
釈迦三尊十六善神像

平成 19 年度修復事業



所蔵：オーストラリア国立美術館

釈迦三尊十六善神像

修理報告

(株)墨仁堂
山口聰太郎

I. 文化財の名称等

1. 名称、員数 釈迦三尊十六善神像
2. 所有者 オーストラリア国立美術館

II. 工期および施工者

1. 工期 平成 19 年 6 月 13 日～平成 20 年 3 月 24 日
2. 施工者 株式会社墨仁堂 静岡市葵区大岩 1 丁目 4 - 4

III. 文化財の構造

1. 本紙寸法 (単位 cm)

修理前	縦	115.0	横	60.1
修理後	縦	115.9	横	60.5
2. 本紙料絹

経糸：32 中 60 枚 2 ツ入り
緯糸：42 中 2 本抜き 打ち込み：1 寸間 70
3. 表装

修理前 (カラー図版 3 (1)-1)

 - a. 形式 掛幅装
 - b. 表装裂地

中廻し：丹地牡丹唐草文金襴
総縁：紫地菊に唐草文綾
軸首：蓮華文金軸
箱：桐屋郎箱、黒漆塗台指箱 (二重箱)

修理後 (カラー図版 3 (1)-2)

- a. 形式 掛幅装
- b. 表装裂地

中廻し：萌黄地牡丹唐草文金襴
総縁：茶地立唐草文綾
軸首：蓮華文金軸 (元使い)
環：軸首にあわせ新調

軸木 : 新調
 紐 : 新調
 箱 : 桐太巻添軸付屋郎箱

IV. 修理前の本紙の状況

- ・ 全体的に絹が劣化しており、剥落が著しかった。全体に粉状化していた。
- ・ 画面全体に小さな横折れが発生していた。
- ・ 本紙下部には緑青焼けと思われる劣化が進行しており、細かな横折れや剥落、亀裂が発生していた。また、本紙画絹とともに、肌裏紙まで達する亀裂が見られ、早急な肌裏紙の取り替えが求められていた。
- ・ 絵具層劣化により、絵具に亀裂が走り剥落が起きていた。
- ・ 過去の修理において、補絹がされているが、数種の絹が本紙画絹に重なりながら粗雑にあてられているため、かえって目立っていた（後掲Ⅵ参照）。旧補絹には周りの色に合わせた補彩が行われていたが、経年劣化によってか色が濃く沈んでいた。折れ山の頂点には亀裂がはしり、その小口は劣化して、肌裏紙から浮きあがっていた。
- ・ 表具裂は汚れており、継ぎが多かった。軸首は汚れが付着していた。

V. 修理概要

1. 修理工程

1) 調査

- ・ 通常の写真撮影のほかに、絵具粒子の顕微鏡写真、本紙透過写真、赤外写真を撮影した。
- ・ 本紙傷みの地図を作成した。旧補絹は数種の絹が複雑に貼り重ねられていた（図3～6）。旧補修絹と分かりやすい絹もあったが、本紙画絹と一体化して判別しにくい箇所もあった。そのため、表打ちの前にさらに画絹地図を作成し、旧補絹箇所と欠損箇所、本紙画絹の場所を特定する作業を行った。
- ・ 絵具の発色を記録するため、分光測色計で計測した。

2) 作業開始前の処置

- ・ 修理前の目視観察によって確認された、絵具層の浮き上がり、基底料紙からの亀裂や剥離には応急的に兎膠と布海苔の混合糊を差して接着し、作業中の安全を確保した。

3) 解体

- ・ 上軸、下軸を取り外した。表具裏面から浄水を噴霧し、旧裏打紙を除去した。

4) クリーニング

- ・ 準備として、絵具の劣化度合と耐水性の確認テストを事前に行った。
- ・ 修理の際に使用する水や衝撃に耐えられるよう、全体を通して兎膠にて絵具の剥落止めをおこなった。本紙を平らに置き、スプレーによって水分量を調節しながら、浄水を本紙表面に噴霧した。下に敷いた吸水紙に水と汚れを吸着させた。

5) 剥落止め

- ・ クリーニングを行なった後に、兎膠水溶液にて絵具の剥落止めをおこなった。剥落止めや裏打紙除去の際の湿りによって、本紙が収縮して絵具層が不安定になるのを防ぐため、常に仮貼りをして固定し、伸縮を最小限に抑えた状態を保ちながら作業をおこなった。ただし、本紙が緊張しすぎないように必ず具合を確かめながら調整をした。

6) 肌裏除去

- ・乾式肌上法によって肌裏除去をおこなった。
- ・レーヨン紙と布海苔を用いて、本紙の表打ちを行い表面の保護をした。少量の水を裏打紙に少しずつ与えて糊の接着を弱め、肌裏紙を繊維状にしながら除去した。
- ・本紙裏には裏彩色、裏箔が施されていたため、細心の注意を払って肌上げ作業を行った。

7) 旧補絹の除去

- ・過去の修理において、補絹がされていたが、数種類の絹が複雑に貼り重ねられて使用されていたため、判別が難しく、作業は慎重さが求められた。
- ・旧補絹はすべて取り替える方針とし、少量の水分を裏面より与えて、画絹と補絹との接着力を緩ませて、少しずつ除去した。
- ・金泥肉身部分にも補絹がされており、周囲の金色と同じ色に補彩がされていた。かなり大きく重ねられて当ててあり、また本紙画絹よりも細かい絹であったことから、すべて除去することとした。

8) 補絹

- ・欠損部分には電子線劣化絹を用いて補絹を行った。
- ・補絹は、本紙画絹と同じ絹目のものを使用した。
- ・等倍にプリントアウトした写真を元にして、本紙欠損部分と同じ形に電子線劣化絹を切り出して補絹パーツを作成した。
- ・本紙の欠損箇所に切り出した劣化絹を添付した。
- ・描かれた部分がすべて見えるように仕立てるため、本紙天地左右に電子線劣化絹で足し絹をして画面四辺にゆとりを付けた。

9) 肌裏打

- ・画面がもっとも良く見える色の裏打紙を選定するため、墨・矢車染めの肌裏用美濃紙2種、墨染めの増裏用美濃紙2種を用意し、それぞれ組み合わせて4通りの色によって、部分的に仮裏打ちを行った。そのうえで東京文化財研究所の担当者と協議し、最も画面に適した色合いを決定した。
- ・新しい肌裏紙は、墨、矢車、十分水洗いした美濃紙を使用した。
- ・画面の中に紙の継ぎ手が入らないよう、美濃紙は大判のものを選んだ。
- ・糊は新糊（小麦粉澱粉糊）を使用した。

10) 増裏打

- ・本紙画面の見え方を引き立てるため、数種の色味のサンプルを当てて比較し、最も適する濃度の墨色にて染色した美濃紙を使用した。
- ・糊は古糊（新糊を約10年間床下で寝かせた糊のこと）を使用した。

11) 折れ伏せ

- ・横折れ箇所には、増裏打後に折れ伏せを入れて補強した。折れ伏せを入れるべき所が、非常に多く、その際の水分による伸縮が本紙に影響を与える可能性があった。そのため、一度仮貼りをしてから折れ伏せを入れることにした。

12) 新表具裂

- ・所有者および東京文化財研究所の担当者と協議し、新たな表具裂を決定した。
- ・軸首は元使用のためクリーニングをした。
- ・旧表具裂は、修理後の表具と並べられるように、再び表具の形に仕上げた。

13) 付け廻し

- ・新糊と古糊の混合糊にて付け廻しを行い、仏表具の形にした。

14) 中裏打

- ・全体の厚みの調子を整えるため、美栖紙を使用して中裏打ちを2度行った。
- ・糊は古糊を使用した。

15) 総裏打

- ・宇陀紙と古糊にて、総裏打ちをした。
- ・総裏打後は仮貼に貼って乾燥させた。

16) トーニング

- ・新たに補絹した部分に、控えめにトーニングを行った。

17) 仮貼乾燥

- ・本紙を裏に向けて十分に乾燥させた。

18) 仕上げ

- ・軸木、八双、紐、鐙、座金、羽二重袱紗を新調した。
- ・金軸はクリーニングをして再使用した。
- ・表具の形に仕上げた。
- ・桐太巻添軸付一重屋郎箱を新調した。
- ・箱の覆帙を製作した。

VI. 知見等

1. 旧補絹の様子

- ・旧補絹は裏面から複雑に貼り重ねられていた (図3、4、5、6)。

2. 裏打紙の構造 (図7)

1) 裏打紙層の断面

- ・本紙は横折が著しかったため、多くの折れ伏せが入れられていた。

2) 旧肌裏紙の状態

- ・肉身部 (金泥著色部分) とそれ以外の部分で肌裏紙が打ち分けてあった (図8、9、10)。

3. 各工程での本紙の様子

1) 旧総裏 (図13)

2) 旧中裏除去前 (図14)

3) 旧折れ伏せ除去前 (図15)

4) 旧肌裏除去前 (図16)

5) 旧肌裏除去後の裏面 (図17)

6) 裏彩色 (図18)

VII. 各工程における材料使用法

	名称	材料	使用法
本紙	補絹	電子線劣化絵絹	矢車染め 媒染 水洗い 経糸：21 中 60 枚 2 ッ入 緯糸：42 中 2 本ぬき 打ち込み：1 寸間 70 電子線照射量：2100 kGy
		布海苔、新糊	布海苔：新糊 =1：1 PH 6～7
	肌裏紙	美濃紙	矢車染め 媒染 水洗い後、墨染め 厚 0.085 mm
		新糊	粘度 15.0 pa.S PH 6～7
	中裏紙	美栖紙	墨染め厚 0.08 mm
		古糊	粘度 77.1 mpa.S PH 6～7
	折れ伏せ紙	美濃紙	墨染め厚 0.085 mm
		新糊	粘度 8.5 pa.S PH 6～7
中廻し	裂	萌黄地牡丹唐草文金襴	矢車染め 媒染 水洗い
総縁	裂	茶地立唐草文綾	矢車染め 媒染 水洗い
中廻し および 総縁	肌裏紙	美濃紙	墨染め厚 0.08 mm
		新糊	粘度 18.8 pa.S PH 6～7
	増裏紙	美栖紙	無染め厚 0.15 mm
		古糊	粘度 45.0 mpa.S PH 6～7
	中裏紙 1 回目	美栖紙	無染め厚 0.10 mm
		古糊	粘度 50.4 mpa.S PH 6～7

全体	中裏紙 2 回目	美柄紙	無染め厚 0.085 mm
		古糊	粘度 42.0 mpa.S PH 6 ~ 7
	総裏紙	宇陀紙	矢車染め 水洗い 厚 0.13 mm
		古糊	粘度 55.8 mpa.S PH 6 ~ 7
	上巻		厚 0.15 mm

Ⅷ. 使用材料

材料	種別	製造元および販売元	
紙	美濃紙	岐阜県美濃	
	美柄紙	奈良県吉野	
	宇陀紙	奈良県吉野	
絹	絵絹 表具裂	京都	
糊	小麦粉澱粉	長田産業株式会社製	700g の小麦粉澱粉糊を 2ℓ の水に溶かし、強火で 20 分間焚く。一晚冷ましてから使用する。
	古糊	自家製	焚いた小麦粉澱粉糊を瓶に入れて蓋をし、縁の下で保存する。平成 9 年物。
	布海苔	韓国製	布海苔 7g を水洗いして塩抜きし、700cc の水を加えて、布海苔が溶けるまで約 15 分間加熱する。その後に二重ガーゼで濾過して、冷却する。
トーンング 用色料	藍棒、洋紅、藤黄	京都	
	墨	奈良	
染料	矢車	京都	
	墨	奈良	

※ 「修理前後の色計測結果比較表」は省略した。

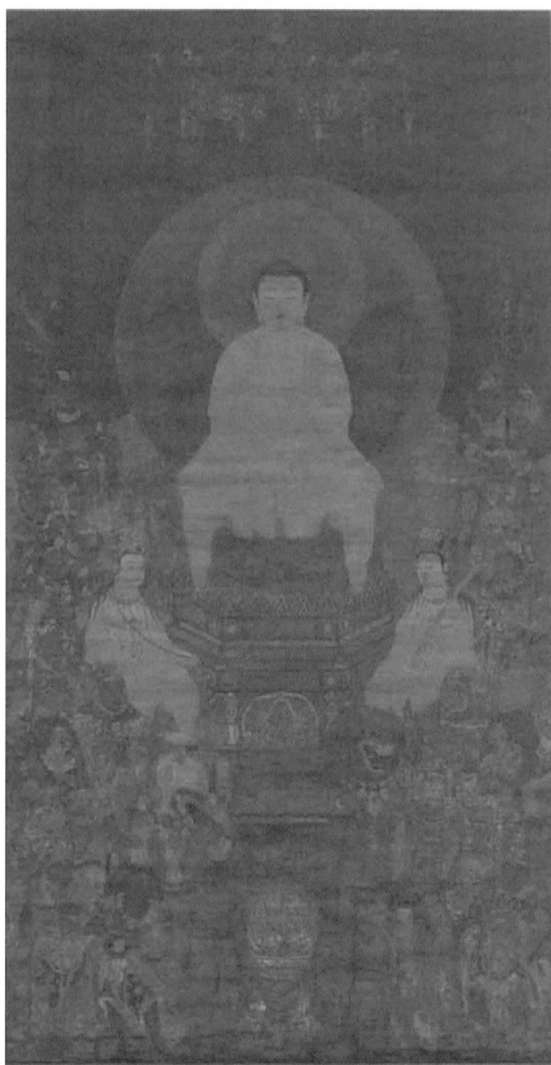


図1 本紙 修理前
Fig. 1 Before treatment of the painting

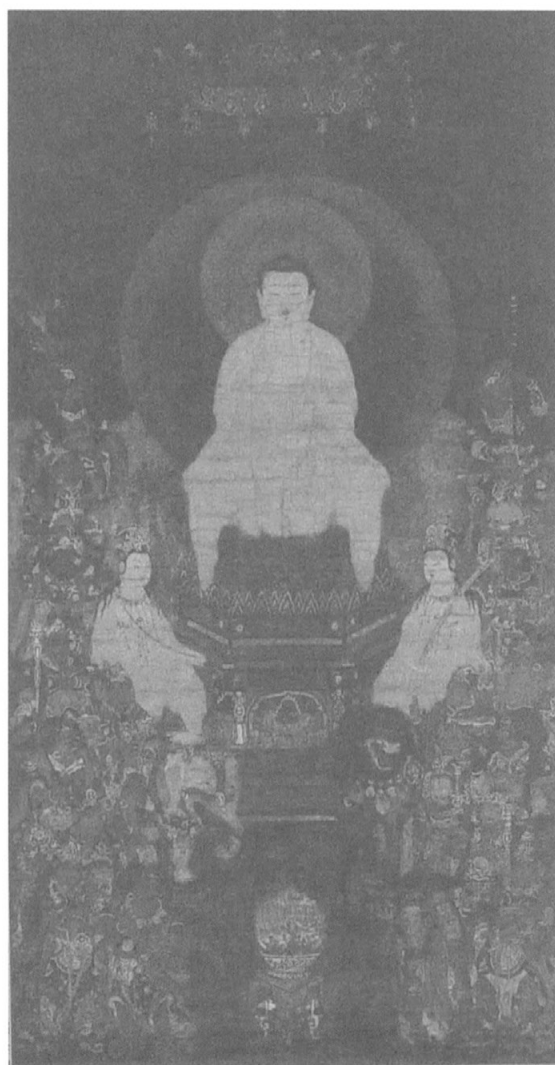


図2 本紙 修理後
Fig. 2 After treatment of the painting

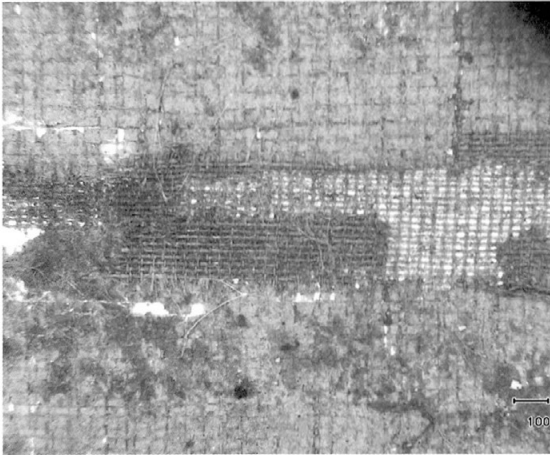


図3 旧補絹：①細かい目・細い糸
Fig. 3 Old mending silk : fine weave, fine thread (type ①)



図4 旧補絹：②細かい目・太い糸
Fig. 4 Old mending silk : fine weave, thick thread (type ②)

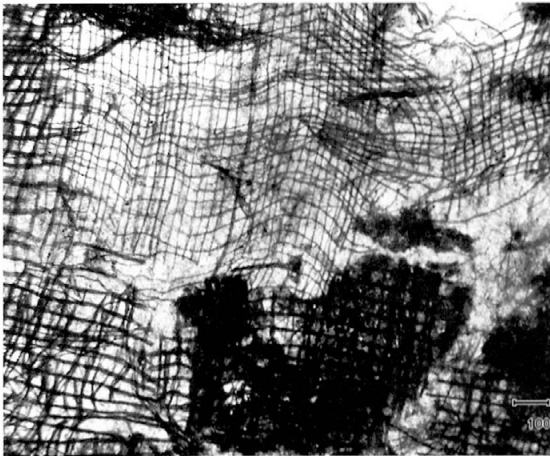


図5 旧補絹：③粗い目・細い糸
Fig. 5 Old mending silk : course weave, fine thread (type ③)

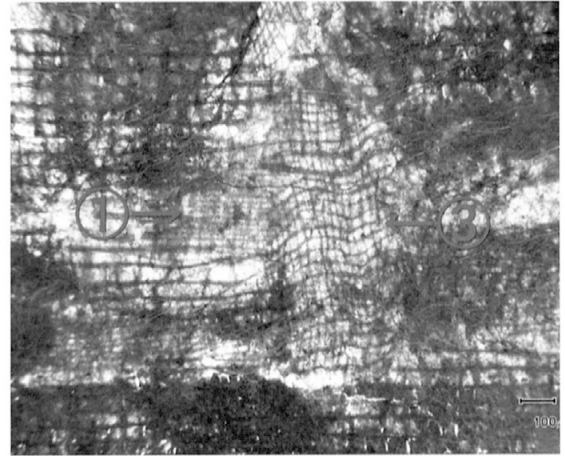


図6 旧補絹：①と③の混合
Fig. 6 Old mending silk : combination of ① and ③

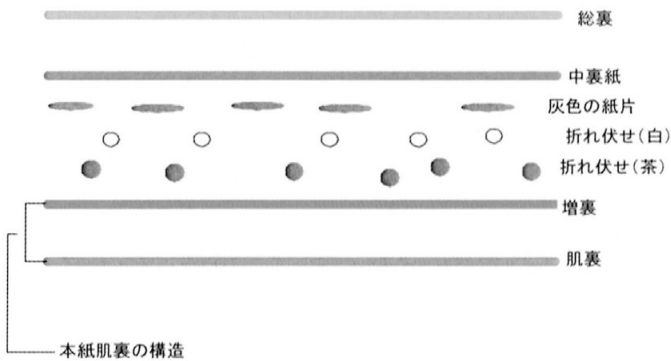


図7 裏打紙層の断面図
Fig. 7 Cross-section of the lining papers



図8 本紙旧肌裏紙
Fig. 8 Old first lining of the painting

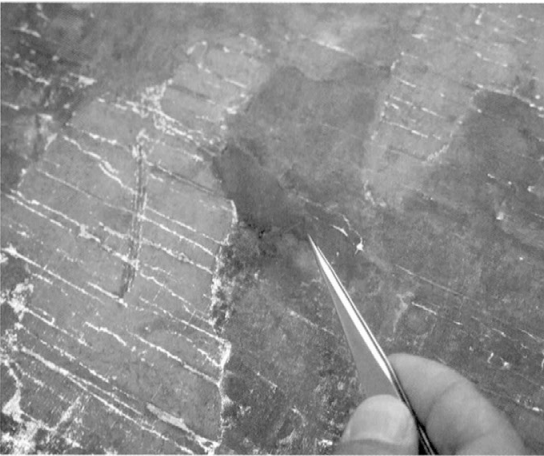


図9 肉身部の旧肌裏紙
Fig. 9 Old first lining around the body of the figure



図10 肉身部以外の旧肌裏紙
Fig. 10 Old first lining in the surrounding area of the body of the figure

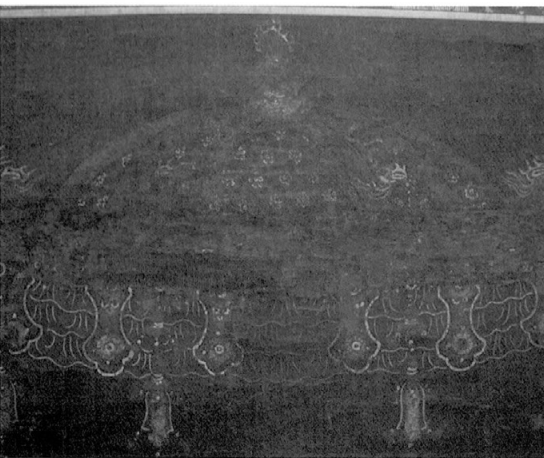


図11 修理前
Fig. 11 Before treatment

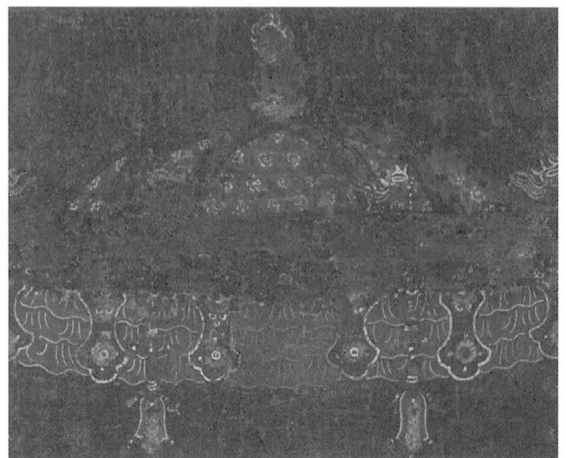


図12 修理後
Fig. 12 After treatment

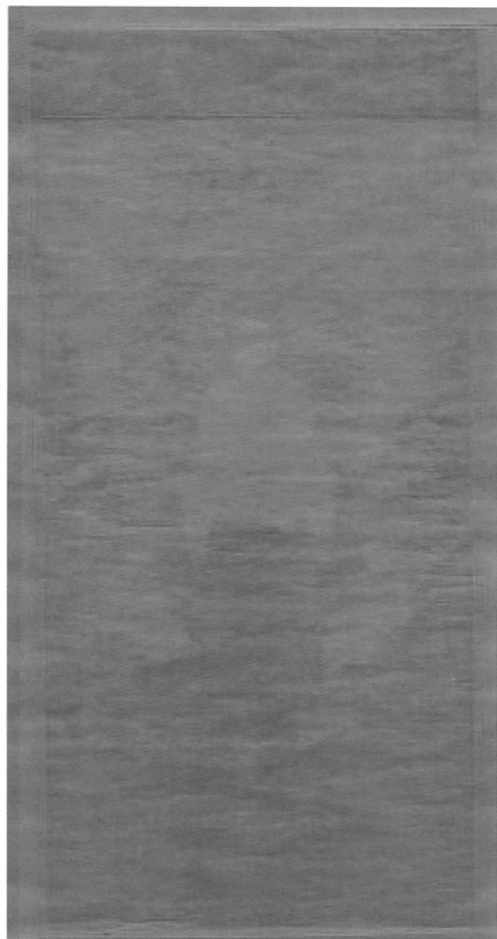


図 13 旧総裏
Fig. 13 Before removal of the final backing



図 14 旧中裏除去前
Fig. 14 Before removal of the overall lining



図 15 旧折れ伏せ除去前
Fig. 15 Before removal of the reinforcement strips



図 16 旧肌裏除去前
Fig. 16 Before removal of the first lining

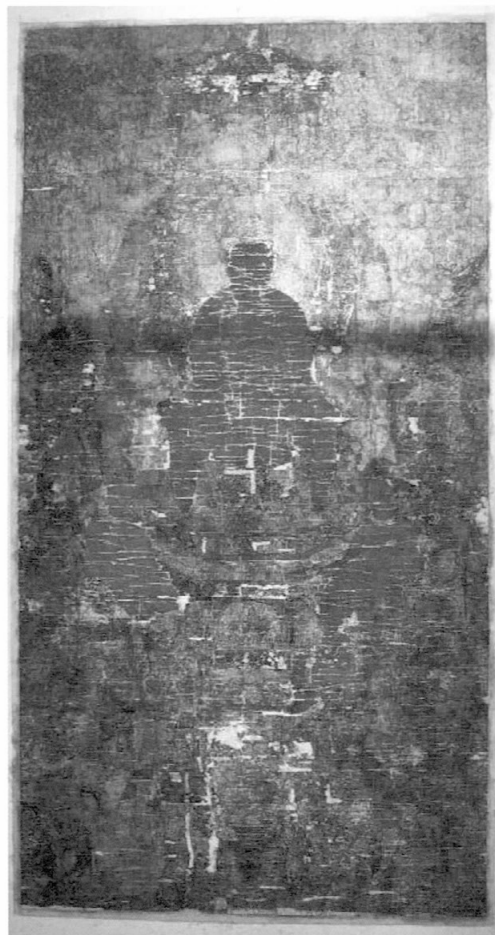


図 17 旧肌裏除去後の裏面 (透過光撮影)
Fig. 17 The reverse side after removal of the first lining
(photographed under transmitted light)

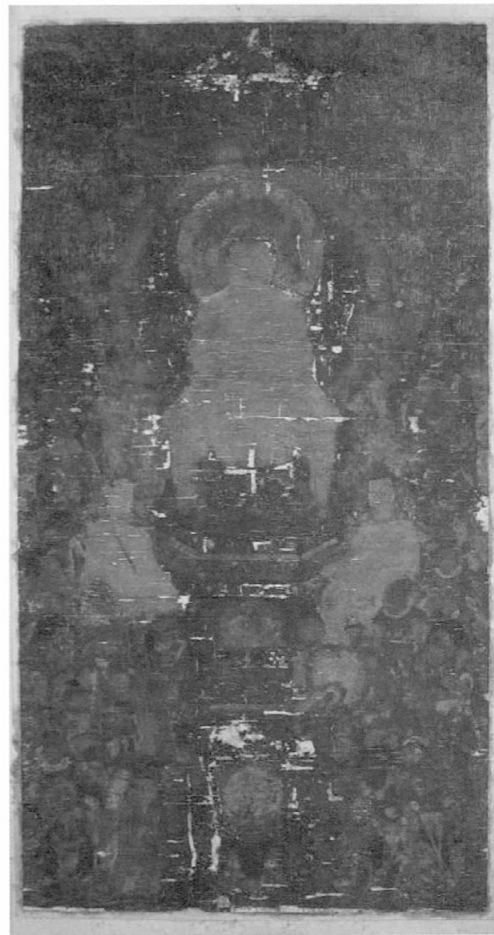


図 18 裏彩色の様子
Fig. 18 *Urazaishiki*



図 19 修理前
Fig. 19 Before treatment



図 20 修理後
Fig. 20 After treatment

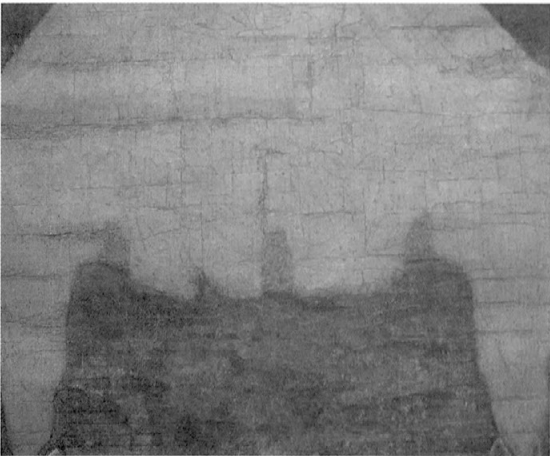


図 21 修理前
Fig. 21 Before treatment

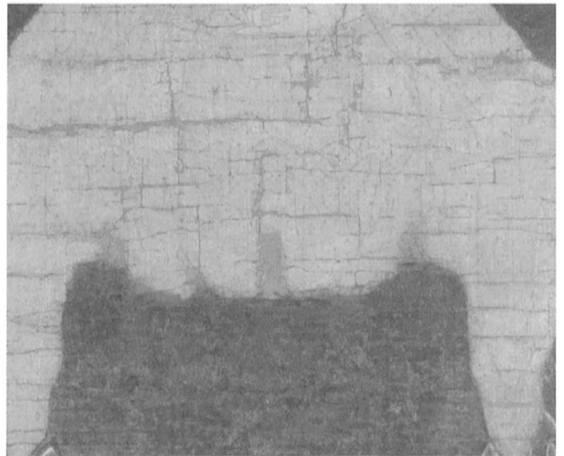


図 22 修理後
Fig. 22 After treatment



図 23 修理前
Fig. 23 Before treatment



図 24 修理後
Fig. 24 After treatment



图 25 修理前
Fig. 25 Before treatment



图 26 修理後
Fig. 26 After treatment



图 27 修理前
Fig. 27 Before treatment



图 28 修理後
Fig. 28 After treatment

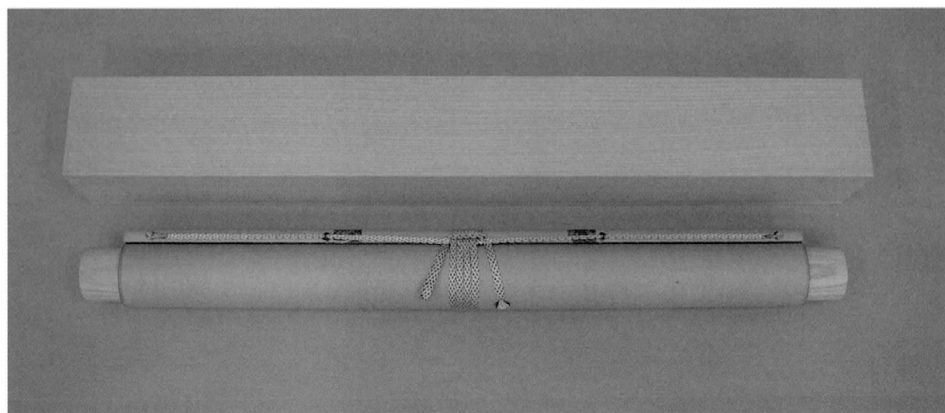


图 31 保存箱
Fig. 31 New storage box

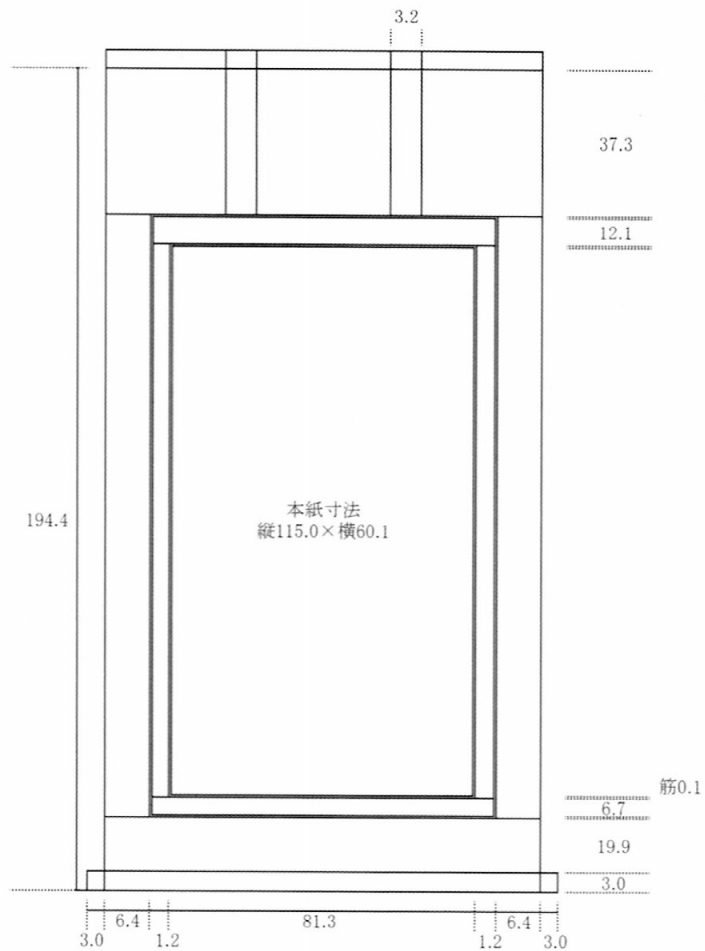


図 29 修理前寸法 (単位は cm)
Fig. 29 Dimensions before treatment (cm)

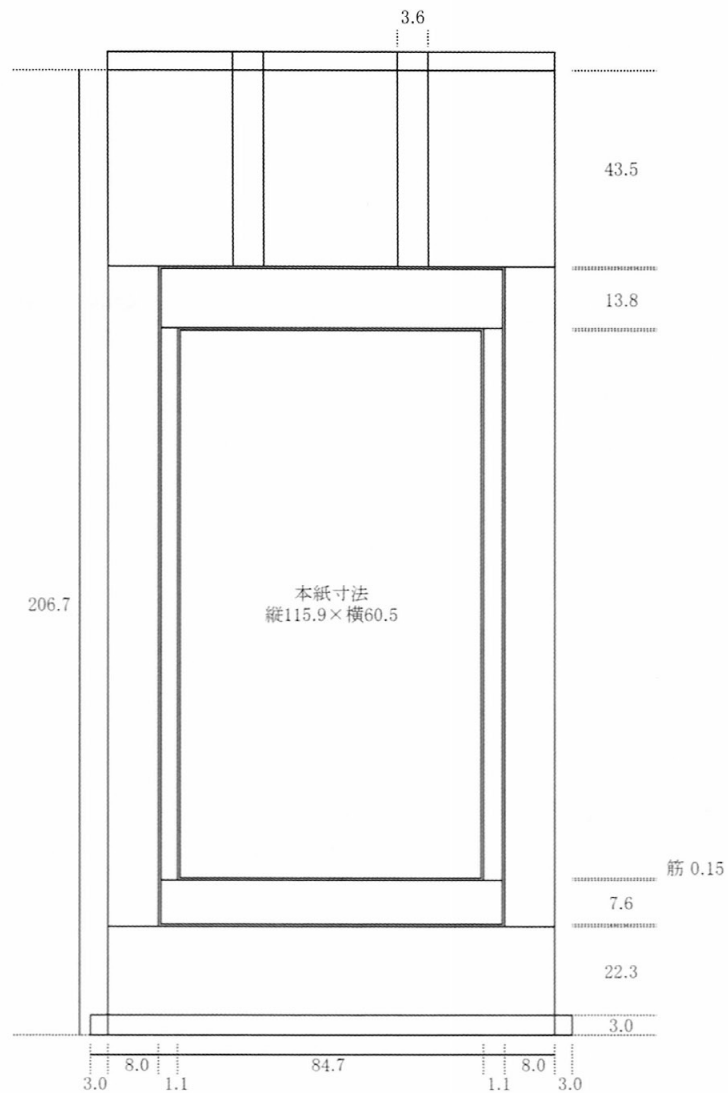


図 30 修理後の寸法 (単位は cm)
Fig. 30 Dimensions after treatment (cm)

Treatment Report

Sōtaro Yamaguchi
Bokunindo Co., Ltd.

I . Description and title of object

1. Title: *Shakyamuni Triad and Sixteen Arhats*
2. Collection: National Gallery of Australia

II . Treatment period and location

1. Treatment period: June 13 , 2007 - March 24 , 2008
2. Treatment undertaken by: Bokunindo Co., Ltd., 1-4-4 Oiwa, Aoi-ku, Shizuoka-shi

III . Structure of the cultural property

1. Dimensions of the painting (cm)

Before treatment: Height: 115.0 Width: 60.1

After treatment: Height: 115.9 Width: 60.5

2. Original silk support of the painting

Warp thread: 60 double-stands per 3.03 cm, 32 denier

Weft thread: 70 double-stands per 3.03cm, 42 denier

3. Mounting

Before treatment (Color fig. 3 (1)-1)

- Format: Hanging scroll
- Mounting fabrics :

Chu mawashi (inner border): Gold brocade with a peony and arabesque pattern on a reddish brown background

Sōberi (outer border): Twill weave silk with a chrysanthemum and arabesque pattern on a purple background

- Roller knobs: Gold plated roller knobs with lotus pattern
- Storage box (two layers): Inner paulownia *yaro* box, black lacquered outer box

After treatment (Color fig. 3 (1)-2)

- Format: Hanging scroll

- Mounting fabrics:
 - Chu mawashi*: Gold brocade with a peony and arabesque pattern on a yellow-green background
 - Sōberi*: Twill weave silk with a vertical arabesque pattern on a brown background
- Roller knobs: Original knobs were reused
- Metal fittings: Newly prepared to match the roller knobs
- Bottom roller and top stave: Newly prepared
- Hanging cords: Newly prepared
- Storage box: *Yaro* box with a large paulownia roller clamp

IV. Condition of the painting before treatment

- The silk had deteriorated overall, and was missing in many areas. The overall surface had become like powder.
- Many small horizontal creases were found throughout the painting.
- Damage caused by what is presumably oxidation of the malachite green pigment was found at the bottom portion of the painting. Minute horizontal creases, cracks, and areas of pigment loss were found on the surface. In addition to the silk support of the painting, the first lining was also cracked in some parts and in need of immediate replacement.
- The deterioration of the paint layer was causing cracks and exfoliation of the pigments.
- Mending had been done with silk during past treatments. However, because many types of silk were haphazardly applied in an overlapping manner, these areas were visually distracting (see following section VI). Moreover, although the inpainting had been applied to match the surrounding silk, its color had darkened over time. The tips of the creases had cracked and their edges had deteriorated and separated from the first lining.
- The mounting fabric was soiled and joined in many places. Grime was found on the roller knobs.

V. Outline of treatment

1. Treatment process

1) Examination

- In addition to taking standard photographs, photomicrographs of the pigments, radiographs of the painting, and infrared photographs were taken.
- A map of damaged areas of the painting was made. On the painting, different types of mending silk were pasted on top of each other in a complicated manner (Figs. 3-6). While some silk pieces could easily be identified as old mending silk, some in others areas had become bonded with the original silk support of the painting and therefore difficult to distinguish. Therefore, a map of the silk support specifying the areas of old mending silk, missing pigments, and losses was made before attaching the temporary facing.
- To document the pre-treatment condition of the pigments, their reflectance was measured using a spectroscopic colorimeter.

2) Pre-treatment procedure

- To areas of separating, cracking or peeling of the paint layer from the first lining paper that could be seen

by the naked eye, a solution of rabbit skin glue and seaweed glue was applied as an emergency measure to ensure the safety of these areas during treatment.

3) Disassembly

- The top stave and bottom roller were removed. Purified water was sprayed onto the back side of the mounting and the old lining papers were removed.

4) Cleaning

- As a preparatory measure, the fragility of the pigments and their solubility in water were tested before the treatment.
- To stabilize the pigments before the wet treatment process, the entire paint layer was consolidated with a solution of rabbit skin glue. The painting was laid down flat and purified water was applied to the front surface using a sprayer to adjust the volume. Water and grime were absorbed with blotting paper on the back side.

5) Consolidation of the paint layer

- After cleaning, the paint layer was consolidated using a rabbit skin glue solution. To prevent instability of the paint layer caused by shrinkage of the painting that may occur during consolidation or dampening during lining removal, the painting was consistently kept stretched on *karibari* during the treatment process to keep its expansion and contraction to a minimum, and the condition of the painting was constantly checked to ensure it was not under excessive tension.

6) Removal of the first lining

- The first lining was removed using the “dry” *hadaage* method.
- The front surface was covered for protection with a temporary facing of rayon paper which was attached using *funori* (seaweed paste). The first lining was removed by applying small amounts of water gradually to lining papers to weaken the adhesion of the glue and to soften the paper fiber.
- The removal of the first lining was performed with utmost care, as the applications of *urazaishiki* and gold leaf were found on the back side of the painting.

7) Removal of the old mending silk

- Mending silk had been applied during past treatment. However, because many types of silk were pasted in complicated layers, they were hard to distinguish from the painting, and therefore utmost care was needed for this step.
- It was decided that all of the old mending silk would be replaced. The mending silk was removed a little at a time by applying small amounts of water onto the reverse side to weaken the adhesion of the glue between the silk support of the painting and the mending silk.
- Mending silk was also found in the area around the body of the figure colored with gold. Inpainting had been applied using the same color gold as that found in the surrounding area. As the mending silk pieces were applied in a manner that caused large areas of overlap, and since the weave of the mending silk was much more fine than that of the original support of the painting, all of them were to be removed.

8) Mending silk

- Mending silk made of irradiated silk was applied to the missing areas.
- Silk with the same weave as that of the original silk support of the painting was used as mending silk.
- Mending silk pieces were made by using a photograph printed out to the same size as the actual painting as reference, and cutting out irradiated silk in the same shapes as that of the missing areas of the painting.
- The cut-out irradiated silk pieces were attached to the missing parts of the painting.
- To prevent a small portion around the perimeter from being hidden by the fabric mounting and allow the entire painting image to be visible, extra fabric made of irradiated silk was added to all four sides.

9) First lining

- In order to select a lining paper whose color would make the painting appear most attractive, two kinds of *Mino* papers for the first lining, dyed in *sumi* ink and *yasha*, and two kinds of *Misu* papers dyed with *sumi* ink were prepared. Using different combinations of these four different colored papers, temporary linings were applied in certain parts of the painting. Based on consultation with the project manager, the color that best suited the painting was selected.
- The paper selected for the new first lining was *Mino* paper dyed with *sumi* ink and *yasha*, and thoroughly rinsed with water.
- To avoid having a paper-joint fall at the center of the painting, a large-size *Mino* paper was selected.
- Wheat starch paste was used as the adhesive.

10) Subsidiary lining

- Many samples of papers dyed in different colors were compared to select a *Misu* paper that was dyed a suitable shade
- Aged wheat starch paste (paste made by ageing wheat starch paste below ground level for approximately ten years) was used as the adhesive.

11) Reinforcement strips

- Reinforcement strips were applied to horizontal creases after the application of the subsidiary lining. As the number of places that required reinforcement strips were quite numerous, there was a possibility that the water needed for the application of reinforcement strips may cause excessive expansion and contraction of the painting. Therefore, it was decided that the painting would first be dried on a *karibari* and reinforcement strips would be applied afterwards..

12) New mounting fabric

- New mounting fabrics were selected through consultation with the owner and the project manager.
- The roller knobs were cleaned for reuse.
- The old mounting fabrics were reassembled in the form of a hanging scroll mounting so that it could be compared side-by-side with the newly treated mounting.

13) Assembly

- A mixture of wheat starch paste and aged paste was used to assemble the parts into a Buddhist-style

hanging scroll.

14) Overall lining

- To adjust the overall thickness of the mounting, two layers of overall lining made of *Misu* paper were attached.
- Aged wheat starch paste was used as the adhesive.

15) Application of the final backing

- The final backing made of *Uda* paper was attached with aged wheat starch paste.
- After the application of the final backing, the piece was attached and dried on a *karibari*.

16) Toning

- Areas of mending silk were toned lightly.

17) Drying on karibari

- The painting was turned over, reattached to the *karibari*, and thoroughly dried.

18) Finishing

- A new bottom roller, top stave, cords, metal fittings, and *habuta-e* silk wrapping were prepared.
- The gold plated roller knobs were cleaned and reused.
- The hanging scroll was completed.
- A new one-layer *yaro* box with a large paulownia roller clamp was prepared.
- A folding paper *chitsu* box was made.

VI. Findings, etc.

1. Old mending silk

- Old mending silk had been applied onto the backside in complicated layers (Figs. 3, 4, 5, 6).

2. Structure of the lining papers (Fig. 7)

1) Cross-section of the lining papers

- Because this painting had a large number of horizontal creases, many reinforcement strips had been applied.

2) Condition of the old first lining

- Different first linings attached to the area around the body of the figure (area colored with gold pigment) was different from that on the other parts of the painting. (Figs. 8, 9, 10)

3. Appearance of the painting at each process

1) Before removal of the final backing (Fig. 13)

2) Before removal of the overall lining (Fig. 14)

3) Before removal of the reinforcement strips (Fig. 15)

4) Before removal of the first lining (Fig. 16)

5) Reverse side after the removal of the first lining (Fig. 17)

6) *Urazaishiki* (Fig. 18)

VII. Materials and their use in each process

Name		Materials	Usage
Painting	Mending silk	Irradiated silk	Dyed with <i>yasha</i> , fixed with mordant, and rinsed with water Warp thread: 60 double strands per 3.03 cm, 21 denir Weft thread: 70 double-strands per 3.03 cm, 42 denir
		<i>Funori</i> (seaweed paste), wheat starch paste	<i>Funori</i> : wheat starch paste = 1:1 PH 6-7
	First lining	<i>Mino</i> paper	Dyed with <i>yasha</i> , fixed with mordant, rinsed with water, then dyed with <i>sumi</i> ink Thickness: 0.085 mm
		Wheat starch paste	Viscosity: 15.0 pa.S PH 6-7
	Subsidiary lining	<i>Misu</i> paper	Dyed with <i>sumi</i> ink Thickness: 0.08 mm
		Aged wheat starch paste	Viscosity: 77.1 mpa.S PH 6-7
	Reinforcement strips	<i>Mino</i> paper	Dyed with <i>sumi</i> ink Thickness: 0.085 mm
		Wheat starch paste	Viscosity: 8.5 pa.S PH 6-7
<i>Chū mawashi</i>	Fabric	Gold brocade with a peony and arabesque pattern on a yellow-green background	Dyed with <i>yasha</i> , fixed with mordant, and rinsed with water
<i>Sōberi</i>	Fabric	Twill weave silk with an arabesque pattern on a brown background	Dyed with <i>yasha</i> , fixed with mordant, and rinsed with water

Backing papers for <i>Chū mawashi</i> and <i>Sōberi</i>	First lining	<i>Mino</i> paper	Dyed with <i>sumi</i> ink Thickness: 0.08 mm
		Wheat starch paste	Viscosity: 18.8 pa.S PH 6 ~ 7
	Subsidiary lining	<i>Misu</i> paper	Undyed Thickness: 0.15 mm
		Aged wheat starch paste	Viscosity: 45.0 mpa.S PH 6-7
	Overall lining (first layer)	<i>Misu</i> paper	Undyed Thickness: 0.10 mm
		Aged wheat starch paste	Viscosity: 50.4 mpa.S PH 6-7
Overall	Overall lining (second layer)	<i>Misu</i> paper	Undyed Thickness: 0.085 mm
		Aged wheat starch paste	Viscosity: 42.0 mpa.S PH 6-7
	Final backing	<i>Uda</i> paper	Dyed with <i>yasha</i> and rinsed with water Thickness: 0.13 mm
		Aged wheat starch paste	Viscosity : 55.8 mpa.S PH 6-7
	<i>Uwamaki</i>		Thickness: 0.15 mm

VIII. Materials used

Material	Classification	Manufacturer/distributor	
Paper	<i>Mino</i> paper	Mino, Gifu	
	<i>Misu</i> paper	Yoshino, Nara	
	<i>Uda</i> paper	Yoshino, Nara	
Silk	Mending silk Mounting fabric	Kyoto	

Paste	Wheat starch	Made by Nagata Sangyo, Co., Ltd.	700g of wheat starch is dissolved in 2 liters of water and cooked over high heat for 20 minutes. It is cooled overnight before use.
	Aged wheat starch paste	Homemade	Cooked wheat starch paste is poured in a lidded jar and stored underground. Made in 1997.
	Seaweed paste	Made in Korea	Salt is removed from 7 g of seaweed by rinsing with water. 700 cc of water is added and it is cooked for 15 minutes until the seaweed dissolves. It is filtered with a double-layered gauze and cooled.
Materials for infills toning	<i>aibou</i> (indigo-sticks), <i>youkou</i> (carmines), <i>touou</i> (gamboge)	Kyoto	
	<i>Sumi</i> ink	Nara	
Materials for dying backing papers	<i>Yasha</i>	Kyoto	
	<i>Sumi</i> ink	Nara	

* Spectroscopic colorimeter measurement charts for before and after treatment have been omitted from this report.

Translated by Amy McCaleb (Urban Connections), edited by Yasuhiro Oka and Regina Belard.

釈迦三尊十六善神像

作品解説

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本図は釈迦如来を中尊とし、その前右に白象を座とする普賢菩薩、前左に青獅子を座とする文殊菩薩を配して、ともに坐像であらわし「釈迦三尊」を構成する。釈迦三尊の左右には十六善神、婆藪仙、功德天、深沙大将、玄奘三蔵をいずれも立像で配している。

このうち、忿怒の甲冑姿であらわされた十六善神は『般若経』およびその受持者を守護するという。また、最前列の左右に配された、赤い肉色の鬼神姿の深沙大将と経巻を積んだ笈を背合う旅姿の僧・玄奘三蔵は、印度から中国に持ち帰ろうとして砂漠を旅する玄奘三蔵の前に深沙大将が現れ、その守護を約束したという説話を踏まえるものである。このように『般若経』由縁の諸尊を描き込むところから、本図は『般若経』全巻を声を上げて一気呵成に読んだ「大般若会」に際して本尊として懸けられた絵図と考えられる。

「釈迦三尊十六善神像」の一典型を示す本図は、中尊の釈迦如来と両脇侍の普賢・文殊菩薩をともに金色にあらわし、十六善神等の余尊とは差別化をはかる。ことに釈迦は頭上に天蓋を配し、後頭部に丸い円光を伴うとともに、全身を月輪と見まがうような円光のなかに収まるように描く。その釈迦の着衣は裳裾を高く組み上げられた台座の蓮華に懸ける「裳懸」とする。釈迦の「裳懸」の形式に加えて、台座の形制、さらには、普賢菩薩が蓮の長い茎を執り、文殊菩薩が如意を持つことや、正面下方にあらわされた供養台のうえに金色の鉢を置き、その中の珊瑚類から「気」が立ち上がる様子に、いわゆる「宋風」表現を認めることも可能であろう。ちなみに、釈迦は右手を胸前で構え、第四・五指（＝無名指と小指のこと）を屈して余指を伸ばして掌を正面に向けており、左手は膝上で仰掌し、第一、三指（＝親指と中指）先を接している。釈迦の印相としてはやや特異である。

彩色技法に見る、釈迦三尊の面部の表現、あるいは、両菩薩が戴く宝冠や十六善神の甲冑における金泥線の表現を考慮すると、制作は14世紀後半から末頃にかけてと考えられる。

Shakyamuni Triad and Sixteen Arhats

Description of Artwork

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This painting shows Shakyamuni Buddha at the center, flanked by *Samantabhadra*-bodhisattva on his right sitting on a white elephant, and *Manjusri*-bodhisattva on his left, sitting on a blue lion. These three figures, who are all in a sitting pose, together form the Shakyamuni triad. To the left and right of the triad are sixteen Arhats, Vasuh, Laksmi, Shensha Dajiang, and the Chinese monk Xuanzang-sanzang, all of whom are shown standing.

The sixteen Arhats, all wearing armor and expressing their wrath, are said to be protectors of the Buddhist sutra scrolls *Borejing* and those who have them. Additionally, to the left and right side in the front row are the red flesh-colored and demonic Shensha Dajiang and the Chinese monk Xuanzang-sanzang dressed as a traveler carrying *Borejing* on his wooden backpack. The figures are derived from a legend in which Shensha Dajiang appears before Xuanzang-sanzang, who is travelling through the desert carrying the sutra scrolls back to China from India, and promises him protection. Seeing that the deities included in this painting are all related to *Borejing*, it is presumed to be an image that was hung at a *Daihan'nya-e*, at which the monks read out loud at a sitting the entire volume of *Borejing*.

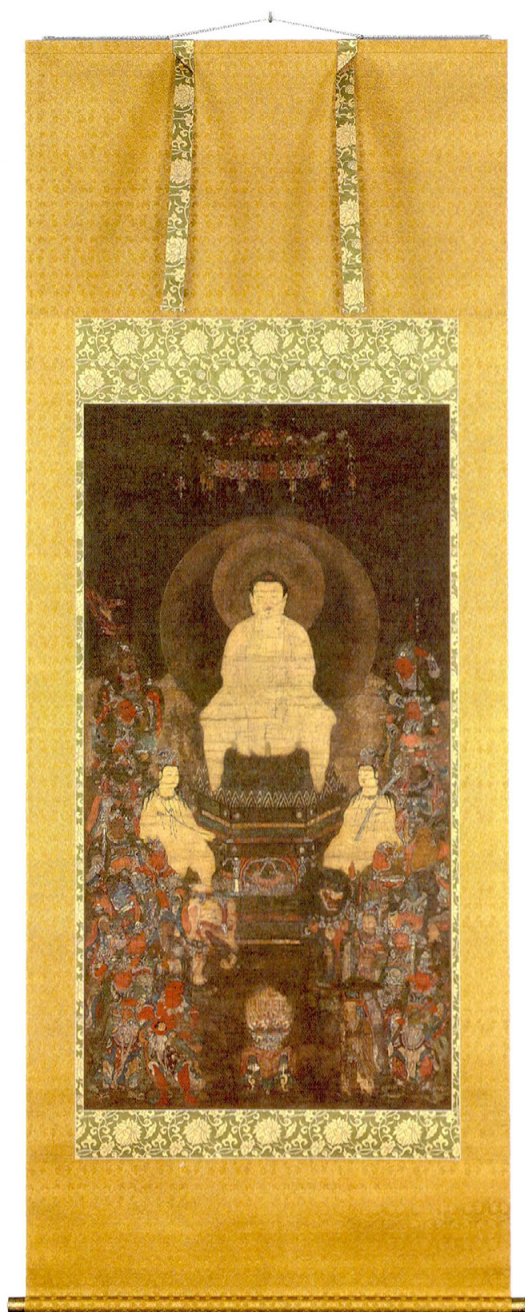
This is a prototype for other compositions of *Shakyamuni triad and Sixteen Arhats*. Shakyamuni Buddha and the two flanking bodhisattvas, Samantabhadra and Manjusri, are all painted in gold to differentiate them from the rest of the deities. Additionally, a canopy is placed above the head of Shakyamuni Buddha. A round halo encircles his head and his body sits within another round halo that could be taken for a moon circle. His dress is depicted in the *mokake* style, in which the lower part of his robe hangs over an elevated lotus pedestal. The use of the *mokake* style, as well as the shape of the pedestal, the way in which the Samantabhadra-bodhisattva holds a long lotus stem and Manjusri-bodhisattva holds an abbot's baton, and the image of *ki* (life energy) rising from the corals placed within a gold bowl atop an offering stand shown in the bottom forefront, all indicate that this is possibly a so-called "Song-mode" style painting. Incidentally, Shakyamuni-Buddha holds his right hand in front of his chest with his palm facing front and his ring and little fingers bent while the others are extended. His left hand sits on his knee, palm up, and his thumb and middle fingers are bent. It is a somewhat unusual mudra for the Shakyamuni-Buddha.

Taking into consideration the coloring technique used on the faces of the Shakyamuni triad, the coronet of the two bodhisattva's and the style of gold lines on the sixteen Arhats's armor, this painting is thought to have been created in the latter half or end of the 14th century.

Translated by Amy McCaleb (Urban Connections).



(1)-1 修理前 Before treatment



(1)-2 修理後 After treatment



(2) 裏面 肌裏除去後

The reverse side after the removal of the old first lining and glue