



Science in archives

How to find data
about science

Short stories
about scientific archives

red

IRR

UV fluorescence

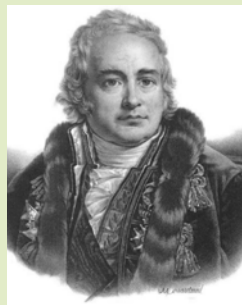
ARCHLAB

Access to specialised knowledge and organized scientific information datasets largely unpublished from prestigious archives.

HISTORY

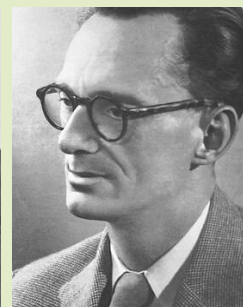
The way towards scientific archives

1807: Jean Chaptal publishes "La Chimie appliquée aux arts"



1888: Frederich Rathgen Jean Chaptal created in Berlin the first laboratory within a museum (SPK)

1938: Cesare Brandi founded the Central Institute for Restoration (ICR)



1948: Paul Coremans established the Institute royal du patrimoine artistique in Brussels (KIK IRPA)

NUMBERS

10 providers in **9** countries
8 calls in **4** years
60 proposals
more than **100** users involved across Europe

SCIENTIFIC ARCHIVES; A STORY 2-CENTURY LONG

INTERVIEW TO HILDE DE CLERCQ (KIK IRPA),
HEAD OF ARCHLAB



Hilde De Clercq - Hilde De Clercq is a chemist and general director of the Royal Institute for Cultural Heritage (KIK IRPA) in Brussels.

What is a scientific archive and why is it so important for researchers?

Cultural heritage research institutions and museums have built up a huge archive resulting from researches and conservation-restoration interventions carried out in the past built up during several decades, even more than one century. It consists of millions of photographic documents, hundred thousands of reports and analytical data, carefully stored in archives of precious institutions and museums. Can you imagine what a treasure of information on cultural heritage that is made accessible for users working on a scientific project? ARCHLAB offers even more: it is not about simply making this documentation available for users. Users that visit the provider have the opportunity to discuss with the experts involved in the related projects and exchange and share knowledge and information. It is all about people. Digitization and rendering the documentation accessible cannot replace human discussions amongst scientists typical for ARCHLAB.

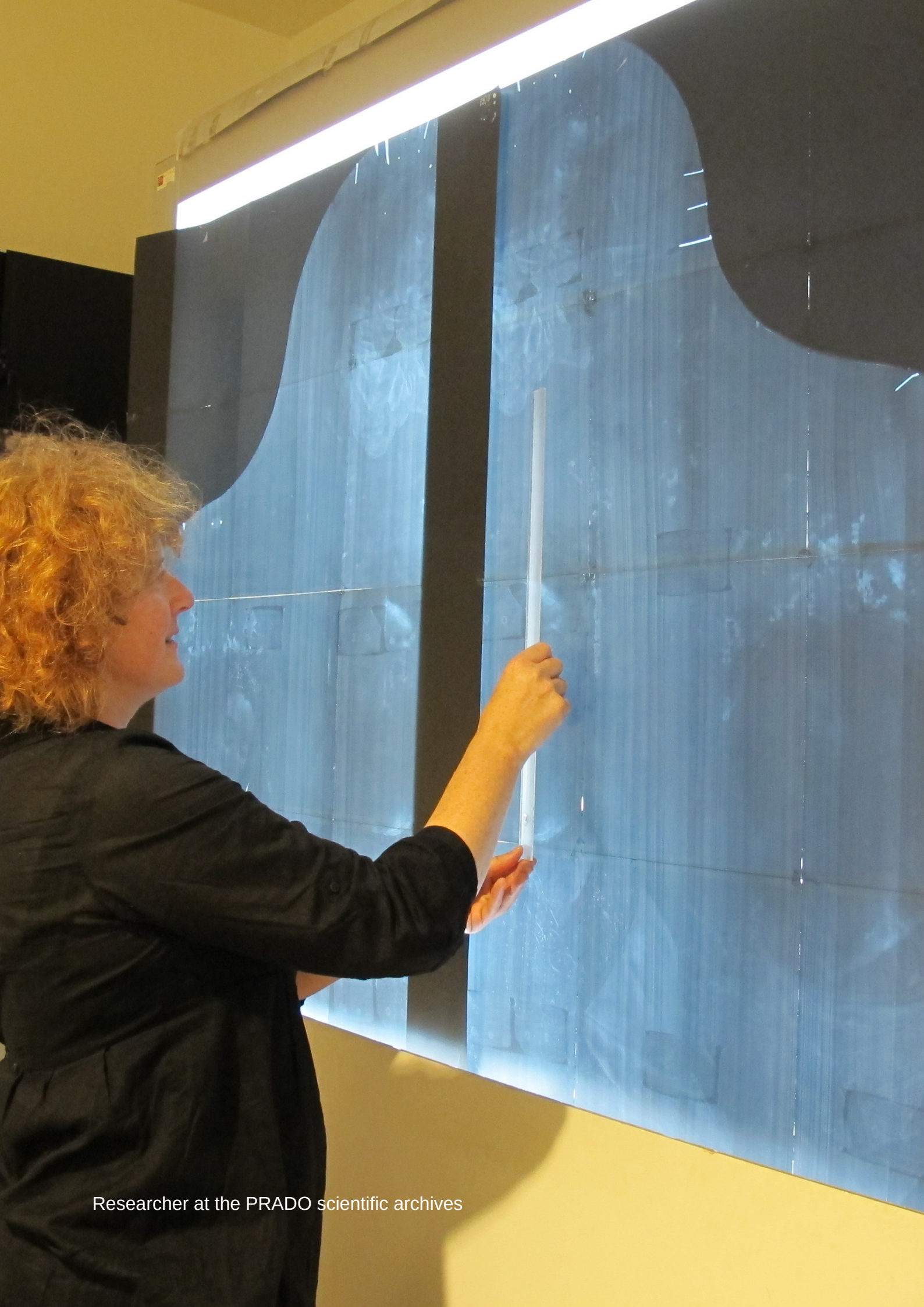
Could you tell us more about the opportunity to access ARCHLAB?

The ARCHLAB platform is an integrated system of ten distributed facilities located in outstanding European museums and research centres: Data and documentation related to the research and conservation/restoration of artefacts.

The access services across the ten institutions integrated within ARCHLAB comprise an encyclopaedic archive of knowledge and technical data accumulated over the last century and preserved at the most prestigious European museums or conservation research institutes. ARCHLAB enables access to the combined knowledge in repositories in Belgium, France, Italy, Netherlands, Germany, Denmark, Spain and UK. Some of these facilities already offer access to databases on-line (as is the case for KIK-IRPA, PRADO, CSIC, RCE and BM), but mostly restricted to inventories of photographic records of works of art. However, access to data and documentation related to the research and conservation/restoration of artefacts, digitized or not, is in most cases available solely in national languages, offered only to local users and is bound by certain conditions of use. Potential users of ARCHLAB throughout Europe can apply for transnational access to all of these archives (but excluding those belonging to the user country) to carry out comparative studies related to the heritage project on which they are working. Users may also use the physical materials, files and databases held in these archives, while respecting authorial and intellectual property rights.

Which is the future of ARCHLAB?

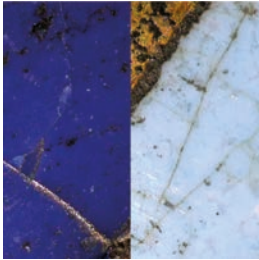
There is a rich future for ARCHLAB: even in case we would be able to digitize all our documentation generated during up to 1 century of research and conservation-interventions of cultural heritage, there still remains the challenges of the local language as well as the necessary exchange between the provider and the user crucial to literally come to a common language and understanding. These personal contacts with experts at the providers, explaining what one can discover on for example a radiographic image of a painting of Rubens or on an analytical result of a binding medium, are crucial for users doing a comparative scientific research. ARCHLAB really enables to lift up the level of scientific research of users, as well as contribute to the building up of a network of scientists within the field of CH.



Researcher at the PRADO scientific archives

ARCHLAB

some highlights



Title BerlinChamp. Champlévé Enamels from Berlin Museums
User Gaia Fenoglio
Provider Rathgen Forschungslabor Staatliche Museen zu Berlin-Stiftung Preußischer Kulturbesitz (SPK)
Scope to integrate analytical data on a set of Medieval Champlévé enamels from the Kunstgewerbenmuseum, Berlin, within a more comprehensive discussion on Romanesque Medieval enamels.



Title RACOPHINO: RAre COrrOsion PHenomena of INorganic Objects
Users Gerhard Eggert, Britta Schmutzler, Andrea Fischer
Provider British Museum, London & RCE, Amsterdam
Scope to improve knowledge on frequency, affected materials, corrosion factors of the processes on inorganic objects and the nature of the compounds



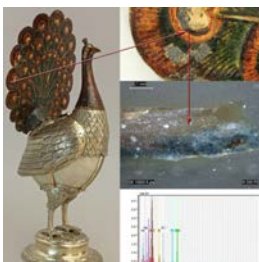
Title GGPN. Analysis and research Methods in Management of Photographic Materials: Gelatin Glass Plate Collections
User Alba Guerrero Garcia
Provider Instituto del Patrimonio Cultural de Espana (IPCE), Madrid
Scope The project aims to deepen knowledge on photograph conservation research through the exchange of experiences between institutions



Title Metal threads in Hispano-Islamic textiles (11th-15th centuries): scientific investigation of the manufacturing techniques and comparative studies with metal threads in Sicilian-Islamic textiles and Lucchese medieval textiles.
User Cristina Scibè
Provider Opificio delle Pietre Dure(OPD), Florence; Instituto del Patrimonio Cultural de Espana (IPCE), Madrid
Scope Studying in detail the main metal threads manufacturing techniques identified among 11th and 15th century on Hispano-Islamic textiles by the IPCE and OPD.



Title The possible intervention of Michel Sittow in the execution of the altarpiece of the Luna Chapel in Toledo Cathedral
User Matthias Ulrich Weniger
Provider Instituto del Patrimonio Cultural de Espana (IPCE), Madrid
Scope Studying the possible intervention of Michel Sittow in the altarpiece through the access to the information, images and analytical data (High resolution photography, Xray radiography, Infrared reflectography, SEM-EDX, FTIR-ATR, LC-DAD-QTOF), corresponding to the study of the 14 paintings in the XV century altarpiece.



Title Polychrome paint on European precious silver objects – A merging of two independent research studies of a scarcely noticed colouring technique
User Rainer Richter
Provider Opificio delle Pietre Dure (OPD), Florence
Scope to integrate analytical data on a set of Medieval Champlévé enamels from the Kunstgewerbenmuseum, Berlin, within a more comprehensive discussion on Romanesque Medieval enamels.

ARCHLAB

some highlights



Title Barbadori "pala" and Martelli Annunciation by Filippo Lippi. A comparative study on the paintings technique supported by scientific analyses

User Lucia Biondi

Provider C2RMF, Paris

Scope to compare the two alterpieces to learn more about materials and technique by Filippo Lippi in view of restoration



Title Goya

User Aviva Burnstock, Maureen Cross

Provider Museo Nacional del Prado, Madrid

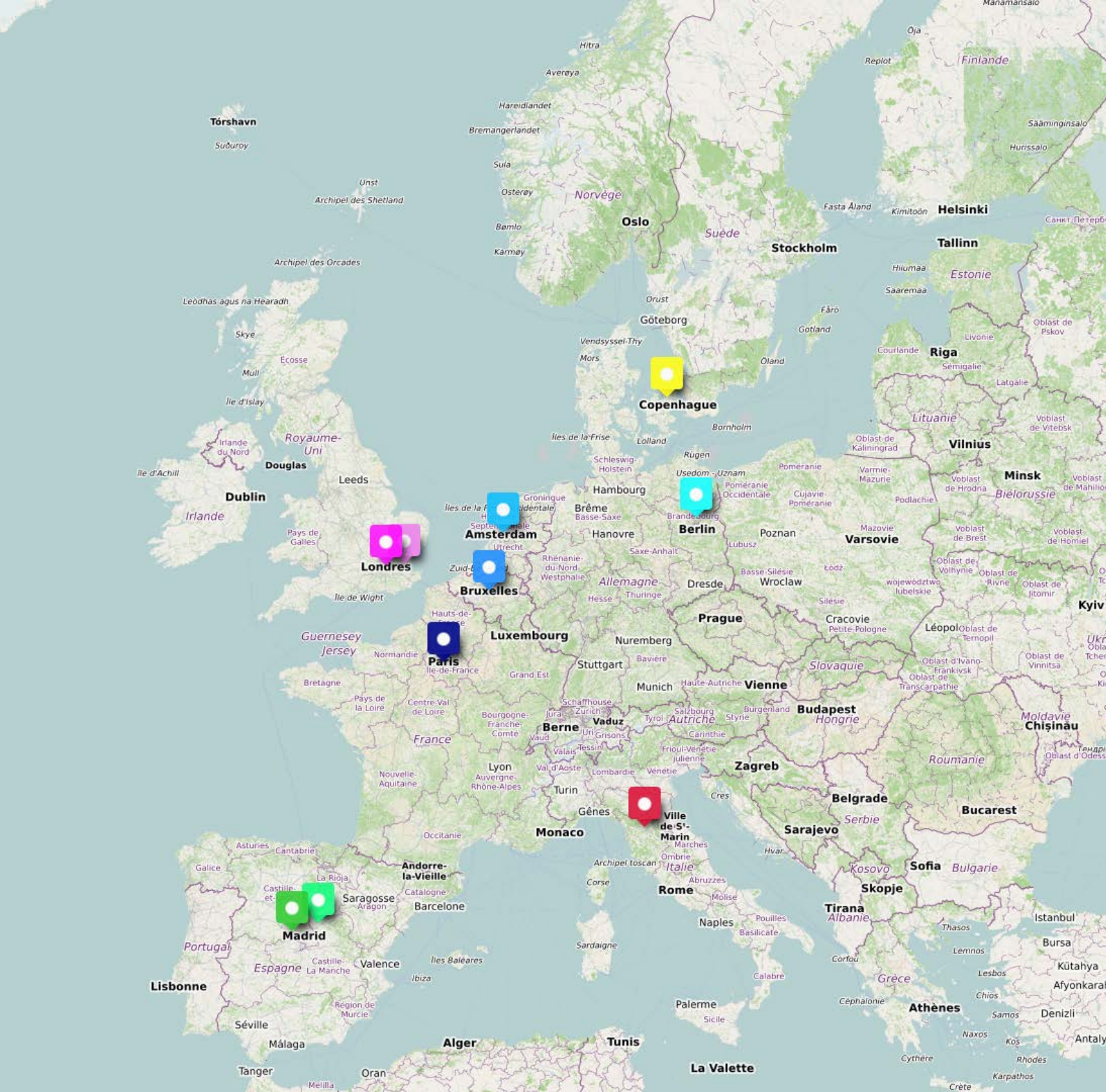
Scope To review technical documentation of paintings by Francisco de Goya y Lucientes at the Prado related to the Courtauld Gallery's portrait of Don Francisco de Saavedra, 1798.

ARCHLAB

a book



"The Ghent Altarpiece: Research and Conservation of the exterior",
directed by Bart Franssen and Cyriel Stroo, Brussels, Royal Institute for
Cultural Heritage, 2019



IPERION CH counts on 10 outstanding scientific archives across Europe:

1. NG - The National Gallery, London, UK
2. OPD - Opificio delle Pietre Dure, Firenze, IT
3. C2RMF - Centre de Recherche et de Restauration des Musées de France, Paris, FR
4. BM - British Museum, London, UK
5. PRADO - Museo Nacional del Prado, Madrid, ES
6. RCE - Cultural Heritage Agency of the Netherlands, NL
7. IPCE - Instituto del Patrimonio Cultural de España, Madrid, ES
8. SMK-CATS - Centre for Art Technological Studies and Conservation, Copenhagen, DK
9. SPK - Rathgen Forschungslabor Staatliche Museen zu Berlin – Preußischer Kulturbesitz, Berlin, DE
10. KIK-IRPA - Koninklijk Instituut voor het Kunstpatrimonium/Institut Royal du Patrimoine artistique, Brussels, BE

Library of IPCE, Madrid



What users think about IPERION CH

01

"The ARCHLAB access provided me an excellent opportunity to gain further knowledge about the contents of the IPCE scientific archives and to benefit from the knowledge of Spanish scientists and experts in this area of research. They bring me a cordial welcome and a careful attention to my needs all the time of my stay."

02

"The experience has been extremely satisfactory: useful, effective and enriching"

03

"THE PROGRAM SHOULD BE BETTER KNOWN
OUTSIDE THE INSTITUTIONS INVOLVED/TAKING PART"



feedback

FOCUS ON

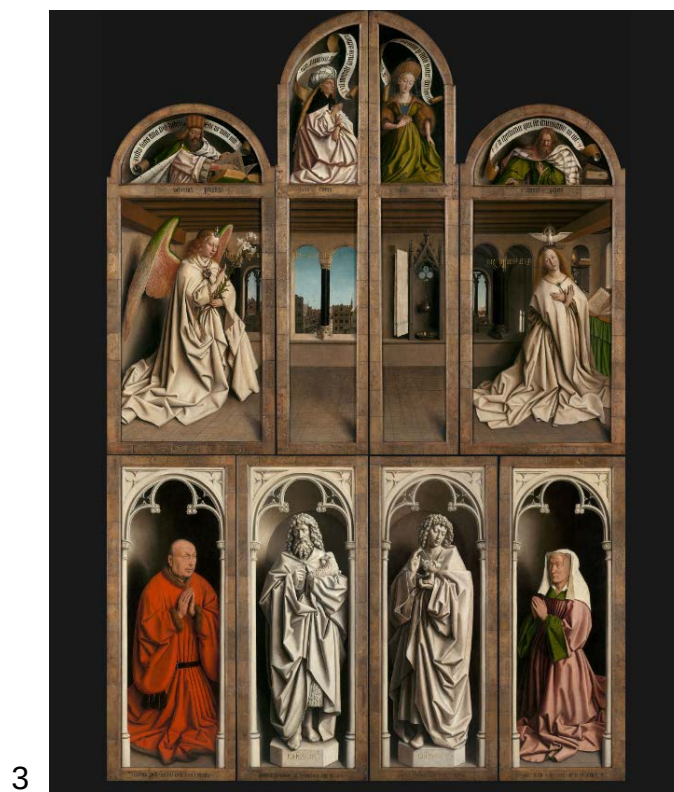
[http://closertovaneyck.kikirpa.
be/](http://closertovaneyck.kikirpa.be/)

The Ghent Altarpiece by Van Eyck

The research related to the restoration project of the Ghent Altarpiece by Hugo and Jan van Eyck has its roots in ARCHLAB within Charisma. PRADO museum, the National Gallery and C2RMF were visited to investigate the state of conservation of works by Jan van Eyck and followers. The information gathered contributed to the reflection on the restoration concept and strategy. Also MOLAB came twice. The restoration project, is a huge project led by the Royal Institute for Cultural Heritage (KIK-IRPA), in which we try to disseminate the results as much as possible through the [closertovaneyck](http://closertovaneyck.kikirpa.be/) website that was extended to other works of art attributed to Jan van Eyck. The project is entitled VERONA and aims to stimulate research on Jan van Eyck through documentation and study all the signed and dated and generally accepted paintings by Van Eyck in European collections. These paintings are documented with the same methods of technical imagery used for the Ghent Altarpiece, including macrophotography (normal light, raking light and infrared), infrared reflectography and X-radiography. In the interests of scholarship, the equipment and procedures of documentation will be standardised in order to create comparable data, and the newly-made images will be published online in open access, as an extension of the Closer to Van Eyck website. The online application will be a touchstone for comparative research on Van Eyck, enabling researchers for the first time to reconsider differences and similarities based on the same equivalent material. In addition, a critical essay on the state-of-research in Eyckian painting will be published, providing a framework for study of the scientific imagery.

The Ghent Altarpiece

Saint Bavo Cathedral, Ghent, Belgium



1- before restoration, 2- diagram of overpainting over the centuries, 3- after restoration

IPERION CH

in few words

What is IPERION CH?

IPERION CH is a project funded by the European Commission under GA 654028. It aims at establishing a distributed RI with a sustainable plan of activities, including offering access to a wide range of high-level scientific instruments, methodologies, data and tools for advancing knowledge and innovation in the preservation of Cultural Heritage. IPERION CH connects researchers in the Humanities and Natural Sciences and fosters a trans-disciplinary culture of exchange and cooperation for the growth of the European Research Area.

IPERION CH offers Transnational Access (TNA) to its world-class laboratories and knowledge distributed in 11 countries with the submission of single or multi-technique proposals. IPERION CH selects the best proposals and covers the costs of this activity. The TNA program offers a vast portfolio of services and activities centred on the needs of the heritage science community in Europe and Associated Countries. The combined activity promotes the development of advanced research in the examination and conservation of works of art, offering users the access to unique European resources for in situ and laboratory investigations on artwork materials through three TNA platforms: FIXLAB, ARCHLAB and MOLAB. Through the three programs of access, the project aims to deliver to the users (from experienced practitioners to primary users) not only experimental resources but also methodological approaches, compliant best practices, tools and technologies to permit them to carry out their projects in conditions otherwise impossible for them.

The access is offered to:

1. Archives in European museums or conservation institutes (**ARCHLAB**);
2. Advanced mobile analytical instrumentations for in-situ non-invasive measurements (**MOLAB**);
3. Integrated platforms where large scale facilities are coupled with medium scale installations (**FIXLAB**).

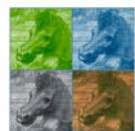
The Integrated Platform for the European Research Infrastructure ON Culture Heritage IPERION CH launches calls for proposals twice a year. Discover how to participate in the IPERION CH website.

What's the future?

The situation of IPERION CH is evolving. The follow-up of IPERION CH is represented by the ESFRI proposal named E-RIHS (European Research Infrastructure for Heritage Science). In 2017 E-RIHS started its preparatory phase (H2020-INFRADEV-2016-2, GA n.739503) that will lead to establish a pan-European research infrastructure on heritage interpretation, preservation, documentation and management.

More info : www.e-rihs.eu

Waiting for becoming an ERIC, the project IPERION HS will continue the activities of IPERION CH by offering access and training starting from April 2020. More info: www.iperionhs.eu



IPERION CH

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Produced by Laura Benassi (2019)



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