

GUIDELINES FOR THE CONSERVATION OF NON- WESTERN WORKS ON PAPER

WITH SPECIFIC CASES STUDIES OF
SOUTH ASIAN DRAWINGS AND
PAINTINGS

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INTRODUCTION

The present document proposes a set of guidelines for the care and conservation of non-western collections on paper. Professional associations often publish preventive conservation guidelines for the preservation of paper and books. These usually provide general principles and engage customers and collection users to refer to a trained conservator for specific queries and issues.¹ The website BPG Wiki written by professionals is also a good source for theoretical knowledge on conservation supplemented with useful tips and tutorials (videos on Youtube)². Non-Western objects, such as those from Asia, Oceania, Latin America or North America, were previously described as ethnological, are now described as "sacred" or "culturally sensitive objects". Conservation codes of ethics generally refer to the objective of respecting and retaining their significant cultural qualities and usages.³ But these are mainly focused on religious monuments, indigenous natural heritage sites such as sacred lands, and cultic objects of the Maori, Aborigines and North American Indians, as well as the need to reconcile preservation, worship, and tourism while addressing issues of ecology and sustainable development. While subsequent literature was published on the care of Tibetan tankas and Jewish sacred scriptures, very few projects have focused on works on paper from other cultures. The recent collective volume titled *Conservation of Books*, edited by Abigail Bainbridge, aims to fill this gap and address conservation issues from a non-Eurocentric perspective.⁴

The aim of these guidelines is therefore to provide an analytical approach that can be used as a basis for drawing up a future conservation plan, and which can be tailored to the specific characteristics of a collection. They are particularly useful for decontextualised objects now held in Western collections. Information on culturally sensitive materials may or may not form part of the documentation when the piece is acquired by the museum. Very often, museum descriptions and inventories are incomplete and make no reference to the significance of the object. Gods and holy figures, indigenous themes and local representations are often misattributed or misunderstood by museum staff because they are not part of their normative visual culture and traditions. Similarly, little is known about the techniques and materials used, the artistic processes and the social and economic contexts, all of which hinder a full understanding of these objects.

These guidelines will therefore address these challenges, the key being to take account of the situation as a whole, i.e. the history, the social and cultural context, the materiality of the objects to be preserved, etc. The following chart sets out the various factors and parameters that need to be researched in order to generate a typology of deterioration and draw up diagnostics and conservation plans. For greater clarity, each point in the guideline is illustrated with concrete cases from the conservation and research project on works on paper from northwest India or the Punjab Hills (known as Pahari), which ran from 2019 to 2022 at the Museum Volkenkunde (MV) in Leiden (NL).⁵

¹ <https://www.loc.gov/preservation/care/paper.html>

² https://www.conservation-wiki.com/wiki/Book_and_Paper_Group_Wiki
<https://www.youtube.com/playlist?list=PLH0WXctI2noj1lqaS9visOexf1LswxxSj>

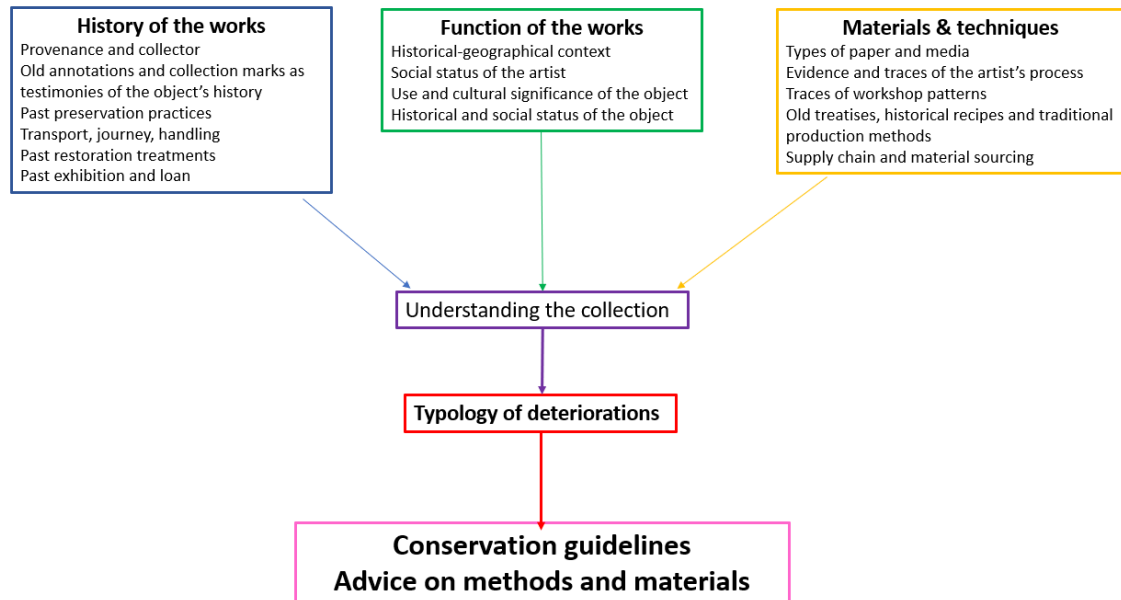
³ https://www.conservation-wiki.com/wiki/BPG_Culturally_Sensitive_Treatment
<https://www.canada.ca/en/conservation-institute/services/preventive-conservation/guidelines-collections/caring-sacred-culturally-sensitive-objects.html>

⁴ https://www.routledge.com/Conservation-of-Books/Bainbridge/p/book/9780367754907?gclid=Cj0KCQjw1_SkBhDwARIsANbGpFsAvNk0lvEqnS6Tqk0cRDFgo-8GIN7Fg8xysE5XyP5adkpeiHQGH_kaAn_MEALw_wcB

⁵ The guidelines have been drawn up with the aim of undertaking the conservation of a collection of 134 drawings and paintings from north-west India, in the Punjab Hills (known as the Pahari), currently held at the Museum Volkenkunde in Leiden (NL). These works were acquired by Jean-Philippe Vogel, an eminent Dutch archaeologist and Sanskritist, between 1900 and 1912. Their acquisition numbers are RV-3025-1/134. They are all accessible online <https://collectie.wereldculturen.nl/#/query/c7384791-abc6-4206-b8c4-4be6eade8e9a>

A. GUIDELINES FOR THE CONSERVATION OF NON-WESTERN WORKS ON PAPER

Conservation chart



1 THE HISTORY OF THE COLLECTION/WORKS

1.1. Identifying the subjects

Very often, descriptions and inventories in Western institutions are incomplete and make no reference to the meaning of the object. Gods, mythological and historical figures, scenes, and themes are often misattributed or misunderstood by museum staff because they are not part of their normative visual culture and traditions. It is therefore essential to identify accurately the subjects represented. To do this, thorough documentation is required to gain a better understanding of the corpus under study. Correctly identified subjects can tell us a great deal about the use and cultural or religious significance of the object.

The Pahari works at Museum Volkenkunde embody Hindu visual culture, because the patrons who commissioned them were Hindus. They include illustrations of Hindu epics, depictions of gods and goddesses and portraits of rulers. Identifying the subject of each work was therefore an important part of the conservation project, in order to better approach them as culturally sensitive objects.

1.2. Provenance and collectors

Objects from Asia, Africa, or Oceania brought by Western travelers, civil servants, colonials, scholars, missionaries, and other explorers were acquired by various means: purchase on the local market, by local intermediaries, former royal collections, gifts, exchanges, in situ collections, excavations, etc. Today, the most widespread issue, which will not be developed here, is that of provenance research and the repatriation of looted objects. In addition to these ethical and political issues, it is essential to trace the history of the object, which can provide a great deal of information about its current condition. Every annotation, stamp, collector's mark, and even scribble is valuable evidence that can help trace the provenance and previous owners.

For example, annotations but also the consultation of books, archives and documents, published or not, made it possible to retrace the way Jean-Philippe Vogel acquired the collection of north-western Indian paintings and drawings that are now part of the Museum Volkenkunde in Leiden⁶. Their provenance and history enable us to answer some questions related to their current state of preservation. For example, Vogel wrote in one of his articles that he purchased a group of drawings from an artist-mendicant who "was still in possession of a number of drawings which were damaged by insects and bore the evident marks of prolonged neglect. He was quite ready to part with them and I am sure that by purchasing them we have saved the collection from destruction. [...]". This explains why 80 folios in the collection have significant marks left by previous pest and rodent infestation.

⁶ The works were collected by Jean-Philippe Vogel (1871 - 1958), a Dutch Sanskrit and epigraphist, who was first Superintendent and then General-Director of the Northern Circle of the Archaeological Survey of India from 1900 to 1912. The collection comprises 134 works, drawings, and paintings produced in the Punjab hills (today Himachal Pradesh, India) and preserved today at the Museum Volkenkunde (MV) in Leiden (NL). They date from the late 18th to the mid-19th century, and are popularly known as "Pahari miniature paintings". The word "*Pahar*", meaning from the hills, relates to the Western lower foothills of the Himalayas. The region consists of a series of small hill states ruled by Rajas. The most prominent courts in terms of artistic patronage were Nurpur, Mandi, Kangra, Guler, and Chamba.

Damages caused by insects, termites and rats in India
Drawings from the Museum Volkenkunde



cockroach ootheca



Rat droppings



Termite holes

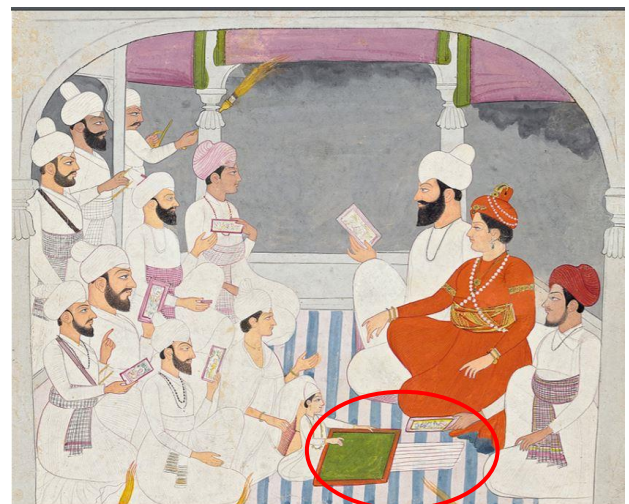


1.3. Past preservation practices or 'traditional care'

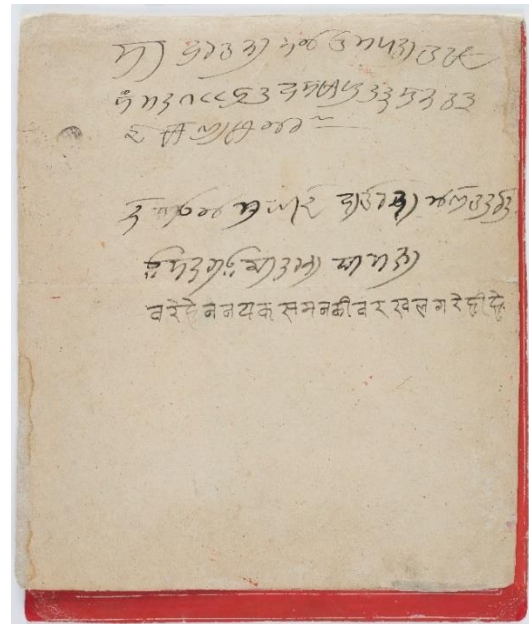
Some cultures have developed and implemented measures that are part of a larger framework of what is called a 'culture of care'. Among the many other cultural and cultic practices are plants used to repel pests, specific enclosures, and rituals to protect and bless objects with sacred content. The most well-known traditional ways are found in Nepal and Tibet where manuscripts are wrapped in several pieces of coloured clothes to prevent light, dust and intruders.

For example, in South Asia, for example, books were supplied with plant leaves, peacock feathers, and snake skins to repel insects and other intruders. They were also wrapped in yellow or red cloth, as turmeric, orpiment and other red dyes are used to ward off pests. The documentation and preservation of these practices are essential to recontextualize these objects that have been removed from their social and cultural environment. From pictorial representations and sources, it is known that Pahari paintings were carefully wrapped in cloth and even sometimes protected with dust-covers to protect them from light, dust and erasure. This explains why in some cases, the paint layers have retained their colours and have little surface damage.

This painting shows an attendant holding a portfolio and a cloth enclosure in which the paintings admired and commented on by the ruler and his courtiers were kept safely. It is an example of the culture of care that often prevailed in South Asia.



Raja Anirudh Chand of Kangra viewing pictures
Attributed to Purkhu of Kangra
c.1810-20
Former Eva and Konrad Seitz's collection



Virahini Nayika braves the storm, Museum Volkenkunde, RV-3025-54

The folio is protected by a dust-cover made in paper that folds away to reveal the painting to the viewers. Dust covers often bear annotations such as the title, the verses of poetry and the artist who created it.

1.4. Past restoration treatments

Any previous conservation work should be documented. It is essential to distinguish between the treatment carried out in the original context of the object and the treatment carried out in the institution that preserves it. This is particularly important for manuscripts that have undergone various repairs by successive owners over time. A discussion with the current owner will be held to determine which past restorations should be retained or removed. However, it seems essential to retain repairs carried out in the original context as evidence of the object's history, especially if they are stable and do not represent a threat to the object's long-term preservation.

Some of the drawings in the Museum Volkenkunde have been repaired using local materials such as handmade paper. It is therefore important to be able to distinguish between the type of paper used and whether it is Western or local in order to determine whether the repair was carried out in its original context.

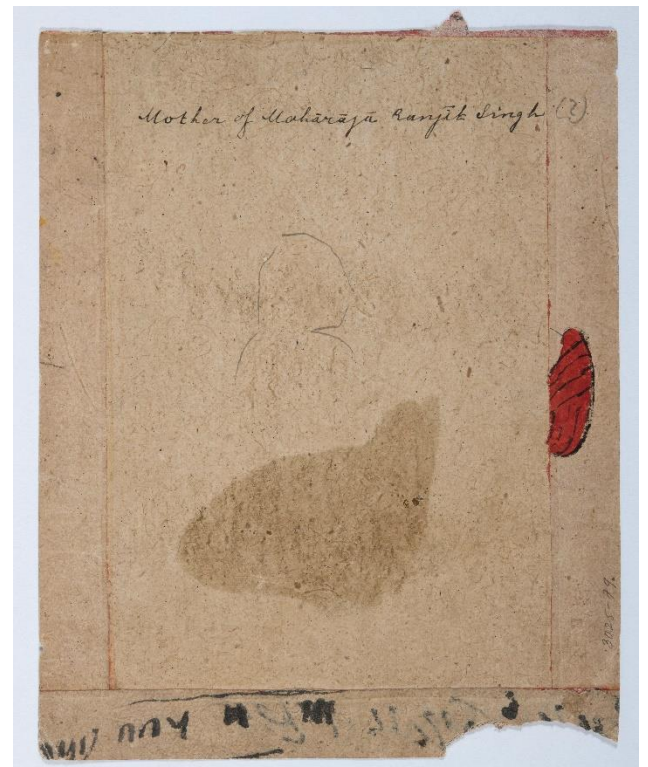


Shiva's dance, 19th century, Kangra school, Rv-3025-36

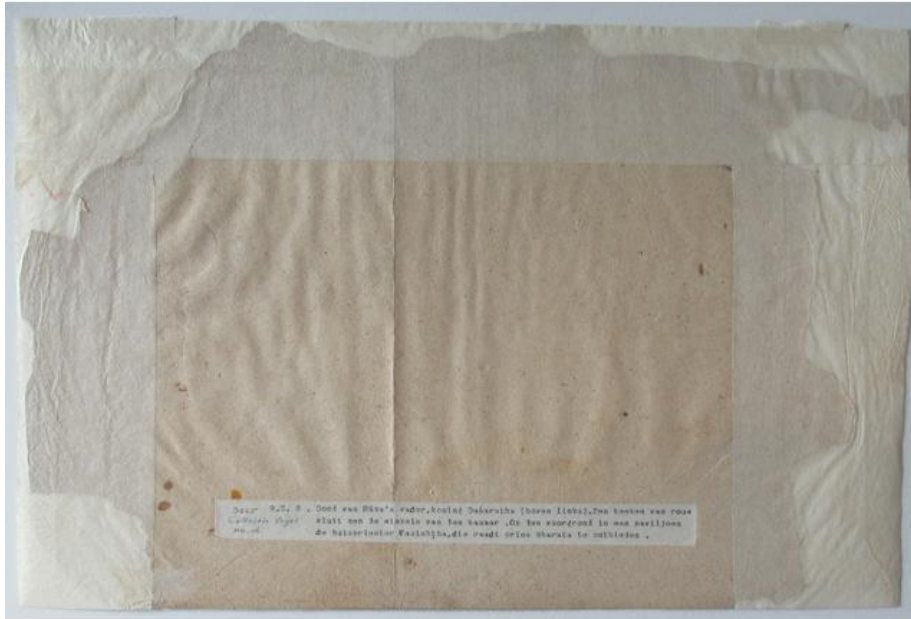
Example of an unsympathetic but stable historical repair made in India with local handmade paper



The support was repaired by additional strips of local handmade paper all along the perimeter. This operation was done in India. RV-3025-32. Photo with transmitted light.



The reverse of this portrait of a woman reading a religious text reveals that the support of the painting is made up of several reused strips of paper that originally came from a manuscript and another painting. RV-3025-79.



Modern repairs along the whole perimeter made with Japanese paper in the 1990s for an exhibition. The invasive large strips of paper pasted with thick starch are today irreversible. RV-3025-16.

2 FUNCTIONS OF THE OBJECTS

2.1. Geographical and climatic context

Information about the geographic and climatic context can also provide a useful indication of the current condition of the objects and their environment before their arrival in Western institutions. The presence of mould, stains, infestation, as well as problems related to paper oxidation and desiccation can be explained by the climate in which the objects were designed and preserved.

An interesting aspect is that the MV Pahari drawings show no evidence of mould or bacterial infestation because they were produced in the western foothills of the Himalayas where the climate is not tropical and humid, contrary to the common perception that Westerners have of the South Asian climate.

2.2. Historical context

A general knowledge of the political and historical context of the objects provides a better understanding of the production context and information on the sourcing and quality of materials. Political instability and conflict can lead to a lack of sponsorship and precarious economic conditions that can affect artistic creativity and disrupt the supply chain process. It could also be interesting to study the proximity of supplies and exchanges.

For example, in the Punjab hills, commerce, which took place on the backs of mules, ponies, goats, or light oxen, was often hampered by the vagaries of the weather, the topographical difficulties of the terrain, the passage of turbulent rivers and high mountain passes steep tracks, as well as by wars and abusive customs tax. For example, the artistic court of Chamba was rather remote, and the supply chain certainly depended on all the conditions mentioned above.

2.3. Social status of the artists

The social status of artists can tell us a great deal about how objects were produced and the materials used in their creation. From a broader perspective, information about patronage, the relationship between patrons

and artists, the societal system, and hierarchy can help us to understand the artist's role in the surrounding society and his or her financial resources.

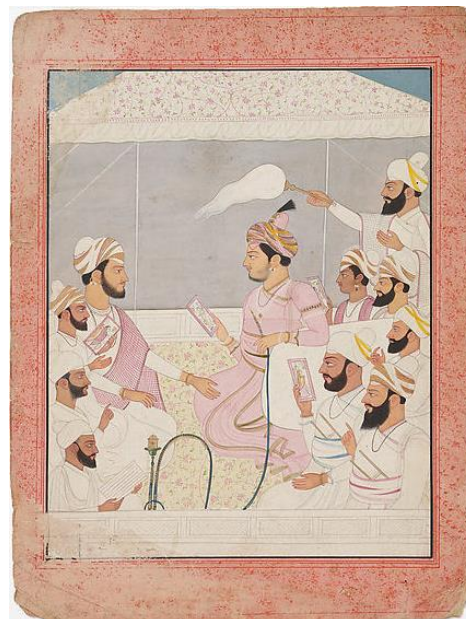
In the case of the Pahari drawings and paintings from the Museum Volkenkunde, the artists belonged to the category of carpenter painters called tharkans. A few of them were attached to a ruler, but most were itinerant and sought the patronage of a generous patron. In exchange, they received a plot of land for their family to cultivate and sometimes cash rations or monthly salaries depending on the wealth and satisfaction of the patron. The patron was responsible for providing the necessary painting materials: the ingredients used to prepare the pigments were readily available as they were used in Ayurvedic medicine. Paper was not produced in the hills but was a commercial product imported from the plains of Punjab.

2.4. Use and cultural significance of the objects

A close examination of the works, supplemented by the above information, enables us to determine their cultural significance and use. Paintings and other paper objects were not only produced for their artistic value or aesthetic purpose, but also to embody religious narratives through the depiction of mythological scenes. Although not all objects are religious or 'sacred', they can retain great cultural significance. In a sense, it is important to know how modern viewers perceive objects from their own culture once they have been removed from their original time and environment.

For example, unlike Maori or Native American cultures, Hindu images do not invoke community-wide protocols for handling and viewing. Nevertheless, some of the MV folios bear traces that clearly indicate they once embodied the representation of a god or goddess and were worshipped as part of personal or domestic cultic practices. Others are votive paintings that were made at the request of the worshipper and represent him and his family. In a princely context, painted folios were also handled and commented upon by the rajā and his courtiers. Collective viewing of paintings depicting religious deities, feminine beauties (Nayika) and illustrations of Hindu mythology, served as tools for both mediation and contemplation. These objects often bear traces of domestic uses and accidents that occurred in the family sphere. It is therefore essential to preserve these traces as evidence of cultural importance.

Sansar Chand examining paintings with his
courtiers
Attributed to Purkhu
Kangra, c. 1788-1900
Rietberg Museum, Zurich





An example of votive painting: three Sikh devotees pay homage to the Hindu triad of Brahma, Vishnu and Shiva, Punjab Plains, 19th century, Museum Volkenkunde RV-3025-46

Pinholes and missing corners indicate that the painting was hung on the wall. The numerous stains, splashes, and abrasions attest to the image's use and veneration in a domestic environment.

3 MATERIALS AND TECHNIQUES

3.1. Type of paper(s)⁷

Investigating the materials used to produce the objects is a fundamental aspect that all conservators usually carried out. The nature of paper and media has a considerable impact on treatment decision-making and on conservation interventions. It is important to determine the physical and mechanical features of a paper and its possible reaction to specific conservation treatments. Their porosity, and surface aspect will impact possible treatments involving humidity, adhesives, flattening, etc. The surface of the paper and media should be carefully examined with a thread counter, magnifying glasses or Dinolite®, as well as with transmitted light and raking light to detect any surface appearance (fibrous, porous, glossy, matte, burnished areas), raised elements, impressions left by the paper mould or any other trace of manufacturing tools. A lot of information is only given at the microscopic scale. Even if they may seem anecdotal, they are nonetheless important because they provide valuable information on production techniques. Conservation treatments must take these elements into account when cleaning the surface and repairing these works and must not detract from the specificities of the original materials.

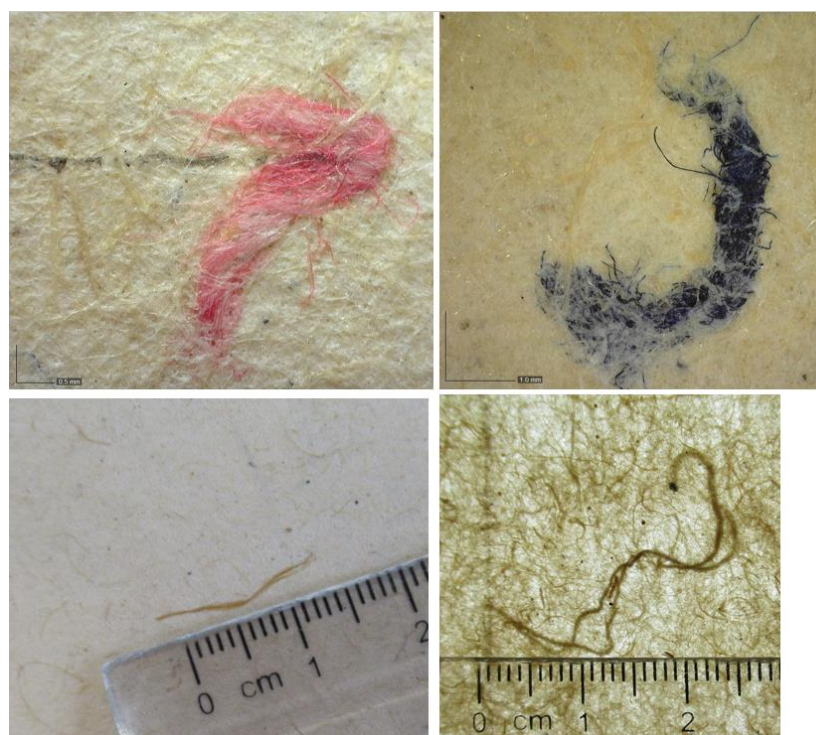
The Pahari drawing from the Museum Volkenkunde were produced with local handmade paper produced from recycled materials such as cordage, cloth, canvas, matting, and sacking⁸. As a result, the paper has extraneous materials, bundles and clumpings of fibres, micro-holes, pieces of shives, and raised fibres that can mostly be seen under magnification. In addition, the surface was irregularly burnished, so there are alternating porous and glossy areas.

⁷ See the second document from the same project: Protocol for the characterisation of non-watermarked handmade paper.

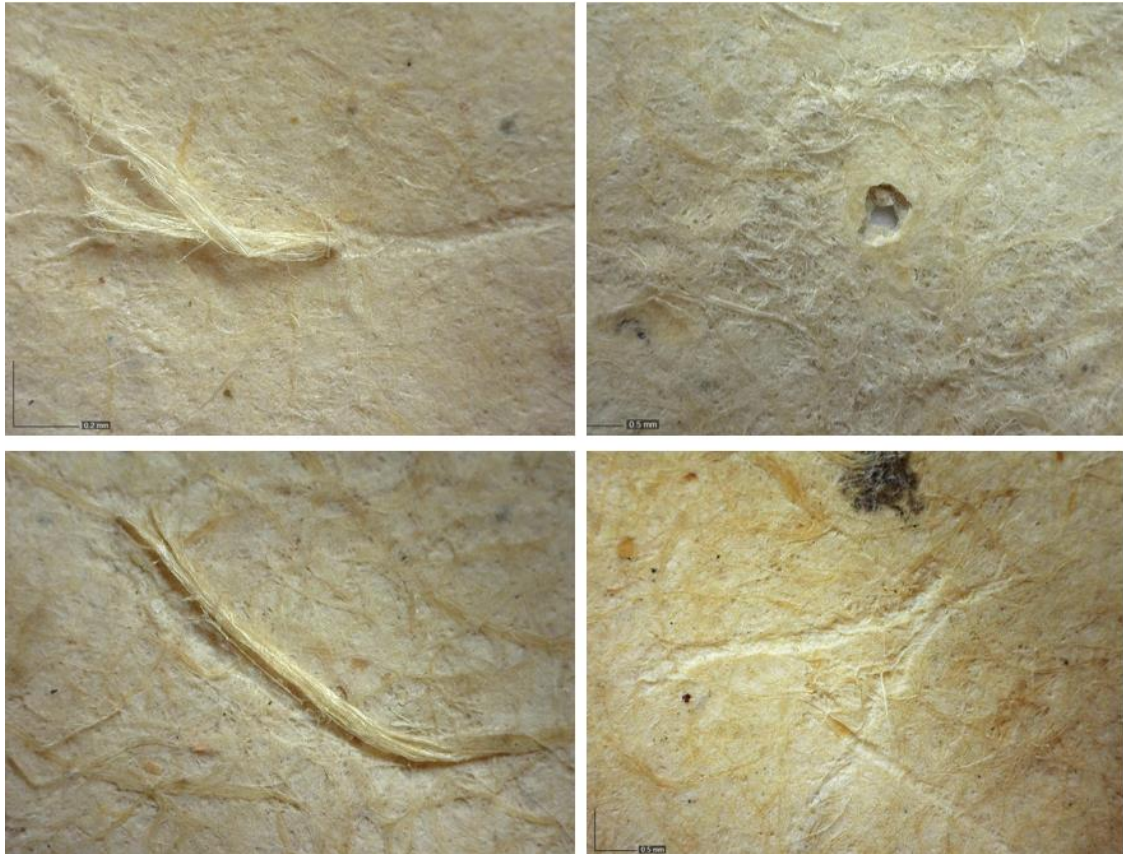
⁸ For detailed information see A. Couvrat Desvergnès, 2023, 'Sialkoti Paper used for the Production of Pahari Drawings and Paintings in Northwest India', in *Artists' Paper A Case in Paper History* edited by Penelope Banou, Georgios Boudalis, Patricia Engel, Stephen R. Hill, Joseph Schirò and Jedert Vodopivec Tomažič, Horn/Vienna: Verlag Berger.



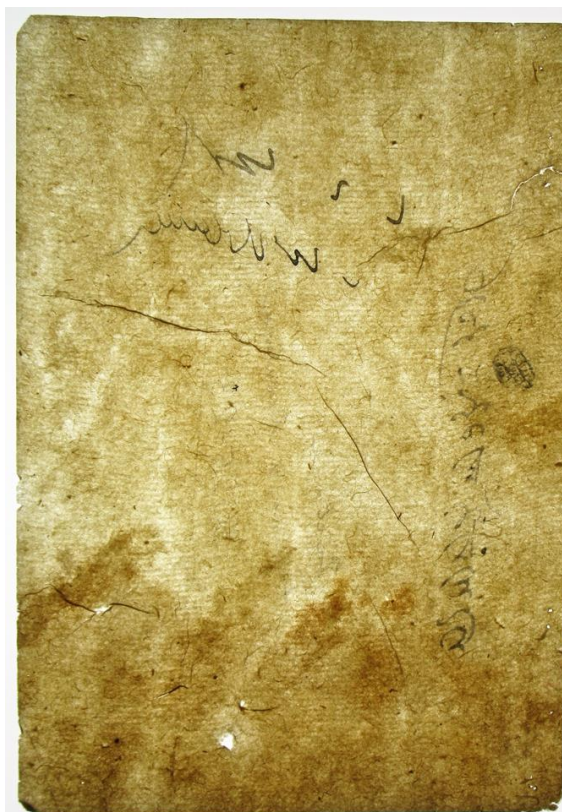
Details of the surface of the paper and media with dinolite®



Paper made with diverse recycled woven and twisted materials such as cloth, bags, mats, and ropes. Some of these products were initially made of threads or strands dyed in blue and red.



Deteriorations on the surface due to the inherent nature of the paper: raised fibres, prominent bundles of fibres, micro-holes, charcoal particles coming from the papermaking process.



Examination of the sheet on the lightbox reveals impressions of paper mould, pieces of recycled material, and manufacturing faults. The uneven distribution of the paper pulp and the accumulation of pulp in the lower part of the sheet are the result of the papermaker's technique and clumsiness. RV-3025-23

3.2. Type of media

The same procedure applies to graphic materials in order to understand their nature, their appearance, their current state and their possible reaction to conservation treatments.



Overview of the various media encountered in Pahari drawings and paintings in the Museum Volkenkunde

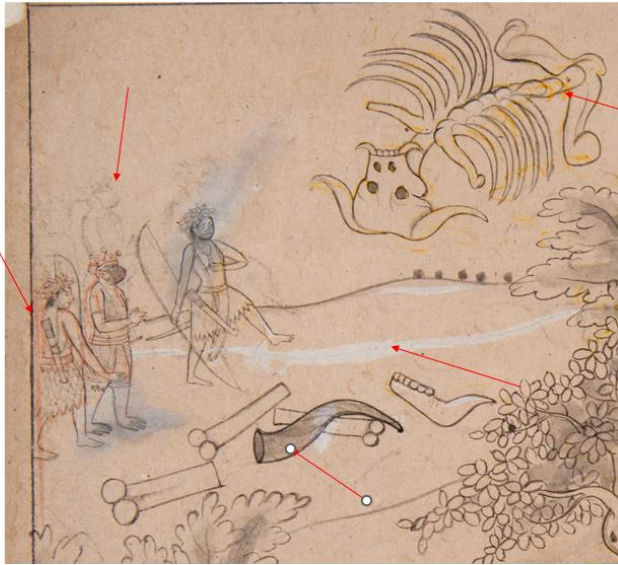
3.3. Techniques and artist's process

Information can be obtained from ancient treatises and traditional recipes, as well as from modern field surveys and interviews with artists or craftsmen. Considerable resources can be found in ancient travel accounts, trade and technical reports, and catalogues of international and colonial exhibitions.

In addition to these resources, the objects themselves provide technical information through careful visual examination on a macro- and microscopic scale, as well as through scientific analysis and special imaging methods where available. Of course, the analysis of a coherent corpus of similar objects is more likely to provide relevant information than an isolated object. It is therefore useful to look for similar objects in other collections and to make comparisons.

The observation of the Pahari drawings has allowed us to understand artistic processes and establish a classification of the various types of drawings present within the Museum Volkenkunde collection.

Working documents and primary studies as testimonies of the artist's techniques and workshop practices



- Primary outlines with charcoal
- Secondary outlines with red and yellow inks
- Final outlines with black ink
- Masking the flaws with white paint

Practice sketches: portraits, scribbles, doodles, lines, curves and other rapid designs



Portrait of Mian Udham Singh (? - 1840),
the eldest son of Maharaja Gulab Singh of Jammu,

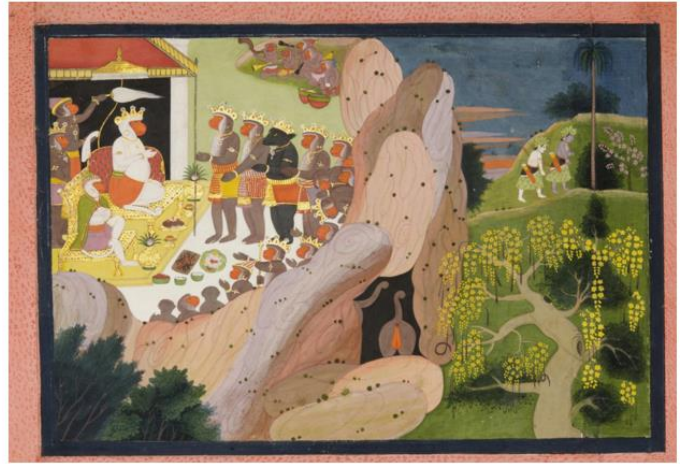


Master drawing versus finished painting

The master drawing was kept in the workshop and served as the reference for the execution of future finished works



An episode of the Ramayana
The Coronation of Sugriva and Installation of Prince Angada as Heir Apparent
RV-3025-4



Philadelphia Museum of Art- 1994-148-510

➤ TYPOLOGY OF DEGRADATIONS

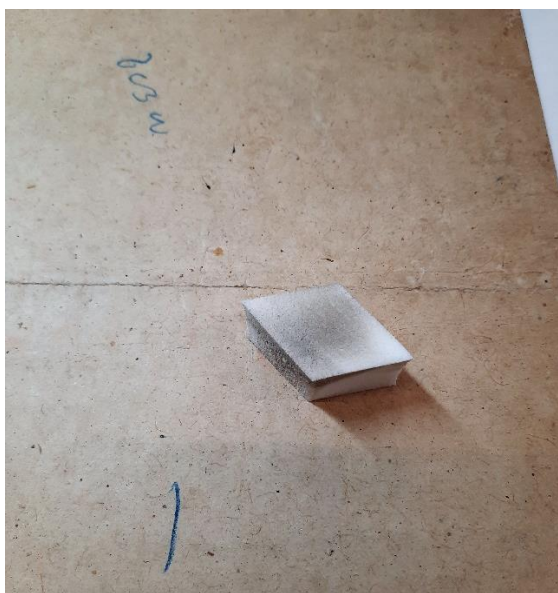
All the data and information described above are essential for understanding deterioration phenomena and distinguishing subsequent damage from initial characteristics, historical alterations and external deterioration factors. They allow us to establish a typology of deterioration that will help us to establish a diagnosis and appropriate conservation treatment.

B. RECOMMENDATIONS FOR THE TREATMENT OF OBJECTS MADE WITH NON-WESTERN PAPER.

The following tips and recommendations can be used not only for South Asian artwork but also for all objects made with local paper or cellulosic material.

Surface cleaning

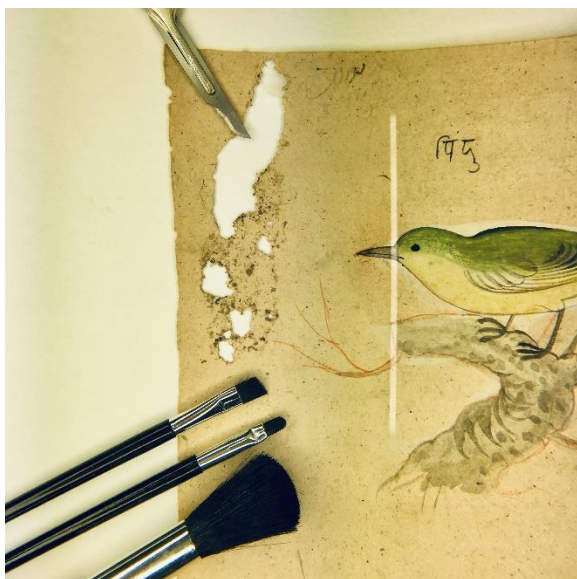
The conservation of paper items usually begins with surface cleaning. As for objects with vulnerable surfaces, it is not always recommended to use invasive treatment which could interfere with the surface appearance, particularly when the paper is rough, fibrous, porous, or very little sized and burnished. As a result, dust and dirt particles embedded in the fibrous substrate are difficult to dislodge. In addition, since most of the drawings are working documents, studies, or sketches that have been handled, used, and reused, the paper supports now bear traces of use, travel, change of ownership, etc. Many of these traces must be preserved as testimonies of the past life of these objects. Before any treatment, a careful examination should be carried out to determine which traces are relevant to keep and which other traces can be gently cleaned. However, I now tend to give a light overall surface cleaning in order to remove the paper from the volatile dust particles and allow for further treatment and leave the rest in place. To do this, I use the cosmetic sponges from Muji® and Etos because they are soft and innocuous.⁹ These are made with artificial rubber. A study carried out by a team of Dutch scientists and conservators has shown that cosmetic sponges made from isoprene, styrene butadiene rubber (SBR), and mixtures of both, as well as polyurethane ether-based HD, are suitable for conservation treatment. As a precaution for removal of possible additives, makeup sponges were rinsed for 15 minutes in demineralized water and dried well before use.¹⁰ However, cleaning should be done with care as any rubbing material can still lift or rub off paper fibres, especially in abraded areas. A makeup kit with fine brushes of different sizes is also very handy for removing dirt particles embedded in the paper fibres.



Soft cosmetic sponges can be used to gently surface - clean blank paper as well as painted surfaces

⁹ <https://www.muji.eu/fr/product/make-up-sponges-40pcs-2300>

¹⁰ Daudin -Schotte *et al.* 2013. Dry Cleaning Approaches for Unvarnished Paint Surfaces, Proceedings from of the Cleaning 2010 Conference, Valencia, 26-28 May 2010, Publisher: Smithsonian Institute, Editors: Marion F. Mecklenburg, Elena Charola, Robert J. Koestler.



Small cosmetic brushes can be used to carefully remove dirt residues embedded within the paper substrate.

Reinforcement

For paper that is not internally sized and often porous, in order to limit the addition of any aqueous solvent or adhesive, it is recommended to use remoistenable tissue which is today widely known by conservators. For that purpose, I used 9g/m² Tengujo Japanese paper pre-coated with 50/50 methylcellulose and wheat starch paste. The adhesive is gently moisturized by using a nano-mister which produces a very fine mist. It only takes a few seconds to moisten the adhesive, which then dries very quickly once applied to the area to be repaired.

Nano-mister

This tool has recently gained a lot of notoriety within the conservation community as it is a cheap and portable alternative to the ultrasonic atomizer. It was originally sold in cosmetics to moisten the skin and cool the hot adhesive used to glue on eyelash extensions. It delivers a very fine mist that can be used for several operations: local flattening of creases and deformations, and reactivating the adhesive of remoistenable tissue, among other uses. I also use it to spray a consolidation solution on powdery paint layers. A 1.5% solution of gelatin or sturgeon glue (with one or two drops of ethanol to ease penetration) in deionized water can be sprayed with a nano-mister to consolidate unstable gouaches, several applications being necessary to obtain a satisfactory result. If you often do consolidation treatments, I would recommend that you buy two devices: one to first spray on the area to be treated with a light mist of water and ethanol (this will prepare and relax the paint) and a second to spray the consolidant immediately after. There is a wide range of devices on the market at all price.¹¹ It is also important to choose one that is easy to use, requires only one finger to turn on and off, and does not drip. However, most of these devices, although very useful, are of poor quality and have a short lifespan if used repeatedly. To my knowledge, only one supplier of conservation products has a nano-mister in its catalogue. GMW sells a device that is much more expensive than others commonly found on the market, but it is good because it doesn't drip.¹²

¹¹ The device used for this project was purchased on Amazon for 12 euros.

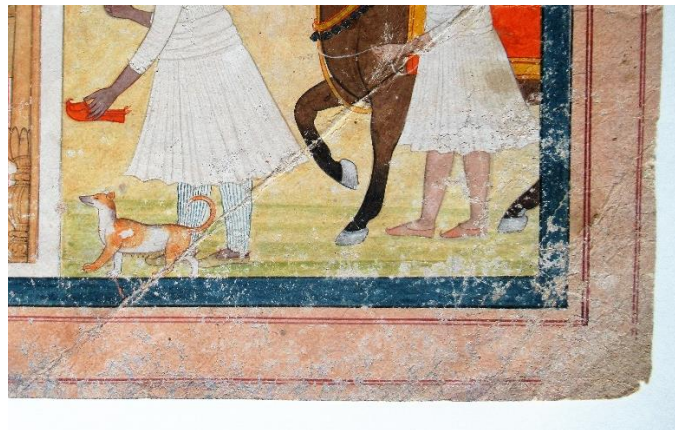
¹² <https://gmw-shop.de/en/buffering-washing-cleaning/445/microfog-sprayer>



Nano-mister



Flattening of areas of creases and local deformations after water misting with the nano-mister.



Spraying of a consolidant with the nano-mister to consolidate the pulverulent painted areas
RV-3025-52

The insulin syringe

To inject consolidant in minute quantities, I use the insulin syringe, which has an extremely fine needle. This tool is commonly used by object conservators and is very useful for injecting adhesive under a layer or inside a structure. For example, objects made of laminated sheets of paper are often prone to delamination and air pockets, so the insulin syringe is a very practical tool for remedying this problem.

Injection of wheat starch paste within the laminated structure of the painting support.
RV-3025-55 and RV-3025-82.



Delaminated paper support of an Indian miniature painting.

Toning and retouching

Conservators typically use watercolor to retouch missing areas of the painting and tone the paper. But, in the case of gouache, watercolour often lacks the body and opacity to match the texture of the original medium. For that purpose, I recommend using Gansai Tambi colours from the Japanese brand Kuretake.¹³ Applied in a medium-thickness coat, they have good coverage and are a bit glossy, which can sometimes be an issue. To remedy this, I don't hesitate to use them alongside the usual Windsor and Newton watercolours. I contacted Kuratabe's customer service to ask about the composition of the paints and the sales agent told me that they were composed of pigments, gum arabic, and sugars, the latter being responsible for the shimmering appearance of the paints once dried.

For conservators who often work on gilded objects with gold paint (including bindings), I cannot recommend enough that you produce your own shell gold. No commercial paint can properly match the shimmer of the original gold paint on the object you are conserving. There are many tutorials online today for making your own shell gold and I also recommend Anita Chowdry's pdf book, which is a step-by-step manual.¹⁴ A good alternative is, however, Kuratabe's Starry Colours Gold Palette. It comes in six different shades of gold (blue, red, yellow, champagne, clear, and white) and it is also very good for inpainting the missing parts of a gilded design.¹⁵

¹³ <https://www.gansaitambi.jp/en/>

¹⁴ <https://anitachowdry.blog/2017/03/14/the-book-of-gold-an-ebook-available-for-sale/>

¹⁵ <https://www.gansaitambi.jp/en/pearl.html>



Gansai Tambi colours



Kuratabe's Starry Gold Palette

Conservation papers

Conservators commonly use Japanese paper for many operations such as repairing, filling losses, mounting, lining, etc. Japanese paper is a versatile and multifunctional material whose qualities are no longer in question. However, the perfection of Japanese papers does not always match the specificities of historical papers such as Islamic, Asian, Latin American (native papers), and all other utilitarian and rustic papers. Discussions with other conservators working on works and manuscripts from other cultures revealed similar concerns and a desire to find other papers that meet conservation standards.¹⁶ Similarly, a brief survey of paper conservators was conducted to learn what materials they use as alternatives to Japanese paper. Some professionals make their own paper from scraps and waste paper (Japanese paper or others), while others significantly rework Japanese paper to give it the same texture as the original material. In addition, a market study was conducted to find conservation papers that could be used for conservation treatments such as loss infill. Although scientific analyses such as artificial aging, permanence tests, etc. could not be carried out as part of this project due to time, resource, and budget constraints, the survey has identified the suitability of a selection of contemporary handmade papers in order to present the possibilities for their use in conservation.

Ruscombe paper mill (France) produces a wide range of high-quality handmade papers, made from a variety of fibres which are used by British libraries and museums. It is one of very few remaining independent and fully commercial mills. The mill combines traditional, flexible, small-scale manufacturing methods with the highest quality raw materials to recreate faithful reproductions of historic papers. The papers produced provide exciting and reliable alternatives to modern machine-made papers. Papermaker Frédéric Gironde was trained by Simon Barcham Green and is fully aware of conservation concerns and requirements while being committed to the constant quality and excellence of his products. Ask for samples, as production often varies depending on the supply of raw materials and on demands.

<https://ruscombepaper.com/uk/>

Radha Pandey, papermaker and letterpress printer (Norway) was trained by Timothee Barrett at the University of Iowa Center for the Book Ohio. She takes orders for papers made in the Indo-Islamic, Japanese, and Western

¹⁶ A project is currently ongoing by Frederica Delia, a paper conservator in Rome together with students from Accademia di Bella Arti di Roma to produce paper from Daphne fibres (Lokta paper) that can meet conservation requirements and could be used for the conservation of South Asian works on paper.

papermaking traditions. All paper can be customized for size, dye, and fibres. Radha produced the paper that was used to fill in the losses in many drawings from the Museum Volkenkunde collection.

<https://www.radhapandey.com/paper>

Paper Foundation (UK) provides fine handmade papers in the European style and produces paper to order. The mill has recently taken over the tools and expertise of the Griffen Mill paper mill that made the Akbar and Falcon papers used by conservators working on Oriental manuscripts.

<https://paper.foundation/category/shop/book-conservation/>

Khadi Paper (UK)

Khadi Paper was founded by Nigel Mc Farlane who rediscovered papermaking traditions in South Asia. The company works with papermakers and partners in India, Nepal and Bhutan to develop and promote local paper industry using cotton recycled rags and local fibres such as daphné, hemp, sunn hemp, mitsumata, banana, etc.¹⁷ Khadi supplies paper produced by Muhammad Hussayn Kagzi, whose ancestors established the paper mill in the 15th century in Rajasthan (Sanganer village). Hussayn produces paper from cotton, jute, hemp and sunn hemp using traditional methods. However, there is no quality control or testing to determine the suitability of these papers for conservation purposes.

However, I have used paper from 19th-century ledger books produced in Rajasthan made with sunn hemp to fill in losses in some drawings of the Museum Volkenkunde collection. As a precaution, the paper was washed for 20 minutes in water before use, to remove any degradation products present inside the substrate.

<https://www.khadi.com/shop/sunn-hemp-blank-ledger/>

Infills of paper losses with handmade paper: various types of handmade papers



[Ruscombe](#) papermill in France



Radha Pandey Norway



Sheets from 19th century ledger books
Rajasthan supplied by Khadi Paper UK

¹⁷ Some of the papers are available in Vlieger and van Beek in Amsterdam, Damen den Haag and Graphica in Lochem.