
**Museum of Natural History Vienna
II. Zoological Department**

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Certified Report (Zoology)

concerning

Sacring Tablet ‘*Saint Francis in prayer*‘ (Stigmatization of St. Francis), anonymous Mesoamerican colonial feather work (hummingbird feathers, gold leaf) on metallic support, supposedly Mexico, 16th Century

Original examined by the consultant at the Naturhistorisches Museum Wien / Natural History Museum Vienna, Austria (NHM), June 7th – June 8th, 2016 (17 hours).

Report number 7-8 / 2016 (1) O/E, dated July 2nd, 2016.

By order of Jennifer Komar Olivarez, Head of Exhibition Planning and Strategy, Interim Department Head Decorative Arts, Textiles, and Sculpture for account of the Minneapolis Institute of Art, 2400 3rd Avenue South, Minneapolis, MN 55404, U.S.A.

Consultant: Dr. Ernst Bauernfeind, councilor, Naturhistorisches Museum Wien, II. Zoological Department, Senior Scientist (retired), Head of the Bird Collection (1994-2011).

.....
(Dr. Ernst Bauernfeind, HR i.R., m.p.)

Number of copies: 2 / 1 (MIA / NHM)

Number of pages: 20 incl. attachment (1) & photo documentation (10)

Attachments: 1 (Scientific Certificate for Customs Control, p. 9)

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Material: Sacring Tablet '*Saint Francis in prayer*' (Stigmatization of St. Francis), anonymous Mesoamerican colonial feather work (hummingbird feathers, gold leaf) on metallic support, supposedly Mexico, 16th Century.

Last ownership: Private collector, southern America.

Past history and origin: Considered presumably to originate from the vast collection of the Moctezuma family, who were important patrons of *arte plumaria*.

Objectives

Feather identification and certification according to current CITES regulations, advice on curatorial aspects / feather conservation.

Description / Identification

Mesoamerican feather work - Christian imagery '*Saint Francis in prayer*' (Stigmatization of St. Francis), without frame and uncovered. The saint on his knees, dressed in monk's cowl and hood¹. He is holding a crucifix in his left hand while his right hand rests on his chest, showing the stigma of the Passion of Christ. The bundle of rays from right above symbolizes the immediate agency of God [stigmatization]. Attributes include the knotted white rope ('St. Francis chord') hanging from the girdle, the skull, the book (*Regula Sancti Francisci*) and a worm (D_4.1. '*But I am a worm and not a man, A reproach of men and despised by the people*'. Psalm 22:6). The whole scene set within a fictive ornamental border.

Measurements: 285 – 289 mm [11,27 – 11,37 in] (high) x 198 mm [7,79 in] (wide)

Ornamental border: 35 mm [1,37 in] (width)

Central image: 220 mm [8,66 in] (high) x 130 mm [5,11 in] (wide), vertical format.

Feather work in *arte plumario* technique, feather application in typical so called 'mosaic technique' (mostly background / homogenous areas; D_3.3.) and trimmed feather braids (linear elements, ornaments and shadings; D_3.4.), additionally coloured paper (blackish, light red, scarlet and purple) and gilded edges (gold leaf on exposed paper edges, used for certain linear elements: halo, drapes of cowl and hood). As in other contemporary feather work figurative parts have been created in a modified 'mosaic' technique, using trimmed feather parts, frequently combined with tufts of feather fibres or single fibers (D_3.1.).

Large areas (> 60 %) deteriorated, damaged by pest insects presumably in the more remote past. Distinct (old) feeding traces frequently observed, no faeces of pest insects adhering. Damages concentrated in peripheral areas, cowl and lower background as well as in ornamental frame (D_2.1., D_2.2.). Part of upper background (heaven), head and hands of the saint, skull, book and gilded edges still in good condition (minor damages), the knotted rope mostly undamaged, largely perfect. Obviously the feather mosaic has been thoroughly cleaned in the more recent past and part of the apparent feather loss may be ascribed to this cleaning.

Colouration of hummingbird feathers mostly well preserved, most other feather parts and coloured paper distinctly faded. Surviving iridescent area in good condition (part of heaven to the left of halo and hood), iridescent part of background of ornamental frame almost completely missing, the surviving fragments in rather poor condition. Surface of remaining

¹ Although the present state of conservation agrees well with the brown habit of the Franciscan order it should be considered that the original impression is difficult to interpret – traces of iridescent blue and iridescent green feathers (D_4.3.) suggest an originally completely different and much more precious appearance.

feather structures comparatively clean, not overall dusty. No visible traces of restoration or repair work.

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Feather identification for this study was based on comparison with feather samples originating from birds collected in Mexico and adjacent areas (study skin collection NHM). Features examined include size, colour and structural characters (visible at max. 90x magnification). A more detailed analysis could include colour spectography / photo grammetry and microscopic investigation at higher magnification.

Curatorial aspects

Conservation

Prevention from further damage by pest insects is of greatest importance (insect proof transport case / exhibition case). Acid evaporations (e.g. from fresh silicon sealings) and fumigants may cause considerable damage and are to be avoided.

Illumination should not exceed 50 Lux (recommendation; colourfastness of the feathers used is reportedly high). Relative humidity about 50 % and constant temperature regime (18-20° C) are recommended.

Restoration and cleaning

No widely accepted restoration techniques concerning feather mosaic works are available and prognosis seems rather poor. No adequate cleaning methods are known at present and most proceedings suggested (e.g., compressed air, laser cleaning) have not been sufficiently tested so far (but compare Asmus 2000, Dignard et al. 2005).

Curatorial aspects concerning the metallic support, paper and glue have to be considered additionally (and are not dealt with in this report). Illumination strategies for display should consider the best angle of incidence and selection of illuminated parts to demonstrate well preserved features.

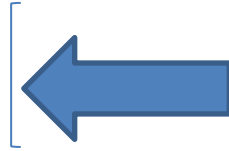
Damages and peculiarities observed

Paper base laterally detached, app. 60 mm long, on the right side below (**D_1.1.** blue arrow)

Fold in the paper base (red arrows): flaw during original affixture (**D_1.1.** red arrows)

Some comparatively recent scratches on the backside of the copper plate (presumably originating from the unskilful removal of a frame) (**D_1.2.** red arrows)

Faded colours (parrot feathers: pale blue, bright yellow, bright green) (**D_2.4.** red arrow)



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Results / Interpretation

The damaged areas clearly reveal the construction and stratification of the feather work.

Metallic support, agave paper [presumably, not now investigated], lined with greyish-brown (rarely whitish) body feathers from the throat and belly of Hummingbirds (Trochilidae), which had been saturated with glue and formed a bedding or basal layer (feathers mostly inserted with their lower [= ventral] side upwards). Usually dark (blackish) paper has been used as grounding for the iridescent background, whereas light paper has been used for the coloured parts.

The original upper surface of the continuous background area (now partly degraded or missing) had been built up by Hummingbird feathers from the throat (violet-blue; **D_3.3.**) arranged like roofing tiles (feathers inserted with their upper [= dorsal] side upwards). Even in the degraded parts there are still stray traces of iridescent blue fibres visible.

Figurative parts (e.g., head, hands, cowl, skull, book) and part of the halo [underlying zones] and ornamental border have been built up from trimmed feather braids: small slips from the vane of body, wing and tail feathers of various species (e.g., Hummingbirds, rarely Roseate Spoonbill [lips], Macaw) have been glued to agave paper and cut to shape, the consecutive braids placed overlapping (like roofing tiles). In these braids the feather particles are usually arranged inside out – their morphological underside forming the outer surface. In larger uniform tracts complete small feathers (including their quills) have been used for adding structural detail. Feather material used for the braids came from different birds and / or from different body regions to obtain the desired colouration. Various shades of dull whitish, light brownish, ochre, golden brown and black / iridescent blue have been used for inner contours, accompanying folds of clothing or forming hair and beard. Very rarely feathers with intergrading colour shades have been used (yellow – orange – reddish orange: median and greater wing coverts of Scarlet Macaw *Ara macao*). In some cases (knotted rope **D_3.1.**) single dark brown or blackish brown barbs (*rami*) from hummingbird tail feathers have been inserted among the more homogenous light feather braid to imitate the twisted nature of the rope. Likewise single strands or small tufts of the slightly iridescent *rami* from Hummingbird feathers (Trochilidae) are sometimes interspersed among rather unicoloured ones, likely to add some lustre to an otherwise plainly coloured area.

In comparison with other feather mosaics investigated by the consultant only few linear elements have been built up from trimmed feather braids; the extensive and elaborate use of bare coloured paper edges and gilded paper edges for most linear structures is quite characteristic for the picture and suggests probably a dating rather in the 17th century.

In a few cases slightly larger entire feather tips have been used (yellow, bright green; **D_2.4.**, **D_3.4.**) as a means to illustrate vegetation.

It is noteworthy that for the flesh-coloured lips feather material (Roseate Spoonbill (*Platalea ajaja*) has been used (as usual), and a coloured paper slip for the wound / stigma (**D_4.2.**)

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Colours / Identifications (nomenclature follows Howell & Webb 1995):

- Metallic blue: Hummingbirds (Trochilidae spp. indet.), presumably male White-necked Jacobin *Florisuga mellivora* (head, throat, upper back), probably also male Violet Sabrewing *Campylopterus h. hemileucurus* (upper back, chest)
- Metallic bluish-green: Hummingbirds (Trochilidae spp. indet.), presumably female White-necked Jacobin *Florisuga mellivora* (head, back, wing coverts)
- Metallic golden green: (Trochilidae spp. indet.), presumably Rufous-tailed Hummingbird *Amazilia tzacatl* (head, shoulder, upper back) or probably immature male Rufous Hummingbird *Selasphorus rufus* (back)
- Metallic purple: Hummingbirds (Trochilidae spp. indet.), presumably male Rufous Hummingbird *Selasphorus rufus* (throat)
- Bright red: Parrots (Psittacidae), crown feathers of Scarlet Macaw *Ara macao* [? probably base of bill Military Macaw *Ara militaris*]
- Bright yellow, red & blue / bluish green: Parrot (Psittacidae), median and great coverts Scarlet Macaw *Ara macao* [Pale yellow: possibly ? Icterids (Icteridae), outer tail feathers ? Montezuma Oropendula *Psarocolius montezuma*]
- Bright green: White-fronted Parrot *Amazona albifrons* (cheek, wing: lesser & medium coverts)
- Rose, light purple: Spoonbill (Threskiornithidae), wing coverts Roseate Spoonbill (*Platalea ajaja*)
- Splendid white: Heron (Ardeidae) indet., probably Great Egret *Ardea alba egretta* (wing); small tufts from Hummingbirds (Trochilidae spp. indet., belly, tights, tail)
- Creame: Hummingbirds (Trochilidae spp. indet.), e.g. Mexican hermit *Phaetornis mexicanus* (throat, breast and belly feathers), Mexican hermit female (undertail coverts)
- Brownish: Hummingbirds (Trochilidae spp. indet.), belly feathers female, wings and undertail coverts
- Brown: probably female Great-tailed Grackle *Quiscalus mexicanus* (Icteridae), body and wing feathers
- Rufous: Hummingbirds (Trochilidae spp. indet.), e.g. Rufous Sabrewing *Campylopterus rufus* (throat, outer tail feathers), rufous-tailed hummingbird *Amazilia tzacatl* (tail)
- Dark brown: probably Icterids (Icteridae), tail feathers ? Montezuma Oropendula *Psarocolius montezuma*
- Pale blue: Military Macaw *Ara militaris* (wing)
- Glossy black / iridescent blue: Hummingbirds (Trochilidae spp. indet.), e.g. (wing, tail) [possibly ? Icterids (Icteridae), ? male Great-tailed Grackle *Quiscalus mexicanus* (body and wing feathers)]

During the foregoing study the following species have additionally been used for comparison:

Tigrisoma lineatum (Ardeidae), *Columba cayennensis* (Columbidae), *Aratinga canicularis* (Psittacidae), *Ara chloroptera* (Psittacidae), *Amazona oratrix* (Psittacidae), *Amazona viridigenalis* (Psittacidae), *Ara militaris* (Psittacidae), *Pharomachrus mocinno* (Trogonidae), *Phoenicopterus r. ruber* (Phoenicopteridae), *Ramphastos sulphuratus* (Ramphastidae), *Ceryle torquata* (Alcedinidae), *Chloroceryle amazona* (Alcedinidae), *Galbula ruficauda* (Galbulidae), *Pavo cristatus* (Phasianidae), Natterer's Cotinga *Cotinga nattereri* (Cotingidae), *Thraupis episcopus* (Thraupidae), *Dacnis cayana* (Thraupidae), *Passerina leclancherii* (Emberizidae) and *Passerina cyanea* (Emberizidae).

Yet identification has to be understood as provisional. Feather parts of related taxa cannot presently be identified with absolute certainty and the investigation was restricted from technical and curatorial reasons. However, it still remains rather doubtful, whether more modern and advanced techniques (e.g. DNA barcoding) would actually improve the accuracy of the results already obtained and unquestionable identification on species level for all taxa used by the early Mexican artists remains unlikely at present.

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International Transport Regulations

Relevant regulations include CITES Art. VII (2) and implementing provision (EG) Nr. 338/97 and Nr. 939/97 respectively, last amendments by VO (EG) Nr. 407/2009 of the Commission dated 14. Mai 2009 and Commission Regulations No. 750/2013 (29 July 2013) and No. 1320/2014 (20 December 2014).

In the present case applies CITES Art. VII (2) [Exemptions and Other Special Provisions Relating to Trade] and Artikel 8 (3) a VO (EG) Nr. 338/97. i.e. the object has to be accompanied by a certificate issued by the relevant enforcement authority of the state from where the specimen(s) is (are) to be (re-) exported, because the object was obtained prior to the implementation and enforcement of the Convention for the International Trade in Endangered Species (CITES), **26.4.1982 antea**.

Explanation / Recommendation:

EU regulations require each member state to designate a management authority (MA) to oversee matters concerning CITES.

In the European Union the CITES Appendices have been replaced by Annexes A, B, C and D [[Commission Regulation 1320/2014](#)], which came into effect on 20 December 2014.

United States of America:

Under the Endangered Species Act (ESA), the U.S. Fish & Wildlife Service has been designated to carry out the provisions of CITES through the Division of Management Authority (DMA) and the Division of Scientific Authority. DMA's branch processes permits under CITES, Lacey Act (injurious wildlife), Wild Bird Conservation Act, and Endangered Species Act.

Links & Contacts

PDF downloads of U.S. CITES implementation and regulations for CITES Permits & Certificates are available under: <https://www.fws.gov/international/cites>

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Bibliography and electronic sources used:

- Anders, F., 1965. Mexikanische Federarbeiten der Kolonialzeit. Anz. phil.-hist. Kl. Österr. Akad. wiss. 1965: 119-132.
- Asmus, J.F., 2000. Laser divestment for natural history museum collections. *J. Cultural Heritage* Vol. 1, Suppl. 1: 259-262 .
- Berdan, F. & Rieff-Anawalt, P. [eds.], 1997. The essential Codex Mendoza. - Univ. California Press, Berkeley. XIII, 268, 148 pp.
- Berdan, F., 2006. Circulation of Feathers in Mesoamerica » Nuevo Mundo Mundos Nuevos, Coloquios, 2006, [En línea], Puesto en línea el 21 enero 2006. URL : <http://nuevomundo.revues.org/1387>. Consulted July 26th, 2010.
- CITES (1973, amended 1979). Convention on International Trade in Endangered Species of Wild Fauna and Flora. - www.cites.org/eng/disc/text.shtml
- Dignard, C., Lai, W., Binnie, N., Young, G., Abraham, M. & S. Scheerer, 2005. Cleaning of Soiled white feathers using the Nd:YAG Laser and Traditional Methods. – Springer Proceedings in Physics 100, V: 227-235.
- Feest, C.F., 1990. Vienna's Mexican treasures. - Arch. Völkerkde 44: 1-64.
- Giuntini, C., 2006. Precolumbian and Ethnographic Featherwork from the Andes and Amazon in the Metropolitan Museum of Art », Nuevo Mundo Mundos Nuevos [En ligne], consulté le 29 décembre 2014. URL : <http://nuevomundo.revues.org/1457> ; DOI : 10.4000/nuevomundo.1457
- Horie, C.V., 1990. Fading of feathers by light.- ICOM Committee for Conservation, 9th triennial meeting, Preprints (Dresden, German Democratic Republic, 26-31 August 1990) Grimstad, Kirsten, ed. Paris: ICOM Committee for Conservation, 1990, pp. 431-436.
- Howell, S. & S. Webb. 1995. A Guide to the Birds of Mexico and Northern Central America. Oxford Univ. Press. 851 pp.
- Mead, C.W. "Technique of Some South American Feather-work," Anthropological papers of the American Museum of Natural History, Vol. I, part I. New York City: Trustees of AMNH, 1907.
- O'Neill, J. P., 1984 – Introduction: Feather Identification. In: Rowe, A.P., 1984, Costumes and Featherwork of the Lords of Chimor: Textiles from Peru's North Coast. The Textile Museum, 1984. 1-190 pp. Washington, DC.
- Pearlstein, E.J., 2006. The Feather Conservation Survey. Introduction to Conservation Issues for the Feather Creations Seminar » Nuevo Mundo Mundos Nuevos, Coloquios, 2006, [En línea], Puesto en línea el 25 enero 2006. URL : <http://nuevomundo.revues.org/1473>. Consulted July 26th, 2010.
- Rotzetter A. 2011. Die Freigelassenen: Franz von Assisi und die Tiere. Paulusverlag, Academic Press Fribourg, 200 pp.
- Russo, A., Wolf, G. & D. Fane. 2011. *El Vuelo de las imágenes: Arte Plumario en México y Europa/Images Take Flight: Feather Art in Mexico and Europe*. Gerhard Wolf and Diana Fane. Mexico City: Museo Nacional de Arte/Instituto Nacional de Bellas Artes. 37 pp.
- Sahagún B. de, 1938. La orfebrería, el arte de trabajar las piedras preciosas y de hacer ornamentos de plumas de los antiguos mexicanos. - Historia general de las cosas de Nueva España V. 5: 193-249 [Eduardo Seler ed., Oredo, Mexico].

- Solajic, M.R, Cooper M., Seddon T., Ruppel J., Ostapkowicz J. & T. Parker. 2002. Colourful feathers: multidisciplinary investigation of the Amazonian featherwork from the ethnographic collection at the National Museums and Galleries on Merseyside (NMGM) – initial results. – In: The Conservation of Fur, Feather and Skin, Margot M. Wright [ed.], Archetype Publications, London, 2002, pp. 69-78.
- Solajic, M.R, Pretzel B., Cooper, M., Townsend, J.H., Seddon, T., Ruppel J., Ostapkowicz J. & T. Parker. 2002. A collaborative examination of the colourfastness of Amazonian featherwork: assessing the effects of exposure to light and laser radiation.- ICOM CC 13th Triennial Meeting Rio de Janeiro Preprints, 2002 (cited in [Mexican feather mosaic--Conservation DistList](#); cool.conservation-us.org/byform/.../1401.html, consulted August 2nd, 2010).
- Tirado, C. G., 2006. The Tzauhtli Glue. - »Nuevo Mundo Mundos Nuevos, Coloquios, 2006, [En línea], Puesto en línea el 01 febrero 2006. URL : <http://nuevomundo.revues.org/1674>. Consulted July 26th, 2010.

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Attachment: Scientific Certificate for Customs control

(CITES, **Appendices valid from 10 March 2016**. In the European Union the CITES Appendices have been replaced by Annexes A, B, C and D. [Commission Regulation 1320/2014](#), which came into effect on 20 December 2014)

Object: Sacring Tablet '*Saint Francis in prayer*' (Stigmatization of St. Francis / Emplumado San Francisco), Mesoamerican colonial featherwork, dated 16th century.

Some feather particles that have been used for the creation of the above described historic work of art, have been identified to originate from the following species (as detailed in the above cited report):

Psittacidae Amazons, macaws, parakeets, parrots			
<i>Ara macao</i>	Appendix I	>	Article III
<i>Ara militaris</i>	Appendix I	>	Article III
Psittacidae Amazons, macaws, parakeets, parrots			
Psittacidae spp.	Appendix II	>	Article IV
Trochilidae Hummingbirds			
Trochilidae spp.	Appendix II	>	Article IV

All other taxa identified have not been listed in the presently valid CITES Appendices.

In the present case (object Sacring Tablet '*Saint Francis in prayer*') applies therefore CITES Art. VII (2) [Exemptions and Other Special Provisions Relating to Trade] and Artikel 8 (3)a VO (EG) Nr. 338/97.

Pre-Convention Certificate

If a specimen was obtained prior to the CITES listing date of that species—collected from the wild or held in captivity—it may be granted a pre-Convention certificate that will allow for the specimen to be exported.
For Appendix-I specimens, no CITES import permit is required.

Citation:

CITES***Article VII*****Exemptions and Other Special Provisions Relating to Trade**

2. Where a Management Authority of the State of export or re-export is satisfied that a specimen was acquired before the provisions of the present Convention applied to that specimen, the provisions of Articles III, IV and V shall not apply to that specimen where the Management Authority issues a certificate to that effect.

Damages & peculiarities

D_1.



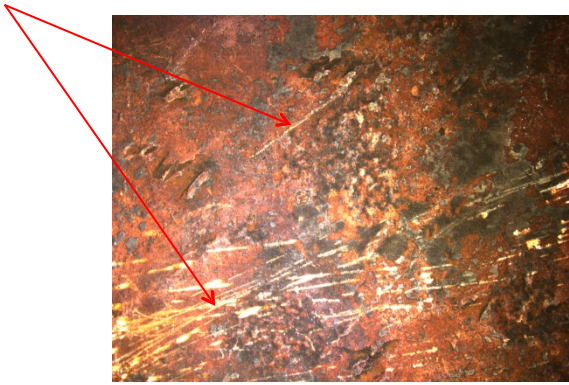
D_1.1.

Paper base laterally detached, app. 60 mm long, on the right side below (D_1.1. blue arrow)
 Fold in the paper base (red arrows): flaw during original affixture (D_1.X1. red arrows)



D_1.2.

Copper plate, backside

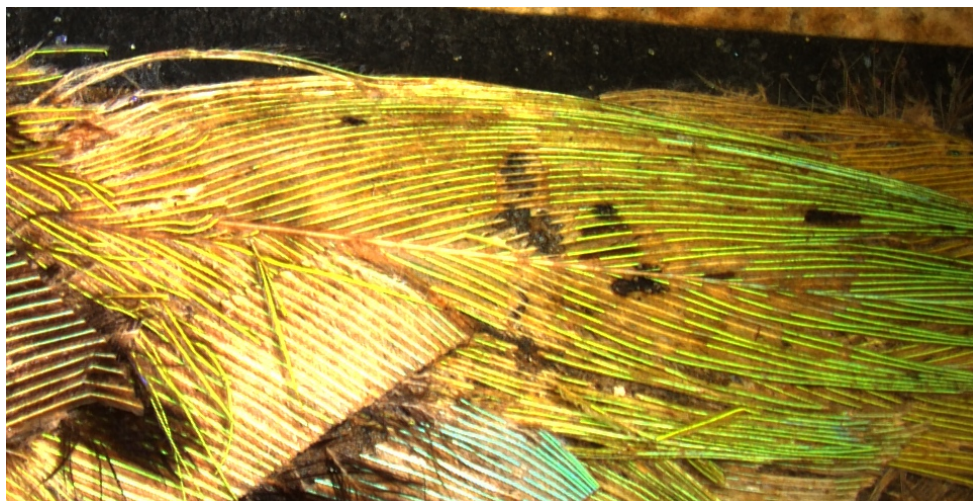


Damages & peculiarities



D_2.

Pest damages (bore holes) recognizable
D_2.1.



Practically total loss of original colouration (bluish-green iridescent feathers), feathers of bedding still extant (brownish)

D_2.2.



original fold

bedding

a single feather of the original cover (bluish-green iridescent) remaining

Damages & peculiarities

D_2.

Practically total loss of original colouration (rose colour)

D_2.3.



paper edge

feather braids

feather braid missing, only remnants of original rose coloured feathers

Faded colours

D_2.4.



Original feather tip (bright green)

Fresh feather tip for comparison

(*Amazona albifrons*, NMW 81.181)

Damages & peculiarities

D_2.

Rent (lateral edge ornamental border)

D_2.5.



More recent rent (lateral edge ornamental border)

D_2.6.

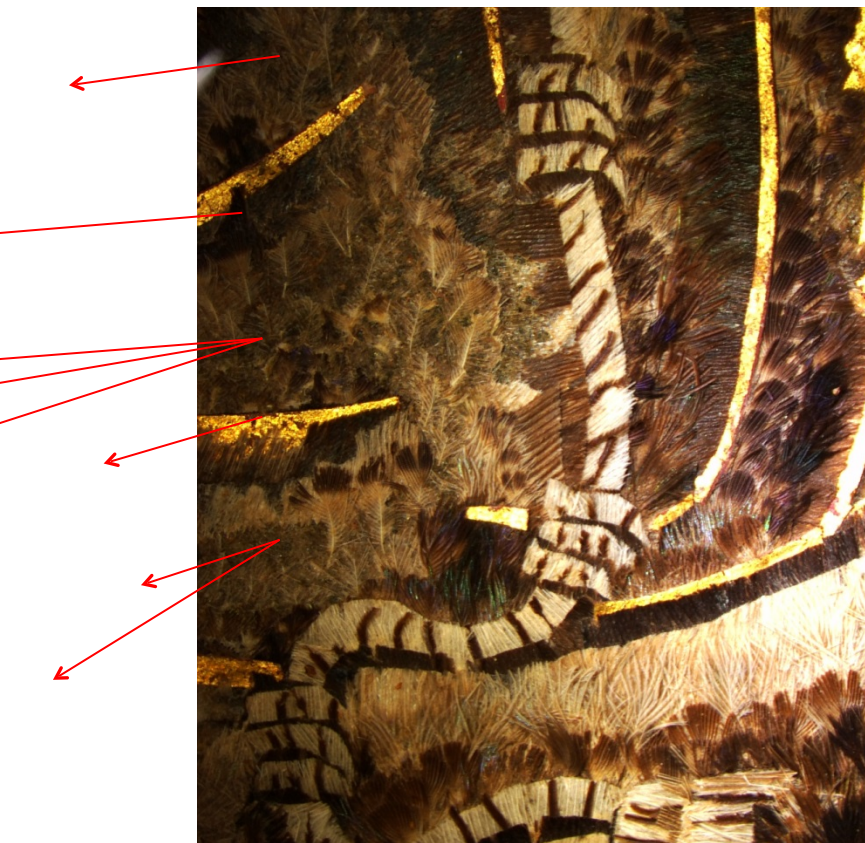


Techniques

D_3.

Trimmed feather braids and single fibers

D_3.1.



Gilded paper edge

Trimmed feather braid

Single fibers

Mosaic

Trimmed feather braids

Entire feather tips (bright green vegetation)

D_3.2.

Colour not faded but fibers somewhat clogged, suggesting wet cleaning in the past. For comparison a fresh feather tip (*Amazona albifrons*, NMW 81.181) was used



Techniques

D_3.

Typical mosaic (sky) in good condition (hummingbird throat feathers)

D_3.3.



Head with halo, gilded and coloured paper edges with underlying broad feather braids D_3.4.



Small traces of original multicoloured background

D_3.4.



The worm

Hummingbird throat feathers

Iconography

D_4.

Attributes and metaphoric allusions

Skull & bones, book , worm and an unexplained item

D_4.1.



unexplained

Hand with stigma (coloured paper slip)

D_4.2.



Hood and cowl – only faint traces of original colouring preserved

D_4.3.



iridescent blue
metallic coppery or topaz-coloured

? colouration (? topaz-coloured)
Only the bedding is preserved

metallic light green

iridescent blue



See above

Ornamental border - detail

D_4.4.



Bright red: Parrot (Psittacidae), crown feathers Scarlet Macaw *Ara macao*

Bright green (partly faded): Parrot (Psittacidae), lesser & medium coverts White-fronted Parrot *Amazona albifrons* (wing: lesser & medium coverts)

Blue (mostly faded): Parrot (Psittacidae), median and great coverts Scarlet Macaw *Ara macao*

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Specification of feather parts identified in the above described historic artwork and presumably originating from bird taxa listed under CITES, DEC, MBTA and WBCA.

Common name	Scientific name	Quantity	Type of specimen	Legal protection
Mexican hermit (♂, ♀)	<i>Phaetornis mexicanus</i>	at most: 2 specimens (1♂/ 1♀)	parts (feathers from male throat, breast and belly feathers); female (undertail coverts)	CITES
Violet Sabrewing	<i>Campylopterus hemileucurus</i>	at most: 1 specimen	parts (feathers from upper back and chest)	CITES, WBCA
White-necked Jacobin (♂)	<i>Florisuga mellivora</i> (♂)	not more than 1 specimen	parts (feathers from head, throat and upper back)	CITES, WBCA
White-necked Jacobin (♀)	<i>Florisuga mellivora</i> (♀)	not more than 1 specimen	parts (feathers from head, back and wing coverts)	CITES, WBCA
Rufous-tailed Hummingbird	<i>Amazilia tzacatl</i>	not more than 1 specimen	parts (feathers from head, shoulder, upper back)	CITES, WBCA
Rufous Sabrewing	<i>Campylopterus rufus</i>	not more than 1 specimen	parts (feathers from throat and outer tail feathers)	CITES, WBCA
Military Macaw	<i>Ara militaris</i>	not more than 1 specimen	parts (a few feathers from base of bill)	CITES, WBCA
Scarlet Macaw	<i>Ara macao</i>	not more than 1 specimen	parts (a few crown feathers and feather segments from median coverts)	CITES, WBCA
White-fronted Parrot	<i>Amazona albifrons</i>	not more than 1 specimen	parts (a few feathers from cheeks and wing: lesser & medium coverts)	CITES, WBCA
Rufous Hummingbird (♂)	<i>Selasphorus rufus</i> (♂)	not more than 1 specimen	parts (feathers from throat)	CITES, WBCA MBTA

Rufous Hummingbird (immature)	<i>Selasphorus rufus</i> (immature)	at most: 2 specimens	parts (feathers from back & wings)	CITES, WBCA MBTA
Great Egret	<i>Ardea alba</i>	not more than 1 specimen	parts (segments from 1 wing feather)	MBTA
Roseate Spoonbill	<i>Platalea ajaja</i>	not more than 1 specimen	parts (segments from 1 wing feather)	MBTA
Great-tailed Grackle	<i>Quiscalus mexicanus</i>	not more than 1 specimen	parts (segments from 1 tail feather)	MBTA
Montezuma Oropendula	<i>Psarocolius montezuma</i>	not more than 1 specimen	parts (slips from 1 outer tail feather)	DEC

Table 1: Feather parts identified in the above described artwork – **Summary**