.
- ⁴ The OCT results will be presented at the inArt2022 conference with a forthcoming publication in the *European Physical Journal Plus* (Ford et al., 2021, 'Munch and optical coherence tomography. Unravelling historical and artist applied varnish layers in painting collections').
- ⁵ Thiis spent Kr. 425.00 on new frames, which included the five Munch paintings recently purchased from Blomqvist (NM, Korrespondansearkiv/sakarkiv, 1909).
- ⁶ In 1940–43, the Munch paintings were documented as having been evacuated in six different groups to Bagn Bygdesamling and Hadeland Folkmuseum. All but two (*Spring* and *Death in the Sickroom*) were stored together in the silver mines at Kongsberg until the end of the war (NM, Korrespondansearkiv/sakarkiv, D-0023,24 and 26, 1942–46).
- ⁷ The following paintings have been technically examined: *Death in the Sickroom, Spring, The Sick Child* (Woll M 130), *Betzy Nilsen* (Woll M 144), *Hans Jæger* (Woll M 174) and *The Scream.*
- ⁸ The original wooden frame had been replaced by a new gilded frame at the time of purchase. It was re-discovered in the museum stores by Thierry Ford in 2015.

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REFERENCES

Aslaksby, T. 2009. *The Sick Child:* A painting in transformation – Techniques and treatment. In *Edvard Munch:* Det syke barn. *Historien om et mesterverk /* The Sick Child: *The story of a masterpiece,* eds. Ø. Ustvedt, T. Aslaksby, and Nasjonalgalleriet (Norway). Oslo: Nasjonalmuseet for kunst, arkitektur og design.

Aslaksby, T. 2015. Edvard Munch's painting *The Scream* (1893): Notes on technique, materials and condition. In *Public paintings by Edvard Munch and his contemporaries. Change and conservation challenges*, eds. T. Frøysaker, N. Streeton, A. Kutzke, F. Hanssen-Bauer, and B. Topalova-Casadiego. London: Archetype Publications.

19th Triennial Conference 2021 Beijing

THEORY, HISTORY, AND ETHICS OF CONSERVATION

An integrated conservation approach to a historic collection: The controversial varnishing of Munch's paintings Brun, H. 1909. Letter to Edvard Munch. Norwegian National Art Museum archives. Nasjonalgalleriet, Johannes Rød, forskerarkiv, E-0002.

Callen, A. 1994. The unvarnished truth: Mattness, 'primitivism' and modernity in French painting, c. 1870–1907. *The Burlington Magazine* 136(1100): 738–46.

Ebert, B. 2019. Biographies carved in wood. Reconstructing narratives for medieval polychrome sculptures, volume II of II. PhD dissertation, Department of Archaeology, Conservation and History of the University of Oslo, Norway.

Feller, R.L., N. Stolow, and E.H. Jones. 1985. *On picture varnishes and their solvents*. Washington: National Gallery of Art.

Ford, T., A. Rizzo, E. Hendriks, T. Frøysaker, and F. Caruso. 2019. A non-invasive screening study of varnishes applied to three paintings by Edvard Munch using portable diffuse reflectance infrared Fourier transform spectroscopy (DRIFTS). *Heritage Science* 7: art. 84.

Frøysaker, T. 2008. Bevaring av Edvard Munchs Aula-malerier før og nå. *Kunst og kultur* (*trykt utg*) 91(1): 2–17.

Grøntoft, T., L. Porsmo Stoveland, and T. Frøysaker. 2019. Predicting future condition and conservation costs from modelling improvements to the indoor environment: The monumental Munch–Paintings in the University of Oslo's Aula Assembly Hall. *Journal of Conservation and Museum Studies* 17(1): 1–15.

Joyce, R.A. and S.D. Gillespie, eds. 2015. *Things in motion. Object itineraries in anthropological practice*, School for Advanced Research Advanced Seminar Series. Santa Fe: School for Advanced Research Press.

Kongssund, A. 2006. Saaledes slumrer vist ogsaa hos os mangt et udmerket geni under koften. *Kunst og Kultur* 2(89): 99–124.

Messel, N. 2012. «Den smakfuldeste dekoratør i Norden»: Jens Thiis i Nasjonalgalleriet. *Kunst og Kultur* 4(95): 200–17.

Muir, K. 2009. Remembering the past: The role of social memory in the restoration of damaged paintings. In *Conservation: Principles, dilemmas and uncomfortable truths*, eds. A. Richmond and A. Bracker. Oxford: Butterworth-Heinemann/London: Victoria and Albert Museum.

Nilssen, J. 1909. Hærverk. Dagens Nyt: 14th June 1909.

Ormsby, B., T. Frøysaker, and B. Topalova-Casadiego. 2015. Munch 150: Reflections and challenges. In *Public paintings by Edvard Munch and his contemporaries. Change and conservation challenges*, eds. T. Frøysaker, N. Streeton, A. Kutzke, F. Hanssen-Bauer, and B. Topalova-Casadiego. London: Archetype Publications.

Phenix, A. and J. Townsend. 2012. A brief survey of historical varnishes. In *Conservation of easel paintings*, eds. J.H. Stoner and R. Rushfield, 252–63. London: Routledge.

Plahter, L.E. 1999. Beneath the surface of Edvard Munch: Technical examinations of four paintings by Edvard Munch. In *Conservare necesse est: festskrift til Leif Einar Plahter på hans 70-årsdag/For Leif Einar Plahter on his 70ieth birthday*, eds. E. Skaug, F. Hanssen-Bauer, and K. Kollandsrud. Oslo: Nordisk Konservatorforbund, Den norske seksjon, IIC-Nordic Group.

Plahter, U. and B. Topalova-Casadiego. 2011. *The Scream* by Edvard Munch: Painting techniques and colouring materials. In *Studying Old Master paintings. Technology and practice*, ed. M. Spring. London: Archetype Publications/The National Gallery.

Plahter, U. and L.E. Plahter. 2015. Munch's paintings: Scientific research both recent and in retrospect. In *Public paintings by Edvard Munch and his contemporaries. Change and conservation challenges*, eds. T. Frøysaker, N. Streeton, A. Kutzke, F. Hanssen-Bauer, and B. Topalova-Casadiego, 3–35. London: Archetype Publications.

Rød, J. 1993. Harald Brun: Konservator ved Nasjonalgalleriet 1905–21. *Kunst og Kultur* 76: 89–107.

Rød, J. 1997. *Hestekur*, Aulamalerier og Nasjonalgalleriet: om kunstneren og konservatoren Ole Dørje Haug (1888–1952). *Kunst og Kultur* 80: 54–66.

Rudolph, K. 2011. Separated at appraisal: Maintaining the archival bond between archives collections and museum objects. *Archival Issues* 33: 25–39.

19th Triennial Conference 2021 Beijing

THEORY, HISTORY, AND ETHICS OF CONSERVATION

An integrated conservation approach to a historic collection: The controversial varnishing of Munch's paintings

Singer, B., T. Aslaksby, B. Topalova-Casadiego, and E. Storevik Tveit. 2010. Investigation of materials used by Edvard Munch. *Studies in Conservation* 55(4): 274–92.

Stein, M. and J. Rød. 2015. A contribution to the varnish history of the paintings by Edvard Munch at the National Museum and Munch Museum, Oslo. In *Public paintings by Edvard Munch and his contemporaries. Change and conservation challenges*, eds. T. Frøysaker, N. Streeton, A. Kutzke, F. Hanssen-Bauer, and B. Topalova-Casadiego, 257–70. London: Archetype Publications.

Thurmann-Moe, J. 2016. Edvard Munch Livsfrisens Tilblivelse. Riga: InDevelop.

Willoch, S. 1937. Nasjonalgalleriet gjennom hundre år. Oslo: Gydendal.

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