Introduction

The conservation work done on of the Bolivian doll collection went basically as planned with very few surprises. The collection of artifacts took time as the work was very detailed and required concentration and focus. All work planned has been completed. Three of the dolls are in such a delicate state and damaged so severely that I recommend they not be displayed. However, 17 of the 20 dolls and accessories are now in display condition.

Cleaning

The cleaning was accomplished over two days. The vacuum was attached in a stationary position under a work light with a cloth filter covering the end of the nozzle by elastic band (to catch any part of the artifact that might come loose). A thin layer of foam was put on the work surface to protect the artifact and the old tissue was placed under the artifact to collect any falling dust. The artifacts were brushed with a clean art style paintbrush as well as delicately wiped with cosmetic sponges. Once cleaning was completed the artifacts were wrapped in clean acid free (non-buffered) tissue and returned to their storage box. The cleaning process went smoothly (see figure 1 to 3). I will note that where was shedding on the one fur artifact (the bull, accession #2006.016.046).
Attaching accession numbers

I had recommend in the proposal all the tags were replaced with attached accession numbers stitched in discreet positions. The numbers were to be written with an archival pen on a strip of Tyvek that had a dried pre-coated with clear nail polish, ending with a top coat of clear nail polish (see figure 1). These labels were sewn at both ends on to the dolls and accessories in a discreet positions, one end if that is all that was possible. Individual placement is detailed below.

Figure 4: Supplies needed accession number label that were sewn on to artifacts: clear nail polish, accession pen and Tyvek fabric and scissors.
Conservation Work:

Work on the dolls was specific to the individual doll or accessory; below I have itemized the work by individual accession number.

1) **2008.016.022**

Conservation action

- Stitch on accession number
  - Placement:
    - Stitched on the *inside bag edge*, then folded and slipped inside the bag (see figure 5 and 6).

- Reattached strap
  - I used a pale blue cotton thread and attached it to one end of the broken strap the again on the other end of the broken strap and then wrapped a few times and 2 stitches taken (see fig. 7 and 8).

Notes

- In good condition for display

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**Figure 5**: (above) Accession label placement on 2008.016.022

**Figure 6**: (above) Accession folder inside the bag on 2008.016.022.

**Figure 7 (upper left) and Figure 8 (lower left)**: Strap repair on 2008.016.022.
2) 2008.016.023

Conservation action
- Stitch on accession number
  - Placement inside hat (see figure 10)
- Secured loose sequins
- Small holes were stitched closed with a ladder stitch (see figure 9)

Note: A bead is generally used to attach sequins, but in this collection sequins were held in place by a thread going through a coil of fine wire. If wire coils were missing I made one using fine wire wrapped around a needle. (see figure 11 and 12)
3) 2008.016.029

Conservation action
- Stitched on accession number
  - Placement
    - Back under green apron (see figure 13).
- Replaced wool hair (see before and after figures 14 to 17).
- Sewed up split seam in the back of head with ladder stitch (see figure 9 and 14).
- The treatment proposal listed a missing hand but it was only severely bent and was bent back into place.

Notes
- Good condition for display
- Similar size to 2008.016.030 could be displayed as a pair
4) 2008.016.030

Conservation action

- Placement of accession number
  - Back under poncho (see figure 18)
- Stitched facial detail following remains of original using black cotton thread (see figure 19 before and figure 20 after).
- Replaced wool hair (see figure 21 and 22)

Figure 19: (left) only dots of thread were left of original facial detail.

Figure 18: (left) Placement of accession number on 2008,016,030

Figure 20: (right) Facial detail restored with black cotton thread.

Figure 22: (left) After wool hair replacement (back view)

Figure 21: (above) After hair replacement (front view)
Notes
- Good condition for display
- Could be pair with 2008.016.029 for display

5) 2008.016.031

Conservation actions
- Stitched on accession number
  - Placement:
    - **Between legs** (see figure 23)
    - Repaired two small hole in red girdle using ladder stitch (see figure 24 and 25)
    - Repaired left shoulder seam using ladder stitch (see figure 26 and 27)

Figure 23: (right) Placement of accession number on 2008.016.031

Figure 24: (above) The two holes in the red sash on 2008.016.016

Figure 25: (above) Sash repair on 2008.016.016

Figure 26: (above) Torn shoulder seam on 2008.016.031

Figure 27: (above) Shoulder seam repair on 2008.016.031
Replaced hair with reddish brown wool yarn (see figure 28, 29 and 30)

Note

- There was a difficulty getting a good colour and texture match in wool for the red hair. For Black hair I used black yarn (loosely spun like that used in Cowichan sweaters) and the match was very close. For the red I had to use a wool yarn that was more tightly spun yarn that was also tightly twisted into the two-ply yarn.

Notes

- Good condition for display
  Could be grouped with 2008.016.038 and 2008.016.037
6) **2008.016.032**

**Conservation action**
- Stitch on accession number
  - Placement
    - Tucked into a fabric edge at the back see figure 31, 31. 32 and 33

Figure 31: (above) Accession number sewed to the edge of fabric at the back

Figure 32: (above) Accession label unfolded

Figure 33: (above) Label folded and tucked into the space.

Figure 34: (above) The front view of 2008.016.032; the label is very discretely placed in the back, it will be difficult to find unless informed of its placement
7) 2008.016.033

**Conservation action**
- Stitched on accession number
  - **Placement:**
    - **Under right arm** (see figure 35)
      - This placement allows the label to be seen but it was the only place to put the label (see figure 36)

**Figure 35:** (above) Placement of accession number on 2008.016.033

**Figure 36:** (above) The label on 2008.016.033 can be seen attached to the right arm

**Figure 37:** (above) Front view of hat on 2008.016.033

**Figure 38:** (above) Back view of hat on 2008.016.033
Stitched on loose hat

- With a long needle I stitched through the hat and the head of the doll both on the front back and both sides (see figure 37 and 38)

**Notes**

- Good condition for display
- Could be paired to 2008.016.043 for display

8) 2008.016.034

**Conservation action**

Stitched on accession number

- Placement
  - **Under pink cape at the back** (see figure 39)
  - Re-stitched facial detail with black cotton thread
    - Right eye and brow (see figure 40 and 41)

Anchored loose sequins on hat with black cotton thread (see figure 42) and sandals with off white cotton thread
• Anchored loose sandals by stitching through the leather with matching cotton thread

![Figure 42: (left) Hat and sequin repair on 2008.016.034](image)

Figure 42: (left) Hat and sequin repair on 2008.016.034

• I Reinforce shattered materials with matching tulle using matching cotton thread (see apron in figure 45 and 46) (see cape in figure 47 and 39)
  • I sandwiched the damaged fabric between two layers of matching tulle
  • Stitched through the braid where ever possible to minimize further damage

![Figure 43: (right) Loose sandals on 2008.016.034](image)

Figure 43: (right) Loose sandals on 2008.016.034

![Figure 44: (above) Repair to sandals on 2008.016.034](image)

Figure 44: (above) Repair to sandals on 2008.016.034

![Figure 45: (above) Tulle layer on the top of 2008.016.034 blue apron.](image)

Figure 45: (above) Tulle layer on the top of 2008.016.034 blue apron.

![Figure 46: (above) Tulle layer under 2008.016.034 blue apron](image)

Figure 46: (above) Tulle layer under 2008.016.034 blue apron.
Figure 47: Tulle layers on the top and underneath of the pink cape of 2008.016.034

Notes

- Not in display condition
  Fabric is shattered and in too delicate condition for display
9) **2008.016.035**

**Conservation action**

- Stitched on accession number
  - Placement:
    - **Under peplum at the back** (see figure 48)
  - Pink fabric damaged
    - I tried to do something for the damaged pink fabric but even a delicate touch just made it fall apart. I decided the best thing to do was to do nothing.
  - Repair wool hair
    - I got a very good colour match on the colour of this golden brown wool yarn
    - I sewed the wool yarn in a looping pattern trying to match that of the original (see figure 49).
    - The original wool hair was removed and placed in a marked plastic specimen bag for possible analysis.

Figure 48: (above) Placement of accession number on 2008.016.035

Figure 49: Diagram of short hair replacement pattern

Figure 50: (above) View of wool hair damage from the back of 2008.016.035

Figure 51: (above) After wool hair repair on 2008.016.035 front view

Figure 52: (above) After wool hair repair on 2008.016.035 back view
10) **2008.016.036**

Conservation action

- Stitched on accession number
  - Placement
    - **Back right side of Poncho** (see figure 53)
  - Reinforced shattered silk poncho top with tulle
    - I placed a red layer of tulle over the red part and a yellow green layer of the layer of tulle over the yellow and green parts of the shattered poncho fabric. I stitched through the trim when possible (see figure 54 and 55)

![Figure 53: Placement of accession number on 2008.016.036](image1)

![Figure 54: Layer of tulle stitched onto shattered silk of poncho of 2008.016.036 (front view)](image2)

![Figure 55: Layer of tulle stitched onto shattered silk of poncho of 2008.016.036 (Back view)](image3)
- Reinforced back of bag with tulle (see figure 56 and repaired the shoulder strap (see figure 57)

Figure 56: (left) Reinforced back of shoulder bag on 2008.016.036

Figure 57: (right) Repair on shoulder strap of bag on 2008.016.037

Figure 58: (right) Damaged and missing black wool hair on 2008.016.036

Figure 59: (left) Damaged and missing black wool hair on 2008.016.036

Figure 60: (left) Hair repair on 2008-016.036 (back view)

Figure 61: (above) Small hole repaired on the left side of the face

Figure 62: (above) Hair repair on 2008-016.036 (front view)
- Replaced black wool hair using the looping pattern seen in figure 49
  - Repaired small hole on the side of the face (see figure 61)
  - Sewed on loose sequins on hat and stuffed the peak with acid free tissue paper
    - Repaired broken hollow straw in right hand by shaving down a toothpick and gluing with white wood glue into the hollow ends of each section of the broken straw tube (See figure 64).
    - Sewed lose sequins on sandals

Notes
- Good condition for display

Figure 63: (left) Repaired and stuffed hat for 2008.016.036
Figure 64: (left) Repaired straw stick on 2008.016.036
Figure 65: (above) Repaired sandals on 2008.016.036
11) 2008.016.037

Conservation action

- Stitched on accession number
- Placement:
  - **Between legs** (see figure 66)
  - Replaced wool hair
    - All old wool hair was removed and stored in a labeled specimen bag
    - Wool yarn was sewed around the face with matching cotton thread and then gathered in the back and braided
    - The yarn was not an exact match to original colour or texture but it was as close as I could get.

Figure 66: (above) Placement of accession number on 2008.016.037

Figure 67: (above) Damage to wool hair on 2008.016.037 (back view)

Figure 68: (above) Damaged hair removed on 2008.016.037

Figure 69: (above) Sewing on replacement wool hair on 2008.016.037

Figure 70: (above) Replacement hair on 2008.016.037
12) 2008.016.038

Conservation action

- Stitched on accession number
  - Placement:
    - Between legs (see figure 71)
  - Replaced missing wool hair
    - On this doll most of the hair was still intact (see figure 72 and 73)
    - I added a few strands of black yarn around the face and sewed it in place and tried to blend it into existing wool hair (see figure 74 and 75)

Notes

- In good condition for display
- Could be grouped with 2008.016.031 and 2008.016.037

Figure 71: (above) Placement of accession number on 2008.016.038

Figure 72: (above) Damage to the front of the hair on 2008.016.038

Figure 73: (above) No real damage to the back of the hair on 2009.016.038

Figure 74: (above) Repaired wool hair (front view) on 2008.016.038

Figure 75: (above) Repair wool hair (back view) on 2008.016.038
13) 2008.016.039

Conservation action
- Stitched on accession number
  - Placement:
    - **Back of white shawl** (see figure 76)
      - Split seam on the back of the head was repaired using a ladder stitch (see figure 77 and 78)

- Damaged hair was removed and placed in a labeled specimen bag (see figure 78 and 79)
  - I did not think I could blend repair into existing wool hair
  - I chose to repair the hair on 2008.016.039 knowing it would probably never be displayed
    - Why?
      - It became my test case for the long hair replacement for the other dolls in the collection
The dress fabric had been significantly damaged by insects and the shawl fabric had shattered and shows significant degradation (see figure 82 and 83)

- A layer of matching tulle was sewn over the dress fabric to protect what material was left (see figure 84)
  - I could not sandwich it between layers as the fabric was stuck to the fabric of the doll body
  - I also sewed tubes of tulle over the sleeve fabric (see figure 85)
- I was able to sandwich the shawl between two layers of tulle (see figure 86)
Notes

- Artifact not in displayable condition

Figure 85: (above) Tulle being sewn over sleeves on 2008.016.039

Figure 86: (above) Shawl fabric sandwiched between two layers of matching tulle
14) 2008.016.040

Conservation action
- Stitched on accession number
  - Placement:
    - Back of shawl (see figure 86)
  - Hair was in fairly good condition
    - I sewed a short length of black wool yarn across the front hair line just under the hat brim and blended into the existing hair at the back (see figure 87, 88 and 89

Notes
- In good condition for display
- Could be grouped with 2008.016.041
15) 2008.016.041

Conservation action
- Stitched on accession number
  - Placement:
    - **Back of shawl** (see figure 90)
  - Hair was in fairly good condition
    - I sewed a short length of black wool yarn across the front and sides just under the hat brim and blended repair into existing hair at the back

Notes
- In good condition for display
- Could be paired with 2008.016.040
16) 2008.016.042

Conservation action

- Stitched on accession number
  - Placement:
    - Back of shawl (see figure 90)
  - Large tear on front neck face area
    - I could not repair with the ladder stitch
      - Fabric too loosely woven (it kept fraying)
      - I stitched that tear as best I could and wrapped the head in white tulle for protection and stabilization
  - The unstable fabric on the head of 2008.016.042 did not allow for a hair repair

Figure 94: (above) Placement of accession number on 2008.016.042
Figure 95: (above) Front face and neck damage on 2008.016.042
Figure 96 (above) and 97 (below) Damaged area was covered with tulle to protect and stabilize area

Figure 95: (above) Front face and neck damage on 2008.016.042
Notes
• Poor condition not suitable for display

17) 2008.016.043

Conservation action
• Stitched on accession number
  o Placement:
    • Back of Peplum on vest (see figure 98)
  o Repaired damaged wool hair (see figure 99)
    • Damaged hair was removed and placed in a labeled specimen bag (see figure 100 and 101)
    • Repaired with black wool yarn (see figure 102, 103 and 104)
Acid free non buffered tissue was placed under the full skirt to keep fabric from creasing and stressing the fabric.

Notes
- In good condition for display
- Could be grouped with 2008.016.033
18) 2008.016.044

Conservation action

- Stitched on accession number
  - Placement:
    - **Under right arm** (see figure 105)

- Hair and hat needed small repair (see figure 106 and 107)
  - Hat was repaired and stitched on (see figure 108 and 109)
  - Missing hair was filled in with black wool yarn

Figure 105: (above) Placement of accession number on 2008.016.044

Figure 106: (above) Loose hat and hair damage on 2008.016.044 (front view)

Figure 107: (above) Loose hat and hair damage on 2008.016.044 (back view)
Several small holes in the green sash were repaired using a ladder stitch and darning stitches (see figure 110 and 111)

Figure 108: (above) Hat and Hair repair on 2008.016.044 (front view)

Figure 109: (above) Hat and hair repair on 2008.016.044 (back view)

Figure 110: (above) Small holes in the green sash on 2008.016.044

Figure 111: (above) Repair green sash on 2008.026.044
Notes
- In good condition for display
- Should be paired with 2008.016.046

19) 2008.016.045
Conservation action
- Stitched on accession number
  ▪ Placement:
    - **Back under skirt** (see figure 112)
  o Stitched on the loose sequins on hat, outfit and sandals (see figure 11 for method) (see figure 113)

- The teal coloured fabric that covers the head and is under the shawl was severely damaged by insects (see figure 114)
  o I stitched a layer of similar coloured poly-cotton broad cloth under the damaged fabric (see figure 115)
    ▪ I then used a running stitch to anchor the remaining original fabric to the backing fabric
  - Long stitches on the back and smaller on the front with matching cotton thread
Stitches could not be too small as the original fabric is in a fragile state and every stitch had to go through at least 2 threads of the fabric.

A layer of matching tulle was then sewn over top to sandwich the damage fabric in the middle for protection and stabilization (see figure 116).

Figure 114: (left) Insect damage to fabric on 2008.016.045

Figure 115: (above) Reinforcement of fabric using a poly-cotton backing

Figure 116: (below) damaged fabric sandwiched between a layer of poly-cotton matching tulle
• I did consider a hair replacement
  o Since the head was covered with a scarf no attempt was made to replace wool hair
    ▪ Not even sure it ever had any wool hair

Notes
• In good condition for display
• Could be coupled with 2008.016.036

20) 2008.016.046

Conservation action
  o Stitched on accession number
    ▪ Placement:
    • Back under Jacket tails (see figure 117)
  o Repaired tear to both sides of the face with black cotton thread using a ladder stitch (see figure 118)
  o Repaired felt ears using black cotton thread

Figure 117: (above) Placement of accession number on 2008.016.046
Figure 118: (above) Felt ear stitched in place on 2008.016.046
Figure 119: (above) Tears on either side of the face wear stitched with black cotton thread
Figure 120: (above) Neck was very unstable on 2008.016.046
The neck on 2008.016.046 was very unstable (see figure 120)

- To stabilize it a new collar that holds the head to body was replacing with brown fabric lined with tulle for extra stiffness

Figure 121: (left) Strip of fabric lined with tulle was stitched to the neck of 2008.016.046

Figure 122: (right) New collar on 2008.016.046

Figure 123: (above) New collar on 2008.016.046 (back view)

Figure 124: (above) New collar on 2008.016.046 (side view)
- Left arm stitched to body using brown cotton thread and a ladder stitch (see figure 125, 126 and 127)

**Notes**

- Highly recommended for display
- Could be displayed with 2008.016.044
- Should be displayed with 2008.016.044