AMERICAN MUSEUM OF NATURAL HISTORY

NATURAL SCIENCE COLLECTIONS CONSERVATION
EXAMINATION, CONDITION AND TREATMENT RECORD

Owner:	AMNH Mammalogy
Catalog Number:	n/a
Object:	*Potos flavus,* Kinkajou, taxidermy mount
Country of Origin:	Central and South America
Date of Creation:	unknown

Supplemental Documentation
This specimen was examined and assessed in a 2016 Collection Survey of the Mammalogy Department's taxidermy conducted by Fran Ritchie. The documentation from that survey is retained on file in the NSCC lab.

Object Description
The object is a full body taxidermy mount of a kinkajou (*Potos flavus,* sex unknown). The kinkajou is mounted in a climbing position with forelimbs open wide as if to grab a habitat element that is no longer present, such as a tree branch, and with its proper left (PL) hindlimb raised relative to the proper right (PR). The specimen's fur is golden brown in color, with a greyish undercoat. The fur on the dorsal side is somewhat redder in appearance, while the fur on the ventral side is lighter and more yellow.

Construction
The manikin is composed of plaster formed to roughly imitate the musculature of the specimen. The manikin is visible at several locations, including openings in the skin on the ventral/plantar side of the forelimbs and hindlimbs, and at a break at the proper right shoulder. Thick ferrous rods appear to extend throughout the plaster as an internal armature. Rods protrude from the hands and feet, extending about ½ cm beyond the plaster, and are understood to have been used in securing the specimen to the missing habitat element. One rod is also visible at the end of the tail, and another is visible through a break in the manikin at the PR shoulder.

The hide on the forelimbs and hindlimbs does not stretch around the entirety of the manikin, leaving it exposed on those surfaces that would have been hidden by the missing habitat element. There is no evidence of seams or stitching along the edges of the skin in these areas, further suggesting that this construction is original. It is difficult to determine how the skin was secured to the manikin in these areas by visual examination alone. The skin may have been adhered to the plaster using an adhesive, or could have been applied to the manikin while still wet, shrinking slightly and conforming to the plaster as it dried. Further examination and/or analysis would be required to answer this question. Elsewhere the body was sewn around the manikin. On the ventral side, a seam runs from the base of the tail to the specimen's chin. A second seam is also visible along the entire ventral side of the tail.

Areas of exposed plaster on the ventral/plantar upper PL forelimb appear to be partially covered by preserved skin, toning, or a combination of both.

Housing

The specimen is not accompanied by a housing.

Measurements

Type/Orientation	H (vertical): Proper left paw to tail	L (horizontal): Forelimb span	W (depth): Dorsal side to proper left paw,
Specimen (frontal view, cm)	73 2/3	29 1/4	22

Condition

***Summary*:**
The specimen is in poor condition overall. It has major structural instabilities, including a nearly detached break in the PR forelimb, a crumbling plaster manikin, and numerous tears and cracks in the hide. Large openings in the hide on the ventral/plantar side of the forelimbs and hindlimbs are original to construction. Other condition issues include large patches of fur loss and a substantial accumulation of dirt, debris and accretions on the surface.

***Manikin*:**
The skin and manikin of the PR forelimb are broken at the shoulder and the limb is almost entirely detached from the specimen, secured only by a strip of skin approximately 2 ½ cm wide. The exposed manikin is crumbling in several areas, including the break at the PR shoulder, on the inner PR hindlimb, the PL wrist, and at the base of the tail. In some areas around the ferrous metal armature, the plaster is stained orange, likely a result of migrated iron corrosion products. Throughout, exposed plaster is moderately soiled.

On the ventral/plantar side of the PL forelimb, the exposed plaster manikin is mostly covered in a matte brown, brittle material – possibly remnants of preserved skin. This material is also visible on the surface of the plaster on the interior of the PL hindlimb, as well as covering a small area of plaster on the specimen's abdomen. On the PL forelimb, this dark brittle material is covered with fur that is matted and somewhat hardened.

Hide:
Large openings in the hide on the ventral/plantar side of the forelimbs and hindlimbs are original to construction. Along the edges of these passages, the hide is delaminating from the manikin to varying extents. On both hindlimbs, there are areas where the delaminated hide has stiffened. This is more severe on the inner PL hindlimb. On the PL forelimb, the edges of the delaminated hide are slightly rippled.

There are tears and small cracks present throughout, including a 2cm long tear in the hide on dorsal side of the PL hind hindlimb. The presence of this crack permits movement of the ankle and foot if gentle pressure is applied. Another crack extends through the specimen's PL ear, and also permits movement. The ear itself is bent and brittle, and about 1/3 of the ear will detach if the crack completely breaks. There is a stable tear in the hide at the back of the PL wrist. A small stable tear (or possibly an opening of the seam) measuring ~1.4 cm is present under the chin. Additional small stable cracks are visible around the lips.

Significant variation in color exists in the hide throughout, and is particularly noticeable at areas of fur loss (see below). This variation may be the result of inconsistent preparation of the skin, but it does not appear to be the result of deliberate efforts at visual integration.

Fur:
There are several areas of fur loss, including a large patch at the PL elbow (8x2 cm), on the proximal/caudal PL hindlimb (5x2 cm), the ventral PR hindlimb (2.5x4 cm), and the ventral side of the neck (4x1 cm). There is an area measuring ~ 4x6cm at the proximal end of the PL forelimb where the fur has become detached from the hide, possibly pest damage. The fur is mostly retained in this area but could easily be lost during handling. A similar patch of loose hair is found at the base of the tail, covering some of the exposed plaster.

The fur is matted between the two hindlimbs at the specimen's groin. This area may have been compressed by the (now lost) habitat element. The fur on the PL rump is also slightly compressed.

A layer of dust, dirt and debris (including some large wood splinters) is present throughout, but particularly on the ventral side of the specimen. There are several dark brown accretions on the fur throughout, including the tail, the rump, the abdomen, the PR forelimb, both ears, and the PL side of the face.

The nails are all secure, but are dirty and delaminated (particularly on PR foot).

TREATMENT PROPOSED

1. Remove loose and lightly adhered surface dirt and debris using a variable speed HEPA-filtered vacuum, tweezers, and other appropriate means.
2. Wet clean the eyes and nails. If needed, conduct further localized wet cleaning to remove tenacious dirt or accreted materials from fur, using appropriate cleaning solutions.
3. Consolidate the exposed plaster manikin where possible using an appropriate dilute adhesive.
4. Repair the broken proper right forelimb, reattaching manikin, and mending torn skin.
5. Execute structural fills or local linings if needed to further support manikin repairs and consolidation.
6. Stabilize split hide on proper left hindlimb.
7. Locally humidify, realign, and reinforce cracked proper right ear.
8. Locally humidify and relax the delaminating edges of the hide on the ventral limbs and secure it to the manikin.
9. Fill and tone areas of lost hide throughout the specimen, *in consultation with collection manager*.
10. Consolidate delaminating portions of the nails using appropriate adhesive.
11. Reattach loose fur throughout specimen.

Conservator(s)

Name: Kasey Hamilton | Date: February 28, 2017
Name: Fran Ritchie, Supervising Conservator

Approval
Treatment approved by Neil Duncan in email on February 28th, 2017. Copies of these approvals shall be appended to this report and retained on file in the Natural Science Collections Conservation Department.

TREATMENT RECORD

Surface Cleaning

1. Loose fur was removed and bagged.
2. Tweezers were used to remove large pieces of surface debris.
3. The surface was cleaned using a variable speed HEPA vacuum with microattachments, vacuumed through a mesh screen.
4. Fur was wet cleaned in small sections using 1:1 ethanol:water, applied with Webril pads. Blotting paper was positioned underneath each section of hair to collect dirt and protect the skin from getting wet. In the case of more tenacious accretions, acetone was used to soften the accretion, and a microspatula was used to gently scrape/loosen the accreted material.
5. Loose plaster from within the break at the proper right shoulder was removed with tweezers.
6. Eyes were wet cleaned with deionized water and saliva.

Plaster Consolidation

1. Loose plaster was removed with tweezers.
2. Areas of flaking or crumbling plaster manikin were consolidated with 20% B72 in acetone.

Forelimb Repair

1. A tear in the skin at the underside of the proper right shoulder was repaired using Japanese tissue impregnated with BEVA film. The repair was applied to the inner surface of the skin, and heat set using a heated microspatula.
2. Additional pieces of Japanese tissue impregnated with BEVA film were and applied to accessible areas along the edges of the skin, to serve as lining/additional support after making the repair.
3. The surface of the plaster manikin was sealed using a 10% Paraloid B-72 solution in acetone.
4. 35% B-72 in acetone bulked with glass microballoons was brushed over the surface of the plaster, and the forelimb was positioned into place. Care was taken to ensure that the Japanese tissue/BEVA linings were captured within the join.
5. An ethafoam support was created to keep the forelimb in the proper orientation as the adhesive set.
6. After the adhesive had set, an attempt was made to adhere the free side of the lining to the inside of the skin. This was done using a heated spatula, with the heat applied through the skin. This attempt failed, and instead, Japanese tissue impregnated with BEVA film was applied to the outer surface of the skin, and heat set with the heat spatula.

Fur fills

Three different methods were used to fill areas of fur loss at the break edges of the proper right shoulder (see annotated photo).

1. For the anterior loss, small pieces of toned Japanese tissue were prepared. Coyote fur toned with Faber-Castell Pit Artist Pens was flocked and attached to the toned Japanese tissue using a combination of Lascaux 498 and 303. These fills were attached atop the BEVA film lining the join, using a combination of Lascaux 498 and 303.

2. The fill for the posterior loss was prepared from the coyote fur and hide. A piece of of hide and fur was cut to fit the area of loss. The fur was trimmed to match the length of surrounding kinkajou fur. The fur was again toned with Pitt artist pens. The fill was attached with Lascaux 498 and 303.
3. An additional area of fur loss on the ventral side was treated by toning the exposed plaster with acrylic paints.

Stabilization of major cracks

1. Two mobile cracks, on the proper left forelimb and hind limb, were stabilized using 40% B-72 in acetone bulked with microballoons.
2. A dilute solution of B-72 (10% in acetone) was applied to the surface of the plaster manikin before brushing in the bulked adhesive.
3. The surface of the bulked 40% B-72 was toned with acrylic paints to match surrounding areas.

Treatment of proper right ear

1. The ear was locally humidified by sandwiching the ear between two damp blotters lined with Goretex on either side. A small poly bag was altered to enclose the ear, creating a small humidification chamber.
2. Once the ear had softened, the upper, folded half was gently unfolded. The ear was then sandwiched between two dry pieces of blotter and gently clamped, allowing the ear to dry in this position.
3. The crack along the fold was stabilized by wicking in a dilute solution of B72 in acetone.
4. The small loss in the ear was filled with three layers of toned Japanese tissue, attached with B72 in acetone.

Ventral Limbs

1. After making repairs to the break at the PL shoulder and stabilizing major cracks in the manikin, it was not deemed necessary to locally humidify and relax delaminating areas.

Note: Loose fur was not reattached to the specimen. Instead, it was bagged and labeled with the location from which it was collected. These two bags are to be kept with the specimen in its newly constructed housing.

Photo-Documentation

1. Before treatment, Overall, annotated (1)
2. Before treatment, Overall, Ventral side, (1)
3. Before treatment, Overall, Dorsal side, (1)
4. Before treatment, Detail, Proper Right Shoulder, (1)
5. After treatment, Overall, Ventral side (1)
6. After treatment, Overall, Dorsal side, (1)
7. After treatment, Detail, Proper Right Shoulder, (2)

Specifications

Handling Recommendations: Handle only from torso/trunk. When placing the object down, take care to avoid placing pressure on the proper right ear and the tail.

Environmental Requirements:
RH (%): 45-50%   Temp (F): 68-70 degrees

Silica Gel/Dessicant/Scavengel Requirements: as needed to maintain recommended RH

Conservator(s)

Name: Kasey Hamilton   Date: 8/24/2017
Name: Fran Ritchie, Supervising Conservator

Kasey Hamilton

From: Neil Duncan
Sent: Tuesday, February 28, 2017 7:29 PM
To: Julia Sybalsky
Cc: Fran Ritchie; Kasey Hamilton; Lisa Elkin
Subject: Re: Treatment Proposed for Kinkajou

As always. Approved!

Neil

Sent from my iPhone

> On Feb 28, 2017, at 3:22 PM, Julia Sybalsky <jsybalsky@amnh.org> wrote:
>
> Dear Neil,
> We have completed an examination of the Taxidermy Kinkajou recently brought to the NSCC Lab for treatment.
>
> We would like to propose the following conservation steps:
>
> 1. Remove loose and lightly adhered surface dirt and debris using a variable speed HEPA-filtered vacuum, tweezers, and other appropriate means.
> 2. Wet clean the eyes and nails. If needed, conduct further localized we cleaning to remove tenacious dirt or accreted materials from fur, using appropriate cleaning solutions.
> 3. Consolidate the exposed plaster manikin where possible using an appropriate dilute adhesive.
> 4. Repair the broken proper right forelimb, reattaching manikin, and mending torn skin.
> 5. Execute structural fills or local linings if needed to further support manikin repairs and consolidation.
> 6. Stabilize split hide on proper left hindlimb.
> 7. Locally humidify, realign, and reinforce cracked proper right ear.
> 8. Locally humidify and relax the delaminating edges of the hide on the ventral limbs and secure it to the manikin.
> 9. Fill and tone areas of lost hide throughout the specimen, in consultation with collection manager.
> 10. Consolidate delaminating portions of the nails using appropriate adhesive.
> 11. Reattach loose fur throughout specimen.
>
> A complete copy of the draft Examination and Condition Report is attached. Please let me know by email at your earliest convenience if you approve, or have any questions or concerns that you would like to discuss further. Given your approval, we will then proceed with treatment accordingly.
>
> Many thanks,
> Julia
> <Kinkajou_TR.pdf>

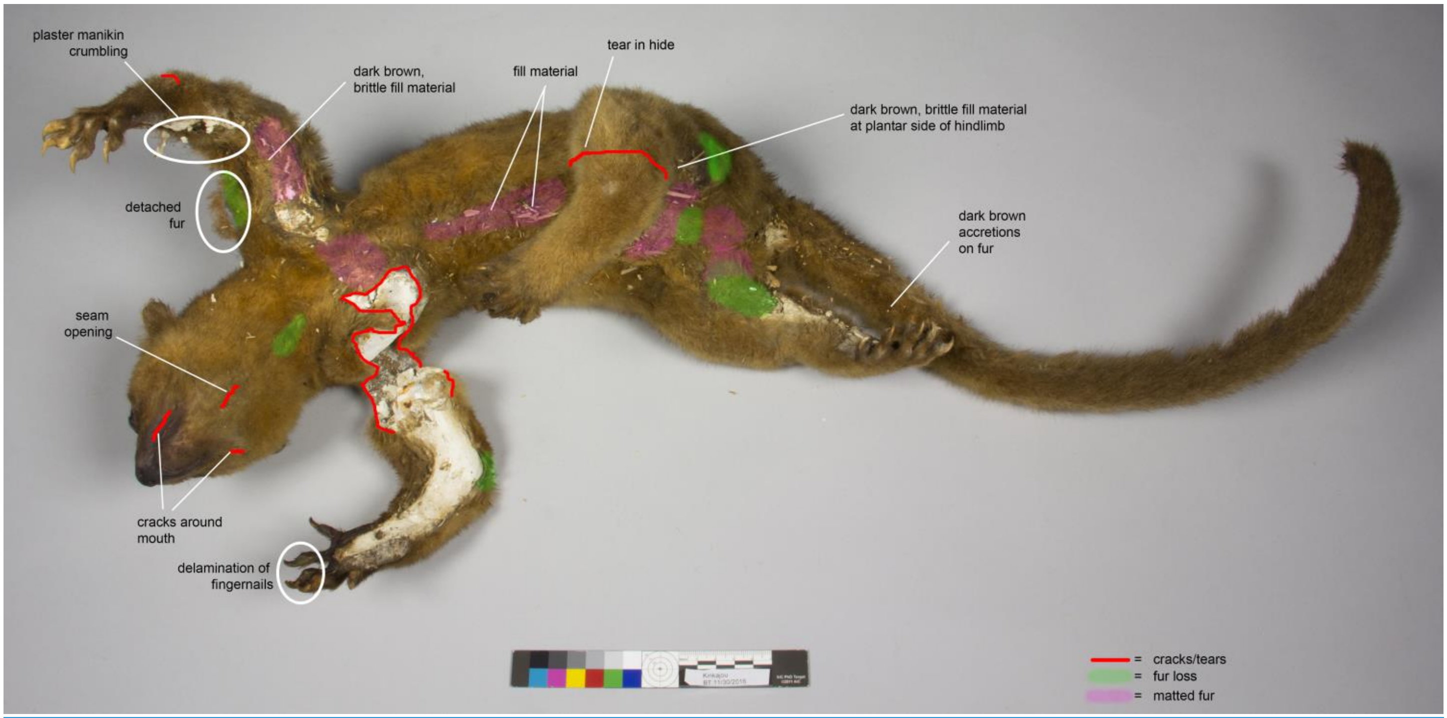

Figure 1. Before treatment, Overall, annotated

Figure 2. Before treatment, Overall, ventral side

Figure 3. Before treatment, Overall, dorsal side

Figure 4. Before treatment, Detail, Proper right shoulder

Figure 5. After treatment, Overall, Ventral side

Figure 6. After treatment, Overall, dorsal side

Figure 7a. After treatment, Detail, Proper right shoulder

Figure 7b. After treatment, Detail, Proper right shoulder