



Feathers On and Off the Bird: Documenting and Caring for Featherwork

Ellen Pearlstein

University of CA-Los Angeles





Copyright © Sudhir Shivaram 2004





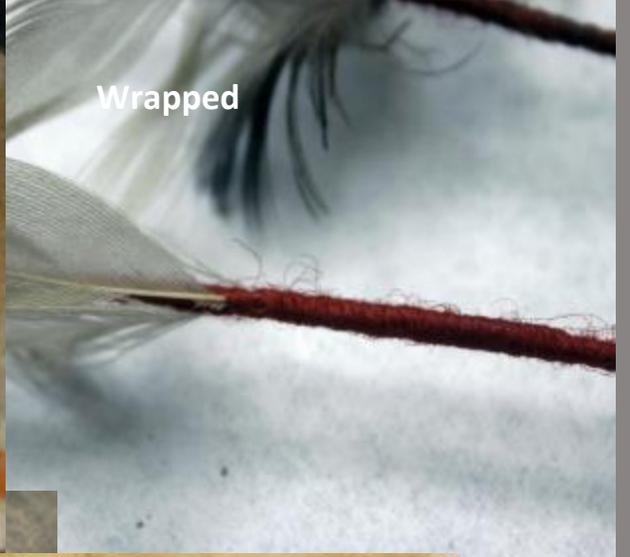
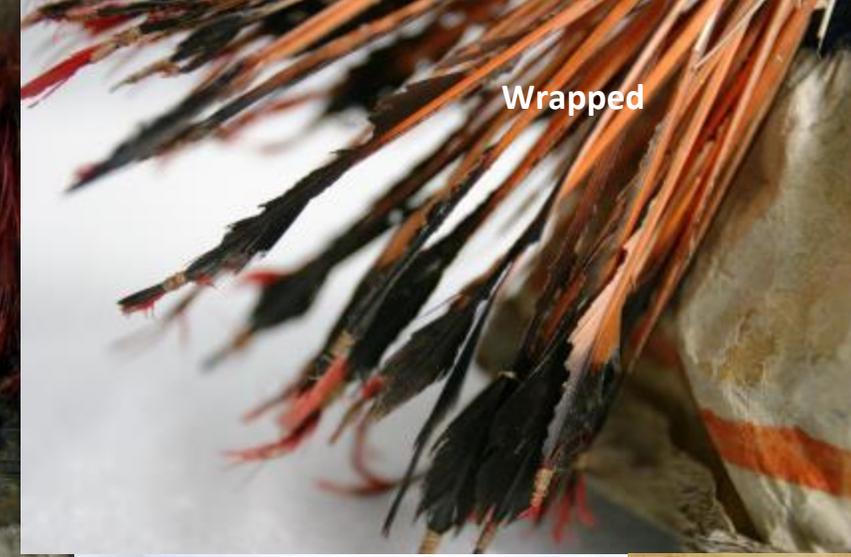
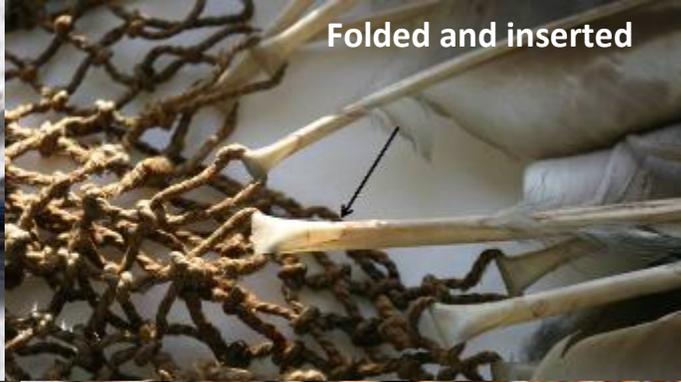
- January 1996, the Native American Graves Protection and Repatriation Act was amended to reflect the problem of pesticide residues. It now reads:
- “The museum official or Federal agency official must inform the recipients of repatriations of any **presently known treatment** of the human remains, funerary objects, sacred objects or objects of cultural patrimony with **pesticides, preservatives or other substance** that present a potential hazard to the objects or to the persons handling the objects.”





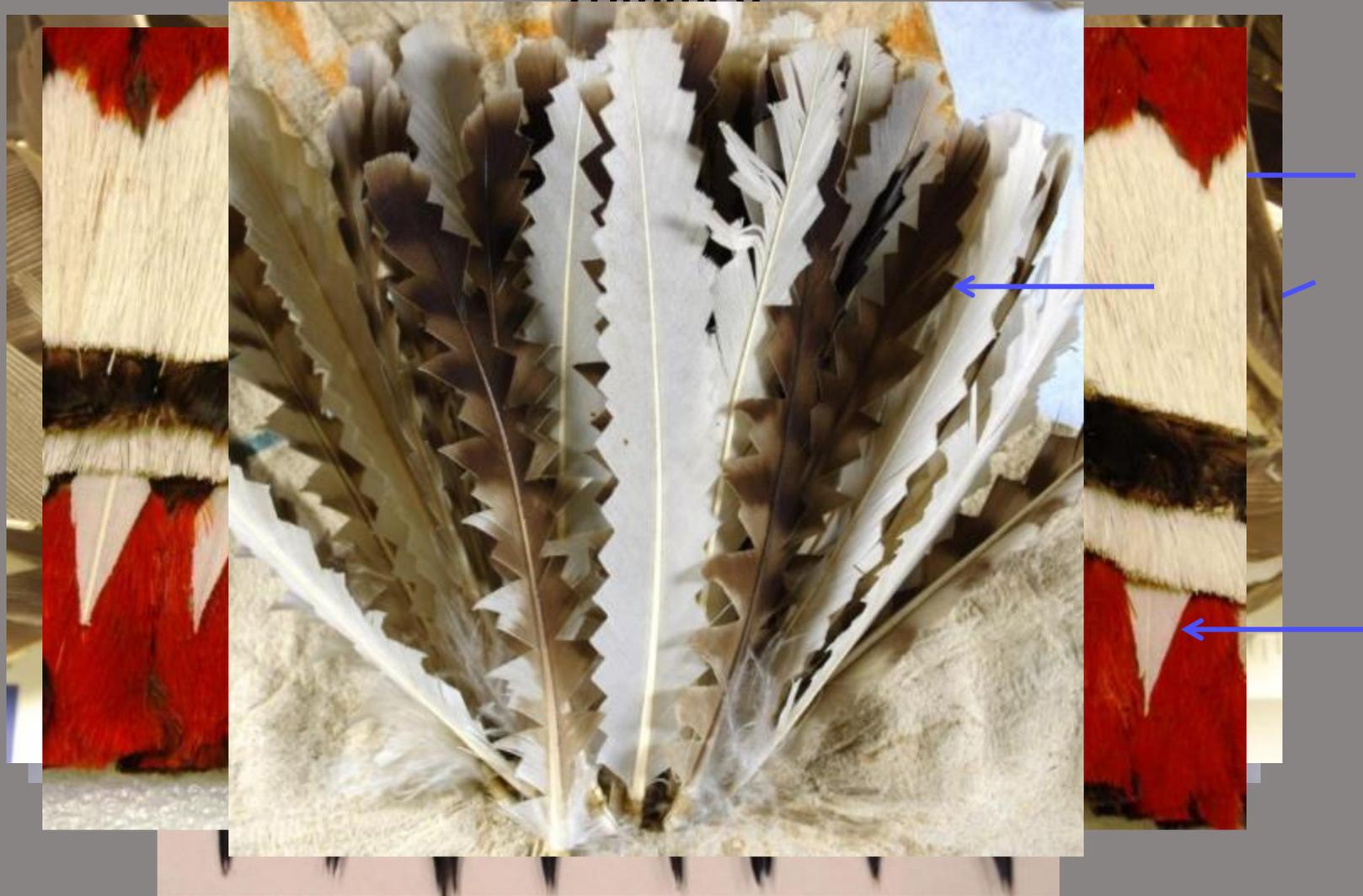


Tribal use of certain feathers can also reflect which birds were dominant in a given area, says Candace Greene (above). (Donny Bajohr)



Feather modification techniques

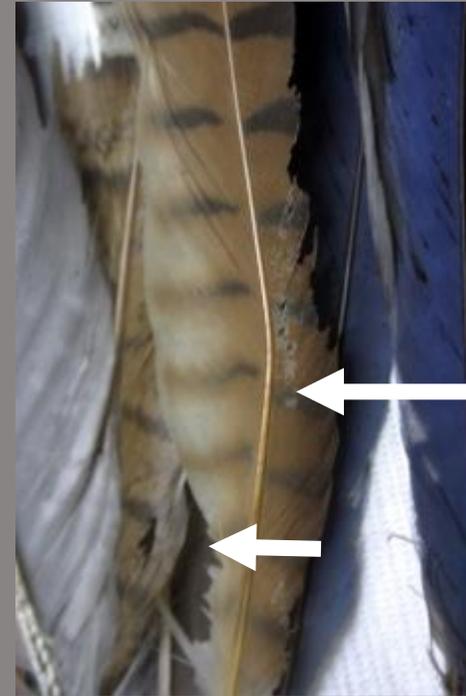
Striped
Sharp-pointed



Feathers suffer from four major types of damage:



dirt



Insect damage



breakage
or
mechanical
damage

Damage
from light
and
ultraviolet
energy

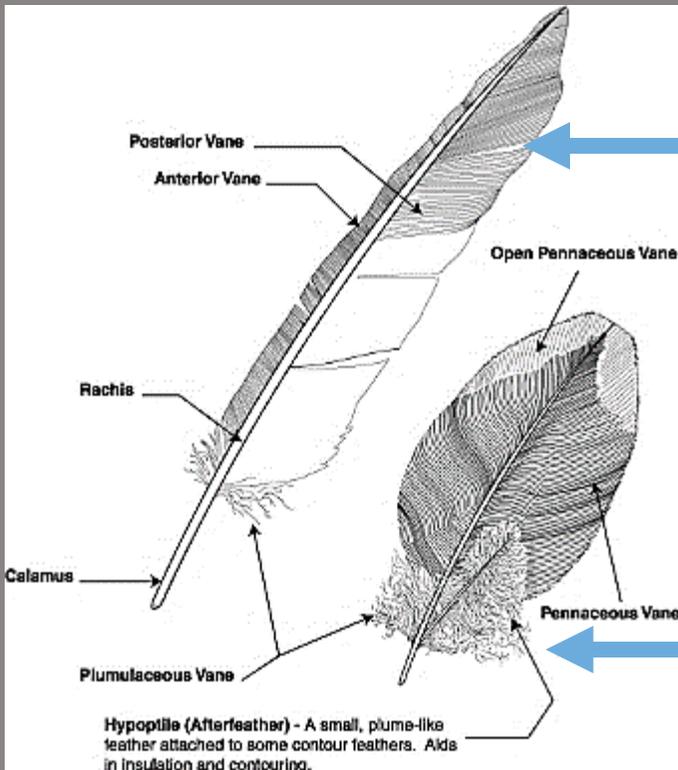




dirt

Cleaning depends on use, type and purpose of item:

- Is featherwork still in use/ worn/danced?
- Are feathers strong and stable?
- Are feathers smooth or downy?
- Can you access feathers individually: front and back?
- Might there be pigment or material traces on feathers to preserve?

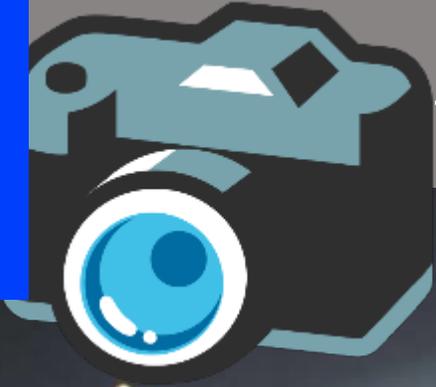


Smooth vane

Downy feather

If you feel able to clean featherwork, there are two important steps....

1



Take photos before beginning

2

Figure out how to safely support featherwork



Courtesy Metropolitan Museum of Art

If pesticides are suspected, feathers should be supported on a disposable soft liner of tissue or Tyvek, as flat as possible...



Laramie Museum, WY, NEH

Three dimensional items with feathers should be supported safely, with feathers supported separately with blotting paper for cleaning.



Eskenazi Museum, Indiana Univ



dirt

HEPA filtered vacuum made for computer printer and copier toner: Captures fine pesticide particulates instead of exhausting them into work atmosphere!

Flat sable brushes available at art supply store

Label and use brushes only for pesticide suspected items



HEPA vacuum
with fine
mesh over
the nozzle



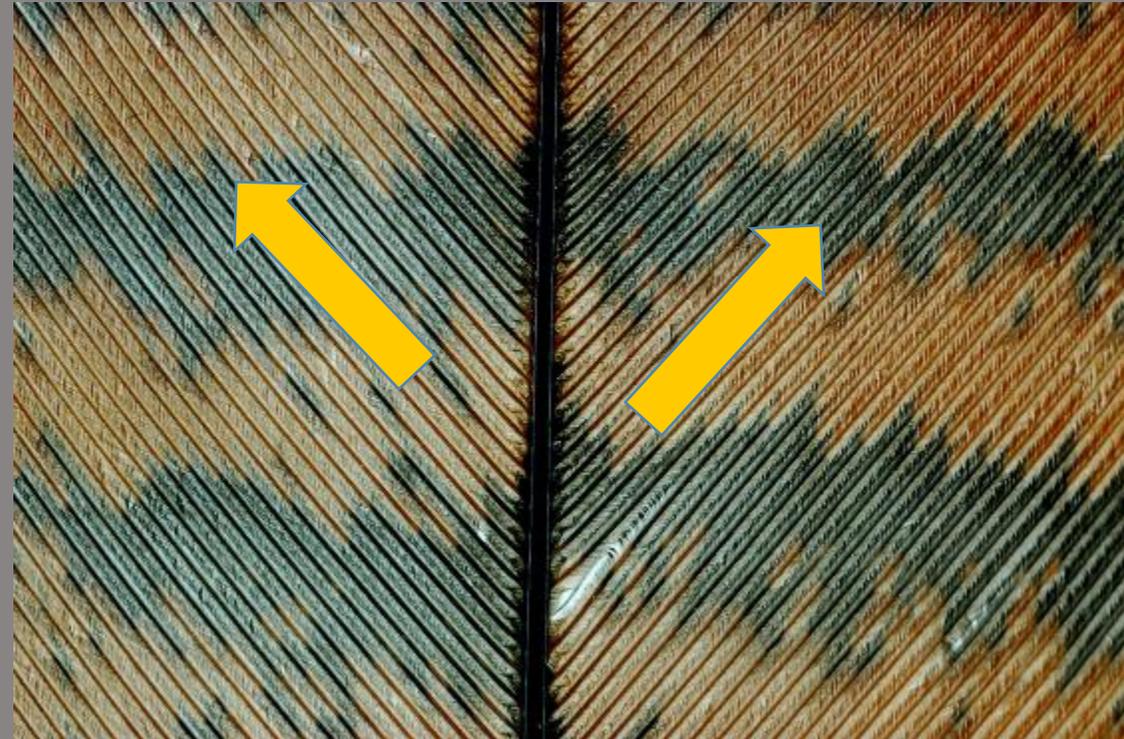
Vacuumping, or dry cleaning of feathers, is the gentlest method...

- Use nitrile gloves and a dust mask or respirator to protect yourself
- Support separate feathers with blotter paper where possible
- With smooth feathers brush parallel to the barbs

Feather supported on blotter

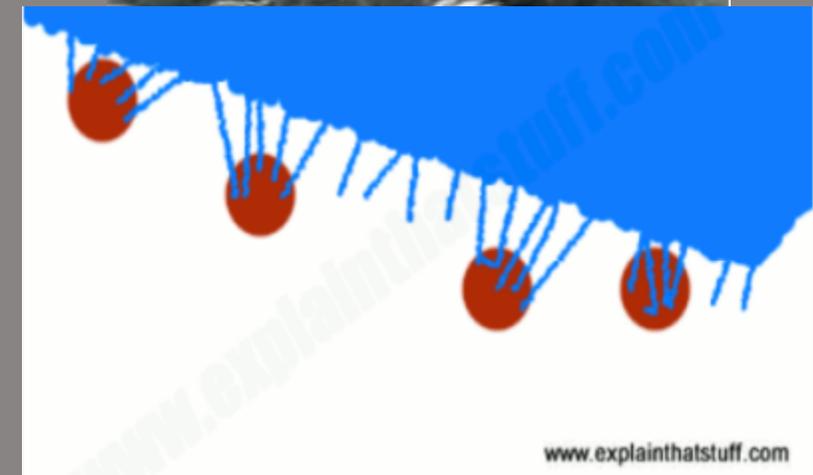


Brushing particles toward vacuum nozzle



Also useful for dry cleaning:

- Microfiber cloths— 50% nylon and 50% polyester, these soft cloths are exceptionally good at trapping dirt particles!
- These are commercially available as cleaning clothes, blankets, etc.
- Wash before using on collections, and wash when soiled
- Use dry instead of netting over vacuum cleaner nozzle



Dry cleaning

Can also be performed with
pharmacy-available
Latex-free cosmetic sponges

- Sponges can be trimmed and used to clean in the direction of feather barbs
- Discard when soiled



Cosmetic sponge.

Dirt removal requiring more than dry cleaning should be brought to a conservator

Using water or solvents on feathers requires that you know:

- Is feather coloration natural, dyed, or painted?
- Which solutions best remove present soiling?



Commercially dyed pheasant tail feathers



Commercially produced faux eagle feathers produced by painting chicken feathers



A conservation intern at the Oxford University Natural History Museum removes tenacious soiling from a Secretary Bird using a mixture of water and ethanol

Courtesy Oxford University Natural History Museum



Images taken from a conservation cleaning of soot damaged downy feathers on an important Plains Indian war bonnet. Left, during cleaning, and right, showing soiled cotton cosmetic pads after solvent cleaning. Courtesy AncientArtways.com

**Insect
damage**



**Insect damage,
typically visible as
missing
parallel sections of
barbs, surface
grazing, and frass
particles, are often
the result of webbing
clothes moths or
varied carpet
beetles.**



Classes of materials susceptible to pest damage include protein-containing substances; i.e. quill, feather, wool, silk, hair, fur, baleen, horn, claw, binders and adhesives based on animal glues, blood

Different forms of insect damage on feathers



Where active pests are suspected:

- Featherwork should be enclosed in two layers of well-sealed polyethylene bags with date labelled on exterior.
- Continued checking for insect activity monthly is crucial.
- Active pests should be monitored through implementation of an Integrated Pest Management Program.
- Featherwork with active pests are candidates for **freezing or anoxia treatments.**



breakage
or
mechanical
damage

There are methods available to conservators for the repair and reconstruction of broken feathers and missing sections! The choice of materials and methods depends upon cultural sensitivity and presentation goals.

Relaxing feather damage is performed with applying warm cotton compresses or mist, and splints are adhered to repair breaks and bends.

Damage
from light
and
ultraviolet
energy



Protection from excess light and ultraviolet energy is possible for all collections!

- Unfiltered light from windows has been proven to be damaging!
- All featherwork should be stored and displayed with UV filtration.

Safe storage for featherwork collections:

Most important for featherwork is that it is stored well supported and under conditions that exclude light and UV:

Good materials include:

- Acid-free tissue
- Acid-free boxes
- Tyvek (spun bonded polyethylene found in mailing envelopes and building insulation)
- Ethafoam and Volara (carveable expanded polyethylene foams)



Collection images courtesy NMNH top, top right, and Yurok Nation right



147363.000 Items: 2
Pomo Eth
California
Star Wand

Courtesy of NMNH

Courtesy
Field Museum



288173.

288177.

**Amazonian feather headdresses,
housed and stored in cabinets to protect them from dust and light.**



Courtesy Bishop Museum, Honolulu



Courtesy Southwest
Museum, left,
Victoria & Albert,
center,
Boston MFA, right



Courtesy NMAI, Foreground: Niuam (Comanche) man's headdress, 2/1294. Background: White Mountain Apache girl's shirt, 20/8053.

<http://blog.nmai.si.edu/main/2010/11/behind-the-scenes-at-nmais-cultural-resources-center.html>

Images provided by:

<https://www.smithsonianmag.com/smithsonian-institution/telling-story-19th-century-native-american-treasures-through-bird-feathers-180963700/>

<https://www.dickblick.com/products/blick-masterstroke-finest-red-sable-brushes>

<https://www.gamut.com/c/janitorial/dry-use-vacuum-cleaners?pla=atrix-vacuum-cleaner-corded-power-source-hepa>

<https://morethanadodo.com/2016/01/07/secretarial-work/>

<http://www.ancientartways.com/feathers.html>

<https://www.aliexpress.com/item/wholesale-free-shipping-100pcs-lot-long-30cm-12-natural-DIY-pheasant-tail-feather-feathers-Hair-extension>

Thanks!
epearl@ucla.edu

**The Conservation of Featherwork
from Central and South America**

Edited by Ellen Pearlstein

