

REDIVIVUS

CONSERVATION AND RESTORATION OF PAINTINGS

redivivus [re-də-'vē-vəs]

adj. brought back to life; revived; restored

ABOUT

Redivivus specializes in the conservation, restoration and investigation of paintings and polychrome objects, offering treatments, materials, technical investigation and documentation comparable to the quality the world's top museums deliver.

Gwendolyn Boevé-Jones graduated as a painting conservator and art historian from the **Institute of Fine Arts at New York University**, after which she was awarded a Post-Graduate **Samuel Kress Conservation Fellowship** at the **Van Gogh Museum** and the **Kröller-Müller Museum** in The Netherlands.

Gwendolyn went on to work for the **Rijksmuseum Amsterdam** and started working independently in 1995, which led to the foundation of the limited company **Redivivus** in 2010.



OUR PHILOSOPHY

Contemporary connoisseurship, as described by Prof. Opperman, *"differs from other, more purely theoretical approaches in its insistence that all hypotheses must constantly be tested against the reality of the physical work of art"*.

This definition describes what leads Redivivus to conceptualize treatments and methodologies by aiming to **detect, analyze and interpret the physical evidence** of an artwork scientifically: additionally understanding the artistic intent with **respect for the object's integrity and history**.

High quality materials, reversible techniques, and clear documentation, are at the heart of our philosophy guiding the long term preservation of an artwork.

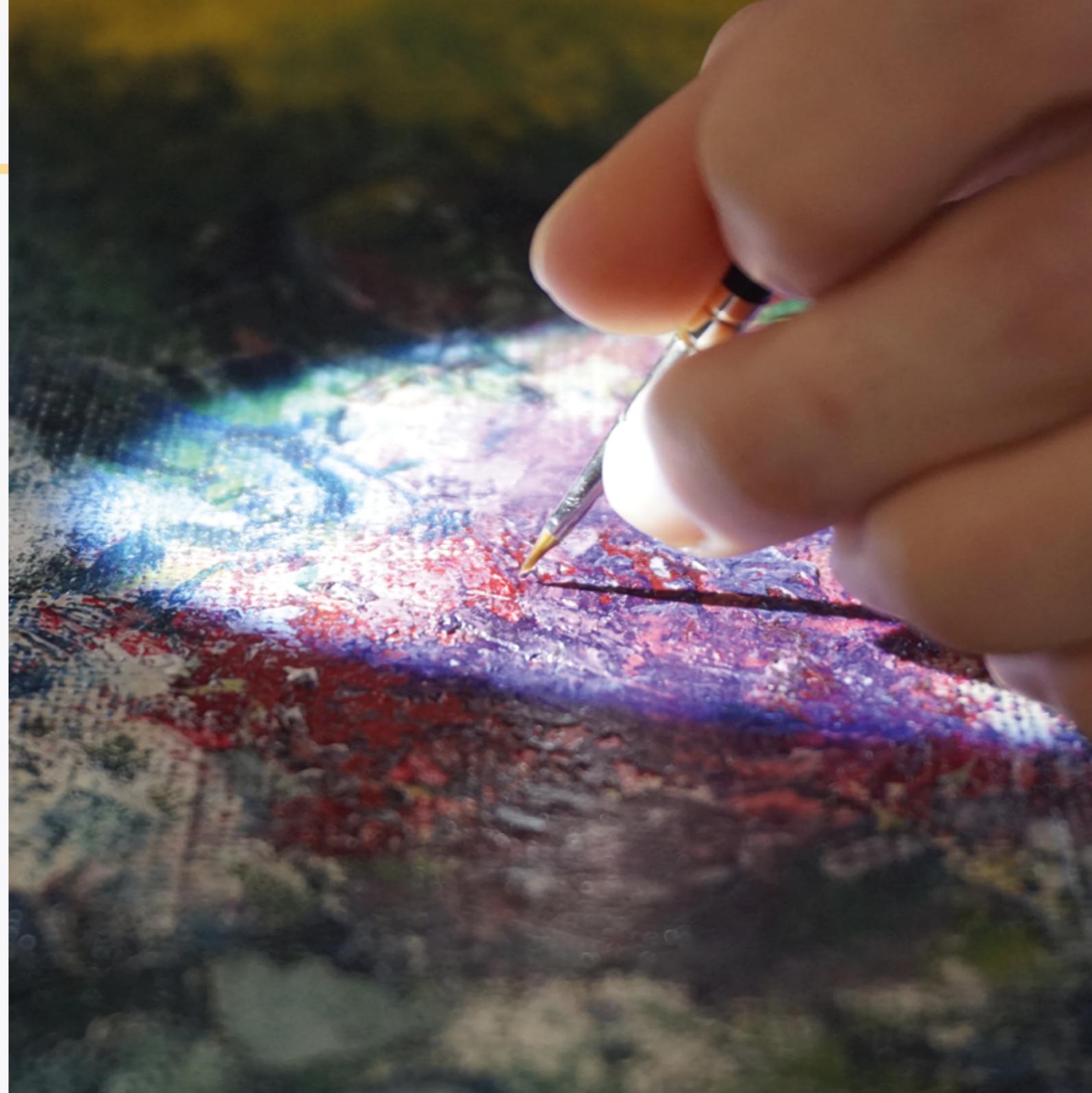
OUR SERVICES

At **Redivivus**, we employ a variety of high definition instruments to explore, analyze and document an object's condition. This is digitally captured using **macro and micro techniques**. The artwork's components, structure, materials, and history are investigated to find the optimum solution for treatment and target the best possible result.

The condition of the artwork is documented with various imaging techniques and a **detailed written and visual report**. We employ various techniques to visualize and analyze the layers of the artwork, including the **conservation and restoration** procedures at all stages of a treatment.

We advise on **preventive conservation**, often beginning with the initial **survey of the condition of a collection or singular artwork** in order to further the long term preservation of artworks. This service can also include the evaluation framing and hanging systems, as well as the **supervision of transportation** of the object.

The **technical investigation of artworks**, based on material analysis and technical imaging, can aid in the attribution and authentication of artworks. At Redivivus we utilize various cutting edge devices to capture and analyze objects with non-invasive techniques, including UV- and IR-Reflectographies, as well as **X-Ray digital photography** and **High Definition Video Microscopy (HIROX)**. Furthermore, we can undertake **X-Ray-Fluorescence (XRF)** measurements for elemental analysis, and we also can take and analyze microscopic cross-sections to better understand the stratigraphy of the ground, paint and varnish layers.





Microscopic detail of painting by Anselm Kiefer

TECHNICAL INVESTIGATION

To carry out proper conservation and restoration treatments, it is essential to understand the build up of the painting's layers: the materials, ageing, as well as possible forms of degradation and incidental damages.

Redivivus, is privileged to have a **wide range of the technical investigation equipment** and the **specialized research expertise** in house such as **UV-Fluorescence Imaging, Cross Section analysis, and IR-Reflectography**.

For example, by penetrating the upmost layers of paint, IR-Reflectography allows us to see materials absorbing the near-infrared radiation. These include underdrawings but also specific materials, and alterations by the artist during the creative process. Past restoration treatments can also be imaged with IR. At Redivivus, we employ the latest technology in the field to capture high definition infrared imaging - **Apollo Infrared Reflectographic Digital Camera**.



IR-Reflectographic High Definition Camera Apollo

Digital X-Ray Imaging

Analyzing an artwork with X-rays is useful for detecting issues concerning canvas or panel support structures, as well as for revealing compositional changes and underlying paint layers.

This type of imaging can help understand the construction of textile and wooden objects. We employ a digital x-ray device to capture images instantly.

Hirox Video Microscope

With high magnification, an artwork can often be investigated without the need for taking any samples. The HIROX Video Microscope available in our facilities allows us to take high definition images in raking, UV and normal light.

This Hirox comes with a fully automatized motion system, which helps document large areas of the artwork's surface in high topographic definition.



Detail of protrusions from a painting by A. Kiefer under high magnification



Detail of a digital X-Ray of a panel painting. Depiction of a 17th Century Dutch Interior

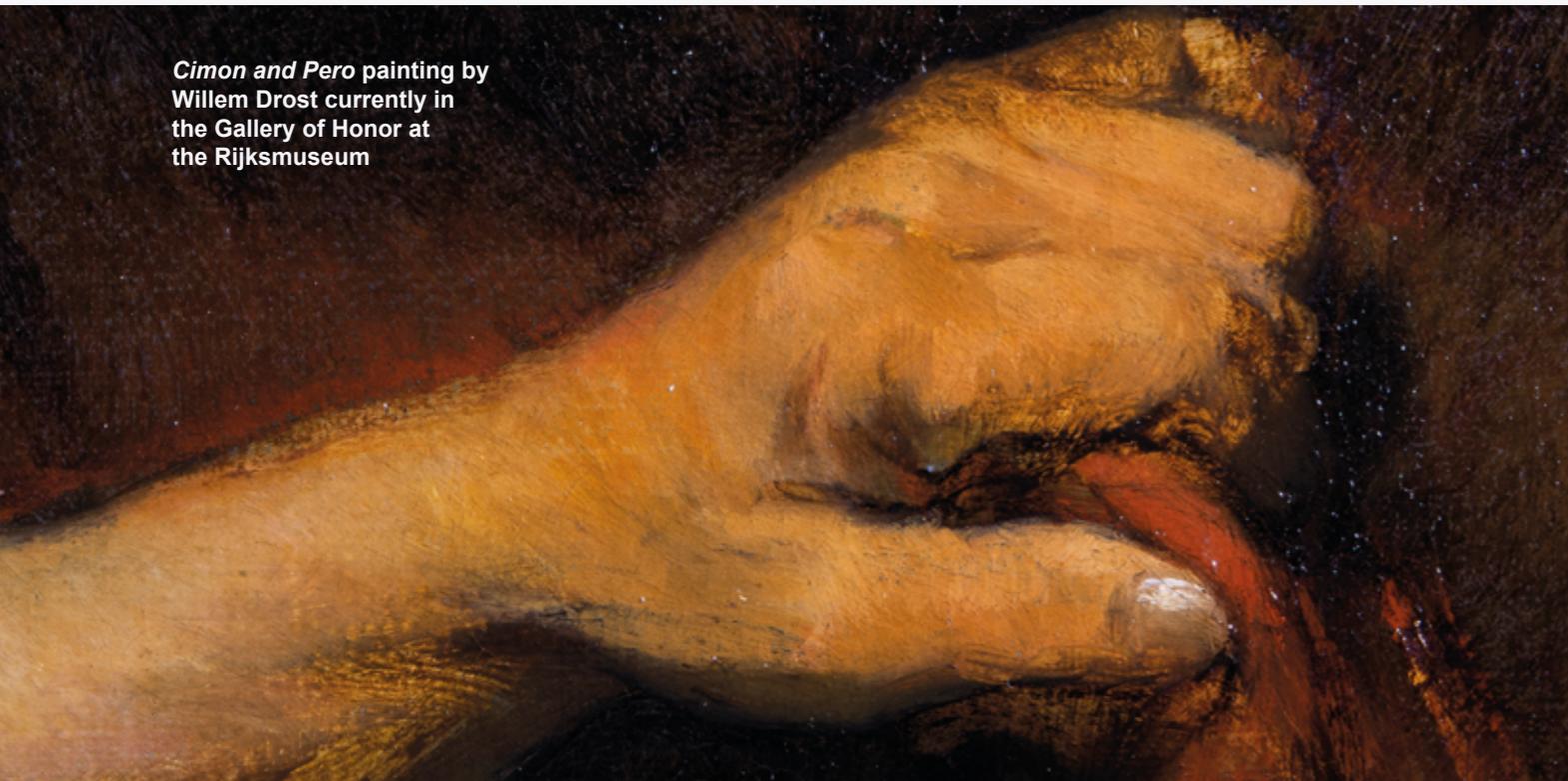
OUR EXPERTISE

For more than thirty years, Gwendolyn Boevé-Jones has been conserving and restoring paintings by **Old, Modern** and **Contemporary Masters**. During that long history, an impressive group of clients have found their way to our services: **art museums, governmental organizations, renowned gallery owners and private collectors** from both The Netherlands and abroad. Amongst our clients are **Museum Boijmans Van Beuningen, The Rijksmuseum, Singer Laren Museum, The Hague Historical Museum, Qatar Museum Authority, The Triton Collection, EKARD Collection** and **the Dutch Parliament**.

Over the years, we have been involved with numerous research projects, including treatments and publications on artists, such as **Salvador Dalí, Charley Toorop, Kees van Dongen, Jean Baptist Vanmour, Max Beckmann,** and **Francis Picabia**.

Our team is composed of a group of highly trained conservators, the well-known Conservation Scientist Jaap Boon and Radiologist Gerard Kieft. Teamwork is core to our studio practice.

Cimon and Pero painting by Willem Drost currently in the Gallery of Honor at the Rijksmuseum



OUR FACILITIES



Located in the building of the art handling and depot facility of Hizkia van Kralingen, **Studio Redivivus** covers over 300 m². The studio is optimally equipped for large-scale projects, as well as single artworks. Our facilities include a large open **workspace, photography and technical imaging studio**.

Our studio's controlled environment guarantees a stable temperature and relative humidity to provide the optimal climate condition for the artworks. Separate from the studio, we share a quarantine space for works that need treatment in isolation.

The facilities are tailored to art **collection storage and transport** and provide security of the highest level.

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TECHNICAL
IMAGING



"Iris" by Emil Nolde
High definition pictures in normal, raking and UV light

REDIVIVUS TECHNICAL IMAGING

Technical imaging uses specific wavelengths of energy to perform non-destructive analysis of an artwork. The resulting images improve our understanding of the artwork's condition and yield information on the artist's techniques and materials.

Sometimes **hidden signatures or inscriptions** are revealed, **earlier compositions** are uncovered, or **pentimenti** come to light. This type of investigation can be of great value for those interested in the study, research, and authorship of artworks.

Condition issues or degradation phenomena can be identified, documented, and better understood in order to formulate the most appropriate conservation treatment plan.

TECHNICAL IMAGING SERVICES

We offer a wide range of analytical and investigative methods to our clients including:

- High Definition Photography
- Ultraviolet Fluorescence Photography
- 3D Digital Microscopy
- X-Radiography
- Infrared Reflectography
- Technical Imaging Report
- Interpretation of results
- Additional analytical investigation possible upon request (MA-XRF, cross-sections)

HIGH DEFINITION PHOTOGRAPHY

Photographic records play an important role in the investigation of artworks. **High definition photography** documents and advances our understanding of condition issues on artworks.

High resolution images are captured in **normal** and **raking light** angles, as well as with **transmitted light** and **ultraviolet light**. These images allow us to zoom in on details and make comparisons with infrared and x-ray images of the artwork.



"Couple aux têtes pleines de nuages"
by Salvador Dalí

High definition pictures
in normal light

Anthony van Dyck
High definition detail in normal light





Jan Anthonisz van Ravensteyn
High definition detail picture under UV-radiation

ULTRAVIOLET FLUORESCENCE PHOTOGRAPHY

Materials present in artworks can react with UV light and reflect back a lower energy radiation, a phenomenon called **UV induced fluorescence**.

Overpaint, **binding media**, **varnishes**, and certain **pigments** show distinctive fluorescences. This reveals the use of specific materials and gives a clear rendering of their location. UV imaging can verify and differentiate surface coatings, degradation products, restorations and other condition issues of the artwork.



"Couple aux têtes pleines de nuages"
by Salvador Dali

UV induced
fluorescence



HIROX
3D-Digital Videomicroscope
at Redivivus

3D MICROSCOPY HIROX VIDEO MICROSCOPE

Microscopy is an essential part of the analysis of artworks: it enhances our understanding of the artist's technique, the nature of the materials employed, and their ageing process.

At Redivivus we work with the **HIROX** digital video-microscope to capture high-definition, high-magnification images. This technique can be performed on the surface or on microscopic samples.

The motorised system offers video recording, microscopic scanning of the surface, as well as stacking of 2-D images to create a focused 3-D picture and topographical mapping. These techniques can be used in combination with other light sources such as **UV-light, raking, reflective** or **diffuse light**.



Pictures obtained with the HIROX 3D Digital Videomicroscope
Detaching paint layer and a microscopic paint sample (Photo: Jaap Enterprise at Redivivus)

DIGITAL INFRARED REFLECTOGRAPHY

Infrared radiation can penetrate some paint layers, making it possible to capture underlying drawing materials or pigments.

Our **Apollo Infrared Camera** represents the latest standard for high-definition infrared reflectography (IRR). The result is high-resolution images with an unparalleled level of clarity and detail.

Our system allows both, **reflected** and **transmitted IRR**. With the use of **band-pass filters** certain wavelengths are blocked, allowing the selective imaging of specific materials.

Infrared can be used to study various aspects of a painting, from **underdrawings** and **pentimenti** in the work, to **hidden signatures**.

APOLLO Infrared
Reflectographic
Digital Camera



Hendrick Avercamp
Detail of an IR-Reflectography and normal light





Tudor Panel

The imaging confirms that the name on the 20th Century inscription is correct. An older inscription below is visible

X-RADIOGRAPHY



"Artist's Studio" by Jan Davidsz de Heem.

Overlay of HD normal light image and X-Radiograph

The position of the artist behind his easel was changed from an earlier placement.

X-radiographs record the transmission of high-energy radiation when passing through matter. This way differences in density, thickness, and chemical composition of an object's materials can be captured.

With the digital device at Redivivus we obtain X-Radiographs instantly.

X-rays are useful for detecting the condition of canvas or panel support structures. They can also reveal compositional changes and underlying composition with different or higher density, such as paints containing heavy metal or lead-based pigments.

TECHNICAL IMAGING REPORTS

The captured images and results can be documented in a written technical imaging report that will focus on your particular research inquiries.

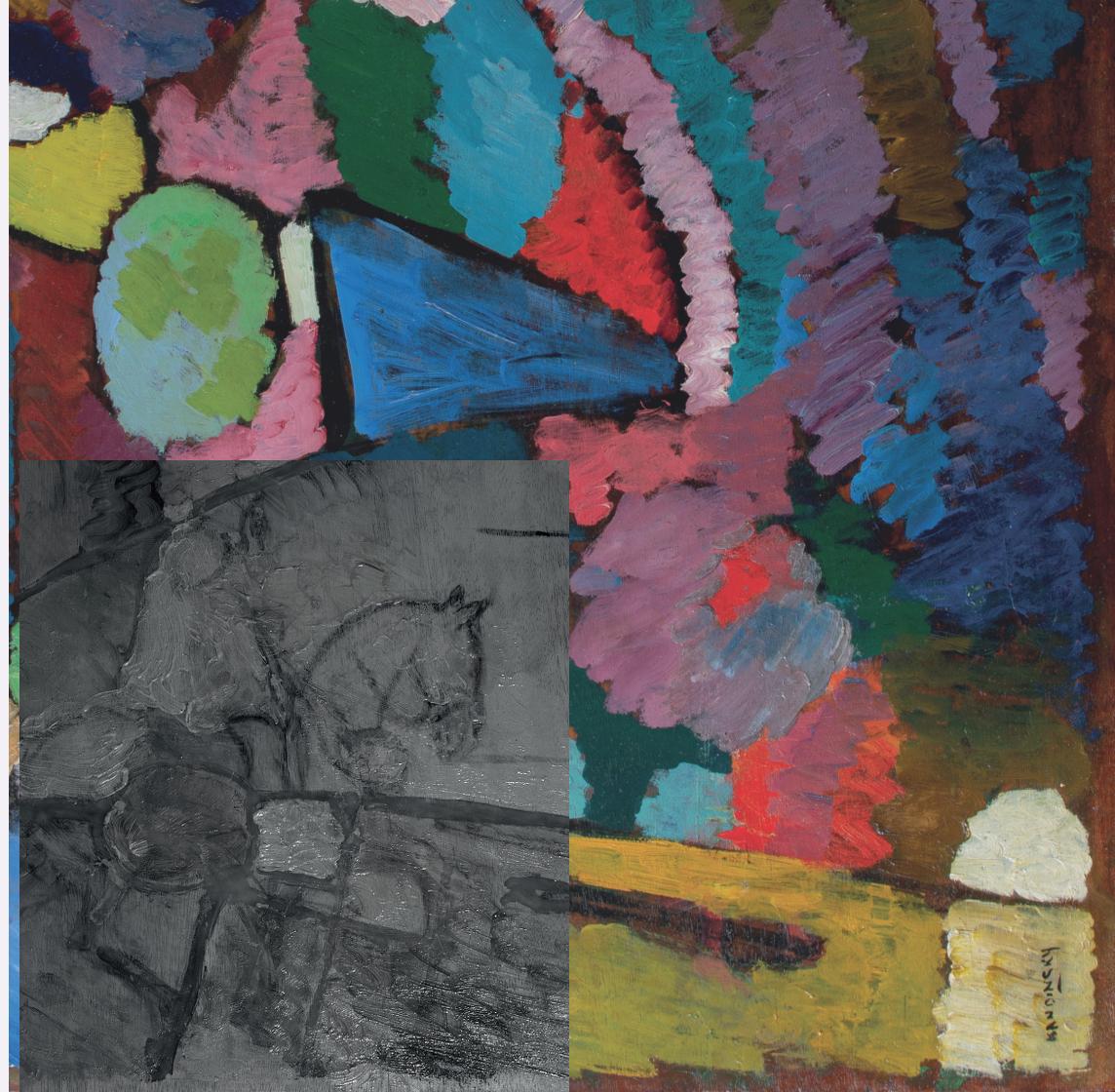
For further scientific and art historical research, we collaborate with renowned experts and scholars from various institutions across the Netherlands and internationally.

PACKAGES INCLUDE:

- Technical imaging adapted to your particular inquiry
- High-Definition photography
- Digital, and if required, printed pictures of the artwork
- Results of the investigation with or without interpretation
- Results of any additional analytical investigations

Wassily Kandinsky

Technical investigation revealed a previous painting with a horse by the artist under the paint layer



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THE VELOXY® SYSTEM AT STUDIO REDIVIVUS

Our 300m² studio is located at the HIZKIA fine art depot in The Hague, a high-security building tailored to the storage and transportation of art.

At our studio, treatments are supported by an array of technical investigation and imaging apparatus that we use to explore, analyze, and document an artwork's condition.

Studio Redivivus employs the Veloxly® System to provide the safest means to eradicate pests from cultural heritage objects in an isolated quarantine room.

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PEST ERADICATION IN CULTURAL HERITAGE
THE VELOXY® SYSTEM



PESTS IN CULTURAL HERITAGE

The understanding of the microbial- or pest-related deterioration of artworks has increased in the last decades. When left untreated, **artworks can suffer** irreparable structural and aesthetic **damage**. Pests can infect any type of organic material, such as:

- wooden strainers and stretchers
- panel supports
- picture frames
- books and paper
- leather

To guarantee the safety of the artwork, it is important to secure a **prompt** diagnosis, then take the necessary steps towards pest **eradication**.

WHY VELOXY®

Contrary to other methods of pest elimination (such as biocide injections, warm air eradication systems, or freezing) **the Veloxi® system exterminates** pests without catalyzing degradation, denaturing proteins, or affecting the organic structures of an artwork's matrix - thereby killing pests **without risking damage to the artwork**.

Veloxi® offers the most environmentally-benign eradication system on the market, and is known to be completely harmless to user, environment, and object while being **highly effective against pests**.

The Veloxi® system **can eliminate** various types of pests, such as woodworm, moth, beetles, termites and/or mites, and silverfish.

HOW VELOXY® WORKS

The objects are placed into air-tight, custom-made containers where oxygen is replaced with atmospheric nitrogen.

The pests are eradicated by keeping a constant oxygen level of **less than 0.02% for at least 23 days**. The system also **controls relative humidity¹ and temperature levels** within the sealed container.

The generated atmosphere ensures the complete extermination of pests at every developmental stage (egg, larvae, chrysalis, adult).

¹ Anheuser K, Nilsen L, and Rossipal M. 2019 "Anoxic Treatment or Freezing? Consider Your Options." Integrated Pest Management for Cultural Heritage: Proceedings from the 4th International Conference in Stockholm, Sweden, 21-23 May 2019. 176-184.

