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## LEATHER AND RELATED MATERIALS WORKING GROUP

### Newsletter 11 - April 2022

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Editor: Theo Sturge ACO.

[theosturge@leatherconservation.co.uk](mailto:theosturge@leatherconservation.co.uk)

Dear members, dear colleagues,

2022 is going to be a really active year for the Leather and Related Materials Working Group team with the preparation of two major events for our members. For that reason, we are really delighted that Eloy Koldewej recently joined the assistant coordinator team to provide additional energy, notably in the organisation of the 12th Interim meeting of our Working Group to be hosted by the Cultural Heritage Agency in the Netherlands on 12-14 October 2022. You probably know him already through meetings and his various publications in the Working Group, but if not, you'll get a chance to meet him in this newsletter. Although it will be a virtual event due to the remaining uncertainty, we do hope the interim meeting will be an opportunity to explore new ways of communication and reach a wider leather specialist community. Have a look at the call for papers and pitches detailed in this newsletter and on the Working Group page of the

ICOM-CC website. In the meantime, the preparation of the triennial conference in València in Spain, planned for September 2023, is on going. The call for paper has just closed, but you will have another chance to contribute as the call for posters will open in the summer.

In this newsletter, you will also hear about different research in progress related to the conservation of leather collections, a leather making workshop as well as exhibitions and publications. Finally, it is worth mentioning that ICOM-CC has put lots of energy to promote and support the activities of its international committee and its Working Groups. The launch of the new ICOM-CC website is one of them. More user-friendly, it will facilitate communication, and can become a useful resource for our community. Have a look at the publication online platform, it now includes all the publications from the triennial conference since 1972, as well as some Working Group interim meeting, which is wonderful! In addition, the recently created the ICOM-CC Fund, a non-profit organization that exists outside of but works closely with ICOM-CC to secure grants and gifts to finance its initiatives, including Working Group activities! If you want to stay up to date or want to get involved, check their webpage.

We hope you will enjoy reading this newsletter and we are really looking forward to meet you very soon either at the Working Group Interim meeting or in 2023 in Valencia. In the meantime stay safe !

*Laurianne Robinet, Coordinator*



## CALL FOR PAPERS and PITCHES

### 12<sup>th</sup> Interim Meeting of the *ICOM-CC Leather and Related Materials Working Group*

**12-14 October 2022** - online conference -  
Hosted by the Cultural Heritage Agency of the Netherlands

Conservators, scientists and museum professionals interested or specializing in the conservation of leather and related materials are invited to participate in the upcoming 12<sup>th</sup> Interim Meeting of the ICOM-Conservation Committee - Leather and Related Materials Working Group.

The 12<sup>th</sup> Interim Meeting of the ICOM-CC Leather and Related Materials Working Group will be an online event, hosted by the Cultural Heritage Agency of the Netherlands and taking place on 12-14 October 2022. The aim of this meeting is to share recent conservation experiences, current projects and research initiatives, as well as new or innovative solutions regarding the conservation of leather and related materials such as parchments, skins, hides and furs. Contributions from all continents are being welcomed, from Asia up to the American continent. Emerging professionals are especially encouraged to send in their proposals. Also talks presenting successful practical treatments, challenges, particular problems (case studies), useful protocols and techniques, and cautionary tales are being sought. Possible themes may include (but are not restricted to): gilt leather; climate change; conservation in a time of challenge; sustainable practice; leather, skin and related materials in historic interiors; new technical research.

The meeting will include both presentations and pitches in English. All presentations will be oral

and will be accompanied by either PowerPoint or Video-presentations. The pitches, 3-4 minutes presentations replacing the posters, will be presented during a 'Speakerscorner' session. All pitches, which have to be sent in beforehand in a recorded form, can be either a short oral presentation, or a pre-recorded video to demonstrate for example a practical treatment. All speakers will be invited to submit a full paper before the start of the conference to be published on the ICOM-CC website, and subsequently as post-prints.

Abstracts should be prepared using the abstract template available from <https://www.icom-cc.org/en/news/leather-2022-call-for-papers-and-pitches->

and must be submitted by **30<sup>th</sup> April 2022** via [laurianne.robinet@mnhn.fr](mailto:laurianne.robinet@mnhn.fr)

Further information including details on registration and program will be provided at a later date on the ICOM-CC website [ICOM-CC | Leather and Related Materials](#)

#### **Key dates to remember**

**30<sup>th</sup> April 2022** - Deadline for submission of abstracts for papers or pitches

**3<sup>rd</sup> June 2022** - Notification of speakers and authors

**Our new Assistant Coordinator,  
Eloy Koldeweij**

[e.koldeweij@cultureelerfgoed.nl](mailto:e.koldeweij@cultureelerfgoed.nl)



Eloy Koldeweij is an art historian from the Netherlands. As an art-historical student he joined in 1986 the Interim Meeting of the Leather Working Group on Ethnographic and water-logged leather, hosted by the Central Laboratory in Amsterdam. This made deep impressions, not only both about the enormous variety of subjects within this specialty and the professionalism, but also about the collegiate attitude of all the participants and their open-mindedness. Being the son of an antiques dealer and the grandson of an architect, art, architecture and leather are almost part of his genes, as his mother was a descendant of a leather traders-family. Gilt leather was the subject of both his master-paper (1987) and Ph.D. (1998).

Since 1997 he is working as an all-round interior historian for the Cultural Heritage Agency in the Netherlands, the national administration that is amongst others taking care of all Dutch listed historic buildings. During the years, Eloy has

published and lectured quite extensively and continuously on gilt leather, as on several other topics about Dutch historic interiors. He was amongst others one of the initiators of the research project which resulted in the booklet 'Gilt Leather Artefacts: White Paper on Material Characterization and Improved Conservation Strategies within NICAS' (Delft 2016), and the - unfortunately still immature - Gilt Leather Society. As Assistant Coordinator of the Working Group - his first term! - he will facilitate the hosting of the Interim Meeting of our Working Group later this year.

**Conservation of an Ottoman bow case belonging to the Musée de l'Armée in Paris.**

Célia Marty, independant textile and leather conservator, France. [celia.marty93@laposte.net](mailto:celia.marty93@laposte.net)

A bow case from the Ottoman Empire (*Fig.1*) underwent a study and conservation treatment, as a thesis subject, at the Institut national du patrimoine (National Institute for Heritage) in France. The object is dated from the second half of the 16<sup>th</sup> century. It was conserved at the Musée de l'Armée (Military Museum) in Paris.



Fig.1. The bow case, front and back (right). © Célia Marty

The composite nature of the bow case brought to light several issues in the interaction between textile and leather. The face is made of leather covered with glued silk velvet, embroidered with silk, cotton, and silver and gold threads. The back is made of two layers of leather, embroidered together.

Both velvet and leather displayed several degradations, mainly located around the edges of the bow case, particularly along the seam assembling both sides. Conservation treatments were intended to recover structural strength while preserving the embroidered decoration. The object was meant to be exhibited to the public at a later date.

A scientific study focused on the velvet consolidation. It took into account both its condition and conservation demands. The velvet was in a poor condition: the degradations were already extensive and were progressing. Its consolidation required the use of adhesive. This assessment led to a search for an adhesive compatible with leather, silk and a mix of ancient proteinic and cellulosic glue. The study focused more specifically on reactivation methods, testing solvents (ethanol, acetone) on a variety of adhesive films (made of Klucel G, Jade 403, Beva 371, Plextol B500, Paraloid B72, Lascaux 498HV and 303HV, and Vinamul 3171). Thus the study also increased the scope of thermoplastic solvent reactivated adhesives for textile and leather conservation. In this case, a mix of Lascaux 498HV and 303 HV (2:1) at 40% in deionized water reactivated with ethanol was considered the most successful.

The study was extended during the bow case consolidation treatment. According to the results obtained during the scientific study, Klucel G and Lascaux 498HV and 303HV were selected. They enabled a homogenous and consistent treatment on the entirety of the object, taking into account tensions created on the leather by the seam assembling for

example. Fillings were added in the leather losses to even up the thickness and to allow for the two sides of the bow case to be reassembled. Filling materials were selected according to variations in weakness and flexibility in different areas of the bow case. Beva 371 solution was combined with Japanese paper. Before any leather consolidation was carried out, a stabilisation treatment was also applied to degraded grain areas, using 2% Klucel G in isopropanol.

The bow case conservation proved to be successful. Thanks to homogenous treatments and the use of compatible products, the bow case regained both flexibility and stability. (Fig.2.)

For more information, you may refer to the thesis listed in the bibliography below or contact the author directly.

### Acknowledgments

Mainly to **Olivier Renaudeau**, curator of the Ancien Régime department of the Army Museum, Paris, France, **Christine Duvauchelle**, conservation assistant in the old department of the Musée de l'Armée, Paris, France, **Cécile Argenton**, textile conservator, **Laurianne Robinet**, leather conservation scientist, CRC, Paris, France, **Ingrid Leautey**, leather conservator.

### References

MARTY Célia, « *Les Mille et Un Gorytes* », *Étude et conservation-restauration d'un étui à arc du Moyen-Orient (milieu du XVI<sup>e</sup> – XVIII<sup>e</sup> siècle ?*, Paris, Musée de l'Armée) - Recherche d'un adhésif compatible avec la colle ancienne, la soie et le cuir. Diplôme de Restaurateur du Patrimoine, spécialité Arts Textiles, Institut National du Patrimoine, 2020.

Available at the following link : [plateforme-pedagogique.inp.fr/course/view.php?id=256](https://plateforme-pedagogique.inp.fr/course/view.php?id=256)

Request access to this: [documentation.oeuvres@inp.fr](mailto:documentation.oeuvres@inp.fr)



Fig.2 Detail of the bow case after treatment.

## The Workshop "Tanning Hides": the Vital Role of Experimental Archaeology for Understanding Ancient Objects"

Céline Daher - musée du quai Branly-Jacques Chirac

Laurianne Robinet & Sylvie Heu-Thao - Centre de Recherche sur la Conservation

laurianne.robinet@mnhn.fr

Identifying the tanning process used on a hide held in a museum is no easy task, unless you are - like Theresa Emmerich Kamper, who holds a doctorate in experimental archaeology from the University of Exeter - a specialist in the field. In October 2021, Dr Emmerich Kamper, assisted by Sabine Martin, a doctoral student in archaeology (University of Exeter), led a hide-tanning workshop attended by several CroyAN <https://croyan.quaibrantly.fr/en/> project partners. By the end of the four-day workshop, with its equal emphasis on theoretical and practical instruction, participants were able to identify different tanning processes and the concrete steps involved in each, whereby an animal skin is transformed from a material subject to putrefaction to one that will not rot.

### Getting to grips with tanning

What better way to understand a manufacturing technique than to practice it oneself! And not one, but three methods were demonstrated during the workshop: rawhides, vegetable tanned hides, and fat (brain) tanned hides. As each of these processes can take from a few weeks to several months, Theresa Emmerich Kamper had brought along with her in her van several deer- and buckskins, at different stages of the tanning process, so that we could practice each stage.



Fig.1 Left: dehairing, right: defleshing.

The first stage, common to all the methods, is defleshing and dehairing, Fig.1 during which the remaining flesh on one side of the skin and the hair on the other side are removed mechanically with a blunt metal knife (earlier, bone was used). The ensuing steps then diverge, depending on the properties sought and the use to which the hide will be put.

The rawhide was simply stretched over a frame to dry it, Fig 2., and, depending on the desired finish, it could be rubbed with a pumice stone and/or chalk. The result obtained is a light-colored, flat and rigid material like parchment, light in weight, but also very reactive to water.



Fig. 2. Stretching rawhide on a frame.

For vegetable tanning, after removing the flesh and hair, the skin is immersed in a water bath rich in vegetable tannins. In the past, plant parts such as tree bark and leaves were used, and the tanning process could take between 12 and 18 months to complete, that is, to penetrate deep into the hide. Nowadays – as was exemplified in this workshop – tannin extracts are used, that is, only the active tanning compounds, which reduces the length of time for this crucial stage to one month. The hide is then partially dried, and then oiled with vegetable or animal fats, using mechanical action to make it soft again. Fig.3. The result is a relatively hard and thick brown leather that retains its grain (the hair follicle holes) and is quite water-resistant.

For tanning with animal fats, Dr Emmerich Kamper stressed the importance of removing the top layer of skin



Fig.3 softening the leather with mechanical action.

during the initial dehairing stage so that the hide will be able to fully absorb the fat. The hide is then worked on in a bath of brains emulsified with water, Fig.4. which makes it smooth and silky. The ensuing stages require a lot of physical effort, first to remove the water by wringing out the hide and using the blunt knife, then to soften it by stretching it out



Fig.4 Tanning with brains.

and rubbing it energetically over a cable or the edge of a piece of wood. The result is an incredibly soft and elastic white skin that can be used to make clothes, among other things.

In order to improve the hide's stability over time and its resistance to water, it can be smoked, which gives it a yellow-grey colour, and a quite distinctive smell. Dr Emmerich Kamper illustrated this by making a sort of bag with the hide, and placing it on the stovepipe of a small wood-burning stove, exposing each side of the bag to the smoke for half an hour. For the last stage, depending on the desired finish, the hide may be dyed, as was done using a walnut stain solution to give the material a deep brown colour.

#### **Viewing under magnification.**

As we have seen, working the hide leaves marks, some of which can be seen with the naked eye, while others are only visible under binocular magnifying glasses. Theresa Emmerich Kamper has categorised these marks by applying different macroscopic and microscopic criteria, which indicate the processes used. Amongst the most conclusive macroscopic criteria are the colour of the hide (a dark hide has almost certainly had vegetable tanning), its elasticity (a supple and elastic hide will have been fat tanned), the surface texture (presence or absence of grain), and the thickness (the edge is a clue to the degree of penetration of the tanning agents). Microscopic criteria concern the fibrous tissue: its compactness (depending on how densely the

tanning agent coats the fibres), its orientation (the direction in which the hide has been stretched, and the point in the process at which the stretching took place); and how the fibres look (contoured, glossy, translucent, etc). Tool marks can also be revealing, as the skin can be fleshed dry or wet, leaving more or less visible indentations.

By applying her criteria to all these marks, Theresa Emmerich Kamper is able to identify the method used to tan a hide. However, the situation is more complex with finely-worked or antique objects such as a bag, a coat or moccasins. It is not always possible to examine the reverse side of the hide if the object has been lined, for example, or if there is fur. Surface treatments such as painting or dyeing can also hinder the identification of the tanning method. Additionally, as most of the hide objects are everyday items, their history may compromise visual analysis: they have been worn and used, as well as undergoing changes since their arrival in museum collections due to their conditions of conservation. The state of the hide is therefore an important factor in identifying the tanning method used. Theresa Emmerich Kamper takes this into account in having clothes made out of some of her tanned hides, and wearing them frequently in order to study the impact of natural wear.

By the end of these four memorable days, we had gained a detailed appreciation of each tanning process, and the particular properties each confers on the skins. We were able to take away reference samples from each stage of the tanning process, in order to develop laboratory analysis techniques to help us characterize the older methods used to make the tanned hides in the heritage collections.

Workshop funded by the Observatoire des Patrimoines de Sorbonne Universités (OPUS), that took place at the campus site of Saint-Cyr-l'École - Sorbonne Université.

More information on Theresa Emmerich Kamper activities and workshops at <https://www.theresaemmerich.com>

All photographs © Laurianne Robinet 2021

## Exhibitions



***The walls of wonders. Court gilt-leather between Gonzaga and Europe.***

**Palazzo Te, Mantua (Italy)**

**26 March-19 June 2022**

On March 26 will open at Palazzo Te, in Mantua, an exhibition entirely dedicated to leather hangings as luxury decoration of palaces and aristocratic residences. It is part of a broader context of consecutive cultural initiatives – organized by the Palazzo Te Foundation, the City Council and the Civic Museum - dedicated to the lifestyle of the Gonzaga court in Mantua during the Renaissance period.

Based on the finding of a previously unknown 16<sup>th</sup> century *corame*, attributed by the curator Augusto Morari to the Gonzaga possession, the exhibition includes seven sections which trace back the fortune and the fascinating history of this art and its diffusion from 16<sup>th</sup> to mid-17<sup>th</sup> century. Most of the relevant exposed artefacts come from important institutions including Palazzo Madama in Turin, Palazzo Chigi in Ariccia, the museums Correr in Venice, Stibbert and Mozzi Bardini in Florence and the Museumslandschaft Hessen in Kassel. Within the exhibition spaces of Palazzo Te will be also reconstructed a gilt leather workshop in order to demonstrate and learn more about materials and techniques, inherited from the Spanish moors, used to create these magnificent artefacts.

**Kick off Schoenenkwartier in Waalwijk, The Netherlands**, with an opening exhibition *Put On Your Red Shoes*

The time has come: on June 28 2022, the public opening of the Schoenenkwartier will take place in Waalwijk, in the west wing of the monumental Kropholler complex: a dynamic platform for makers, the leather and shoe industry and visitors. Craftsmanship, innovation and creativity come together in this brand-new Schoenenkwartier. Construction and renovation work may have delayed completion considerably, but these have not been able to dampen enthusiasm and expectations. The Schoenenkwartier is launching a surprising museum concept. The subject is the development, use and impact of shoes and leather in the present, past and future. In addition to three permanent exhibitions, the new organization includes four Makers labs, a Knowledge center with materials database, archive and extensive library and a general educational space. There is also a bi-annual temporary exhibition with varying themes. To give the opening extra luster, the exhibition program starts with a festive theme: the influence of music on footwear, seen in light of music from the fifties onwards. The title: Put On Your Red Shoes.

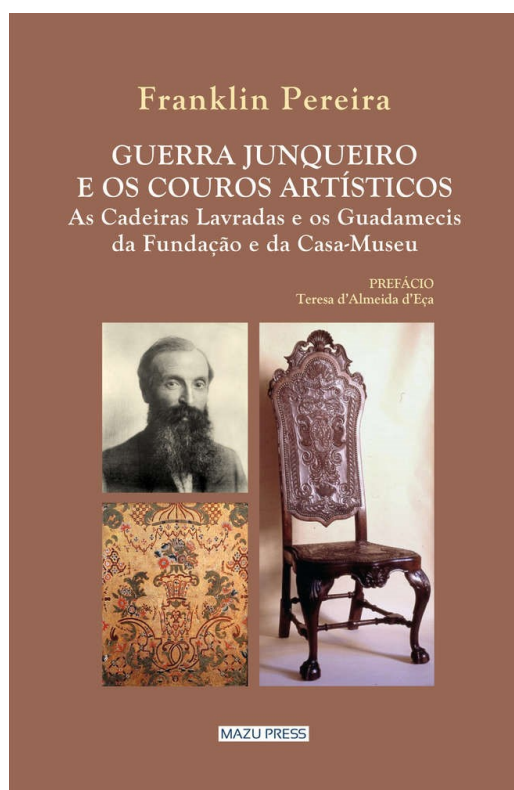
Put On Your Red Shoes is a celebration of recognition and surprise for young and old. A whole world slides by, from ABBA, the Sex Pistols, Elton John and Elvis, to influencers such as Lady Gaga, Beyoncé and Katy Perry, via music movements such as Hip-hop, rave and festival acts. What stands out is the connection between music, footwear and identity that makes every visitor, from musician to fan, from manufacturer to influencer, ask themselves: Do the shoes that I wear reflect my taste in music? What do other people's shoes say about them. How do marketing, advertising and social media influence one's taste? The exhibition begins with the IDOLs of then and now: artists such as David Bowie, Elvis Presley, Madonna, Freddy Mercury, or Lady Gaga, whose



David Bowie, 1973 © Sukita courtesy of The David Bowie Archive

extravagant clothing and striking lifestyle are widely imitated. The second part zooms in on everyday footwear from brands like Dr. Martens, Timberland and Clarks' Wallabees, that have grown into ICONIC brands thanks to their association with a certain music scene. In the last part you can see how pop stars including Jennifer Lopez, Katy Perry and Stromae profile themselves as INFLUENCERS. By launching their own label, they cleverly respond to the need of their fans to dress the same way as their idol. Exciting in all this is the connection between major international stars and Dutch makers or designers.

## Publications.



**Guerra Junqueiro e os couros artísticos - as cadeiras lavradas e os guadamecis da Fundação e da Casa-Museu / Guerra Junqueiro and artistic leatherwork - carved chairs and gilt leather from the Foundation and House-Museum. Franklin Pereira.**

This book is centred on the pieces of Guerra Junqueiro (1850-1923), a poet and activist for the Republic in 1910; it's a huge collection, which the author considers to be the largest and most important collection in Portugal, in particular the

mudejar leather carvings based on a few Caliphate patterns.

Price: 23,30€ Available from: <http://store.mazupress.com/couros>

### **Les cuirs dorés : technique de fabrication, vocabulaire et outils**

C.Bonnot-Diconne, *CoRé*, Conservation et restauration du patrimoine culturel, Nouvelle Série, n°2, Septembre 2021. pp.4-18. This looks at the vocabulary and tools described by Fougeroux de Bondaroy for the gilt leather making.

It's available here: <https://sfic.com/index.php/produit/core-nouvelle-serie-n2-septembre-2021/>

### **Gilt leather presentation**

Celine Bonnot-Diconne [www.2-crc.com](http://www.2-crc.com) has also given a paper on gilt leather conservation which is available on Youtube: <https://www.youtube.com/watch?v=WV6CKe2B0VI>

### **The C14 dating of gilt leather.**

« La datation des cuirs dorés : confirmer et affiner la chronologie d'un objet d'art décoratif », C.Bonnot-Diconne, L.Beck, J-P.Fournet, F.de la Fuente Andrés, I.Caffy, *Technè*, n°52, 2021. pp.68-74.

Abstract. In the decorative arts, the use of gilt leather, for the most part painted, seems to appear in the Iberian kingdoms of the end of the first millennium of the common era, slightly after the Arab Conquest. The fabrication of gilt leathers was at its peak in the Spanish peninsula in the 16th century, and they were often used to make wall hangings or religious images. Given their considerable production, comparatively few of these decors have survived to the present day and the oldest of them seem to have disappeared. The preservation and the study of extant examples are thus essential. If historical documentation and stylistic analysis bring forth information concerning their geographical origin and their period of production, the data most often remains insufficient and vague. This study shows that thanks to carbon 14 it is possible to confirm and even narrow down traditional dates given to these objects.



## Reproduction of gilt leather using laser scanning.



The Factum foundation has an article in their February 2022 Newsletter about reproducing gilt leather using laser scanning techniques. See: <https://mailchi.mp/factumfoundation.org/factum-foundation-february-2022?e=150b5e7761>

## Consolidation of gilt leather.



The Leather conservation Centre, [info@leatherconservation.org](mailto:info@leatherconservation.org) has published an initial paper on their investigation into the consolidation of flaking gilt leather.

Icon News 99 April 2022.

<https://www.icon.org.uk/resources/icon-news.html>

This is only available to Icon members at present but should become available later in the year.

**Skinology number 7.** Hides and skins in human societies. Transformation techniques, functionalities, representations and symbolisms.

Franklin Pereira has an article in this:

From France to Portugal - the production of the Parisian workshop J. Tixier and the influences of the magazine "L'Artisan Pratique".

<https://lapeaologie.fr/cuir-peaux-societes-humaines/>