The ‘exhibition scale’: A decision-making tool for loan requests

Laure Jeannottat[1], Luzius Dinkel, Agnes Blüher, Swiss National Library, Bern, Switzerland

This is an original manuscript of an article published by Taylor & Francis in the JOURNAL OF PAPER CONSERVATION 2025, Vol. 26, NOS. 1–2, 65–73 on 05 Nov 2025 and available at the following address: https://doi.org/10.1080/18680860.2025.2515822.

Keywords: Exhibition; loans; paper assessment; light damage; microfading

Abstract

Every year, the Swiss National Library (NL, Bern, CH) receives requests for several hundred objects to be exhibited. The major part of the collection is paper-based (books, archives, photographs...). Mounting, transport and exposure to light can damage this type of material. Before accepting a loan request, we therefore check the condition of the items, but we also consider other elements like the cultural value (transfer of knowledge, importance of the item within the exhibition) or the specifications of the exhibitions (duration, touring exhibitions, etc.). To assess whether an item can be exhibited or not, balancing all the facts, the National library’s conservation team has created a tool: the exhibition scale. This article presents the process of loan requests at the National library and the solutions developed to meet the challenges.

Zusammenfassung

Die Schweizerische Nationalbibliothek (NB, Bern) erhält jährlich mehrere hundert Leihanfragen. Ein Großteil der Bestände besteht aus papierbasiertem Material (Bücher, Archive, Fotografien usw.). Montage, Transport und Beleuchtung können diesen Objekten erheblich schaden. Vor einer Leihgenehmigung werden daher nicht nur der Erhaltungszustand, sondern auch der kulturelle Wert des Objekts (Bedeutung für die Ausstellung, Wissensvermittlung) sowie organisatorische Aspekte wie Dauer oder Tourneecharakter geprüft. Um diese Faktoren gegeneinander abzuwägen, entwickelte das Restaurierungsteam der NB ein Bewertungssystem: die *Ausstellungswaage*. Der Beitrag beschreibt den Ablauf von Leihanfragen in der NB und stellt die erarbeiteten Lösungen zur Bewältigung der damit verbundenen Herausforderungen vor.

Introduction

Founded in 1895, the NL holds more than 7 million items in its collections of Helvetica monographs, Helvetica periodicals, the Swiss Literary Archives, the Prints and Drawings Department, the Swiss National Sound Archives (FN, Lugano, CH) and the Centre Dürrenmatt (CDN, Neuchâtel, CH). All documents are published in Switzerland or have a Swiss connection (content or author). The majority are paper-based: books, archival documents, photographs, works of art on paper, but there are also paintings, modern media or 3D objects made of various materials.

The legal basis is laid down in the Federal Act and the Ordinance of the Swiss National Library. The NL has four statutory missions: to collect, to catalogue, to preserve and to make accessible. Access to the collection includes private home loans[2], consultation in the reading rooms and loans for exhibitions. These four mandates are sometimes in conflict with each other, as is the case with preservation and accessibility when the objects are fragile or in poor condition. The Ordinance (Art. 12, par. 1 and 3) requires the library to ‘make its collections available to the public’, but also states that ‘use may be restricted if the preservation of the work requires it’ (Swiss National Library, 1998).

[1] Contact: Laure Jeannottat, Swiss National Library, Hallwylstrasse 15, Bern 3003, Switzerland, laure.jeannottat@nb.admin.ch

[2] For publications under 50 years of age

Preservation guideline

In the early years of the library, preservation was not a priority. Until 1997, the collection was stored in rooms with windows, exposed to natural light and high temperature fluctuations of up to 30°C (see Figure 1). The new building of the library in the 1930s was equipped with niches in the entrance hall and main hallway for the display of library documents (Figure 2); there was no exhibition gallery. In the main hallway, the exhibits were illuminated by daylight coming through the ceiling and exposed to climatic changes. A treat for the eye, no doubt, but not for the items.

In the 1980s, national and international standards were drawn up for the exhibition of cultural property: the exposure to light and the duration of the exhibition were gradually restricted. These standards arose from the need to give priority to conservation and thus to slow down the ever-increasing and previously unrestricted exhibition activity. This was prompted by the observed, sometimes dramatic, changes in exhibits caused by excessive exposure to light.

Figure 1: "Booktower" of the library, first storage area with windows front, around 1950.

Figure 2: Main hallway of the library around 1950, exhibition with natural light.

In 2012, an extended preservation guideline was created specifically for the National Library, its collection and organisation, and was based on international standards and the library's legal act. It determines the principles of preservation, conservation and restauration, use including exhibitions, or digitalization. The guideline is currently being revised and adapted to the new recommendations (ICOM Schweiz, 2024; ISO/TR 19815, 2018).

Exhibitions and loan requests

Internal and external loans

The loan requests within the National Library involve the in-house and external exhibitions. The library organises two to three exhibitions per year (Figure 3) and the Centre Dürrenmatt three. The external requests represent 500 to 700 items per year, with large variations from one year to another. Those numbers are constantly increasing, as is the amount of administrative work and preparation of the

exhibits. Mostly the loans stay in Switzerland, but sometimes they go abroad; despite the resources required, it is a great way to make our collection visible.

Figure 3: Internal exhibition at the NL (2017). © Simon Schmid, NL.

Process and guidelines

The current workflow is the same for in-house and external exhibitions. An exhibit has to be requested 12 weeks before the opening of the exhibition. The borrower fill in an online form with details of the item required, the exhibition and the technical specifications of the infrastructure on site. Exhibitions should not exceed 12 weeks, the temperature and relative humidity of the location should be within the permitted range and the illuminance should not exceed 50 lux. Travelling exhibitions are accepted but need a special permission.

After receiving the form, the conservation team will evaluate the condition of the item and discuss the loan request with the curator concerned in order to plan the next steps. The curator will take over the administrative part and the correspondence with the borrower.

The mandatory deadline allows the conservation team to prepare the condition reports and to react, for example if the exhibits need conservation treatment, to create the mounting, or test the sensitivity of the materials. To ensure the security of the exhibits intended for wall mounting, they are always mounted in a passepartout and in a frame sealed at the back. For books or 3D objects, supports are prepared if needed. The exhibits are then packed for transport.

This guideline forms the basic framework we need to guarantee quality work and meet deadlines. However, the specific nature of requests and exhibitions requires constant reassessment and adaptation.

Challenges

The evolution of exhibitions challenges the field of conservation in different ways: longer time ranges, repeated exhibition of the same item, travelling exhibitions or new exhibition types like open storage display. Since most of the requested exhibitions do not quite fit our guidelines, we have put together a few aids to help us in our decision-making.

A maximum presentation time of 12 weeks was a general rule for decades (Colby, 1992; IFLA, 2006), but now, 80 - 90% of the requests are longer exhibition periods. Whether or not an item can be exhibited

for longer than 12 weeks is based on a visual and haptic assessment of its condition and sensitivity to light. If the item seems too fragile, we suggest some alternatives: for example, to exchange the requested item with another similar item of the collection, or for a book to turn the pages. We also offer the production of a facsimile to be put in place after 12 weeks; it does not generate any costs for the borrower, but the facsimile remains the property of the National Library. For many requested exhibits, an amicable solution can be found in this way.

Another problem arises when an item is in poor condition, light-sensitive or fragile, despite conservation, but the exhibitions stakes are high: for example, it gives the library visibility, the knowledge transfer is essential, or it is a masterpiece of the collection. It may be difficult to decide because of the conflicting priorities of the head of the collection and the conservation team.

There was a need for a more accurate and scientifically recognized method for assessment and decision-making. Sound justification is especially required, if an item seems even too sensitive for a 12 weeks exhibition. To deal with these specific cases, we needed a tool to help us balance the criteria of the exhibition and the items condition together to reach a decision.

The exhibition scale

Development

A group of people from different fields of expertise in the National Library was gathered to elaborate a tool for weighting facts: conservation aspects on one side, cultural interests and educational concerns on the other.

To defuse the conflict, the general and subjective assessment of a request is replaced by a structured catalogue of questions that can be answered with a high degree of objectivity. The catalogue of questions for both sides was jointly developed. Based on a representative survey of selected professionals within the National Library, all questions - hereinafter referred to as ‘factors’ - were given a basic weighting, separately for the material groups ‘book, paper/photo’ and ‘painting/3D objects’. For example, the factor ‘light sensitivity’ is weighted higher than the factor ‘transport risk’ in all material groups, or ‘knowledge growth’ higher than ‘promotion of the National Library’. The basic weighting of the factors remains unchanged for all exhibitions. Each factor has four levels to be rated in each application of the scale, depending on the exhibition and exhibits in demand. For example, the factor ‘light sensitivity’ has levels 1 – ‘not sensitive’ – to 4 – ‘very sensitive’, or the factor ‘knowledge growth’ level 1 – ‘none’ to level 4 – ‘high’. The higher the number, the more weight the factor receives. After implementing mathematical formulae, two numbers from 1 to 4 are generated for the two sides of conservation and accessibility. Therefore, the instrument in the form of an excel file was called ‘exhibition scale’. The two sides and their factors can be seen on the Figure 4 below.

Purpose and application

Ideally, the side with the higher number has ‘won the game‘ and the decision is clear as to whether the item in question can go to the requested exhibition or not. In practice, 100% objectivity can never be achieved with the help of bare numbers, nor is it the purpose of the exhibition scale. Rather, dealing with the question catalogue helps to understand each other’s concerns and paves the way for compromises, if the scores are tight. With the use of the scale, the ‘preservation side’ must accept that changes or degradations can occur and the ‘accessibility side‘ must accept that there can be restrictions. In particularly difficult or delicate cases, the director gets involved and has the last call. Luckily, this is not often needed: we can usually agree on a decision, or the borrower accepts a substitute or facsimile.

The other side of the coin are the resources needed to deal with loan requests in such detail. This is why the scale is not used for straightforward, but only for problematic exhibition requests. Examples for problematic requests are: Exhibition duration too long; travelling exhibition; items of high sensitivity; inadequate infrastructure in the requesting institution.

exhibition			
institution			
location / duration of the exhibition			
item / item group			
persons in charge			
conservation		**cultural value**	
light sensivity	1 = not sensitiv 2 = not very sensitiv 3 = sensitiv 4 = very sensitiv	publication	1 = none 2 = internal 3 = catalogue 4 = monographie
climate sensivity	1 = not sensitiv 2 = not very sensitiv 3 = sensitiv 4 = very sensitiv	knowledge transfer	1 = none 2 = small 3 = average 4 = high
exhibition and mounting stress	1 = not relevant 2 = small 3 = medium 4 = high	benefit for the reputation of the library	1 = none 2 = low 3 = midium 4 = high
transport risks	1 = not relevant 2 = small 3 = medium 4 = high	impact	1 = local 2 = regional 3 = national 4 = international
professional conservation support on site	1 = yes, in house 2 = yes, known 3 = yes, unknown 4 = none	relationship with the requesting institution	1 = insignificant 2 = sporadic 3 = desirable 4 = mandatory
uniqueness	1 = serial 2 = serial but individualized 3 = rare 4 = unique	how important is the item within the exhibition	1 =low 2 = average 3 = high 4 = central
protection requirement of the item	1 = none 2 = low 3 = average 4 = high	is there a similar item in the vicinity of the exhibition	1 = yes 2 = probably 3 = unlikely 4 = unique
estimated exhibition frequency in the past	1 = none 2 = low 3 = average 4 = high	loan conditions	1 = only in exceptional cases 2 =restricted 3 = normal 4 = reproduction available
estimated exhibition frequency in the future	1 = none 2 = low 3 = average 4 = high		
Result conservation: value from 1 to 4		Result cultural value: value from 1 to 4	

Figure 4: Weighting and factors of the scale

The exhibition duration is an important parameter for light-sensitive items. If an item has a ‘4’ rating for light sensitivity, greater weight is given to conservation, but no specific recommendations can be made regarding exhibition duration. To obtain reliable information, the item is subjected to brief exposure to tiny points of different colours. Using this 'microfading', the maximum permissible presentation duration can be calculated, as described in the following chapter.

Microfading Measurements

Microfading Tester

In 2020, the National Library purchased the Microfading Tester (MFT) from Fotonowy in Krakow to analyse more accurately the light sensitivity, an important risk factor for exhibits. After a one-year introduction and configuration phase, the device is now being used routinely. The configuration involved defining the parameters for measuring, evaluating and interpreting the measurements; this is dependent on the institutions mission and exhibition policy, as well as the resources available (Ashley-Smith et al., 2002; Beltran et al., 2021, p. 68; Ford & Smith, 2009; Henderson, 2020) (Figure 5).

Figure 5: Microfading tester measuring on a graphic document. © Simon Schmid, NL.

Assumptions and exhibition contingent

From the bare result of the MFT measurement, the light sensitivity of the exhibit, the next step is to arrive at the specific recommendation for the exhibition in question, requiring various assumptions.
The National Library refrains from categorizing collections or items according to their cultural or monetary value, the assumptions below are equally valid for all items. The assumptions are to be regarded as a snapshot, insofar as they reflect the state of scientific knowledge, the personal experience of those evaluating and interpreting the data, and the actual strategy of the institution. The most important assumptions of the library are:

- the JNC, the 'just noticeable change', i.e. the colour change just visible to the naked eye, relates to a colour difference of ΔE_{00} of 1.5 in the CIELAB 2000 colour space, the most common and best justified value (Pretzel, 2008; Beltran et al., 2021, p. 22);
- the preservation target is 100 years. That means, the JNC may occur after 100 years;
- the frequency of exhibitions is 12.5 weeks at 50 Lux every 25 years, ergo: after four exhibitions of 12 weeks the JNC may occur;
- consequently, for one week of exhibition, 2% of the "exhibition contingent" may be consumed, corresponding to 25% for the whole exhibition period.

The exhibition contingent in megalux hours is calculated from the measurement result for the most sensitive measuring point of the item. If the demanded exhibition exceeds 25% of the contingent, shortening the light exposure of the exhibits is needed. On the other hand, if the item has low sensitivity to light, the exhibition period can be prolonged to more than 12 weeks.

General conditions for use and measurements

During the introductory phase, it became increasingly clear that the inspection of all the items requested for an exhibition is rarely feasible; the framework conditions for the MFT measurements should not exceed the time resources available. This means that a maximum of one day per exhibition is spent on MFT-measurements. It requires the exhibits to be pre-sorted and grouped, with only one item per group being selected and measured. The measuring times are 3 to 10 minutes (0.35 to 1.16 Mlux) per measuring point, depending on the light sensitivity. Two measuring points per colour are the rule, but the number of points is increased if the light sensitivity is high or if the measured values deviate greatly. If a large number of similar shades with low sensitivities (corresponding to Blue Wool Standard (BWS) 3 or lower) are present, only one point per shade is measured. This results in a measuring time of about one hour on average for an item with three colours on paper.

Often the paper carrier is detected as the most sensitive part of the exhibit. Whether this is evidence of a real colour change or an artefact is not always clear. In this context, the results of the project 'Prediction of optical radiation-induced damage of white paper in cultural heritage preservation' will be interesting (DFG, 2020).

An example for an MFT-measurement is a blue coloured cardboard folder with handwritten inscriptions and a stamp from the estate Eléonore Niquille (Figure 6). The measuring points are digitally inserted into the photo as coloured dots without further labelling. The assignment is made by naming the measuring points in the MFT-software according to their colour (Table 1). After the blue cardboard and the bright red was detected as 'very sensitive', the entire exhibit was classified as 'very sensitive'. Further details like the blue ballpoint pen or the black ink were not measured any more, since this would not change the overall outcome.

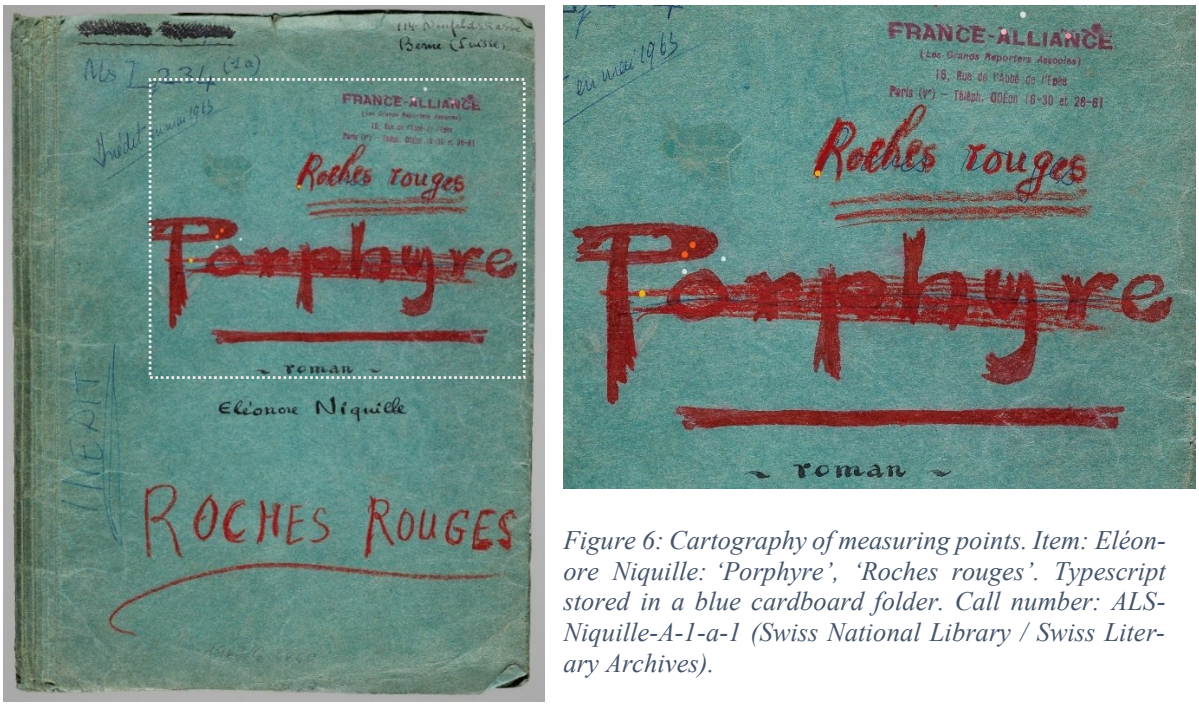

Figure 6: Cartography of measuring points. Item: Eléonore Niquille: 'Porphyre', 'Roches rouges'. Typescript stored in a blue cardboard folder. Call number: ALS-Niquille-A-1-a-1 (Swiss National Library / Swiss Literary Archives).

The test results are read from the measurement curves (Figure 7). Together with the requested presentation data, the JNC quota is calculated. Due to the most sensitive part of the item, detected in measuring point 'blue1' (cardboard without inscriptions), the requested presentation time of 14 weeks would use up 140% of the JNC quota - 25% are permitted according to the assumptions of the National Library. Consequently, a facsimile is recommended. The documents entry for the sensitivity to light in the 'Exhibition Scale' is 4, 'very sensitive'.

Table 1: MFT-measurement results of the item on Figure 6

Mea-suring points	Test results		Requested presentation data			JNC quota Presentation time until the JNC			Entry in the "Exhibition scale"
	Mluxh until JNC (ΔE_{00}=1.5)	Blue Wool Equivalents (BWE)	Presenta-tion time (weeks)	Ligthing (lux)	Luxh	Initial value	Consumption by the re-quested presentation (%)		
						weeks at 50 Lx	per week (max. 2%)	total time (max. 25%)	
blue1	**0.028**	**0.5**	14	50	39'200	11	**10.00%**	**140.0%**	**4**
blue2	**0.039**	**0.7**	14	50	39'200	12	**7.18%**	**100.5%**	**4**
blue3	1.1	3	14	50	39'200	393	0.25%	3.6%	**1**
red1	4	4	14	50	39'200	1'429	0.07%	1.0%	**1**
red2	2	3.5	14	50	39'200	714	0.14%	2.0%	**1**
bright red1	4	4	14	50	39'200	1'429	0.07%	1.0%	**1**
bright red2	**0.034**	**0.6**	14	50	39'200	12	**8.24%**	**115.3%**	**4**
violet2	1.1	3	14	50	39'200	393	0.25%	3.6%	**1**
violet2	4	4	14	50	39'200	1'429	0.07%	1.0%	**1**

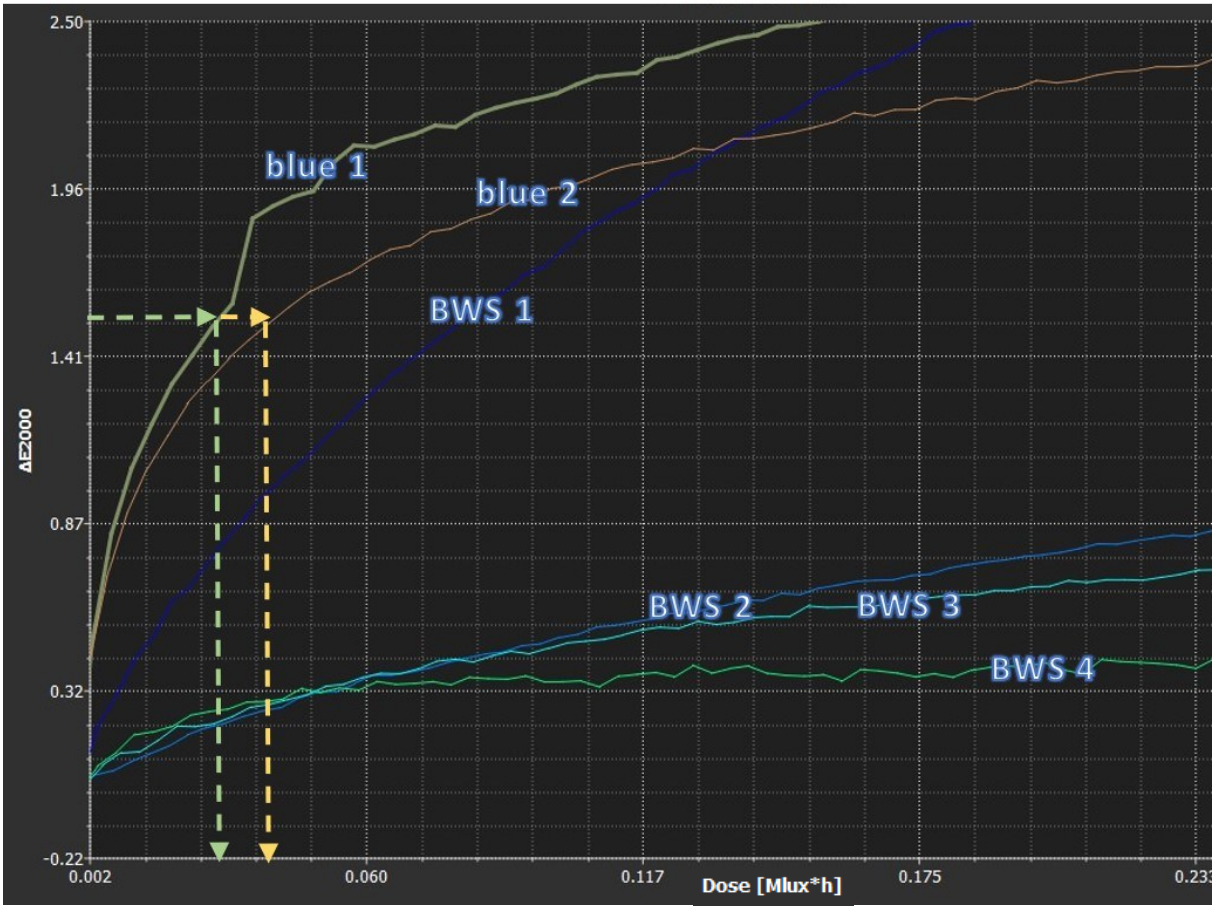

Figure 7: Two ageing curves of the MFT-measurements (item on Figure 6): blue 1 (green) and blue 2 (yellow-ish-brown). At ΔE_{00} of 1.5, the dose is read out and transferred into Table 1.

Documentation of MFT measurements

The MFT measurements are stored in a database where they can be retrieved in their context. For this purpose, the exhibits and the individual measuring points must be clearly described and identified. This is done by means of a photo on which the measurement points are digitally marked as coloured dots. The measuring reports generated by the MFT software must be named and filed manually; there is

potential for greater automation here. The next step is to transfer the data to an excel file with the formulae for calculating the permitted exhibition time. The internal structures and security requirements of the federal administration involve different, separate filing locations. All in all, the time required for documentation is nearly as high as for the actual measurements.

The database for all MFT measurements is ultimately an excel file with all measured exhibits; its predefined structure allows sorting and searching. For each item, the exact call number or description, the result of the measurements at the most sensitive measuring points and the presentation times are recorded.

Paper evaluation with SurveNIR

In addition to the MFT device, the SurveNIR device from Lichtblau e.K. is used as an aid for assessing paper quality and condition. SurveNIR is applied when the paper is potentially at risk and cannot be clearly assessed visually. The non-destructive near-infrared measurement is carried out directly on the paper surface (Rohde & Lichtblau, 2013; Strlič et al., 2008). The recorded spectra are interpreted with the help of a reference data set from analysed papers (period 1560 to 1800 with a focus on 1840 to 2006). A reliable determination is in any case possible for the type of fibre (rag, bleached pulp, groundwood, coated paper), the lignin content, the content of kaolin, gypsum, talc, and resin sizing. The DP (degree of polymerization) values are also available for wood-free papers. Paper strength and pH value can be well determined if the paper type is covered in the reference data set. The lignin content, the pH and the paper strength are of primary interest for the assessment of exhibitability. In general, papers with a lignin content of over 150 mg/g, a pH below 4, and a low level of strength are classified as very sensitive. The result can be surprising and lead to a correction of the classification to greater or lesser sensitivity.

Conclusion

The challenge of the National Library regarding the exhibitions and loan requests is to find the perfect balance between preservation and accessibility and therefore fulfil its public mission without damaging its collection. We made several adaptations to our evaluation process for loan requests. These included developing a preservation guideline, introducing precise measurement techniques like MFT and Survenir, and creating a tool to balance all factors. As a result, our decision-making has become more structured and fair. It takes into account different fields such as the preservation and the collection accessibility and permit both sides to contribute their arguments. Fostering the collaboration from the beginning to create this tool reinforced the mutual understanding between the different departments of the library.

The rating in the scale is partly based on personal estimations, only the factor ‘light sensibility’ can be quantified with the MFT-measurement. It allows a high level of protection for light sensitive items. On the other hand, less light sensitive ones can be handled with more flexibility in terms of exhibition duration. The catalogue of questions in the exhibition scale encourages discussions and a better understanding of the different stakes or demands involved in the exhibition and loan process and to navigate the conflicts. The result of the scale is more an indicator than a final call.

The exhibition scale has been in use since 2021 and has proven itself. Since we use it, lengthy discussions and correspondence became rare, and, above all, the highly sensitive items can be better protected.

The exhibition scale is certainly not transferable to other institutions on a 1:1 basis, but it can serve as a stimulus for their own developments; for the National Library, the scale is a ‘living’ tool that is constantly being developed or adapted.

Suppliers

Instytut Fotonowy Sp. z o.o., ul. Na Mostkach 32A, 31-267 Cracow, Poland, www.fotonowy.pl/ (Microfading Tester).
Lichtblau e.K., Loschwitzer Straße 15a, 01309 Dresden, Germany, (SurveNIR-Gerät).

Acknowledgements

The project was initiated by the former head of the conservation department of the NL, André Page who, following discussions with other institutions, came up with the idea of creating this tool. He and the head of the preservation team, Gabriela Grossenbacher, gave us the opportunity to work on this project and to present it at the IADA Symposium 2022. We could also benefit from the assistance of Prof. Giovanna Di Pietro, Muriel Kupper and the Bern University of the Arts (HKB) who helped us improve our criteria as part of a research project.

Figure permissions

All figures in the document are the property of the National Library of Switzerland.

Authors

Laure Jeannottat (MA in Conservation-restoration)
Swiss National Library
Hallwylstrasse 15
3003 Bern, Switzerland
@: laure.jeannottat@nb.admin.ch
Tel.: +41 58 466 89 32

Laure Jeannottat is a book and paper conservator. After graduated in 2016 the Master studies at the University of Applied Science in Bern, she worked for the Historical Collections Center of University Library of Bern, and carried out different mandates for private conservation studio and museums. Since 2019 she works at the National Library as conservator of books and graphic documents and as deputy head of the conservation department.

Luzius Dinkel (Dipl. Rest. Cons. FH)

Luzius Dinkel is a conservator at the Swiss National Library and responsible for exhibitions and loans, among other things. After graduating from the University of Applied Sciences in Bern, specializing in modern materials and media, he was self-employed from 2003 to 2007. After 2 years at the Technical Centre of the Landesarchiv NRW in Münster, he accepted the vacant position at the Swiss National Library in Bern.

Agnes Blüher (Dr. rer. nat., chemist)

Agnes Blüher is a scientific member of staff at the Swiss National Library NL. After completing her doctorate in chemistry at the University of Stuttgart, she was a research assistant to Prof. Gerhard Banik in the training program on book and paper conservation in Stuttgart from 1993-1999. Subsequently, she was responsible for the mass deacidification project at the NL. Since the completion of the mass deacidification in 2014, she has been working in the Section Preservation and Conservation in various areas. Current focus areas are the long-term control of the deacidified collections and the use of microfading technology in the NL's exhibition policy.

References

Ashley-Smith, J., Derbyshire, A. & Pretzel, B. 2002. The continuing development of a practical lighting policy for works of art on paper and other object types at the Victoria and Albert Museum. *ICOM-CC, Preventive Conservation Group, 13th Triennial Meeting Rio de Janeiro, Preprints Vol. I*: 3-8.

Beltran, V. L., Pesme, C., Freeman, S. K. & Benson M. 2021. Microfading Tester. Light Sensitivity Assessment and Role in Lighting Policy. Guidelines. *Getty Conservation Institute Los Angeles*, p. 22.

Colby, K. M. et al. 1992. A Suggested Exhibition / Exposure Policy for Works of Art on Paper. *Journal of the International Institute for Conservation-Canadian Group,* 17: 3-11.

DFG. 2020. Deutsche Forschungsgemeinschaft. Project number 437200876: Prediction of optical radiation-induced damage of white paper in cultural heritage preservation. Available at: https://gepris.dfg.de/gepris/projekt/437200876?context=projekt&task=showDetail&id=437200876& (Accessed 20 Feb 2024).

Ford, B. & Smith, N. 2009. The development of a significance-based lighting framework at the National Museum of Australia. *AICCM (Australian Institute for the Conservation of Cultural Material) Bulletin* 32: 80-86.

Henderson, J. 2020. Beyond lifetimes: who do we exclude when we keep things for the future? *Journal of the Institut of Conservation 43 (3):* 195-212.

ICOM Schweiz. 2024. Empfehlungen für das Raumklimamonitoring im Museum. https://www.museums.ch/admin/data/files/media/file_de/645/empfehlungen_raumklimamonitoring-in-museen_icom_20241212.pdf?lm=1733989668 (accessed 19 Dec 2024)

IFLA. 2006. *International Federation of Library Associations and Institutions. IFLA Guidelines for Exhibition Loans*. Available at: https://repository.ifla.org/handle/123456789/1373 (Accessed 20 Feb 2024).

ISO/TR 19815:2018. Management of the environmental conditions for archive and library collections.

Pretzel, Boris. 2008. Now you see it, now you don't: lighting decisions for the Ardabil carpet based on the probability of visual perception and rates of fading. ICOM Committee for Conservation, Preprints Vol II, p. 759-765. In ICOM-CC 15th Triennial Conference Preprints, New Delhi, 22–26 September 2008, ed. J. Bridgland, New Delhi: Allied Publishers Pvt. Ldt.

Rohde, M. & Lichtblau, D. 2013. Papier mittel Nahinfrarot zerstörungsfrei untersuchen. *Restauro 119 (2)*: 44-48.

Strlič, M., Kolar J., Lichtblau, D., Anders, M., Trafela, T., Cséfalvayová, L., de Bruin, G., Knight, B., Martin, G., Palm, J., Selmani, N. & Christensen, M. Chr. 2008. NIR/Chemometrics Approach to Characterisation of Historical Paper and Surveying of Paper-Based Collections. *ICOM-CC, Graphic Documents Group, 15th Triennial Meeting New Delhi, Preprints Vol. I:* 293-300.