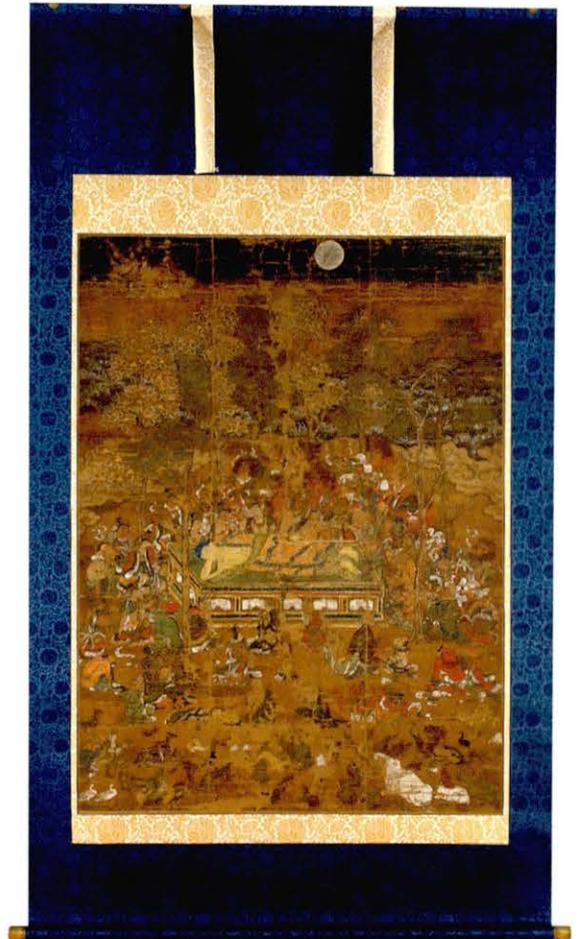


5. 涅槃図 修理前 (ベルギー王立美術歴史博物館)
Nehan (Nirvāṇa) <Before Treatment>
(Musées royaux d'Art et d'Histoire)



6. 修理後
<After Treatment>

涅槃図

平成17年度修復事業



品名：涅槃図

所蔵：ベルギー王立美術歴史博物館

涅槃図

修理報告

(有)坂田墨珠堂
坂田雅之

作品名 涅槃図
 所有者 ベルギー王立美術歴史博物館
 所蔵番号 J.514
 品 質 絹本着色
 修理施工 有限会社 坂田墨珠堂
 代表取締役 坂田雅之
 〒520-0525 滋賀県大津市小野1144-1
 修理期間 2005年5月27日～2006年3月23日

1. 損傷概要及び修理前の状態

- ・著しい折損及び亀裂
- ・多数の加筆（肌裏上・旧補修絹上・本紙料絹上）
- ・絵具層の剝離・剝落
- ・料絹の剝離・剝落（裏彩色・裏金箔の露出した箇所あり）
- ・経年によるシミ・付着物等の汚れ（蠅糞・紙繊維など）
- ・料絹の継ぎ目の擦傷
- ・本紙料絹のズレ、移動、すり
- ・表装裂地の損傷
- ・糊の経年劣化による裏打紙の浮き
- ・露出した裏金箔
- ・露出した裏彩色
- ・不具合な田繕い
- ・発装金物による表装裂損傷
- ・染み・付着物等の汚れ
- ・金軸の経年の汚れ

2. 修理方針概要

[調査]

- ・損傷状況、料紙の特徴・繊維組成、作品形態観察等の調査を行う。

[剝落止]

- ・絵具層の剝落及び剝落の懸念される箇所に膠水溶液の塗布及び剝離層への含浸により強化をはかる。高濃度水溶液の使用等は更なる剝離を助長する要因となりうるため行わない。



図1 修理前：本紙（斜光撮影）
Fig. 1 Before treatment: Painting (oblique photograph)



図2 修理後：本紙
Fig. 2 After treatment: Painting

[旧補修箇所除去] ※方針については十分な協議・検討を行う。

- ・欠失箇所よりも大きく補填された補修材や本紙料絹と風合い・織組織のそぐわない補修絹を除去する。または、加筆された補修材の処置については、常時協議・検討の上判断する。

[補修]

- ・欠失箇所に作品使用の料絹と同様の織組織・糸織度の補修用電子線劣化絹¹⁾を使用し、補絹を行う。

[補修箇所の補彩]

- ・補絹を施した箇所に補彩を行う。加筆などは行わず、地色に合わせた補彩に留め、画面全体の調和を保つ。

[折損の修復]

- ・増裏打を施工後、裏面より折伏せ（2～3mm巾に切断した楮紙）を接着し、折部分を補強し修復する。

[汚れの除去]

- ・濾過水²⁾を使用し、吸水紙に吸着させて除去する。残留薬品の経年変化や劣化加速などの将来的な損傷も懸念されるため、薬品等の使用は行わない。

[旧裏打紙除去及び、新たな裏打・仕立]

- ・経年により料紙の脆弱化が懸念されるため、裏打紙をすべて除去する。損傷が著しいため、安全を考慮し「乾式肌上法」³⁾を採用する。
- ・再修理時の可逆性を考慮し、新たに小麦澱粉糊・古糊⁴⁾を使用した裏打を施工し、表具装に仕立て

る。

- ・使用する紙は産地、生産者などの素性が明らかなものを使用する。
- ・裏打紙に染色加工を行い、本紙と地色との調和に配慮する。
- ・劣化の著しい旧表装裂地を新調し、仏表装形式の表具装に仕立てる。

[修理報告書の作成]

- ・損傷状況、処置内容、使用材料、新知見、画像等を掲載する。

[語句説明]

- 1) 修復用電子線劣化絹：織組織・糸繊度を本紙料絹と同様にして製織した絵絹に、経年で脆弱化した本紙とのバランスを保たせるために電子線を照射し、強制的に劣化させた絹。
- 2) 濾過水：粒状活性炭及びポリプロピレン材フィルター（1 μ 径）にて濾過した水。
- 3) 乾式肌上法：画面表面に化繊紙をフノリにより接着補強した後、少量の湿気を与え肌裏紙を除去する方法。
- 4) 古糊：小麦澱粉糊を約10年間冷暗所にて保存して作製した糊。接着力が弱く、柔軟な表装仕立てに不可欠な糊。

3. 工程概要

- ①修理前調査（損傷状況、修理カルテ作成、使用顔料、記録写真撮影等）
- ②付着物除去（本紙表面に付着した汚れを刷毛などの使用による乾燥状態での除去）
- ③表装解体（肌裏紙を残し、旧裏打紙を除去）
- ④彩色等の脆弱化状態テスト及び剥落止
- ⑤クリーニング（付着している水溶性の汚れ等を濾過水にて、吸水紙に吸着させ除去）
- ⑥彩色等の脆弱化状態をテスト及び剥落止
- ⑦旧肌裏紙除去（※乾式肌上法を採用）
- ⑧不具合な旧補修材の除去（事前協議に基づく）
- ⑨裏彩色の剥落止
- ⑩本紙欠失箇所へ修復用電子線劣化絹にて補絹（旧補修材を再使用した箇所は、欠損部の形状に合わせて再整形処置を施し補填）
- ⑪乾式肌上時に用いた表打ちのフノリを濾過水にて除去
- ⑫小麦粉澱粉糊を使用し、楮紙にて肌裏打（裏打紙に染色加工を行い、本紙表面の図様の見え方に配慮。）
- ⑬古糊を使用し、楮紙（美栖紙）にて増裏打
- ⑭折伏せを施工し、折損の修復
- ⑮本紙と表装裂地を軸装の形に付廻し
- ⑯古糊を使用し、楮紙（美栖紙）にて中裏打（2回）
- ⑰古糊を使用し、楮紙（宇陀紙）にて総裏打
- ⑱補絹を施した箇所への補彩
- ⑲十分な乾燥後、軸首・座鐙は再使用。端喰は再使用せず軸木・莖装・紐を新調し、軸装仕立
- ⑳桐太巻添軸・桐屋郎箱・覆帙・包裂の新調
- ㉑修理後調査および修理報告書の作成

	修理前	修理後	備考	
			仕様	産地：製作等
形式	仏表装（真之草）	仏表装（真之草）		
総 緑	紺地唐花文金襴	藍地一重蔓牡丹唐草文綾	本藍染	紺九／広信織物
中廻し・風帯	白地法輪紋金襴	白地一重蔓蓮華唐花文金襴	矢車染	広信織物
筋	白地無地裂	紫地無地裂		
軸首・金物	蓮華唐草文鍍金軸	蓮華唐草文金鍍金軸	再使用	洗浄：横山工房
袈装・中軸	杉材軸（割り軸）	杉材軸	新調	速水商店
袱 紗	無	羽二重絹	新調	弊社
保存箱	ダンボール	桐太巻添軸・桐屋郎箱	新調	前田友斎
覆帙	無	外貼：渋引格紙、芯紙：楮厚紙	新調	弊社

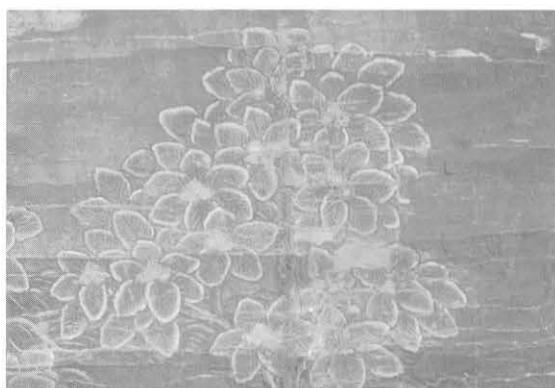


図3 修理前：旧肌裏紙上の加筆補修箇所
Fig. 3 Before treatment: Impainted areas of the old first lining paper

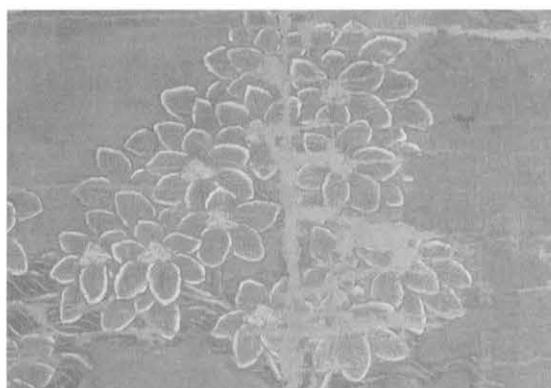


図4 修理後：旧肌裏紙上の加筆補修箇所
Fig. 4 After treatment: Impainted areas of the old first lining paper



図5 修理前：旧補修絹上の加筆
Fig. 5 Before treatment: Impainting of the old silk infill



図6 修理後：旧補修絹上の加筆
Fig. 6 After treatment: Impainting of the old silk infill

4. 表具装に付随する修理前の状態及び仕様記録

修理前後寸法 (cm)

	修理前	修理後
全体寸法	丈235.5×巾141.7	丈250.1×巾144.8
本紙寸法	丈156.5×巾116.6	丈159.1×巾116.7

表具寸法	修理前	修理後
総 縁：上	38.2	43.7
下	15.4	22.1
柱	10.2	12.1
中廻し：上	15.7	16.1
下	7.8	7.9
廻し	1.5	1.5
風 帯	5	6.1
筋：内	0.25	0.3
外	0.25	0.3
軸 長	152.1	154.5
軸 径	4.6	4.4
軸 出	5	4.85

使用材料

種別	材質および名称	産地：製作等
肌裏紙	楮紙 (土佐楮紙)	高知県：井上稔夫
折伏紙	楮紙 (美濃紙)	岐阜県：太田弥八郎
増裏紙	楮紙 (美栖紙)	奈良県：上窪正一
中裏紙	楮紙 (美栖紙)	奈良県：上窪正一
総裏紙	楮紙 (宇陀紙)	奈良県：福西弘行
補修絹	経：21中60枚2入 緯：14中2抜120横	京都：広信織物
接着剤	新糊 (小麦澱粉糊)	中村製糊
	古糊 (小麦澱粉糊由来)	中村製糊・弊社



図7 修理前：料絹欠落箇所
Fig. 7 Before treatment: Losses in the silk support



図8 修理後：料絹欠落箇所
Fig. 8 After treatment: Losses in the silk support

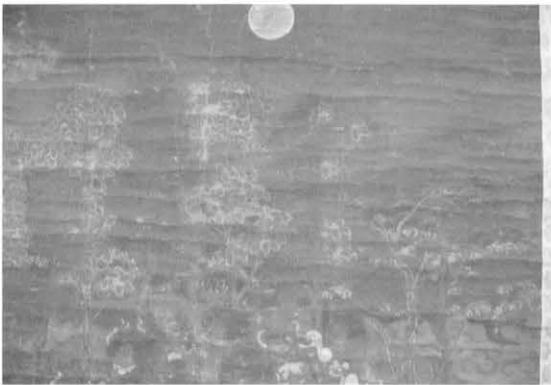


図9 修理前：経年の汚れ
Fig. 9 Before treatment: Grime that has accumulated over the years



図10 修理後：経年の汚れ
Fig. 10 After treatment: Grime that has accumulated over the years

5. 損傷箇所及び処置の詳細

(1) 本紙欠失箇所及び旧補修箇所

[状態]

欠失箇所

- ・ 著しい折損や亀裂による本紙料絹の欠落
- ・ 経年による糊の脆弱化に伴う本紙料絹の欠落

旧補修箇所

- ・ 肌裏上に直接施された加筆
- ・ 補修絹上の加筆（各羅漢の顔の表情、動物の身体表現等）
- ・ 本紙料絹上に及ぶオーバーペイント

[処置]

欠失箇所

- ・ 旧肌裏紙除去後、本紙欠失箇所に補修絹を補填した。
- ・ 新たな補修箇所に補彩した。

旧補修箇所

- ・肌裏上及び旧補修絹上の加筆について、各部分の詳細な記録を残した。
- ・オリジナルの図様を尊重することを基本方針とし、基本的に旧補填材は除去した。
 - 不具合な旧補修絹（加筆、補填方法、材質）を除去した。
 - 旧肌裏上の加筆は、肌裏紙を部分的に残した場合の本紙に及ぼす保存上の弊害を考慮し、除去した。
- ・釈迦像については、部分的にオリジナルと共存させる形で残した。（特記参照）

（2）経年による染み・付着物等の汚れ

[状態]

- ・付着物（糞糞・紙繊維等）による汚れが確認された。
- ・経年による汚れが本紙画面全体に生じていた。

[処置]

- ・拡大鏡で付着物を確認しながら、物理的に除去した。
 - ・彩色の状態を確認した後、濾過水を用い吸水紙に水溶性の汚れを吸着させ除去した。
- ※経年による化学変化等の影響を考慮し、薬品を使用する洗浄処置は行わなかった。

（3）折損

[状態]

- ・著しい横折れが生じていた。
- ・折損の進行に伴い、折山部分が欠落していた。
- ・本紙中央部に軸木の歪みによると思われる擦れが生じ、損傷が発生していた。

[処置]

- ・著しい折損により生じた亀裂及びその周辺の本紙料絹の欠落箇所には補絹を施した。
- ・増裏打を行った後、折損箇所に裏面より折伏せを施し、折損を修復した。
- ・各裏打紙の厚さ及び糊の種類を調整し、全体の厚さ・強度を整えて仕立てた。
- ・太巻添軸を新調し巻き径を太くすることで、曲げにより生じる折れの影響を緩和した。
- ・日本産杉製軸木を新調し取り付けた。

（4）絵具層の剥離・剥落

[状態]

- ・経年により絵具層の膠質が脆弱化し、剥離・剥落が生じていた。
- ・絵具層が経年の擦れなどにより、料絹とともに剥落していた。
- ・料絹の欠失などにより裏彩色の露出している箇所がみとめられた。
- ・絵具に層状剥離が生じていた。（特に「群青」・「緑青」）

[処置]

- ・ウサギ膠水溶液（3%）にて剥落止めを施した。

※オリジナルの尊重に留意し、新たに補絹を施した箇所以外（絵具のみ剥落した箇所など）への補彩は行わなかった。



図11 修理前：付着物
Fig. 11 Before treatment: Foreign matter



図12 修理後：付着物
Fig. 12 After treatment: Foreign matter



図13 修理前：料絹欠落による裏彩色の露出
Fig. 13 Before treatment: *Urazaishiki* that is exposed due to the loss of silk support



図14 修理後：料絹欠落による裏彩色の露出
Fig. 14 After treatment: *Urazaishiki* that is exposed due to the loss of silk support



図15 修理前：料絹とともに剥落
Fig. 15 Before treatment: Lifting of the silk support



図16 修理後：料絹とともに剥落
Fig. 16 After treatment: Lifting of the silk support



図17 修理前：層状剥離
Fig. 17 Before treatment: Flaking of layers



図18 修理後：層状剥離
Fig. 18 After treatment: Flaking of layers

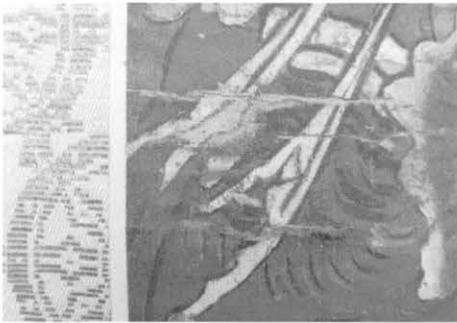


図19 修理前：図様のズレ
Fig. 19 Before treatment: Displacement of the painting support

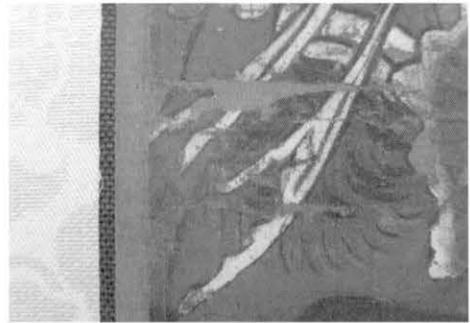


図20 修理後：図様のズレ
Fig. 20 After treatment: Displacement of the painting support

(5) 本紙の移動・重なり・ズレ

[状態]

- ・旧修理時及び折損等の損傷により、本紙の移動や重なりが生じていた。

[処置]

- ・図様を確認した後、本紙料絹を戻した。
- ・図様から位置を断定できない本紙料絹は、現状維持した。

(6) 絹継ぎ箇所の損傷

[状態]

- ・経年による擦れなどの影響に伴い、本紙料絹の継目部分の欠失が著しい。

[処置]

- ・旧肌裏紙除去後、本紙欠失箇所に補修絹を補填した。
- ・新たな補修箇所に補彩した。



図21 修理前：本紙の移動
Fig. 21 Before treatment: Shifting of the painting support



図22 修理後：本紙の移動
Fig. 22 After treatment: Shifting of the painting support



図23 修理前：絹継ぎ箇所の損傷
Fig. 23 Before treatment: Damage to the joints of the silk support



図24 修理後：絹継ぎ箇所の損傷
Fig. 24 After treatment: Damage to the joints of the silk support



図25 修理前：軸首の経年の汚れ
Fig. 25 Before treatment: Grime on the *jikushu* that has accumulated over the years



図26 修理後：洗浄を行った
Fig. 26 After treatment: After cleaning

〔絹継ぎ箇所と寸法記録〕

← 120寸 → ← 36.3cm →	← 143寸 → ← 43.3cm →	← 122寸 → ← 37cm →
------------------------	------------------------	----------------------

(7) 表装の損傷等

〔状態〕

- ・経年により表層裂に汚れや損傷が認められた。
- ・表装裂損傷の旧補修箇所があり、大小様々に補修が施されていた。
- ・発装金物による表装裂損傷が亀裂となって危険な状態であった。
- ・軸首の経年による汚れが著しかった。

〔処置〕

- ・表装裂地を新調した。
- ・発装金物は今後の損傷の要因となりうるため再使用しなかった。
- ・軸首を洗浄し再使用した。

6. 特記事項

1. 中軸

中軸は半月切りの材が組み合わさって構成されていた。それらは、木釘および反故紙によってつながれていた。反古紙には「延宝四年（西暦1674年）」の年号が墨書されていた。

新調した中軸には今回の修理記録の概要を墨書した。尚、墨書は裏打を施し、保存箱に納めた。

中軸に新たに墨書した記録

〔平成十八年三月修理了〕

平成十七年度在外美術品修理事業

ベルギー王立美術博物館所蔵

絹本著色 佛涅槃図 一幅

指導 独立行政法人 文化財研究所

東京文化財研究所

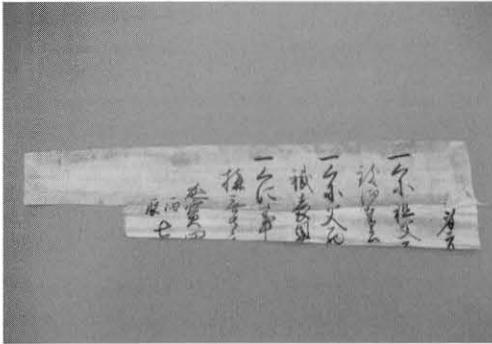
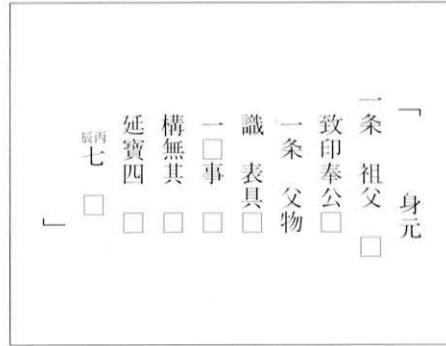


図27 中軸に貼られていた反故紙
Fig. 27 Note that was attached to the *nakajiku*



中軸に貼られていた反故紙墨書



図28 旧肌裏の状態：裏面透過光画像
Fig. 28 Condition of the old first lining: Photograph of the verso taken using transmitted light



図29 修理前：表面
Fig. 29 Before treatment: Front surface



図30 修理中：肌裏除去後
Fig. 30 During treatment: After the removal of the first lining

施工 滋賀県滋賀郡志賀町小野
有限会社坂田墨珠堂 』

2. 肌裏除去により得た記録

〔旧肌裏の状態〕

- ・肌裏紙の酸化劣化が著しい
- ・継ぎの裏から金箔が認められる
- ・釈迦の衣の文様がオーバーペイントにて描かれている
- ・肌裏紙の継ぎが太い
- ・釈迦の顔中央縦に補修箇所あり（※特記参照）
- ・後補の金箔が無尽蔵に裏から押されている

〔裏箔の様子〕

旧肌裏紙の継目の間に金箔が認められた。また肌裏紙の裏側にも金箔が散乱していた。さらに、図様に対してズレた状態で金箔が粗雑に裏面より押されている様子から、旧修理の際に裏箔が施された可能性が高いと思われた。

3. 釈迦像の加筆について

〔修理前の状態〕

釈迦像は、顔や体に至るほとんどの箇所に加筆やオーバーペイント等が施されていることが確認された。特に顔面部分は、大きく補修絹が補填されており、オリジナル料絹にわたり顔が描きこまれ、表面観察ではその境界が確認し難い状態であった。

技法としては、胡粉による下地→箔押し→線描といったその他の加筆箇所とは異なった丁寧な加筆が行われていた。

〔検討内容〕

基本的に旧補修材は、保存上不具合と思われるため除去するという方針であるが、図様の構成において重要な要素となりうる本尊の顔部分に施された旧修理については協議・検討を要した。旧補修材除去により、釈迦の顔が大きく欠落することが明確となった。

①旧補修材を除去すると、オリジナルの料絹と補修絹の双方に渡り同一の手による加筆が施されてい

るため、「目、鼻」などの顔面の主な部分が欠落することとなる。それによりオリジナルの料絹上に施された加筆のみが残ることとなる。(一連で施された加筆の一部分のみが無くなる。)

②釈迦の顔面部分の加筆は、その他の菩薩や畜生とは明らかに異なる丁寧な技法により描画されている。

③顔面部分に施された旧補修絹は、オリジナルの料絹よりも厚く、テンションのバランスが崩れることも懸念され「折れ」や「擦れ」などの損傷に繋がることもあるが、裏面からの処置(オリジナルとの重なりをなくす、厚みを削り整える等)で保存上、問題の無いと思われる状態にすることは可能。

「処置」

所有者及び修理指導者との協議の結果、釈迦像に対する加筆やオーバーペイント等については、オリジナルとの共存を選択し、部分的に残すこととした。但し、裏面から、旧補修絹のオリジナル料絹との重なりを除去や、厚みを削り整える等の処置を施した。

Nehan (Nirvāṇa)

Conservation Treatment Report

Masayuki Sakata
Sakata Bokujudo

Title	<i>Nehan (Nirvāṇa)</i>
Owner	The Royal Museums of Fine Arts of Belgium
Collection number	J.514
Media and format	Color on silk, Hanging scroll
Treatment undertaken by	Sakata Bokujudo Masayuki Sakata, President 1144-1 Ono, Otsu, Shiga Prefecture, 520-0525
Treatment period	May 27, 2005 - March 23, 2006

1. Overview of damage and condition before treatment

- Severe creases and cracks
- Numerous inpainted areas (on the first lining, old silk infills, and silk support)
- Flaking and lifting of the paint layer
- Flaking and lifting of the silk support (The *wazaishiki* [painting on the reverse side of the support] and the gold leaf on the reverse side of the support are exposed in some areas.)
- Grime including stains and foreign matter (e.g. insect droppings, paper fiber)
- Abrasion of the joints of the silk support
- Displacement, shifting, and twisting of the silk support
- Damage to the mounting fabric
- Lifting of the lining paper caused by the weakening of the adhesive (starch paste) from age
- Exposed gold leaf on the reverse side of the support
- Exposed *wazaishiki*
- Inappropriate mends in the support
- Damage to the mounting fabric caused by the decorative metal fittings
- Grime including stains and foreign matter
- Grime on the metal roller knobs that was accumulated over the years

2. Treatment proposal overview

[Examination]

- The extent of damage, the characteristics and fiber composition of the paper, the painting's configuration, etc. will be examined.

[Consolidation]

- Areas where the paint layer is lifting or is in danger of lifting will be reinforced by applying a glue solution and impregnating the flaking layers. Highly concentrated water solutions will not be used since they may contribute to the further flaking of the paint layer.

[Removal of formerly mended areas] *The proposal will be fully discussed and examined.

- Infills that are larger than the areas of loss will be removed, as well as silk infills whose texture and weave are incompatible to the silk support. In addition, a decision whether or not to remove infills that have been inpainted will be made after consultation and examination.

[Mending]

- The areas of loss will be mended using irradiated silk (See Glossary 1) that is similar in weave and denier to the original silk support of the painting.

[Inpainting of mended areas]

- Inpainting will be performed in the mended areas to match the base color of the painting without taking additional steps such as retouching to maintain the overall balance of the image.

[Repair of creases]

- Creases will be reinforced and repaired by adhering reinforcement strips (*Kōzo* paper cut into strips 2–3 mm in width) from the verso after attaching the subsidiary lining.

[Removal of grime]

- Grime will be removed with blotting paper using filtered water (See Glossary 2). Chemicals, etc. will not be used for fear that they will lead to future damages or an acceleration of deterioration caused by changes in any chemical that may remain after cleaning.

[Removal of old lining paper and application of new lining / assembly]

- It is suspected that the paper linings are weakening with age, and therefore, all lining papers will be removed. As there is marked damage, the “dry” *hadaage* method (See Glossary 3) will be employed to safeguard the painting.
- With reversibility in mind, a new lining will be attached using aged wheat starch paste (See Glossary 4) and remounted into a hanging scroll.
- Paper whose origin is known, such as where it was made and who made it will be used.
- The lining paper will be dyed and finished, and in so doing, attention will be given to ensure that the lining matches the painting and the base color.
- Since the old mounting fabric has deteriorated, new mounting materials will be used and the painting will be mounted into a hanging scroll in a mounting style suitable for a Buddhist painting.

[Conservation Treatment Report]

- The report will record information such as the extent of damage, the treatment process, materials used, new findings, and photographs.

Explanation of terms

- 1) Irradiated silk for mending: Silk made to match the original silk support of the painting (i.e. the texture of the weave and denier) that is artificially aged by exposure to an electron beam. This process is necessary in order to create balance between the strength of the painting support, which had become fragile due to age, and the new silk infills.

- 2) Filtered water: Water filtered with a granular-activated carbon and polypropylene filter (1 μ diameter).
- 3) "Dry" *hadaage* method: A method of removing the first lining paper by applying a small amount of moisture locally. *Hadaage* is performed after applying a temporary facing to the painting with seaweed glue.
- 4) Aged wheat starch paste: Paste made by storing wheat starch paste in a cool and dark place for approximately ten years. Due to its weak adhesive strength, the paste is indispensable for the attachment of linings to flexible mounting fabrics.

3. Overview of process

- (1) Examination before treatment (e.g. extent of damage, creation of a treatment record, pigments used, photographic documentation)
- (2) Removal of foreign matter (Grime that was attached to the surface of the painting was removed in its dry state using a brush, etc.)
- (3) Disassembling the mounting (The first lining paper was kept intact, and the rest of the old lining paper was removed.)
- (4) Test to determine the stability of pigments and consolidation
- (5) Cleaning (Water soluble grime, etc. that was attached to the painting was removed by absorbing it with blotting paper using filtered water.)
- (6) Test to determine the stability of colored pigments and consolidation
- (7) Removal of old first lining paper (*The "dry" *hadaage* method was adopted.)
- (8) Removal of problematic old infill material (based on pre-consultation)
- (9) Consolidation of *wazaishiki*
- (10) Infilling of lost areas with irradiated mending silk (In areas where the old infill material was reused, the material was re-shaped to exactly match the shape of the lost area and then applied to the loss.)
- (11) Removal of temporary facing. Seaweed glue that was used to attach the temporary facing during the dry removal process was removed with filtered water.
- (12) *Kōzo* paper was attached as the first lining using wheat starch paste (The lining paper was dyed and finished and attention was given to the appearance of the design on the surface of the painting.).
- (13) *Kōzo* paper (*Misu* paper) was attached as the subsidiary lining using aged wheat starch paste.
- (14) Reinforcement strips were attached and creases were mended.
- (15) The painting and mounting fabric were assembled in the form of a hanging scroll.
- (16) *Kōzo* paper (*Misu* paper) was attached as the overall subsidiary lining using aged wheat starch paste (two layers).
- (17) *Kōzo* paper (*Uda* paper) was attached as the final backing using aged wheat starch paste.
- (18) Inpainting was applied to silk infills.
- (19) *Jikushu* (roller knobs) and *zakan* (metal fittings) were reused following sufficient drying. Wooden rollers, *hassou* (top wooden stave) and the cord were newly prepared and assembled into a hanging scroll.

(20) Paulownia *futomaki soejiku* (roller clamp), paulownia *yarou* box, wrapping case, and wrapping material were newly prepared.

(21) Post-treatment examination was conducted, and the conservation treatment report was prepared.

4. Material specifications: Before and after treatment

	Before treatment	After treatment	Notes	
			Specifications	Place: Manufacturer
Format/style	Buddhist mounting (Shinnogusa)	Buddhist mounting (Shinnogusa)		
<i>Souberi</i> (overall border)	Gold brocade with Chinese flower pattern on a dark blue background	Twill-weave silk with vine and peony-arabesque pattern on an indigo background	Natural indigo dye	Konmaru/ Hironobu Textile
<i>Chu mawashi</i> (outer border) and <i>futai</i> (decorative strips)	Gold brocade with <i>dharmachakra</i> pattern on a white background	Gold brocade with vine and lotus-Chinese flower pattern on a white background	<i>Yasha</i> dye	Hironobu Textile
<i>Suji</i>	Plain fabric on a white background	Plain fabric on a violet background		
<i>Jikushu</i> and metal fittings	Gold-plated metal roller knobs with lotus - arabesque pattern	Gold-plated metal roller knobs with lotus-arabesque pattern	Reused	Cleaning: Yokoyama Studio
<i>Hassou</i> and <i>nakajiku</i>	Cedar upper stave and bottom roller (<i>warijiku</i>)	Cedar upper stave and bottom roller	New	Hayami Shoten
<i>Fukusa</i>	N/A	<i>Habulae</i> silk	New	Sakata Bokujudo
Storage box	Cardboard	Paulownia <i>futomaki soejiku</i> and paulownia <i>yarou</i> box	New	Yusai Maeda
Wrapping case	N/A	Outer lining: <i>Shibuhiki - kōzo</i> paper, Center paper: Thick <i>Kōzo</i> paper	New	Sakata Bokujudo

Dimensions before and after treatment (cm)

	Before treatment	After treatment
Overall dimensions	Length 235.5×Width 141.7	Length 250.1×Width 144.8
Painting dimensions	Length 156.5×Width 116.6	Length 159.1×Width 116.7

Mounting dimensions	Before treatment	After treatment
<i>Souberi</i> : Top	38.2	43.7
Bottom	15.4	22.1
Side	10.2	12.1
<i>Chu mawashi</i> : Top	15.7	16.1
Bottom	7.8	7.9
<i>Mawashi</i>	1.5	1.5
<i>Futai</i>	5	6.1
<i>Suji</i> : Inner	0.25	0.3
Outer	0.25	0.3
Bottom roller length	152.1	154.5
Roller diameter	4.6	4.4
Length of visible portion of roller	5	4.85

Materials used

Type	Material quality and name	Place: Manufacturer
First lining	<i>Kōzo</i> paper (<i>Tosa-kōzo</i> paper)	Kochi Prefecture: Toshio Inoue
Crease reinforcement strips	<i>Kōzo</i> paper (<i>Mino</i> paper)	Gifu Prefecture: Yahachirou Outa
Subsidiary lining	<i>Kōzo</i> paper (<i>Misu</i> paper)	Nara Prefecture: Shoichi Uekubo
Overall lining	<i>Kōzo</i> paper (<i>Misu</i> paper)	Nara Prefecture: Shoichi Uekubo
Final backing	<i>Kōzo</i> paper (<i>Uda</i> paper)	Nara Prefecture: Hiroyuki Fukunishi
Silk infill	Warp thread: 21 denier, 60 lines per 3 cm, double-strand Weft thread: 14 denier, 120 lines per 3 cm, double-strand	Kyoto: Hironobu Textile
Adhesive	Wheat starch paste	Nakamura Seiko
	Aged wheat starch paste	Nakamura Seiko and Sakata Bokujudo

5. Areas of damage and treatment details

(1) Areas of loss and formerly mended areas

[Condition]

Areas of loss

- Lifting of the silk support due to marked crease damage and cracks
- Lifting of the silk support accompanying the weakening of glue due to age

Formerly mended areas

- Inpainting directly on the first lining
- Inpainting on the silk infills (e.g. facial expressions of Buddha's disciples, body expressions of animals)
- Overpainting on the silk support

[Treatment]

Areas of loss

- Areas of loss were filled in with silk following the removal of the old first lining paper.
- Inpainting was applied to the newly mended areas.

Formerly mended areas

- Detailed records were kept on the inpainted areas of the old first lining and old silk infills.
- With the basic policy to respect the original design of the painting, the old infill materials were removed.
 - Unsuitable old silk infills (inpainted mends, areas where an inappropriate infilling method was employed or poor quality materials) were removed.
 - Inpainted areas of the old first lining were removed, taking into account the adverse effects that keeping the first lining paper intact in select areas would have on the painting in terms of conservation.
- Areas of the *Sakyamuni* were left in place with the original support. (See notes)

(2) Grime including age stains and foreign matter

[Condition]

- Grime due to foreign matter (e.g. insect droppings, grime on paper fiber surface) was confirmed.
- Grime had accumulated over the years over the entire painting.

[Treatment]

- Foreign matter was physically removed while confirming with a magnifying glass.
- After confirming the pigment condition, water soluble grime was removed by absorbing it with blotting paper using filtered water.
- *Chemicals were not used for fear that they will lead to future damages or an acceleration of deterioration caused by changes in any chemical that may remain after cleaning.

(3) Crease damage

[Condition]

- Marked horizontal creases had formed.
- Creased areas had lifted with the advancement of damage over time.
- The central part of the painting had twisted, presumably due to distortion of the wooden rollers, and had caused damage.

[Treatment]

- Silk infills were applied to cracks caused by creasing as well as to the surrounding losses in the silk support.
- After the subsidiary lining was attached, the areas damaged by creasing were mended with reinforcement strips attached from the reverse side.
- The thickness of each lining paper was considered in making the hanging scroll.
- The effects of creases caused by folds were mitigated by preparing a new *futomaki soejiku* and increasing the diameter of the roller.
- Wooden rollers made of Japanese cedar were prepared and fitted.

(4)Flaking and lifting of the paint layer

[Condition]

- The glue binder of the paint layer had weakened due to age and had resulted in the flaking and lifting of the paint layer.
- The paint layer had lifted along with the silk support due to years of abrasion.
- Areas where the *urazaishiki* was exposed due to losses of the silk support were confirmed.
- Pigment had been flaking (particularly azurite and malachite).

[Treatment]

- Paint was consolidated with a water solution consisting of rabbit skin glue (3%).

*To respect the original, inpainting was not applied to areas where silk infill was not newly applied (e.g. areas where only the paint had lifted).

(5)Shifting, overlapping and displacement of the painting support

[Condition]

- Parts of the painting had shifted or overlapped due to damage incurred during the former treatment, damage from creasing, etc.

[Treatment]

- The silk support was returned to its original position upon confirming the proper location by referring to the image of the painting.
- Silk support fragments whose location could not be determined from the image were kept at their present location.

(6)Damage to the adjoining areas of the silk support

[Condition]

- Losses of the joints of the silk support were marked from the effect of years of abrasion.

[Treatment]

- Lost areas were filled in with silk following the removal of the old first lining paper.
- Inpainting was applied to the newly mended areas.

Joints of the silk support and record of dimensions

← 120 <i>ki</i> → 36.3cm	← 143 <i>ki</i> → 43.3cm	← 122 <i>ki</i> → 37cm
-----------------------------	-----------------------------	---------------------------

(7)Damage to the mounting, etc.

[Condition]

- Grime and damage from age were confirmed on the surface layers.
- There were areas of the mounting fabric with damage that was mended in a former treatment, and infill materials of various sizes had been attached.
- The mounting fabric was cracking from the damage caused by the decorative metal fittings and was in perilous condition.
- Grime on the *jikushu* that had accumulated over the years was marked.

[Treatment]

- Mounting fabric was newly prepared.
- Decorative metal fittings were not reused since they may cause further damage.
- The *jikushu* were cleaned and reused.

6. Notes1. *Nakajiku* (bottom wooden roller)

The *nakajiku* was made of half-cylindrical wooden rollers. The rollers were joined by wooden nails and scrap paper. The year “Enpou 4 (Western calendar: 1674)” was written on the scrap paper in *sumi*.

On the newly prepared *nakajiku*, an outline of the treatment record was written in *sumi*. The *sumi* note was lined and stored in a storage box.

2. Findings from removing the first lining

[Condition of the old first lining]

- The oxidation degradation of the first lining paper was extensive.
- Gold leaf was observed on the reverse side of the joints.
- The pattern of Sakyamuni's robe was overpainted.
- The joints of the first lining papers were thick.
- The center portion of *Sakyamuni*'s face had been treated. (* See notes)
- The gold leaf for the verso infills had been haphazardly applied from the back side.

[Condition of the *wahaku* (metal leaf ground)]

Gold leaf was observed at the joints of the old first lining paper. Gold leaf was also scattered on the reverse side of the first lining paper. Furthermore, based on observations that gold leaf had been sloppily pressed from the reverse side, in a way in which the gold leaf is not in alignment with the design, there is a high probability that *wahaku* had been applied during the former treatment.

3. Concerning the retouching of the image of *Sakyamuni*

[Condition before treatment]

Retouching, overpainting, etc. were confirmed on most parts of the face and body of the *Sakyamuni*. In particular, areas of the face had been largely filled in with silk, and lines for the face had been drawn on the original silk support. From the surface it was difficult to confirm which were the original and which were the mended areas.

Retouching had been carefully done by the method of applying white pigment as the base. → *Hakuoshi* (making a design by applying gold, silver, or colored leaf with glue) → *sengaki* (drawing outlines), in contrast with other areas which have been retouched.

[Items considered]

Usually, old infill materials are removed as they are believed to be unsuitable for conservation. However, it was necessary to hold consultations and give careful consideration whether or not to remove the formerly mended areas of *Sakyamuni*'s face — an important element to the composition of the painting. It was made clear that the removal of the old infill materials would cause large portions of Sakyamuni's face to be lost.

- (1) Because both the original silk support and silk infills have been inpainted by the same restorer, the removal of the old infill materials would cause major portions of the face to be lost, such as the eyes and nose. As a result, only the retouched areas of the original silk support would remain. (Only a portion of the inpainted areas would be lost.)
- (2) Areas of *Sakyamuni*'s face had been retouched in a careful manner, clearly in contrast with other areas of the bodhisattvas and animals.
- (3) The old silk infills that had been applied to parts of the face are thicker than the original silk support, and imbalance of support strength is a concern. Although this could lead to damages such as creases and abrasion, treatment from the verso (e.g. removal of the areas overlapping with the original by chamfering) can eliminate any problems that may arise with respect to the conservation of the painting.

[Treatment]

As a result of the consultations with the painting's owner and treatment supervisor, it was decided that the inpainting and overpainting of the *Sakyamuni* image will be kept in selected areas and allowed to remain with the original support. Treatment such as the removal of the overlapping areas of the old silk infills and original silk support and the champfering of thick areas were undertaken from the verso.

Translated by Jennifer Takigawa (Urban Connections), edited by Yasuhiro Oka and Regina Belard.

涅槃図

作品解説

東京文化財研究所
勝木言一郎

本図は沙羅双樹下における釈迦仏の入滅、すなわち涅槃の情景を表した図像である。

まず画面の最上層に位置する天空は、藍色の天と空からなる。画面の最上層中央の天には満月、画面の左上、天と空の境には雲に乗って飛来する摩耶夫人与侍女2人が描かれる。摩耶夫人は袖で涙をふく姿に、最後尾に坐る侍女は、^{さしげ}翳とよばれる持ち手の長い「うちわ」をかたどった儀式的道具を捧げる姿に表される。摩耶夫人のすぐ後ろに坐る侍女は剝落が著しいものの、おそらくは天蓋を捧げたと推測される。ついで空の下には水面が広がる。水流がうねりながら、水飛沫をあげる光景は、白く描き起こすことで表される。

そして地面の中央には寝台が置かれ、その上に釈迦が右手枕に横臥する。寝台の周囲には沙羅双樹8本が生える。沙羅は2種類に描き分けられている。1種類は葉や実を白く縁取ったタイプで、もう1種類は葉の縁取りがなく、実を青く表したタイプである。菩薩や八部衆、弟子などが涅槃仏を取り囲む。なかでも涅槃仏の後ろには男女1組と思われる三面多臂の阿修羅、前には宝珠と錫杖を持った地藏菩薩1尊、画面左下には光背のように黒雲を漂わせた龍王1尊などの表現は注目される。画面の下にはさまざまな動物が参集する場面が描かれる。

本図の構成を見る限り、ある一つの経典に特定し図像解釈を進めていくことは難しい。例えば涅槃する仏の姿は白法祖訳『^{ぶつはつないおんぎょう}仏般泥洹経』の記述に近いが、両膝を曲げていないなどすべてが経典通りに表されたとは言い難い。また動物の参集も曇無讖訳『^{だいはつねほんぎょう}大般涅槃経』40巻本に記されるとはいえ、その記述が忠実に図像化されたとはいえない。こうした点から見れば、本図の構成は仏涅槃を説く各種経典をもとに構成されたと考える方が妥当であろう。

本図を日本における涅槃図の展開の中で位置付けるとすれば、宋元画の涅槃図を手本にしながらも、日本における浄土教思想の影響を留めた表現と見ることができよう。

参考文献

中野玄三『涅槃図』（『日本の美術』第268号）至文堂 1988、09

Nehan (Nirvāṇa)

Description of Artwork

Genichiro Katsuki
National Research Institute for Cultural Properties, Tokyo

This is an iconography of the death of Buddha under *śāla* trees, otherwise known as an image of *Nirvāṇa*. The expanse at the topmost area of the painting shows heaven and earthly sky in indigo blue. In the heavens, at the center of the very top portion of the screen, is a full moon. On the left side, on the border of heaven and the sky are Buddha's mother *Māyā* and her two maids flying in on a cloud. *Māyā* is wiping her tears on her sleeve, while the maid who sits at the very back is offering a *sashiba*, a ceremonial fan with a long handle. While much of the paint around the maid sitting immediately behind *Māyā* has chipped off, she presumably was offering an umbrella. Under the sky is an expanse of water. White paint is used to express the undulation and splashing of the water current.

At the center of the screen is a bed, upon which Buddha is lying sideways with his head on his right arm. His bed is surrounded by eight *śāla* trees. Two different methods are used to paint the *śāla* trees. The leaves and fruit are outlined in white for some, while others have no outlines and bear fruit painted in blue. Bodhisattvas, *hachibushu* (the eight kinds of gods), and disciples surround the reclining Buddha. Figures and the way in which they are depicted that draw particular attention are Asura with three faces and many arms who appears as a male/female couple standing behind the reclining Buddha; a *Kṣitigarbha* standing in front of Buddha holding a sacred gem and a staff with metal rings attached to the top; and *Nāgarāja* at the bottom left-hand side, surrounded by black clouds as if a halo. At the bottom of the screen is a gathering of many animals.

Judging by the image's composition, one would have difficulty interpreting the image based on one particular Buddhist sutra. For example, the image of the reclining Buddha closely resembles that which is described in the Baifazu translation of *Butsuhatsu-naion-kyo*. However, some of his features, such as the fact that he does not have both of his arms bent at the elbows, are not faithful to this sutra. Moreover, while the gathering of animals is mentioned in the 40th volume of the *Dharma-rakṣa* translation of the *Mahāparinirvāṇasūtra*, they are not depicted exactly as described in the text. Based on these points, it is perhaps most appropriate to assume that the image was composed based on many different scriptures that explain the *Nirvāṇa*.

If this image is to be positioned somewhere within the development of *Nirvāṇa* images found in Japan, it is possibly modeled after the *Nirvāṇa* scene of *sougen-ga* (Chinese painting of the Song and Yuan dynasties), while at the same time influenced by teachings of Japan's Pure Land Faith.

Reference

Nakano, Genzo, "Nehan-zu," *Nihon no Bijutsu*, vol. 268, September 1988, Shibundo.

Translated by Amy McCaleb (Urban Connections).