



## 追隨與尋覓—— 黃虎旗合宜修護方案之選擇

Finding and Following the Right Conservation Path for the Yellow Tiger Flag

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(翻譯:黃旭巧、陳婉平)

### 前言

2010年春，國立臺灣博物館(以下簡稱臺博)著手進行「臺灣民主國藍地黃虎旗」的修護計劃，其與「康熙臺灣輿圖」、「鄭成功畫像」並列為臺博的三件代表性珍貴藏品。

從2003年起，開始進行這件珍貴藏品相關歷史調查、科學分析和保存修護研究。繼2003到2005年康熙臺灣輿圖以及2007到2008年鄭成功畫像的成功修護案例後，這面巨幅的彩繪旗幟終於等到機會改善其劣化狀況。

「臺灣民主國藍地黃虎旗」又稱「黃虎旗」對臺灣人民而言是獨一無二的珍貴藏品；以修護觀點看來，同樣也是一件獨特的案例，因為它既是繪畫也是織品，同時也兼具功能性，因為它原本是被設計用來掛在旗桿上的旗幟。除了繪畫和織品修護技法以外，這面旗本身的尺寸、脆弱現況、複雜結構與早期修復歷史等因素，皆使它成為一件具有挑戰性的修護案例，而以上這些條件需要不同專門領域的技術與知識。因此，來自各領域的專業人員輪流針對旗幟的各個面向提出不同的修護選擇方案，使得本修護計畫有許多不同發展途徑的可能性。因此，本修護計畫最重要的一步，即是尋覓出一條最能夠符合博物館需求以及保護黃虎旗的修護之路，並且保留因應未來需求而作調整的彈性空間。

### 初步歷史研究

1895年5月25日，在清朝簽訂馬關條約、割讓臺灣給日本之後，臺北城內升起繪有

藍地黃虎圖樣的臺灣民主國國旗，為宣告獨立以抵抗日本。然而，日軍很快登陸臺灣，並將黃虎旗擄獲為戰利品而送回日本；雖然在日本統治之下，接下來的數年間，黃虎旗仍然象徵著當時的歷史，臺灣民眾不分老少眾所皆知。1909年畫家高橋雲亭獲准至日本，針對當時作為戰利品的黃虎旗做一幅仿真摹本。這幅摹本即為現今臺博館所藏的黃虎旗。

2004年，許佩賢進行黃虎旗與相關文物之歷史研究，並在報告中使用歷史文獻證明在1895年至少有三面原旗，一幅在巡撫衙門升起，另一幅送到基隆砲台，第三幅則交給淡水海關。基隆砲台的那幅旗即為送往日本的黃虎旗，也是後來畫家高橋雲亭所根據摹製的原件。但是無人確切知道這幅原旗是否依然存在，若為了要確認此事可能是個敏感的議題進而可能影響臺日關係，所以在此階段要檢視原旗暫時是不可能的。而淡水海關的那面黃虎旗則從未被懸掛過，後來經稅務司馬士(H. B. Morse)帶走

並被留在身邊直到晚年，但是無法確定馬士過世之後他手上那幅黃虎旗的下落；而當初掛在巡撫衙門的那幅旗，其行蹤至今依然成謎。在此時間點下，只能在沒有原旗可確認當時使用的材料與結構的情形下進行評估。

目前臺博館藏黃虎旗最早的影像是1909年11月27日日文版《日日新報》，報紙內容描述黃虎旗如何在日本登陸臺灣後被當成戰利品送回日本，並存放在振天府內，接著幾



「臺灣民主國國旗」即是眾所周知的黃虎旗，為臺博館藏最重要的三件珍品之一，2011年完成修護後成果(正面)

“The Flag of Formosa” also known as “The Yellow Tiger Flag” is one of the 3 most important treasures in the collection of the National Taiwan Museum, after treatment in 2011 (front)

## Introduction

In spring 2010, the National Taiwan Museum (NTM) started the conservation of “The Flag of Formosa Republic” also known as “The Yellow Tiger Flag”. Along with “Map of Taiwan Under the Reign of Kang-Xi Emperor” and the “Portrait of Koxinga”, “The Yellow Tiger Flag” is one of the 3 iconic treasures of the collection.

Since 2003, historical research, scientific analysis, and conservation investigation of these treasures have been carried out by experts from different fields. Following the successful conservation of “Map of Taiwan Under the Reign of Kang-Xi Emperor” in 2003~2005 and the “Portrait of Koxinga” in 2007~2008, the oversized painted flag finally awaited its turn for conservation to improve its poor condition.

As much as the Yellow Tiger Flag is a unique treasure for the people of Taiwan, it is also a unique object in the conservation world. It is both a painting and a textile, and it was also a working object, a flag which hung from a pole. Beyond the skills of painting and textile conservation, the flag was a challenging project because of its size, its fragile condition, and its complicated history of the construction and earlier treatment. All of these factors called for the knowledge and skills of many different specialists. In turn, each specialist offered several options for their respective part of the project, creating many different pathways the project could follow. Therefore, one of the most important steps in the project was to choose a conservation pathway that would best fulfill the needs of the museum and best preserve the flag, while at the same time providing flexibility for future needs.

## Primary historical research

The Flag of Formosa Republic, with a yellow tiger painted on a blue background, was raised on May 25, 1895 in Taipei in an attempt to assert independence against Japan after the Qing Empire in China signed the Treaty of Shimonoseki, ceding Taiwan to Japan. The island soon fell under Japanese troops, who captured the flag and sent it to Japan. Although under Japanese rule, the flag still symbolized the historical moment and was known by the general public, old and young, through the following years. In 1909 the artist Untei Takahashi traveled to Japan and was allowed to make an exact copy of the Flag of the Formosa Republic, which was still held by the Japanese as a spoil of war. It is

this copy of the flag which is now in the collection of the NTM and known as the “Yellow Tiger Flag”.

In 2004, Prof. Xu, Pei-Xian (許佩賢) did a historical research on the Yellow Tiger Flag and its related collections. In her report, she used historic accounts to prove that there were at least 3 original flags made in 1895. One was flown at the Military Governor’s Office, another was given to the Keelung Fort, and the third was given to the Tamsui Customs house. The one in Keelung was actually the one taken back to Japan, and is the one Untei Takahashi copied. No one knows for sure if this flag still exists, and confirming this is a sensitive subject which might affect relations

between Japan and Taiwan, so examination of the original flag is not a possibility at this time. The flag given to the Tamsui Customs house was never actually flown, and customs commissioner H.B. Morse took it with him and kept it into his old age. It is uncertain what happened to the flag after Morse’s death. The fate of the third flag flown at the Military Governor’s Office remains a mystery. At this time, it must be

considered that none of the three original flags are available for examination to learn about their original materials and construction.

The oldest image of the Yellow Tiger Flag now in the collection of the NTM is from the “Taiwan Daily” 《日日新報》 (Japanese version) newspaper from November 27, 1909. It describes how, after Japan took over Taiwan, the original Yellow Tiger Flag was sent back to Japan as a souvenir of the war and stored in the Imperial Treasury Chest of War Loot. Years after, the Imperial Household Department approved the Taiwan Viceroy Office Museum’s request for artist Untei Takahashi to produce a copy of the flag for displaying in Taiwan. It noted that “it was an exact copy of the original one, and the only way to tell them apart was by the smell”. From this photo, it seems that the copy includes damages which must have been present on the original flag at the time Takahashi made his copy. The photo clearly shows a flag which is not square, and it seems like there are 2 pieces of fabrics put together to make the flag.

Takahashi’s flag was then displayed and used for over a century and most likely suffered additional damages during that time. Understanding which repairs were damages copied from the original flag, and which were later repairs because of new damages, became one of the most challenging



目前已知黃虎旗最早的資料圖片刊載於  
1909年11月27日日文版《日日新報》

The earliest image of the Yellow tiger Flag  
was in the Taiwan Daily 1909.11.27



年之後，臺灣總督府博物館獲得宮內省的批准，委請畫家高橋雲亭製作在臺灣展示用的複製品。報紙亦記載著，複製品和原旗完全相同，唯一能辨別差異的方法是其味道而已；而從報紙上的相片看來，複製品已包含損失區域，也代表高橋製作複製品的時候，原黃虎旗必定也呈現如此的狀態：相片清楚地顯示旗幟並不方整，並且像是由兩塊布拼接而成。

由高橋所繪的旗幟後來被展示使用超過一世紀了，並且極可能在這段期間內增加更多損傷。黃虎旗修護案例最具挑戰性之處在於瞭解哪些是摹製原旗的修補痕跡、哪些是晚近因受損而新添的修復痕跡，這對修護進行路線的選擇有極大影響。

許佩賢強調即使臺博所收藏的是摹本，但也極可能是目前唯一僅存的黃虎旗。它進入博物館數十年後已成為具有高度歷史涵義的文化資產，因此，在認知考察原旗的

重要性的同時，臺博的黃虎旗也應受到同等級的完整調查與保存。

### 初步科學分析

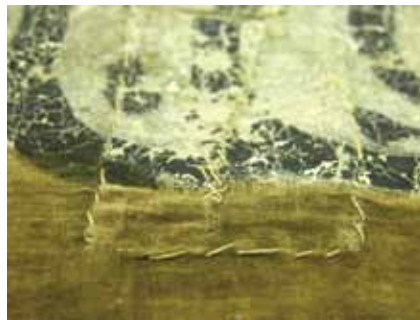
國立文化資產保存研究中心籌備處(以下簡稱文資中心)於2004年對臺博的黃虎旗進行初步考察，當時所做的現況調查、科學分析與修護建議皆有助於評估修護處理方案。

文資中心調查結果的發現與意見如後：

1. 雖然旗幟背後有裱貼背紙，但是織品基底材的邊緣鬆脫處顯示背面有彩繪層，故據此推測文物應屬於雙面旗，而這將使未來的修護處理方式更複雜。
2. 旗幟嚴重劣化並導致持拿困難，裱貼於背面的厚重背紙加速文物本身劣化狀況，因此需要移除背紙。
3. 織品基底材的纖維經證實為棉花，並且顯示無染色痕跡。因此，旗面主要區域或許是因劣化而轉為褐色；但



初步調查結果認為黃虎旗可能雙面皆有彩繪層(國立文化資產保存研究中心籌備處, 2007:72)  
Primary investigation suggested there might be paint layers on both sides. (國立文化資產保存研究中心籌備處, 2007:72)



初步調查結果認為米色縫線為早期修補痕跡(國立文化資產保存研究中心籌備處, 2007:61)  
Beige threads were thought to be old repairs. (國立文化資產保存研究中心籌備處, 2007:61)



初步調查結果認為藍黑色縫線為早期修補痕跡(國立文化資產保存研究中心籌備處, 2007:61)  
Blue threads were thought to be old repairs. (國立文化資產保存研究中心籌備處, 2007:61)

aspects of the conservation project, and greatly influenced the chosen conservation path.

Xu emphases that even though the one in the collection of the National Taiwan Museum is a copy, it might be the only Yellow Tiger Flag still in existence. With its history in the Museum over the decades, this Yellow Tiger Flag is a very important culture heritage with high historical significance. So, while further investigation of the original flags is important, it is equally necessary to fully investigate and preserve the National Taiwan Museum's 1909 Yellow Tiger Flag.

### Primary scientific investigation

In 2004, a primary investigation was carried out by the National Center for Research and Preservation of Cultural Prop-

erties (NCRPCP 國立文化資產保存研究中心籌備處), and a condition survey, scientific analysis and conservation proposal were made to help evaluate the conservation of the flag.

The NCRPCP made the following observations and recommendations:

1. Although the flag was mounted by heavy backing papers, there were some loose edges of fabric which showed that there were paint layers on both sides. This suggests that it might be a double sided flag, which complicates future conservation.
2. The Flag was very deteriorated and difficult to handle. The heavy backing paper mounted on the back of the flag was accelerating damage and therefore needed to be removed.

是幾乎所有歷史記錄皆描述黃虎旗為藍色背景，故需待更深入的研究調查。

4. 彩繪層狀況良好，應避免非必要的修護處理。從觀察分析與科學檢測結果來看，旗幟的右上角確實明顯異於主體部份(褐色區域)，並且看起來像修補痕跡。
5. 至少有兩次修補痕跡：老虎左腳的米色縫線與補釘應屬於較早期依次修補痕跡；右上角的藍色縫線則是較晚近的修復痕跡，因為其材料外觀和旗幟的主要部份明顯不同，推測位於該區的虎尾曾經進行填補和全色。
6. 虎背上方的黑色螺旋紋可能是打稿輪廓或是其他部位的色移。

文資中心建議以下議題應該更深入調查：一、對文物繪製技法的調查分析對於日後修護影響甚大；二、應該歸劃一個適切的方法移除所有舊補痕跡、清潔暨加固彩繪層與重新裝裱以供展示之用；三、是否該移除右上角的修補區域並



右上角可見厚塗的全色區域，初步調查結果認為為維修補時新製的基底材上再補筆補彩。(國立文化資產保存研究中心籌備處，2007:68)

The upper right corner and heavy over-paint were thought to be old repairs. (國立文化資產保存研究中心籌備處，2007:68)




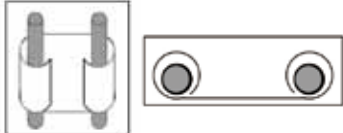

虎背上方的螺旋紋  
The black spiral above the back of the tiger.

3. The fabric was proven to be cotton and did not appear to be dyed, so the main part of the flag might have turned brown from deterioration. However, since most of the historical records describe the flag with a blue background, this requires further investigation.
4. The paint layer was in good condition, and unnecessary treatment should be avoided. From observation and the scientific analysis it is clear that the upper right corner was distinctly different from the main (brown) part of the flag, and looked like an old repair.
5. There were at least two other types of repairs: Beige threads and patches on the tiger's left feet were thought to be an old repair. Blue thread repairs, like the upper right corner, were thought to be a later repair, because the materials and

與旗幟主體一起保存，此點需要再進一步討論；如果需要移除右上角，則應更進一步研究旗幟主體的合適尺寸；四、應盡可能減緩老化，同時兼顧黃虎旗的受力問題。

針對穩定黃虎旗的狀況，文資中心提出修護建議概要，包含加固彩繪層、揭除舊有托紙與覆背紙以及補缺等；並且黃虎旗的織品基底材應採用織品修護之方法進行，托紙並非最恰當的修護方式，但如果決定重新托紙，則建議採取一般書畫修護方式慎選材料托紙覆背，修補材之補色可以基底材最亮部分為補色基準。對於收存方案之建議，為平放或捲收於桐木箱。

文資中心針對黃虎旗的保存提供一些非常好的意見，也同時針對黃虎旗修護處理方式應慎重考量。修護彩繪旗幟的挑戰在於不同的修護專業會各自以不同的觀點與作法，雖然是在織品上的彩繪文物，也不會像一般書畫一般平坦方整的掛在牆上。旗幟懸掛時會有伸張或撕裂等現象發生，這些部份對於文物的歷史很重要，若將旗幟回復成一張像是剛製作完成的完美方整織品，反而無法彰顯其歷史意義。所以，不論是東方書畫或西方油畫所慣用的修護步驟或材料，對這樣的彩繪織品都並不盡然理想。

保存(依據修護方案決定保存方式,如兩面均有彩繪則可選擇其他展藏方式)	
對保存而言,旗幟本身托紙並非最恰當的修護方法,因此建議儘可能採用其他方式進行保存,如以織品縫補等方式。 針對未來展藏建議考慮以下幾種方式:	
方法1	完全平放於梧桐木箱,並用無酸紙覆蓋之 
方法2	方法2 從兩側稍微向內捲,中心用無酸紙筒或梧桐木支撐(左:平面圖 右:剖面圖) 
方法3	呈捲筒狀收藏於梧桐木箱,中心用無酸紙筒或梧桐木支撐。木箱可使用梧桐木製作,其優點為質軟、重量輕、乾燥性佳。配合展示或搬運所需,修護後可於虎旗四邊托裱紙張以便於持拿收取。 

文資中心提供的收存方案選項(國立文化資產保存研究中心籌備處,2007:92)  
Housing options from the NCRPCP (國立文化資產保存研究中心籌備處,2007:92)



不僅如此，由於臺博館藏的黃虎旗為摹本，使得黃虎旗修復計劃變得更複雜，經觀察很難區分哪些破損是在臨摹時模仿做舊的，而哪些又是黃虎旗摹作好後才發生的損害。在文資中心工作團隊做出建議之時，仍有以下數點情況未明：當時尚未找到《日日新報》上的相片，所以並無證據顯示旗幟於1909年時就是方整矩形並且含有右上角區塊；再者，在2003年當時也認為旗幟曾遭逢博物館火災，才導致織品基底材缺失，但是之後的歷史研究顯示在博物館遭遇火災之時其尚未被摹製。

## 規劃修復計畫

文資中心2004年的研究對於瞭解旗幟材料極有幫助，然而也產生許多新的疑問；後續歷史研究對先前某些結論相矛盾，並產生更多新問題。由於沒有其他具既定作法的修復案例可以參考以作為最終修復目標的依據，黃虎旗的修復計畫也變得複雜。臺博館的黃虎旗本身含有最充分的資訊，因此必需對其通盤瞭解，方能規劃最佳修復之途。並且在確立修復計劃之前，亦需盡可能去理解其他修復師的觀點，尤其是來自專業彩繪織品修復師的看法。

appearance were distinctly different from those used in the main part of the flag. The painted tail in the upper right corner was thought to have infill and over paint.

6. The black spiral above the back of the tiger might have been either an unused outline added before the tiger was painted, or offset from other parts of the flag after the flag was painted.

The NCRPCP suggested that the following issues should be further investigated: 1. Knowing how the flag was made will determine the conservation approaches. 2. It is important to come up with a good way to remove all the old repairs, clean and consolidate the paint, and remount the fabric for display. 3. The decision whether to remove the repair (the upper right corner) and store it along with the flag needed to be discussed further. If the upper right corner was removed, the proper size of the flag would have to be studied further. 4. The aging of the flag should be slowed as much as possible, while balancing the strength of the flag.

The NCRPCP outlined a conservation proposal which addressed the stability of the flag by consolidating the paint layer, removing the backing paper, and filling losses. Lining the flag again with paper was not considered the best option, and it was recommended that flag textile conservation approaches should

臺灣即有良好學識的文物修復師群，各自專精於東方繪畫、壁畫與紙質文物修復等，然而欠缺擁有處理彩繪織品(尤其是旗幟)經驗的修復師。因此，除了尋求外國專家諮詢協助規劃修復計畫之餘，如何與臺灣的修復師通力合作變得相當重要，如此才能一起探尋出一條黃虎旗修復作法之路，找出最適切保存方法並達成博物館典藏與展示目標。

經過多方調查，博物館邀請兩位旗幟修復專家來到臺灣，協助評估這件重要館藏的修復條件，包含時間、空間、設備與留於臺灣境內修復的可能性等。前述兩位專家分別為來自英國格拉斯哥(Glasgow)的織品修復師Frances Lennard，另一位來自美國的油畫修復師Nancy Pollak，兩位皆有豐富的彩繪織品經驗，她們於2010年首次應邀來臺擔任修復計劃諮詢。從一開始，即認為這件臺灣珍寶應該留在臺灣進行修復處理，故黃虎旗修復之途的首要方向為：如何運用臺灣的文物修復人力資源，輔以世界各地修復師們的幫助來執行這件修復專案。

兩位修復顧問與臺灣的修復師以及工作人員齊聚一堂，分享她們的彩繪旗幟修復經驗，以及之前在相似文物上

be taken into consideration. If it was decided to reline the flag with paper, The NCRPCP recommended an approach similar to that taken with Asian paintings, with a paper backing, and losses toned in a standard color. Storage options which were considered included flat storage in a wooden box and rolled storage.

The NCRPCP gave some very good recommendations for preserving the flag, but as importantly, recommended that treatment approaches specific to flag conservation also be considered. The challenge of treating a painted flag is that different specialists in conservation will see it in different ways. Even though the flag is paint on fabric, it was never meant to be kept flat and square like a painting hanging on a wall. The painted fabric can stretch or tear from use as the flag is flown, and these conditions become an important part of the history of the object. Returning the flag to a perfect square of fabric as if it was newly made would not be honoring its history of use. Therefore, the approaches or materials that a traditional Asian painting conservator or a western painting conservator would take would not necessarily be ideal for a painted textile.

What complicates the treatment plan for the Yellow Tiger Flag is the fact that it is a copy of the original object, which

使用過的方法。同時也向臺灣的修護師們演講，分享其對彩繪織品修護的觀點。藉此臺灣的修護師們得以參考這些修護技術以考慮運用在黃虎旗的修護上。這樣的機會也使得大眾了解織品修護師與彩繪織品顧問的專業建議，可針對較特定的彩繪織品問題提供意見，臺灣的修護師們亦有能力執行黃虎旗的修護處理。



修護顧問 Nancy Pollak 與臺博研究人員以及國立臺南藝術大學教授共同檢視黃虎旗  
Consultant Nancy Pollak inspecting the Yellow Tiger Flag with the NTM curators and TNNUA professor.

most likely was damaged and not perfect when it was copied. Therefore, preserving the damage on the NTM's flag was very important, but was complicated by not easily knowing which damages were copied and which damages happened in the years after the flag was made. Several points were not yet known at the time the Center team made their recommendations. The photograph in the "Taiwan Daily" had not yet been found, so there was no evidence that the flag was not square, and had the patch in the upper right corner in 1909. In 2003, it was also thought that the flag had been in a fire at the museum, which caused a loss to the fabric, but later historical research showed that the flag had never been in any fire at the museum.

### Planning the conservation project

The 2004 research project helped to understand a great deal about the materials of the flag, and their condition, but also raised many new questions. Continued historical research contradicted some conclusions, and raised even more questions. The conservation plan was made even more complicated because there was no other object with which to compare the flag to understand treatment goals. The flag

在2010年的初次評估會議時，迄今已發掘出臺博收藏的相關史料以及其他臺博館藏相關的旗幟藏品，連同與黃虎旗一起檢視並綜合討論之間的相關性。當所有物件放在一起觀查，並且加入更多人討論，即建立出一些新的連結性，實質上更幫助理解黃虎旗全貌和需求。更多可能的修護方案也產生出來。例如將黃虎旗攤平並且常設展出的想法，雖然最後因為空間與經費的考量而作罷。最後經過討論並衡量各種可能的修護與展示方案之後，整個團隊一起歸納出以下幾個修護的目標：

1. 黃虎旗需要進行修護處理以保存傳世。
2. 修護處理要能讓黃虎旗安全地向大眾展示。
3. 由於黃虎旗尺寸非常大，可能必須要能以捲收的方式搬運或收藏，故修護處理需讓它必要時能夠被安全地捲收。
4. 對黃虎旗的每一部分做檢視登錄是非常重要的，檢視內容應包括前人修復部分，以引導本次修護處理以及後續相關研究。
5. 此次黃虎旗應盡可能恢復到1909年摹製完成時的模樣，但這也將是極大的挑戰，因為並無證據顯示這幅旗當年看起來如何。

was the greatest source of information, and therefore it was necessary to understand the flag as thoroughly as possible to plan the best treatment path. The perspectives of other conservators, especially those who specialized in painted textiles, were needed to understand as much as possible about the flag before a treatment plan could be created.

While Taiwan has very knowledgeable conservators specializing in Asian paintings, wall paintings and paper conservation, conservators experienced in treating painted textiles, particularly flags, were not available in Taiwan. Calling on consultants to help in planning for a project such as this became very important, to work with local conservators to explore different treatment pathways to best preserve the flag and achieve the museum's goals for storage and display.

After much research, the museum invited two flag conservation experts to come to Taiwan to help evaluate the possibility of conserving such an important national treasure in terms of time, space, equipment, local conservation ability, and so on. Frances Lennard, a textile conservator from Glasgow with extensive experience with painted flags, and Nancy Pollak, a paintings conservator from the United



6. 某些問題像是黃虎旗究竟哪些部分是摹製時做的、哪些是後來損傷的修補，必須等到修護開始後方能解答，故留待進一步分析。

隨著前述修護目標，也提出一系列針對黃虎旗現況和外觀的九個問題。每個問題又陸續延伸出許多其他相關問題，這些問題皆影響著後續修護方案的選擇：

1. 如何解釋我們現在所看到的褐色背景？所有原旗的描述都說黃虎旗的背景是藍色的，但現存的這幅黃虎旗看來卻大部分是褐色的。難道是因為當畫家高橋雲亭於1909年摹製時，原旗的背景早已經因為使用或劣化而產生變色而摹本依樣仿製？或者其實是從1909年以後到現在的期間才從藍色變褐色的？如果黃虎旗在1909年時為藍色背景，黃虎是畫在藍色布上，或是在黃虎畫完之後，才以將背景著色？所使用的藍色是染料還是顏料？
2. 如果黃虎旗的背景是藍色，修護時該如何處理？如果黃虎旗的背景原本是藍色，那它為什麼會變成褐色？在織品上是否能找到任何殘留的染料或顏料？先前修復添加的覆背紙是否造成背景變色？有沒有什麼辦法

能使藍色回復？或是有其他可逆性的方法能使織品看起來像藍色？如果背景曾經於1909年是藍色的，修護處理應該使背景再呈現藍色嗎？

3. 為何旗幟右上角外觀和其他部分如此不同？它是何時製作？使用何種材料製作？它是在1909年之後添加的粗糙修補痕跡，或是原旗摹製的一部份？還是原旗可能曾經在匆促之下修補，而摹本右上角這塊看似修補的一角其實是依照原旗摹製的痕跡？
4. 為何缺失區域特別集中在右下角？是否原旗的織品基底材此部分也遺失？隨者時間流轉，現在的黃虎旗是否還有新增添遺失區域？是否適合填補旗幟右下角遺缺以使外觀再度變成長方形旗幟？藉由歷史相片，尤其是那幅《日日新報》刊登的相片，是否可以幫助瞭解哪些缺損區域是刻意模仿原旗？
5. 黃虎旗上其他較小的補丁和修復痕跡呢？是何時修補的？是否隨時間變得更糟？是否能從檢視與分析來得知黃虎旗經過多少次不同的修復？哪些修復是具有歷史性且合宜的？先前任何一次修補是否對現在的結構造成傷害？實施哪些檢測可以幫助回答這些問題？

States who specializes in painted textiles, first came to Taiwan in early 2010 to consult on a conservation plan. From the beginning, it was felt that this flag, a treasure of Taiwan, should be treated in Taiwan, and so the first direction on the path was chosen: How to use conservators from Taiwan, with help from conservators around the world, to undertake this treatment project.

These consultants met with conservators and staff and discussed their experiences with painted flags, and some of the approaches they have taken in treatment of similar objects. They gave presentations to the conservation community in Taiwan explaining their perspective on treatment of painted textiles. Conservators could see how their treatment skills could be adapted to treating the Yellow Tiger Flag. The meetings helped everyone to see that with the help of textile conservators and consultants who can offer advice on the specific treatment of painted flags, Taiwan conservators could undertake the conservation treatment of the flag.

During the initial meetings in 2010, all the historical resources that had been found to date, other flags in the NTM collection, and the Yellow Tiger Flag were all discussed in relation to each other. As all these things were looked at

together, and more people joined the discussion, new connections were made, helping to understand more fully the condition and needs of the Yellow Tiger Flag. This created many different pathways the conservation treatment could take. Some of these ideas, such as keeping the flag flat and on permanent display, were not practical because of space and budget. As different treatment pathways and exhibition plans were evaluated, the group began to develop a list of goals for the treatment:

1. The flag needs to have conservation treatment so that it will be preserved for the future.
2. The conservation treatment should allow the flag to be safely displayed for the public.
3. Because of its very large size, the flag may need to be rolled for moving or storage, and conservation treatment must allow it to be safely rolled when necessary.
4. Documentation of every part of the flag, including previous treatments, is very important for guiding the conservation treatment, and for continued research.
5. It was felt that the flag should be returned as much as possible to its appearance when it was copied from the original in 1909, but this will be very challenging because there is

6. 我們如何能更瞭解這幅旗幟的繪畫層？狀況是否穩定？需要多少修護處理？為何右上角的彩繪和其他區域大不相同？如何解釋虎背上的黑色螺旋紋？它和其他部分的彩繪之間的關連性為何？
7. 旗幟背面的模樣如何？是否也有彩繪圖案？它與正面的黃虎之間的關連？托紙對背面造成的影響如何？這些問題必須待移除背紙後才能回答，但是，在進行之前必須先決定是否適合移除背紙，而令人遺憾的是，關於1979年間的裝裱覆背處理無法找到相關紀錄，亦無法得知在此之前的狀況如何。從2004年的調查結果以及2010年的評估會議來看，背紙實對旗幟造成傷害，因此修護之途的首要步驟必須包含揭除背紙。
8. 黃虎旗修護後的最終目標是什麼？之後會是短期特展還是常設展展出？未來可以在哪裡展示與存放？最佳的展示與保存狀況為何？是否可以捲收，或者它必須平放？展示時，是否可能讓觀眾看到正反兩面？最終的外觀會是如何？是否應該盡可能處理成接近1909年時的外觀，如果答案是的話，我們如何判定旗幟在當時的樣貌？一些相關問題，像是藍色背景的可能性、前人

修復痕跡、右上角補丁以及遺缺區域等，都需要被提出來以決定這幅旗應有的外貌。如果這些問題無法於現在解答，那麼在等待日後研究分析提供更多資訊的同時，修護處理進行的路線必須要能保留給未來有可能改變的空間。

9. 還可從哪些資源探索更多關於黃虎旗的故事？還有哪些研究可用來幫助瞭解黃虎旗的狀況和結構？哪些分析技術可以提供最多的資訊？原旗有可能以何種方法製作？畫家高橋在1909年時最可能使用哪些方法和材料摹製？

由於在評估會議之後，即決定修護過程必定要移除不穩定的背紙以及加固彩繪層，此也和文資中心的建議相仿。脆弱的織品基底材需要支撐物，但是，初步評估時尚無法決定旗幟的最後呈現方式，必須等到確知背面狀況之後再評估。因此修護計劃必需要往前邁進一步，才能先將造成損傷的問題解決，但這樣的方法必須保留未來不同修護方案的採行空間。修護諮詢顧問們評估後皆認為國立臺南藝術大學(以下簡稱南藝)具備修護處理所需的適宜空間與基本修護設備，並且在定期的專家諮詢與

no clear evidence of what the original flag looked like in 1909 when Takahashi copied it.

6. Some questions, such as whether patches on the flag were made to copy the original or to repair later damages, can not be answered until treatment on the flag begins, allowing further analysis.

Along with these general goals for the project, a series of nine questions about the condition and appearance of the flag were raised. Each major question created many related questions, both in the initial meeting and as the treatment was underway. All the questions played a part in choosing the conservation path for the flag:

1. How can the brown background color we see now be explained? Descriptions of the original flags indicate that the background of the flags was blue, but the Yellow Tiger Flag



修護顧問Frances Lennar與臺博工作人員們共同討論修護的選擇方案  
Consultant Frances Lennard discussing conservation options with the NTM curators.

now had a mostly brown background. Was this because when the artist made the copy in 1909, the original background had already changed to brown because of damage or use? Or, has the Yellow Tiger Flag background color changed from blue to brown between 1909 and today? If the Yellow Tiger Flag had originally been blue in 1909, was the tiger painted on dyed or pigmented blue cloth, or

was a dye or pigment painted on the background after the tiger was painted?

2. If the background of the Yellow Tiger Flag was blue, how should that be addressed in treatment? If the Yellow Tiger Flag background had originally been blue, why did it turn brown? Can deteriorated dye or pigment be found on the fabric? Did previous treatment, especially the paper backing, cause the background to change color? Is there





# 黃虎旗再現

The Return of  
The Yellow Tiger Flag  
Conservation of the Yellow Tiger Flag  
of the FORMOSA REPUBLIC

織品修護師指導之下，臺灣的修護師具有修護黃虎旗的能力。

## 修護路途上的挑戰

決定委託南藝進行黃虎旗的修護後，修護之途仍有許多待定奪之處。隨著每一項修護步驟進行，就會發現更多關於黃虎旗的新資訊，也提供更多的選擇並促使後續的決定。如此巨幅(長263公分×寬315公分)且複雜的文物，南藝的修護團隊很快地感受到許多例行性作法變得額外需要周全考量與準備。例如，光是將旗幟安全地翻面即需求至少3到6名工作人員。文物攝影檢視則需要特製設備才能拍攝期至全景，並且需要約8名人力配合。這幅巨型旗幟在修護期間需要特製暫時性桌面支撐已讓黃虎旗能攤平；此外，為使修護師能安全地接觸旗幟中央區域，也必需為其量身訂製一座跨橋；許多所使用的修護工具也皆需客製化，或者即使是現成的修護工具也需加以改造來滿足這件大型織品的特殊需求。其中最困難的地方，為使用抽氣桌進行文物濕式清潔，因為旗幟本身尺寸比抽氣桌約大12倍，所以每當修護師要接續處理下一個待清



特製的跨橋使得修護師能平穩地接近黃虎旗中央進行工作  
Custom made bridge helps conservators safely access the center of the flag.

潔區域時，所有工作桌也必需跟著移動並調整到能安全地撐住文物的位置。

對修護團隊而言，另一項挑戰是因地制宜的找尋特殊修護材料或選擇取代材料。為此必需付出額外的時間尋找來源，還要研究確認替代品是否合適修護使用與收存措施。

黃虎旗的修護處理過程非常耗時，並且，修護顧問也無法在期間內全程留在南藝。因此評估會議之後，兩位專家便排定在修護過程的關鍵階段會回到臺南數週，針對已經執行工作的評估、協助決定接下來的修護程序必並



南藝修護團隊在客製化的工作桌上翻動這面大型旗幟  
TNNUA conservation team handling the over-sized flag on custom made tables.

且進行更進階的分析與檢驗工作。當顧問們不在時，臺灣的修復師以透過電子郵件或Skype線上通話的方法更新近況，並且也會用書面報告提綱挈領連絡最新的發現，並列出對下一步修護處理的考量與疑問。對只懂英文的顧問們與以中文為母語、同時也能說寫英文的臺灣修復師之間的溝通，利用附有圖片的書面報告對於相互瞭解幫助非常大；透過文字和圖片，兩邊的工作團隊能夠對議題做全盤思考和提問，直到兩方皆滿意且理解為止。

例如，在背紙揭除後，修護團隊興奮的發現背面居然還又另一隻彩繪的老虎，消息即時從臺南傳到世界彼岸的顧問們。然而，這份初始的興奮感隨即被取而代之的是接續的修護之途應導向何方，繼續展開書面討論。臺灣的修復師們再度徹底檢視登錄與測試黃虎旗背面的狀況，並且為確保決定最適合的處理方案，全面重新評估當初的方案，並且也再度安排顧問們回到臺灣以幫助規劃接下來的修護步驟。

背紙揭除後織品的實際狀況終於得以評估，修護之途繼續朝向以支撐物加固

織品的方向前進。由於臺灣的修復團隊缺乏織品修護師，所以美國的織品修護師Lynne Ellen Bathke應邀來台數週，帶領臺灣修復團隊進行此部份的專業修護處理。也協助製作各種不同修護處理方案的樣本供選擇參考，讓每個人對黃虎旗修護後的狀況能有較完整的理解。

藉由電子郵件、視訊會議溝通以及書面報告往返溝通討論，並配合諮詢臺博研究人員，修護的方案繼續朝著計劃發展。如此有助於確保所選擇並施作的修護處理能最合宜地穩定黃虎旗狀況，並且隨著我們對黃虎旗的了解逐漸抽絲剝繭的增加，仍能保留未來更多選擇方案的空間。

### 本次調查研究結果

雖然開始時提出的所有問題尚未全然都得到明確的答案，修護團隊在大量研究與檢視登錄之後仍然能解答其中一部份。首先，現今黃虎旗已褪色並轉為褐色的背景是否曾經為藍色？遺憾的是，目前為止仍無法確實斷定。雖然相當可能曾有某



在背面層層裱貼的厚紙之下發現彩繪層  
discovering paint layers underneath  
the layers of heavy backing papers.

- a way that treatment can return the blue color to the fabric, or can the fabric be made to look blue by some reversible method? If the background had been blue in 1909, should conservation treatment include a method of making the background appear blue again?
3. Why does the upper right corner look so different from the rest of the flag? When was it made? What was it made from? Is it a bad repair which was added some time after 1909, or could it be a part of the copy of the original flag? Was it possible that the original flag had been quickly repaired, and the patch is an exact copy of that repair? Is it possible to understand the addition by studying historic photographs and descriptions of the flag?
4. Why are there areas of loss, especially in the lower right corner? Was fabric also missing here in the original flag? Has the Yellow Tiger Flag suffered additional loss in this corner over time? Is it appropriate to fill in this corner and make the flag rectangular again? Can photographs, especially the one from the "Taiwan Daily" help in understanding which losses were intentional copies of damage to the original flag?
5. What about the other smaller repairs and patches on the

- flag? When did these happen? Have they gotten worse over time? Can we understand from documentation and analysis how many different times the flag was repaired? Which repairs are historically appropriate? Are any repairs causing damage to the flag now? What tests can be done to help answer these questions?
6. What can we understand about the paint? Is it stable? How much treatment does it need? Why are there differences between the paint in the upper right corner and that in the rest of the flag? How can the black spiral above the tiger's back be explained? How does this paint relate to the rest of the painted image?
7. What does the verso of the flag look like? Is there a painted image on this side as well? How does it relate to the tiger we see on the front? How has the verso of the flag been affected by the lining? These questions could only be answered after the paper was removed, but first it had to be determined that it was appropriate to remove the paper backing. Sadly, there was no record found of the 1979 backing treatment, or of the condition of the flag before the backing paper was added. From 2004 investigations, and the first meetings in 2010, it could be



種藍色成分被用來刷染背景，可是針對褐色背景的織品基底材在各種儀器分析後仍未獲得確切的定論。而就目前情況而言，推測是由於殘留染料過微量，以致於無法判斷。然而，右上角的藍色織品基底材經儀器分析，則確實鑑定出一種藍靛形式的染料。故推測有兩種可能性：一為原旗當時的主要背景已褪成淡藍色而其右上角仍然呈現深藍色，摹本模仿原旗的褪色色調，但是在多年之後也褪為褐色；二為原旗在1895到1909年期間褪成褐色，因而臺博館藏黃虎旗其實是在一開始就是褐色的。

黃虎旗的右上角經證實而得知材料和主體所用的並不同，在顯微鏡下可明顯分辨出兩種棉布相當不同。並且右上角藍色部分是先將布染成藍色，接著才在上面繪出虎尾。而在黃虎旗主體部分，則是先繪製黃虎圖案之後，再於黃虎周圍填繪藍色背景。分析結果也顯示右上角藍色部分與褐色主體部分兩者的繪畫媒材與技法有著極大差異。

除了前述差異以外，《日日新報》於1909年所刊登的報導亦能證明黃虎旗右上角是當

seen that the backing papers were damaging to the flag, and so the first steps on the conservation path had to include removing the paper backing.

8. What are the final goals for the flag after treatment? Will it go on short-term or permanent display? Where can it be displayed, or stored? What are the best conditions for display and storage? Can the flag be rolled, or must it be kept flat? Is it possible to display the flag so that both sides are visible to the public? What should the flag look like? Should it be treated so that it looks as close as possible to its suspected appearance from 1909, and if so, how do we determine what the original flag looked like in 1909? All the questions about the possible blue background, the repairs, the patch in the upper right corner and the areas of loss would need to be addressed to determine what the flag should look like. If these questions could not be answered, then treatment needed to continue along a path that would allow for changes in the future as later research and analysis gives more information.

年複製品的一部份。固然報紙相片的清晰度欠佳，但是仍可據此以明確指出旗幟右上角和主體部份之間的銜接處。再者，這張相片也釐清一件事：右下角一整片區域未曾出現，想必是原旗該處已經遺失，才會導致摹本亦是如此形狀。

目前關於修補部分的歷史仍尚未能有直接證據，但由於報紙文獻裡的黃虎旗有明確提及撕裂破損情形，故可推論至少有某些損傷和修補痕跡即是摹製時的原樣。然而是否所有修補都來自1909年呢？由於右上角部分很有可能為摹製時所製，因其他部分的一些藍黑色縫補線應該也是1909年的摹本作舊手法。黃虎左前腳區域的背面有一塊加固裂縫用的亞麻布補丁，在顯微鏡檢視下可見邊緣切口乾淨俐落，彷彿像是用刀片切割；至於黃虎前伸的右腳下方一條綿延並穿越過左腳的長型接縫痕跡，也

一樣看來有切過的邊緣。藉著進一步檢視一張1953年不甚清晰的相片，可看出這道修補痕跡當年已經存在。由於其他部分並無明確證據顯示是否



特製網框與抽氣桌緊密配合以進行濕式清潔處理  
Specially made screen and suction table underneath aids in wet cleaning.

9. What other resources can be explored to learn more about the Yellow Tiger Flag? What other research could be undertaken to help understand the condition and construction of

the Yellow Tiger Flag? What analytical techniques would give the most information? How might the original flags been made? What methods and materials would the artist most likely have used in painting the copy in 1909?

After the initial meetings, it was decided that conservation to remove the unstable paper backing and stabilize the paint, as recommended by the NCRPCP, was necessary. The fragile fabric of the flag would need to be supported, but until it was known what the verso of the flag looked like, decisions about the final appearance of the flag could not be made at this time. Conservation needed to move forward so that conditions causing harm to the flag were addressed, but in such a way that would allow as many different future treatment options as possible. It was felt by the consulting experts that an appropriate space and basic equipment for the treatment were available at the Tainan National University



南藝修護團隊扛起這份耗時甚久的修護挑戰  
TNNUA team took up the challenges of time-consuming processes

of the Arts ( TNNUA), and conservators in Taiwan had the skills to treat the flag, with regular consultation with them and guidance from a textile conservator.

### Challenges along the conservation path

Once it was determined that the flag could be treated in Taiwan at the TNNUA, there were still many decisions to be made along the conservation path. With each treatment step, new information was learned about the flag, giving more choices for treatment and more decisions to be made. The TNNUA team quickly learned that when working with such a large (L:263cm × W:315cm) and complex object, many routine tasks require additional thought and preparation. For example, it took at least 3~6 people just to safely turn the flag to the other side. Photo-documentation took about 8 people and special equipment in order to photograph the whole flag. The large size of the flag also required special supports to hold the flag flat during treatment, and a custom bridge had to be designed to allow the conservators to safely reach the center of the flag. Many of the tools to be used in treatment had to be custom made, or existing tools had to be modified to be able to address the specific needs of

the large textile. It was especially difficult to use the suction table when wet cleaning the flag, because the flag is about 12 times bigger than the suction table. All the support tables had to be moved around to safely support the flag every time the conservators moved to the next area to be cleaned.

Finding special conservation materials or choosing appropriate, locally available substitutes was also challenging for the conservation team. Additional time and research were needed to find the right supplies, and make sure all materials were appropriate for conservation or housing the flag.)

Treatment of flag was a very time-consuming process, and it was not possible for the consultants to be at the TNNUA for the entire time the flag was being treated. After the initial meetings in 2010, each expert returned to Tainan for several weeks at critical stages in the conservation treatment to evaluate the work that had been done, help in determining the next conservation procedures, and undertake further analysis and examination of the flag. When the consultants were not on site, the conservators in Taiwan kept them updated through e-mail, Skype conversations, and reports which outlined the most recent observations, and listed questions concerning the next treatment steps. Sending



為刻意造成的，而修護師亦無其他方法確定哪些不屬於原本的狀況，因此保留下大部份的藍黑色修補線。而其他修補線，尤其以米色縫線區域，由於其縫法和藍黑色縫線部分大不相同，況且縫補線下的織品痕跡看來像是隨時間衍生的損害而非刻意製造；由於這些修補痕跡造成黃虎旗相當程度的變形，所以經過仔細的記錄後將其移除。

## 黃虎旗之未來

本次黃虎旗修護既已完成，然而相關研究和分析仍持續著。藉由使用長久穩定的修護材料加固支撐，黃虎旗現況穩定，未來倘若必須要移除的話也不會對黃虎旗造成進一步的傷害。黃虎旗現在可以安然地捲收並以客製保護盒存放，如此可使持拿安全且相對容易。每一項修護步驟皆有完整的記錄，取樣和被移除下的材料皆加以妥善收存，如此方能讓未來研究者清楚地瞭解黃虎旗在2010年到2011年間的歷程。至今針對藍色與否的背景仍繼續進行成分驗析，修護師可再從保留下來的揭除背紙取得更多樣本用作比對分析。藉由一些模擬樣本的比對，現正嘗試驗證新的假設，試圖為黃虎旗藍色背景謎題提出可能的解答。工作團隊曾提到的諸多想法與討論皆有留存記錄，並且至今存疑的項目也已在所進行的研究之內，並且也持續追尋相關歷史研究與史料。

黃虎旗之修護為一件具備挑戰性的案例，不只因為黃虎旗是國家級的珍貴藏品，值得以最佳規格的進行修護處理，也因為它本身即是有許多複雜疑點的文物，即是至今也仍留下一些問題待解答。本修護計畫藉由世界各地的專家貢獻各自專長一起為它釐清許多不同面向的問題。透過部段溝通與團隊合作，修護團隊們一路走到修護之路的此階段了，期望未來的後續工作能藉著對我們努力所做的紀錄而能得到佐證與支持。



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written reports with pictures was very useful in helping with understanding between the consultants, who only understood English, and the conservators in Taiwan, whose first language was Chinese, but who could also speak and write in English. By writing and using pictures, both groups could think through the issues and ask questions until each was comfortable that they understood the other.

For example, after the paper backing was removed, news of the very exciting discovery of the second painted tiger on the verso of the flag was sent from Tainan to the consultants around the world. The initial excitement was soon replaced by many written discussions about how this would direct the conservation path. The conservators in Taiwan thoroughly examined the flag verso and documented its condition. An overall re-evaluation of the treatment plan was carried out to make sure it was still the most suitable treatment path for the object, and plans were made for the consultants to return to Taiwan to assist in planning the next conservation steps.

With the removal of the paper backing, the true condition of the textile could be evaluated. The conservation path continued with support of the textile. Because the Taiwan conservators did not have specific textile skills, a textile conservator from the United States, Lynne Ellen Bathke, spent several weeks in Tainan leading the conservators in this part of the treatment. She also helped to create several different samples of treatment options to give everyone a better understanding of how the flag could appear after treatment. E-mail, video conference calls, and written discussions continued to be useful as planning moved ahead, and in consultations with the staff of the NTM. This helped to ensure that the treatment carried out would be the best possible choices for the stability of the flag, and would allow the most options for the future of the flag as our understanding of it continued to develop.

## Outcomes of the investigation

The extensive research and documentation carried out enabled the team to begin to answer some of the questions posed at the beginning of the project, although it was not possible to answer them all definitively. Had the main part of the flag, now a faded brown colour, once been blue? Unfortunately to date it has proved impossible to know for



織品修護師 Lynne Ellen Bathke 協助製作數個供選擇的不同修護方法樣本  
Textile conservator Lynne Ellen Bathke helped to create several different samples of treatment options

sure. Although it is considered likely that certain kind of blue substances could have been used to colour the fabric blue, instrumental analyses of the now brown ground cotton fabric has so far proved inconclusive. It seems there is just too little of the original dye material remaining to be able to identify it. However the results did more positively identify an indigo-type dye in the blue fabric of the upper right corner. One of the possibilities is that the original flag was faded to light blue which was different from the darker blue at the upper right corner, and although the copy was made exactly like it was over the years it faded and looked brown. The other possibility is that original flag was faded brown between 1895 to 1909, and the copy was brown to begin with.

The upper right corner proved to be made of different materials from the main body of the flag. Under magnification it was obvious that a different cotton fabric had been used. It was also apparent that here the blue fabric had first been dyed blue then the tiger's tail had been painted on top of the background colour, whereas in the main part of the flag, the tiger had been painted first and the background around it. Analysis of different areas of the flag also showed that the materials and painting methods used on the fabric in this corner were very different from the materials and painting methods used on the main brown fabric.

Despite these differences, the best evidence that the upper right corner was an original part of the flag came from the photograph of the flag in the 1909 newspaper article. Although the available photocopy was of poor quality there certainly appeared to be a join between the upper right corner and the main part of the flag. It was also clear from the newspaper photograph that the lower right corner of the flag had never been present – presumably the original had suffered a loss in this area which was replicated in the copy.

The history of the repairs was not straightforward to unravel. As the newspaper article referred to splits, it was assumed that at least some of the 'damage' and repairs were part of the flag's original construction, but did all the repairs date from 1909? As it was felt that the upper right corner was likely to be original, it was therefore also believed that the repairs in the same blue-black thread could well date from 1909. A patch of linen fabric had been used on the reverse of the flag to reinforce a slit through the tiger's left front paw. Under magnification the slit appeared very clean-cut, as though made with a blade. The long seam passing beneath the tiger's extended right leg and across its left leg

also appeared to have smoothly cut edges, and close observation of a poor-quality reproduction of a photograph of the flag taken in 1953 indicated that the repair was already present at that time. Although other repairs did not provide such clear evidence of deliberate damage, most of the blue-black repairs were retained as the conservators could not be sure they were not original. However other repairs, mainly in beige-colored cotton thread, used different stitching techniques from those in blue-black threads and the fabric beneath the stitching appeared worn as though it had been damaged over time; the damage did not appear to have been created deliberately. As these repairs were causing considerable distortion to the fabric they were removed following thorough documentation.

### The future of the Yellow Tiger Flag

The conservation of the Yellow Tiger Flag is completed, but research and analysis continues. The flag is stable and supported, with long-lasting conservation materials which can be removed if necessary without further damaging the flag. The flag may be safely rolled for storage in a custom-designed box, which makes access to the flag safe and relatively easy. Every treatment step that has been undertaken has been thoroughly documented, samples were saved, and materials that were removed were saved, so that future researchers will have a clear understanding of what happened to the flag in 2010–2011. Analysis of the possible blue background color is continuing today, and conservators have been able to go back to the saved backing paper to get more samples for testing and comparison. New theories are being tested with these materials in comparison to recreations of possible scenarios for the background. The many thoughts and discussions of the team have been recorded, and questions that remain have been listed for ongoing research. New possibilities for historical research are also being explored.

The Yellow Tiger Flag has been a challenging project, both because it is a national treasure deserving the very best treatment, and because it is a complex object with many questions, some of which remain to be answered. The project brought together experts from around the world to share their knowledge to help sort out the many different aspects of the flag. Through communication and teamwork, we have arrived at this point in the conservation path of the Yellow Tiger Flag, and have left an open path to future work supported by the documentation of our efforts. 