New Ways of Seeing and Knowing

How Art Moved from the Laboratory to the University Lecture Hall

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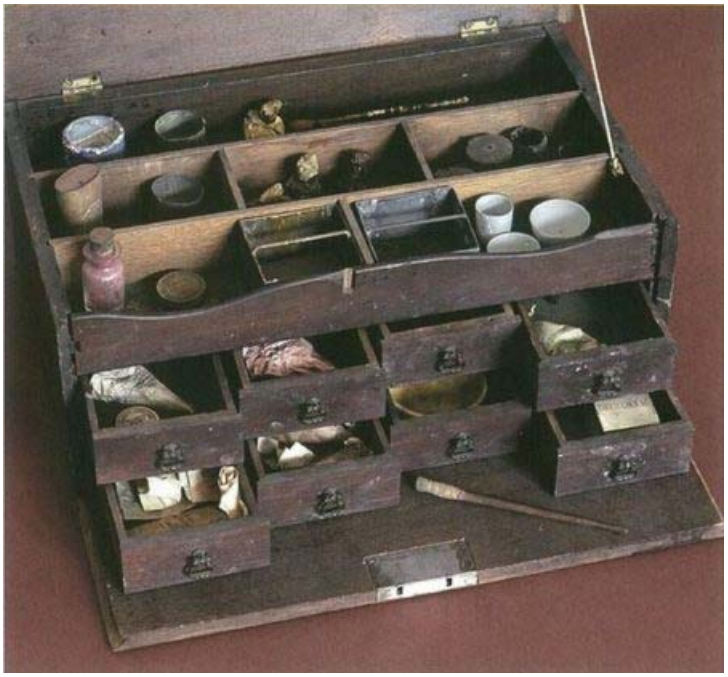
New Ways of Seeing and Knowing. How Art Moved from the Laboratory to the University Lecture Hall

By Sven Dupré

One of the ARTECHNE project's home bases is the department of art history (and history) at Utrecht University. We are fortunate that in Utrecht the study of technique in the arts has a tradition reaching back one century. This is local university history, sure, but local history strongly connected to international developments in art history, conservation and the scientific examination of art in the laboratory in the first half of the twentieth century.

Exactly one hundred years ago, in 1917, the inaugural professor of art history at Utrecht University, Willem Vogelsang, appointed J.T.A. Swillens as his assistant. In the following decades, until his retirement in 1955, Swillens brought together a 'Technical Collection'. The history of the Swillens collection is one of highs and lows. Hardly used for teaching purposes in more recent years, and assembling dust in the storage rooms of Utrecht University Museum (http://www.universiteitsmuseum.nl/english), part of the collection is now on display in the exhibition 'Well made. In praise of the creative process' (http://www.kunsthalkade.nl/tentoonstelling.php?item=3072) at the Kunsthal Kade in Amersfoort (21 January – 17 April 2017).

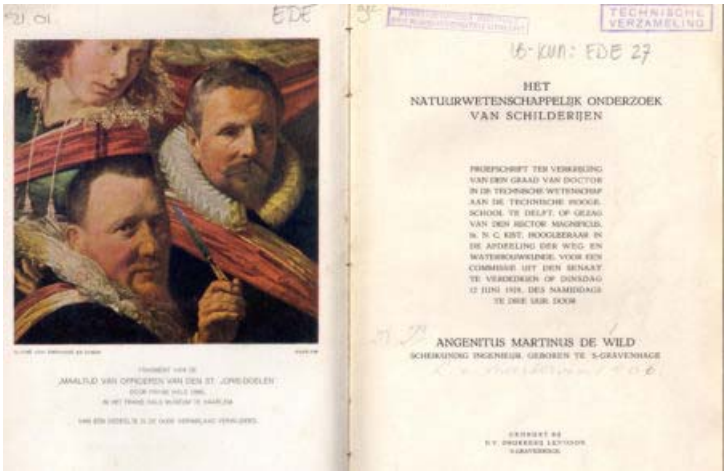
Swillens was a sort of auto-didact as far as art history was concerned, and he never climbed the academic career ladder as high as he might have wished. As Vogelsang's assistant his most important job specification consisted of drawing the plates supporting Vogelsang's classes on composition, form and perspective. Nevertheless, Swillens' own interests in materials and techniques did connect to the academic art history of the Vienna School of Alois Riegl in which Vogelsang was educated. Though strongly focused on formal analysis, and condemning the reduction of art to its materiality, Riegl, and Vogelsang in his footsteps, did not see any exclusive opposition to the study of materials and techniques.



(https://artechne.wp.hum.uu.nl/wp-content/uploads/sites/256/2017/02/Schilderskist-Swillens-Vogelsang-1.jpg)
Painter's Box Swillens, ca. 1830, copyright Utrecht University Museum.

Swillens' Technical Collection was a teaching collection. Primarily used for demonstration purposes in the lecture hall, it contained very few historical, authentic objects. One exception is a painter's box of ca. 1830 containing among other things, paints in bags made of pig's bladder (the paint tube was only invented a few decades later). However, most materials, tools and instruments (from pigments to Alberti's veil, a perspective instrument) were purpose-made for the collection. When the Swillens collection is displayed, the choice of the curator typically (and understandably) falls on these three-dimensional objects – also in the exhibition at the Kunsthal Kade, where they are shown in cupboards on loan from the Cultural Heritage Agency of the Netherlands. Nevertheless, equally important for Swillens, must have been the collection of books, articles, photographs and newspaper clippings.

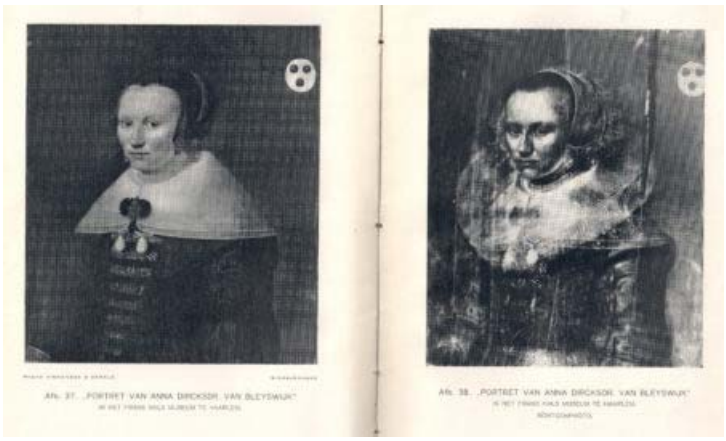
Recently, I had the opportunity to investigate the 'flatlands' of the Swillens Collection in the storage rooms of the University Museum located on Utrecht University's science campus. Never properly catalogued, the two-dimensional documentation throws additional, and occasionally, a somewhat different light on the Swillens Collection, and the teaching of technical art history at Utrecht University in the period before World War II. Here I want to draw attention to the collection of X-Ray images, ranging from photographs to illustrations cut from books to journal and magazine articles. One of these articles is "Bronzino X-Rayed" by Alan Burroughs, which in September 1930 had appeared in 'Creative Art' (and in 1931 also in the British Journal of Radiology). In the 1920s Burroughs pioneered the application of X-rays to paintings at the Fogg Art Museum in Cambridge, Massachusetts.



(https://artechne.wp.hum.uu.nl/wp-content/uploads/sites/256/2017/02/Title-Page-Dissertation-De-Wild-e1486654989543.jpg)
Title page of Martin de Wild's doctoral dissertation, copy of Utrecht University Library, with stamp 'Technische Verzameling' indicating that it belonged to Swillens' Technical Collection.

In the Netherlands Angenitus Martinus (Martin) de Wild devoted one chapter of his doctoral dissertation, which he defended in 1928 at the Technical University of Delft, to X-ray photography of paintings. Trained as a chemical engineer, Martin de Wild was born in one of the most prominent families of Dutch restorers, who had set up a

conservation studio in The Hague and were involved in restoration commissions at the Mauritshuis. While his uncle Carel and his father Derix de Wild had shown a keen interest in the application of chemistry of painting materials in conservation and restoration, Martin combined a background in conservation and restoration with scientific training, which in and outside the Netherlands was still a rare mix of expertise. The microscopic analysis of painting samples was the main subject of his dissertation, generously illustrated with microphotographs of pigments.



(https://artechne.wp.hum.uu.nl/wp-content/uploads/sites/256/2017/02/X-Rays-De-Wild-e1486655081727.jpg)
Portrait of Anna Dircksdr. Van Bleyswijk (left, Frans Hals Museum, Haarlem) and X-ray photograph (right) showing that it had been overpainted, from De Wild's dissertation.

In 1938 Martin de Wild was appointed as 'privaatdocent' at the Institute for Art History at Utrecht University to teach the scientific examination of art as it served the analysis of painting technique. In his inaugural lecture De Wild made it clear what he considered the most important skills to teach to students of art history. From X-ray images of paintings art historians can learn more about the material construction of a painting than with the naked eye, but only if they have been taught how to interpret these 'shadowgraphs'. De Wild warned that "above all, one should take into account that the reading of an X-ray photograph is a completely different task from the study of artistic elements in a painting". As in addition, students of art history should learn to identify pigments from microphotographs, it is evident that new ways of scientifically examining art in the laboratory required students to learn new ways of seeing in the university lecture hall.

This is a lesson from history we should take to the class room of art history today when new ways of looking through paintings, such as MA-XRF (https://lookingthroughartblog.wordpress.com/2017/01/01/rembrandts-portraits-of-marten-soolmans-and-oopjen-coppit-from-1634-examined/), are increasingly applied in research.

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