

CONTENTS

<i>EDITORIAL BOARD</i>	3
<i>TEXTS AND MANUSCRIPTS: DESCRIPTION AND RESEARCH</i>	4
O. Akimushkin. Central Asian Manuscripts' Bindings (1730s — 1930s)	4
M. Vorobyova-Desyatovskaya. A Sanskrit Manuscript on Birch-Bark from Bairam-Ali. II. <i>Avadāna</i> and <i>Jātaka</i> (Part 4)	9
<i>PRESENTING THE COLLECTIONS</i>	15
Stephan Levitt. New Manuscripts from the Collection of W. Norman Brown Added to the Indic Manuscript Collection of the Library of the University of Pennsylvania	15
E. Rezvan. Oriental Manuscripts of Karl Fabergé. II: <i>Rāgamālā</i> Miniatures of the Album (<i>Muraqqa'</i>) (Part Two)	39
<i>PRESENTING THE MANUSCRIPT</i>	46
Elisabeth Zack. Yūsuf al-Maghribī's Egyptian-Arabic Word List. A Unique Manuscript in the St. Petersburg State University Library	46
<i>ORIENTAL MANUSCRIPTS AND NEW INFORMATION TECHNOLOGIES</i>	50
Hala Kaileh. The Creation of the Arabic Manuscripts Metadata Base	50
<i>CONSERVATION PROBLEMS</i>	60
Catherina Koch. The Restoration and Glazing of Turfan Fragments at the Staatsbibliothek zu Berlin — Preussischer Kulturbesitz.	60
<i>BOOK REVIEWS</i>	71

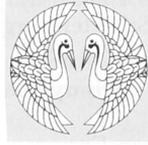
Front cover:

“Kakubha Rāginī”, watercolour, gouache, gold and ink on paper. Deccan, second half of the 18th century.
Album (*Muraqqa'*) X 3 in the Fabergé collection at the St. Petersburg Branch of the Institute of Oriental Studies,
fol. 20b, 7.6 × 11.5 cm.

Back cover:

- Plate 1.** “Gujarī Rāginī”, watercolour, gouache, gold and ink on paper. Deccan, second half of the 18th century. Same
Album, fol. 21a, 6.5 × 11.5 cm.
- Plate 2.** “Gūnkālī (Gūnkāri) Rāginī”, watercolour, gouache, gold and ink on paper. Mughāl, second half of the 16th
century. Same Album, fol. 24b, 11.5 × 12 cm.
- Plate 3.** “Kakubha Rāginī or Sorath Rāginī”, watercolour, gouache and gold on paper. Deccan, second half of the
18th century. Same Album, fol. 26b, 10.0 × 19.0 cm.
- Plate 4.** “Rāginī” (unidentified), watercolour, gouache and gold on paper. Deccan, second half of the 18th century.
Same Album, fol. 27a, 11.5 × 17.0 cm.

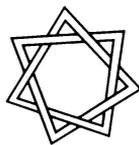
THESA PUBLISHERS
IN CO-OPERATION WITH
ST. PETERSBURG BRANCH
OF THE INSTITUTE OF ORIENTAL STUDIES
RUSSIAN ACADEMY OF SCIENCES



Manuscripta Orientalia

International Journal for Oriental Manuscript Research

Vol. 7 No. 3 September 2001



75ESA
St. Petersburg

Catherina Koch

THE RESTORATION AND GLAZING OF TURFAN FRAGMENTS AT THE STAATSBIBLIOTHEK ZU BERLIN — PREUSSISCHER KULTURBESITZ

Around 40,000 ancient written documents from Central Asia are kept among the treasures entrusted to the Berlin State Library. They bear evidence of a thousand years of rich culture flourished along the Silk Road. The conservation of Turfan fragments and their restoration is important part of the work carried out at the Library restoration workshop. Four of the Library's sixteen restorers are familiar with the material. At the Third International Conference, the author of this paper had a chance to present the restoration approaches and practices of the Staatsbibliothek zu Berlin.

In the 1920s, most of the fragments were put between glass panes and have been thus preserved in that way until recently. Some words can be said about the method from a curatorial point of view. The method evidently has four main benefits:

- (i) transparency of the material;
- (ii) glass protects the contents from dust and insects;
- (iii) delicate fragments need not be touched when reading them;
- (iv) glass is relatively little reactive material, ensuring long storage of documents.

There are, however, disadvantages too: glass is a fragile material and if it is broken, the paper may be damaged

by sharp edges of the splinters. Besides, some fragments of a document stored in this fashion may get stuck to the glass, as a result of possible high concentration of moisture because of a barrier effect of the glazing.

Despite these risks, the head of the restoration workshop, Ernst Bartelt, and the curators of the Oriental Department decided to continue with the glazing. Yet an important aspect had to be modified. The new concept avoids the paper being pressed between the glass plates and makes some air exchange possible. To achieve this, a frame of cardboard band is pasted on one of the glass panes in order to avoid detrimental climatic effects.

A test shows the difference between the old and new glazing methods: Chinese and Japanese paper are evenly wet with water and glazed afterwards (see *fig. 1*). After one day, the difference is already visible: the conventional glazed samples (see *fig. 2*, right) look quite humid and the glass is steamed up, while the others with the "air frame" (see *fig. 2*, left) are drying evenly. This difference can be noticed till the fourth day. Therefore, one can say that the new method of conservation with the employment of an additional frame brings about a better air circulation between the glass panes, improving preservation conditions. In the present paper, I offer the description of the working process to demonstrate the new method.

Restoration process

First the objects are handed over to us, together with an order form the desired restoration steps to be checked. Then we take photographs of the objects for documentation, open the old glazing, examine the condition of the fragment and write it down in the restoration report.

Broken glass and splinters are removed, the glass is cleaned and the cardboard frame is pasted on. After that the fragment is mounted with small triangles of Japanese papers and paste (see *fig. 3*). Finally, the glazing is bordered with a gummed textile tape (see *fig. 4*).

What was glued can be removed if necessary. The restoration treatment and the materials applied are written down in the report; reversibility and documentation of the restoration are thus ensured. In the last seven years, about

400 fragments have been processed in this fashion to conserve them.

Not all of the objects demand mounting. Often treatment with more operations is required.

Fig. 5 demonstrates a detail of a fragment with some parts folded (the paper and an adhesive tape from an old repair). I applied a water/alcohol solution and a hair pencil to unfold the edges and remove the paper tape. The adhesive tape was taken off by mechanical means. *Fig. 6* gives the result of the operation.

Fig. 7 shows a crumpled fragment. To improve the legibility of the text the whole paper was moistened with a water/alcohol solution. I waited for the paper to relax, drew it carefully apart and dried it under weight. The ink spots were not treated as they did not make the text illegible (see *fig. 8*).



Fig. 1

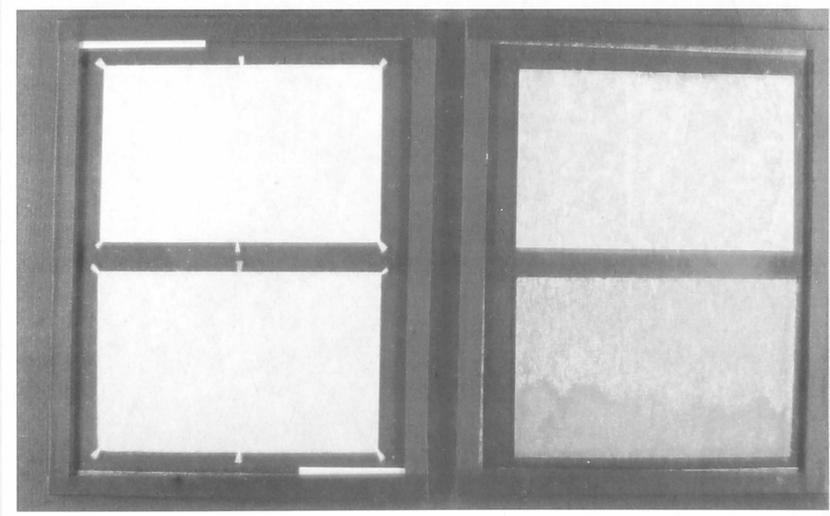


Fig. 2

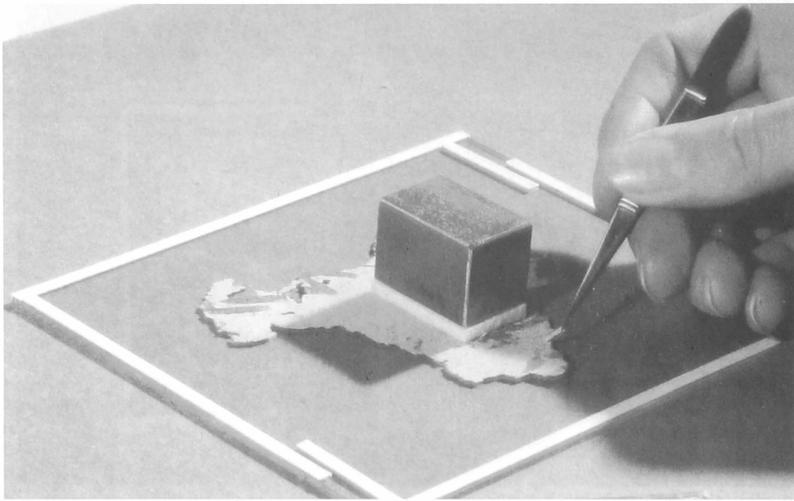
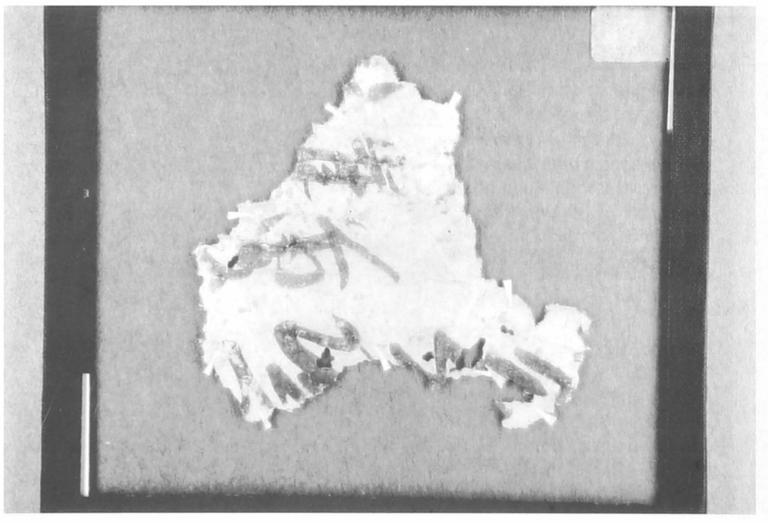
*Fig. 3**Fig. 4*



Fig. 5

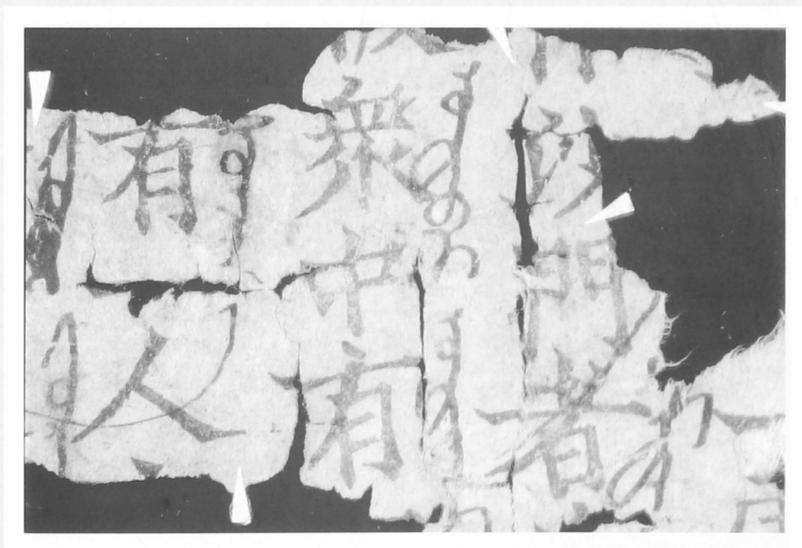


Fig. 6

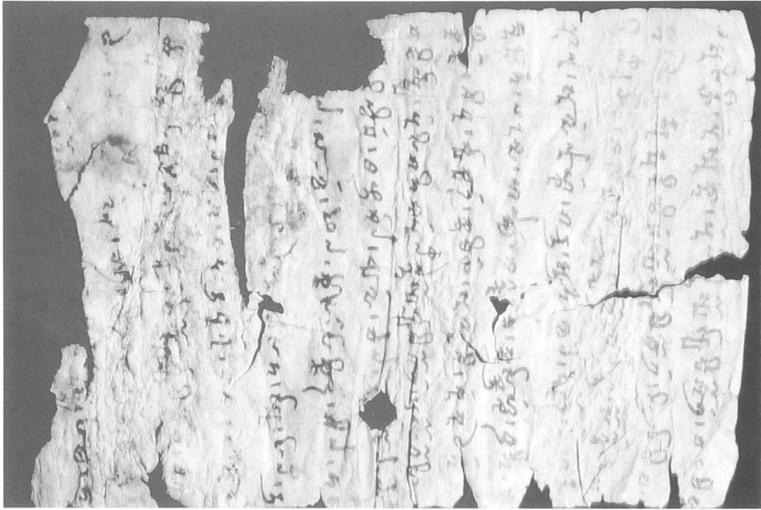


Fig. 7

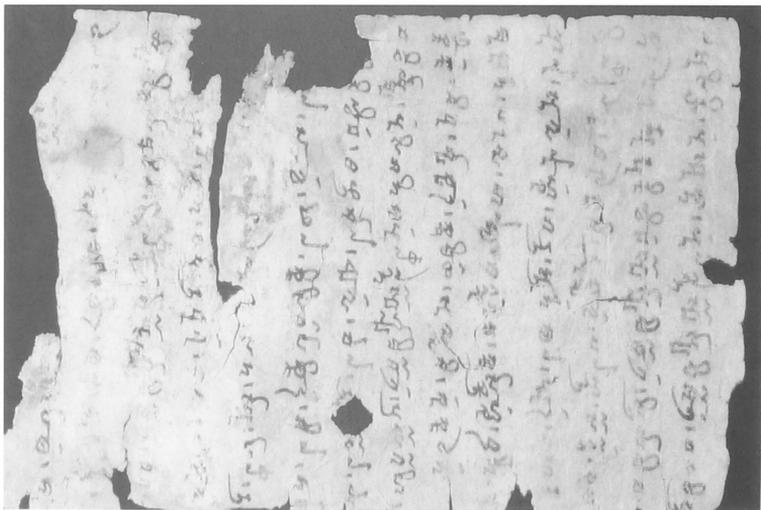


Fig. 8



Fig. 9

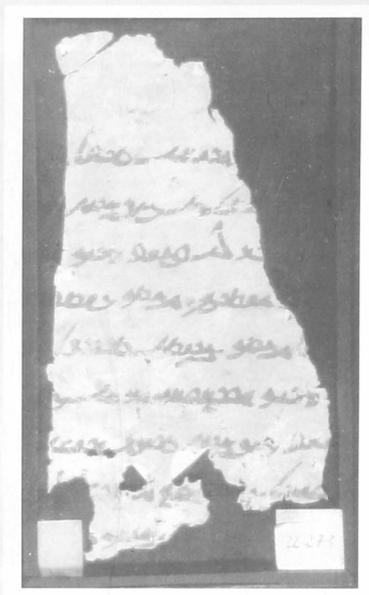


Fig. 10

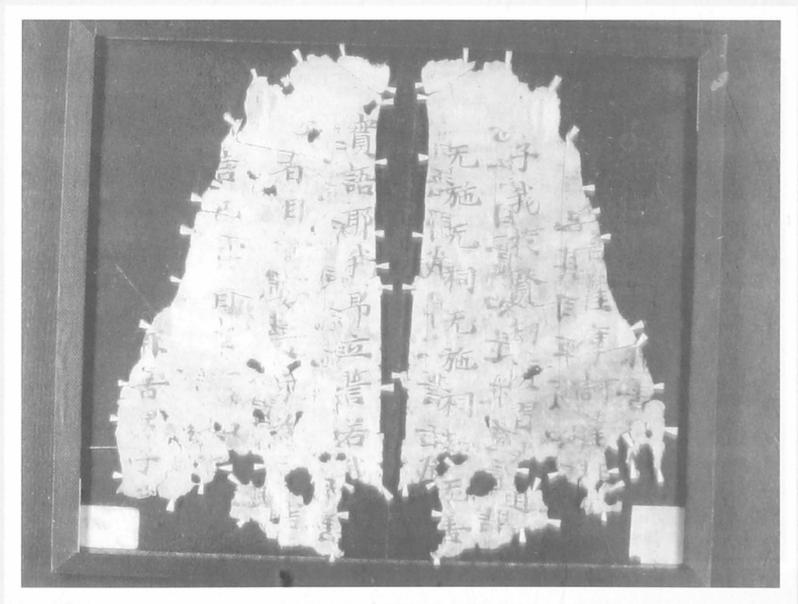
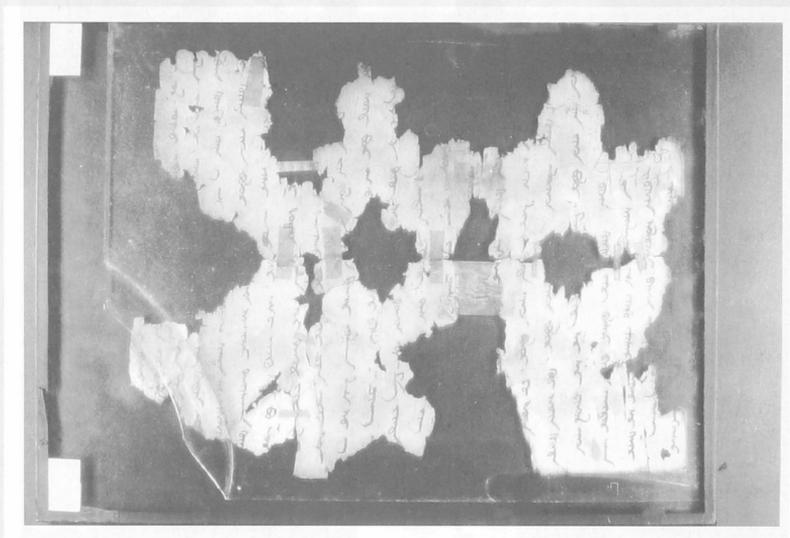
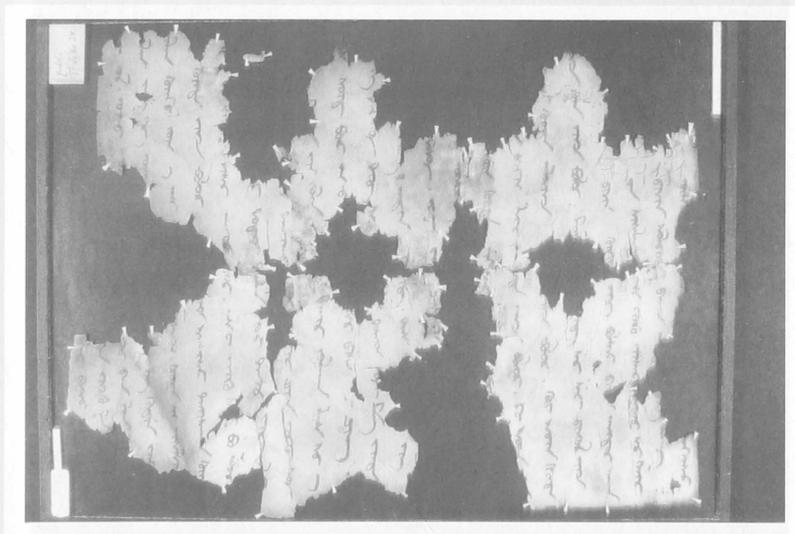


Fig. 11

*Fig. 12**Fig. 13*

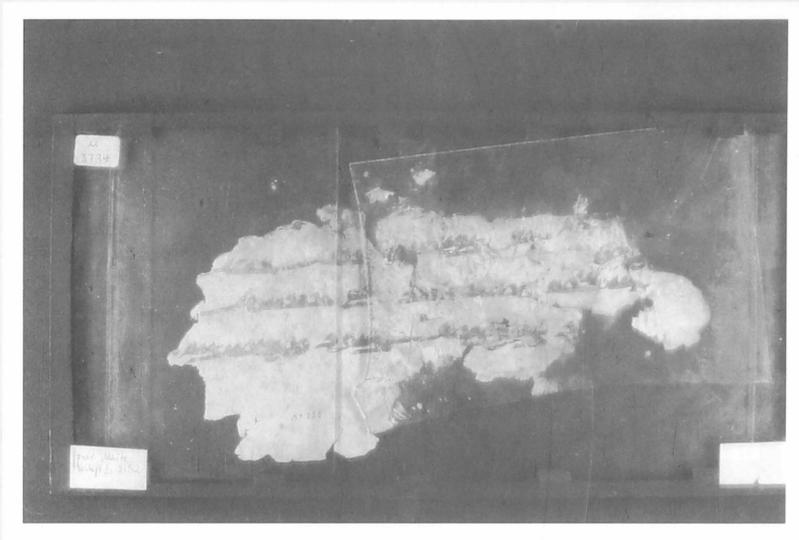


Fig. 14

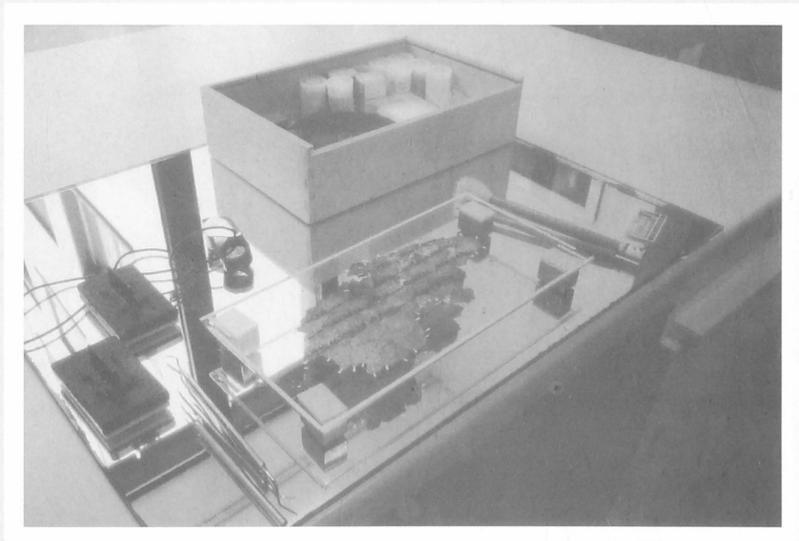


Fig. 15

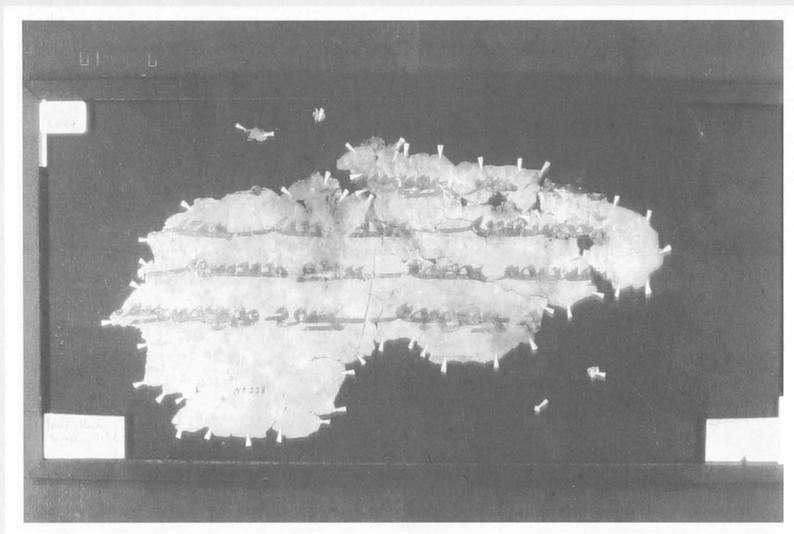


Fig. 16

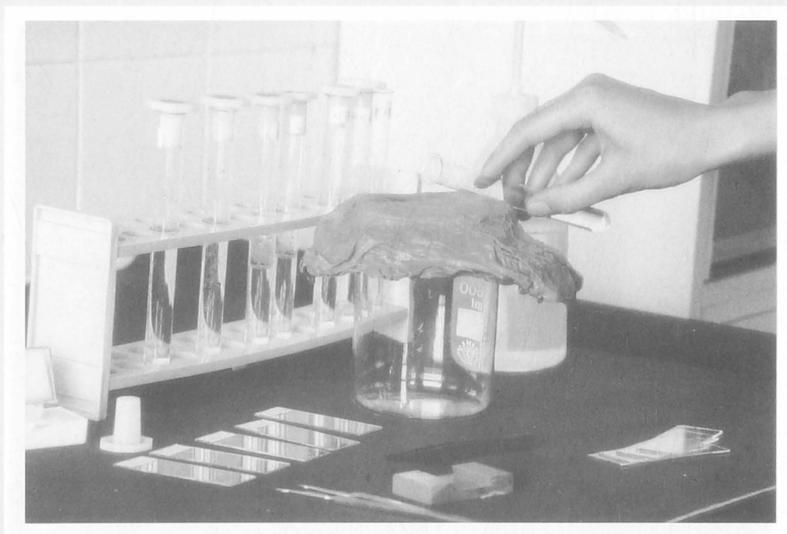


Fig. 17

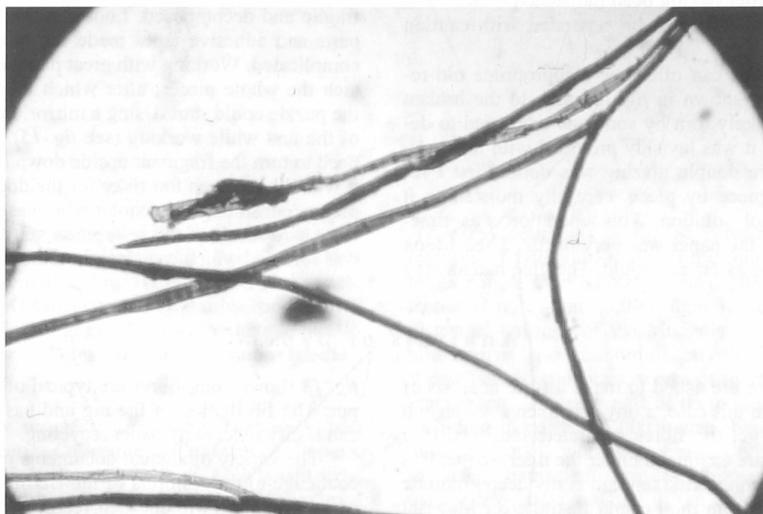


Fig. 18



Fig. 19

Figs. 9 and 10 show both sides of one Uighur fragment, while *fig. 11* demonstrates two documents with a Chinese text revealed as a result of the separation of the Uighur fragment into two layers. The Chinese text was made visible by using transillumination. The paper of the Uighur fragment was split after having been moistened with a blotting paper compress. It had to be separated with caution since it was humid.

Unfortunately, one can often see inappropriate old repairs. The document shown in *fig. 12* stuck to the broken glass; it was most likely torn by someone who tried to detach it. Afterwards, it was lavishly provided with pressure-sensitive tape before double glazing was done. First I removed the paper, piece by piece, carefully moistening it with a water/alcohol solution. This operation was time-consuming because the paper was very brittle. Then I took off the adhesive tape as far as I could. The glue had already

penetrated into the paper and was not soluble by un-risky methods (see *fig. 13*). It should be noted that preservation of the object is the priority for the restorer's ambition.

One fragment (see *fig. 14*) was also sticking to the broken glass and was at one time seriously damaged at the attempt to take it off. Moreover, the paper was extremely fragile and decomposed. Loose and displaced pieces, split parts and adhesive tapes made the restoration work more complicated. Working with great patience, I managed to detach the whole pieces, after which the putting together of the puzzle could start. Using a mirror, I could see both sides of the text while working (see *fig. 15*). Thus, there was no need to turn the fragment upside down each time, otherwise it would have been too risky for the document. I joined the pieces, consulting the scholar who was planning to edit the text. As a result of the restoration, an extra line of the text was revealed which was thought to be lost (see *fig. 16*).

Analysis of paper

It occurs that we are asked to make a fibre analysis of Turfan fragments. In this case, a tiny specimen is taken and boiled in water to get the fibres separated and dyed (see *fig. 17*). The fibres are examined under the microscope. It is my pleasure in this connection to express my deep gratitude to Renate Borowski from the Federal Institute for Material Research and Testing (Bundesanstalt für Materialprüfung, Berlin) for her assistance in examining the slide preparations, which is necessary to carry out a fibre analysis. As

fig. 18 shows, long fibres are typical of Eastern sorts of paper. The fibrillation of the rag and bast fibres (see *fig. 19*) can testify to an early paper recycling.

The variety of ancient documents presents a permanent challenge to the restorers of the Berlin State Library. Even often remaining without their readers, Turfan fragments are pieces of art capable to fascinate all those concerned with them.
