

Textile Preservation Associates, Inc.

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TREATMENT REPORT

Date August 11, 2000

TPA No. 1072

Object Toluca Battalion battle flag

Client Texas State Archives
P. O. Box 12927
1201 Brazos Street
Austin, TX 78711-2927

Contact Chris LaPlante

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DOCUMENTATION

12 Kodachrome 25, 35mm color slides were taken before and after treatment.
Analysis: See attached report.

Description

Size: Leading edge: 67" Fly: 55"

The flag is constructed of one layer of silk in three vertical sections of green, white, and red silk fabric, respectively. There is an embroidered decoration in shades of brown and gold silk threads on the center (white) bar depicting the national arms of Mexico; an eagle with a snake in his mouth. The eagle has his head turned toward the leading edge and a wingspan of 19 1/2". The tips of the wings and tail extend over the edge of the white bar onto both the red and green bars. Embroidered beneath the eagle in black silk are the words: "BATALLON / ACTIVA DE / TOLUCA". All of the lettering is completed in a Roman style in 1 5/8" and 1 3/4" heights.

CONDITION

Previous treatment

The flag has undergone two previous treatments. During the first treatment the

flag was underlaid with lightweight silk fabrics of appropriate colors. It appears that large portions of the original green and white sections of the flag were present at that time, most of the red section was missing. The flag was lightly stitched to the backing fabric, through the embroidery, then attached with an unknown adhesive, possibly shellac. Several of the letters appear to have been missing and were embroidered on the new backing fabric: the B, A, T, A and O in "BATALLON" and the C and V in "ACTIVA". The last "A" in "ACTIVA" apparently was originally located in another word and was misplaced during the treatment as the correct spelling is "ACTIVO". The backing at the leading edge was folded over the edge of the pole sleeve approximately 1" and sewn with three rows of machine stitch.

The flag underwent a second treatment that was carried out in a style attributed to a Mrs. Roser, who worked on flags in the mid 1900's. The first step in the Roser style treatment was to separate the flag into individual sections. The red and green silk sections were sandwiched between a layer of red and green colored silk crepeline. This step appears to have been an attempt to restore the faded colors of the flag because the silk crepeline was not sewn or adhered to the flag. Each section was then sandwiched between two layers of appropriately colored netting. The layers were sewn together with horizontal rows of machine zigzag stitching over the entire surface. The spacing of the sewing rows averaged 3/4" apart. The flag was reassembled with the original side of the red and green sections turned upside down to appear on the reverse side of the flag. The sections were then joined together with two rows of machine stitching. The netting was cut away over the embroidered eagle and replaced with an ecru silk crepeline. The perimeter of the eagle was enhanced with heavy machine embroidery. The netting over the letters was darkened with black pigment.

Present condition

The previous treatments have caused considerable damage to the original silk of the flag. The machine stitching has left a pattern of holes through the fabrics and caused some breakage. The adhesive attaching the flag to the silk backing has hardened and is extremely brittle. Most of the fracturing, especially of the white bar, appears to be the result of the adhesive. The netting has left an impression on the silk, especially the green, and has abraded the flag in many places. There is approximately 80% of the green bar remaining but it is brittle and badly fractured. There is an estimated 6" portion at the top and bottom missing. The green silk is badly faded and the dye appears to be highly fugitive. The small amount of original silk remaining in the red bar is less brittle and fractured, but 85% is missing. The center (white) bar appears to be the most degraded. The silk that remains is extremely fragmented into mostly 1/4" size pieces and there is loss of approximately 30%. The white silk is brittle and will continue to fracture if handled. As described above, some of the embroidered letters have been

reconstructed. The original letters that remain are extremely fragile and powdering. The edges of the embroidered eagle have been severely damaged by the machine embroidery stitch that was applied around the perimeter. Some of the embroidery throughout the eagle is damaged with surface loss. All of the threads are extremely fragile.

REPORT OF TREATMENT

Documentation

1. The flag, as received, was photographed on both sides (see photos 1-2).
2. The previous treatment was removed by cutting each stitch, working under 10x magnification, then removing the thread fragments. The layers of netting and silk crepe were removed. The adhesive attaching the silk backing fabric was tested with a variety of solvents. The adhesive proved to be soluble in Ethanol but the feasibility of removing the original silk without causing additional damage would have proved difficult. After consultation with the client, it was decided to leave the original silk adhered to the backing; but, behind the embroidered eagle and in areas where no original silk remained the backing fabric was broken away and removed. On the red and green sections the backing fabrics were broken away where no original flag remained. The backing fabric was released and cut away where it overlapped onto the pole sleeve. Detail photos were taken after the previous treatment was removed (see photos 3-8).
3. Once the original flag was accessible and additions and alterations had been noted, the fibers, fabrics, and sewing threads were analyzed. Information about the construction of the flag, and any evidence of alterations to the original were noted. Scale drawings were made of the flag and an analysis report prepared.

Stabilization

4. The flag was sandwiched between two layers of appropriately colored Stabiltex¹, a multifilament polyester crepe. Because the flag had been separated into individual sections as part of the previous treatment, each piece was encapsulated separately. The layers were attached by sewing through the voids. Fragments were aligned and sewn around their perimeter to hold them in place. Sewing was carried out with thread pulled from the Stabiltex. The Stabiltex was extended to the original (estimated) size of the flag. The tiny fragments in the white section were attached with a thin layer of (acid hydrolyzed) starch paste applied with a brush to each individual piece on the reverse side.
5. After the encapsulation was complete the pieces were rejoined by slightly overlapping the edges and handstitching them together with 3 ply Z silk threads of appropriate color.

The flag was photographed on both sides after encapsulation and reassembly (see photos 9-10).

Preparation for Exhibition

The flag is mounted in a pressure mount frame. This is a custom made exhibit case that will provide the fabrics with uniform support over the entire surface and create an internally buffered, stable environment that will protect the object from outside contaminants.

6. A buffered, acid-free panel² was prepared then covered with nonwoven polyester batting³ and a previously washed, unbleached, airwing grade, fine cotton fabric⁴.
7. Appropriately colored cotton fabric was cut to size and attached to the padded panel to fill in the color, restore the appearance of missing areas, and bring the flag to the original size. The colored fabric was attached to the panel only.
8. The flag was attached to the padded panel with one row of stitching across the top. Attachment was made through the Stabiltex to avoid additional stress on the flag. The flag was photographed on the panel (see photo 11).
9. Ultra-violet filtering OP-2 Acrylite⁵ was laid over the flag, applying a light pressure to the fabric. The entire unit was placed in a custom made wooden frame by Ivy Industries⁶, #Q-5, with an aluminum insert added to the frame to increase its strength and stability and an aluminum backing constructed for support.
10. A final photo was taken (see photo 12) and a treatment report prepared.

PROGNOSIS

The object should be exhibited under less than five foot-candles of light. Because any light is damaging, it is recommended that the piece be rotated between exhibit and storage, or covered with a dense cloth when not being viewed. Maximum effort should be made to reduce the total exposure to light. Care should be taken to avoid aiming lights directly on the case, which can cause a "greenhouse" effect, or heat build up within the unit.

To best preserve the object, the temperature and humidity level should be kept fairly constant, with temperatures of less than 70 degrees Fahrenheit and a relative humidity of 45% plus or minus 5%. Avoid hanging the object against an outside wall, or place spacers between the wall and the frame to prevent humidity transfer.

If this object is ever stored, it can be placed flat or vertical. We recommend storage in the frame, since it is part of the conservation treatment and will provide a more stable environment.

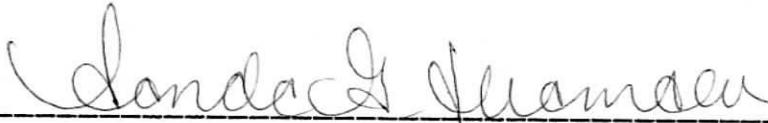
HANGING THE FRAME

There are two metal tabs along the top of the frame for hooking onto a screw or bolt. A phillips head screwdriver may be used for opening the frame if it is ever necessary

CARE OF THE PLEXIGLAS

The plexiglas is soft and may scratch so care must be taken during handling. Plexiglas should not be cleaned with ammonia based window cleaners. Either plexiglas cleaner should be purchased, or water with a drop of liquid dishwasher detergent can be used along with very soft rags (diapers or gauze). If paper towels are used they should be extremely soft.

Total treatment hours: 195

Signed:  Date: 3/11/00
Fonda Ghiardi Thomsen, Fellow AIC,
Director, Textile Preservation Associates, Inc.

Work on the object was carried out by Cathy Heffner, Conservation Technician, Textile Preservation Associates, Inc. under the supervision of Fonda G. Thomsen, Conservator.

Reference list of materials used in the conservation of this object.

1. Stabiltex, a sheer, multifilament, plain weave, polyester: Talas, 568 Broadway, New York, NY 10012 (212) 219-0770.
2. Corrugated Board, buffered, acid free: Hollinger Corporation, P.O. Box 8360, Fredericksburg, VA 22404 (800) 634-0491.
3. Batting, "Jasztex" a thermo bonded polyester batting: Museum Services Corporation, 1107 East Cliff Road, Burnsville, MN 55337.

"Poly-fil Traditional Batting" a non-woven, needle punched batting:
Fairfield Processing Corporation, 88 Rose Hill Avenue, Danbury, CT 06810.

4. Cotton, a 100% airwing grade fabric: Fox Reich Textiles, Inc., 54 Danbury Road, Suite 228, Ridgefield, CT 06877 (914) 533-2445.

5. Acrylite OP-2, a colorless cast ultraviolet filtering acrylic sheet: Cyro Industries, P. O. Box 950, 100 Valley Road, Mt. Arlington, NJ 07856 (416) 675-9433.

6. Ivy Industries, Inc., P.O. Box 7747, Charlottesville, VA (800) 446-1600.

TPA # 1072

Toluca Battalion Battle Flag
Scale = 1/8" = 1" → 0 2 4 6 8 inches

OBVERSE

Drawing # 1
CONSTRUCTION

← 55" → (measurements estimated)

← 6 1/4" →



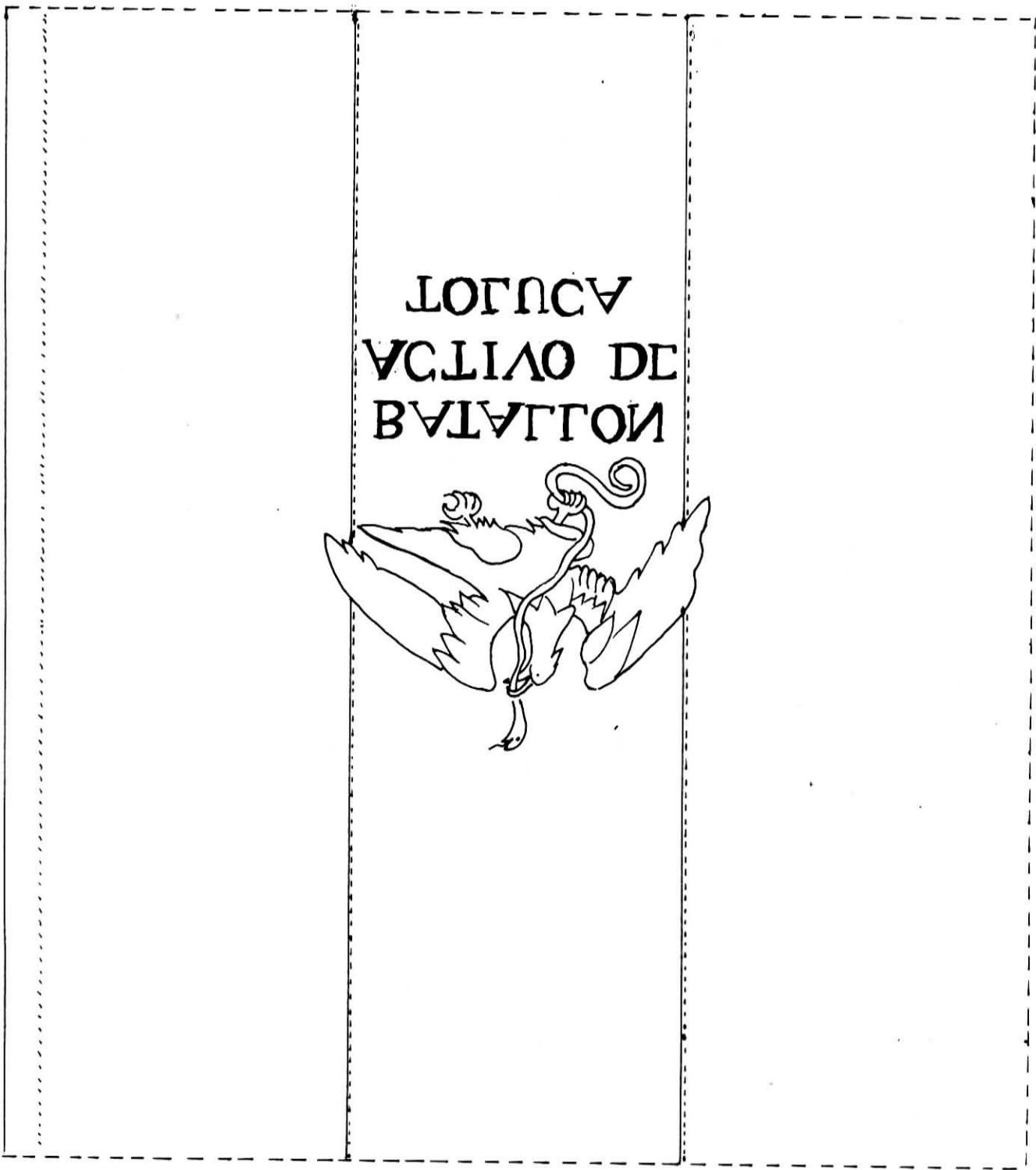
**BATALLON
ACTIVO DE
TOLUCA**

TPA #1072

Toluca Battalion Battle Flag
Scale. $\frac{1}{8}'' = 1''$ $\left\{ \begin{array}{l} 6 \\ 2 \\ 4 \\ 6 \\ 8 \end{array} \right. = \text{inches}$

REVERSE

Drawing # 2
CONSTRUCTION



← .55" →

↑
"19"
↓

TFA # 1072

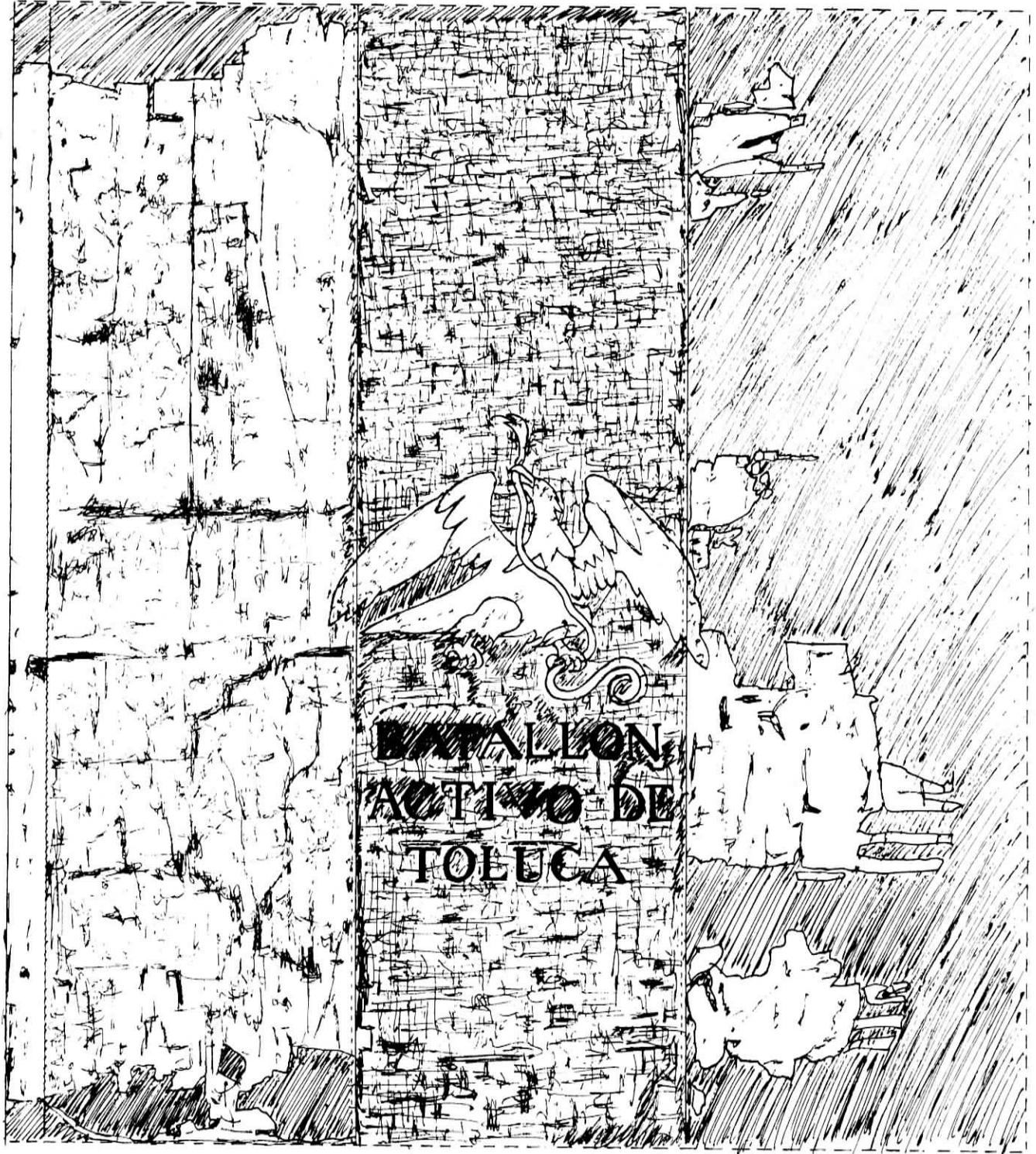
Toluca Battalion Battle Flag
Scale = 1/8" = 1" 5 2 4 6 8 = inches

OBVERSE

Drawing # 3
CONDITION

← 55" → (measurements estimated)

← 6 1/2" →



TPA # 1072

Toluca Battalion Battle Flag
Scale = 1/8" = 1" 6 3 6 8 inches

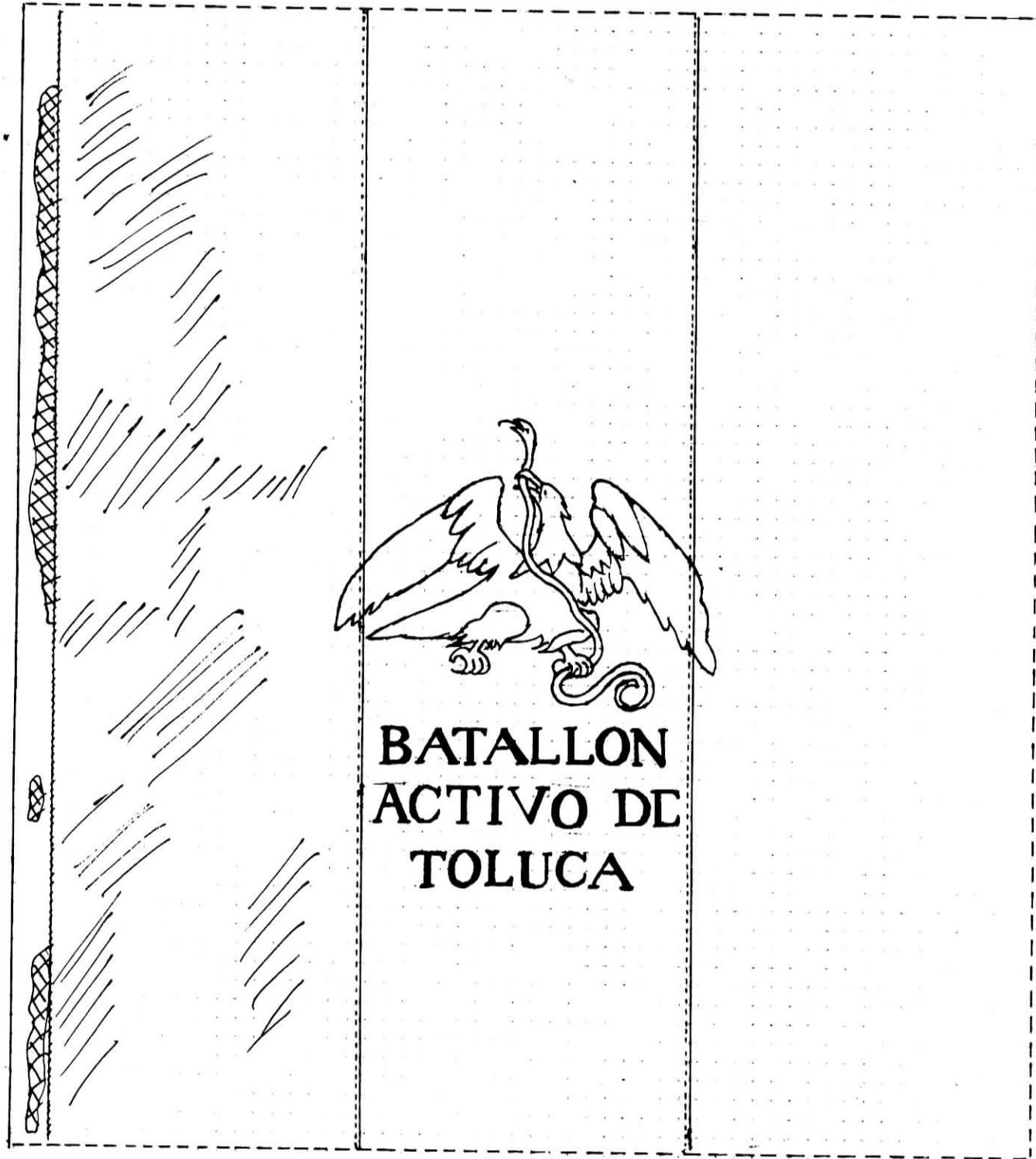
OBVERSE

Drawing # 4

CONDITION
DAMAGE FROM
NETTING

Through top
layer of
pole sleeve
only

← 55" → (measurements estimated)



TFA# 1072

Toluca Battalion Battle Flag
Scale = 1/8" = 1" 0 1 2 3 4 5 6 7 8 inches

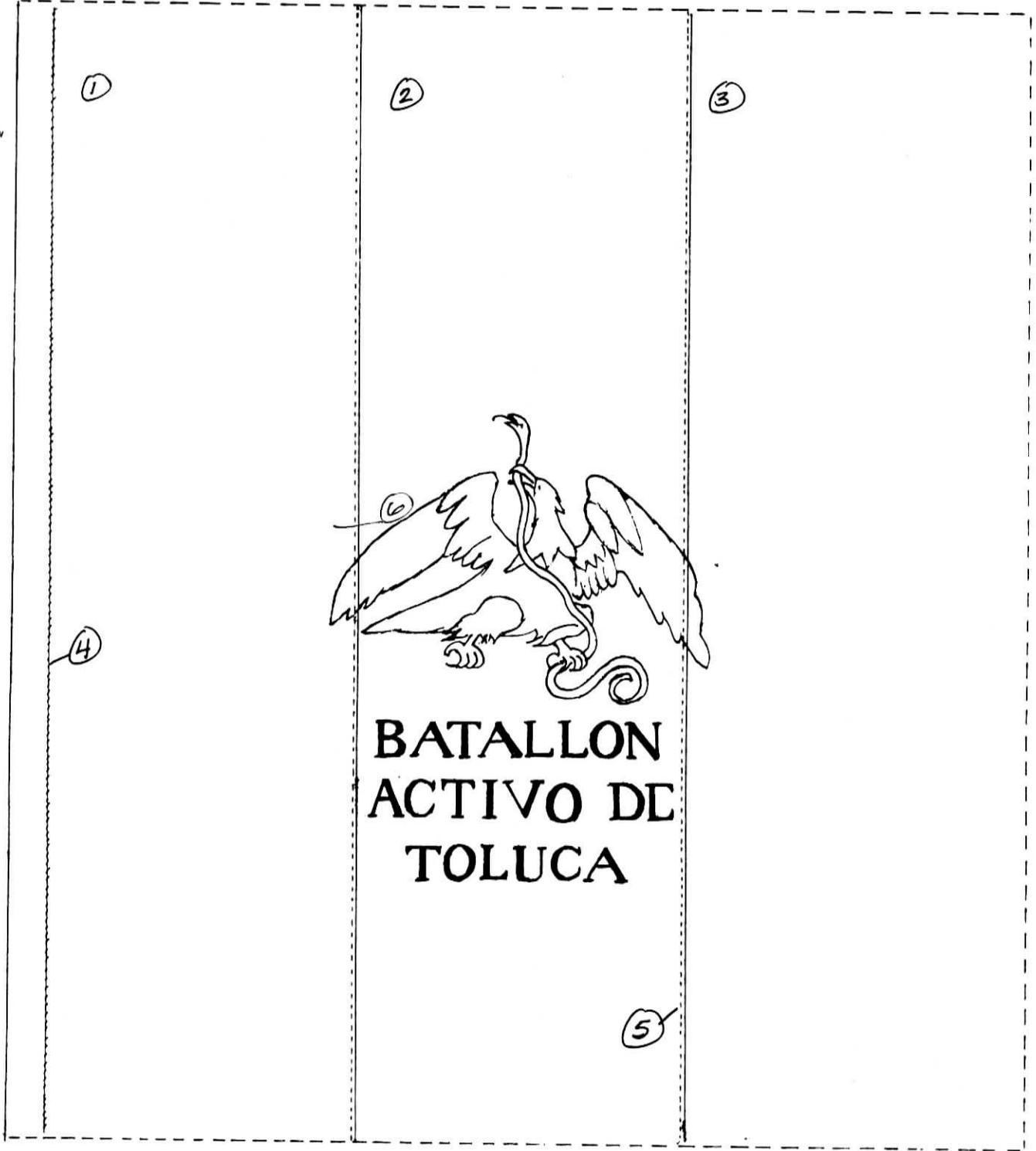
OBVERSE

Drawing # 5

SAMPLING

← 55" → (measurements estimated)

← 6 1/4" →



7741# 1072

Toluca Battalion Battle Flag
Scale = 1/8" = 1" 1/2" 1/4" 1/8" 1/16" = inches

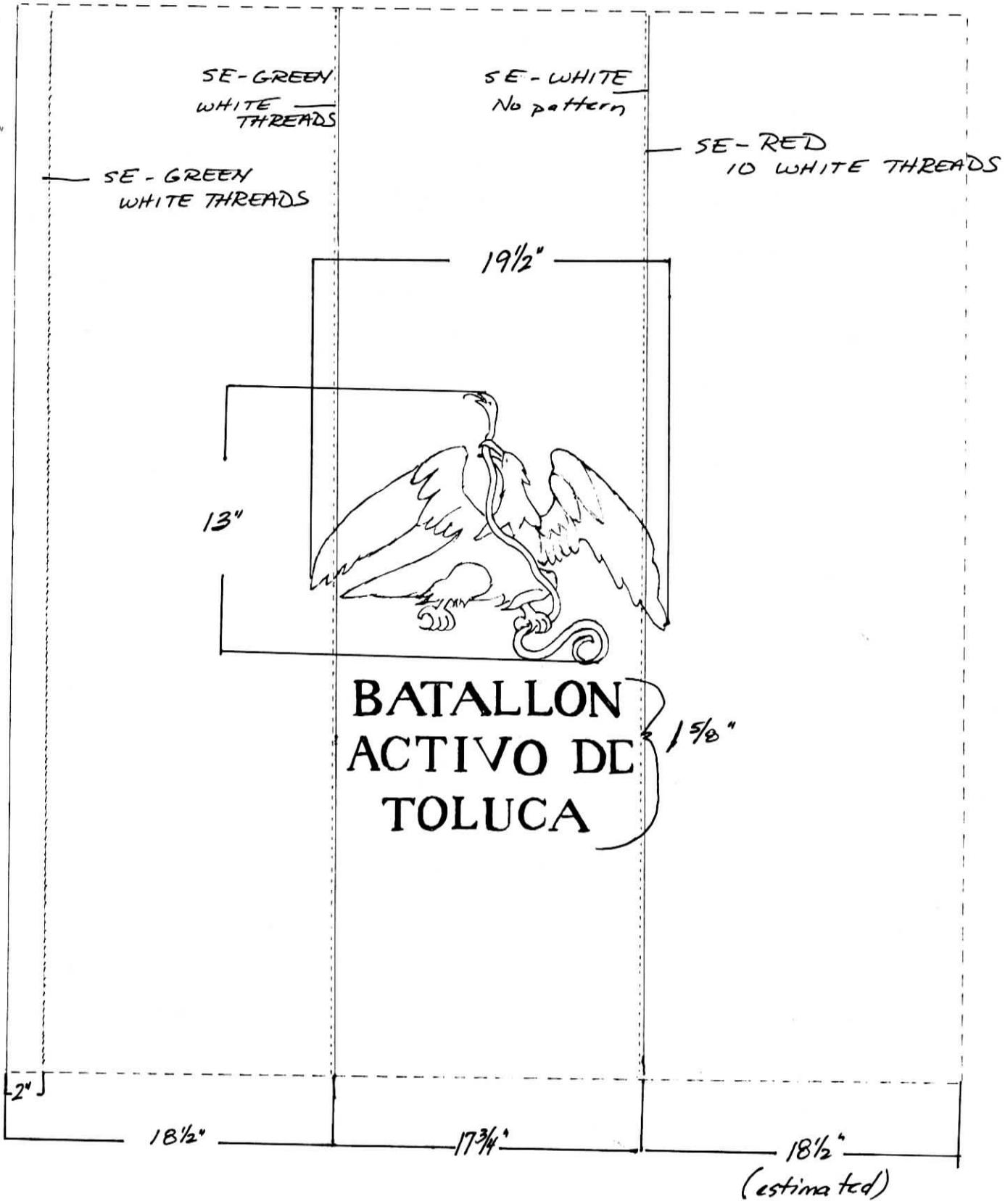
CBI RSI

Drawing # 8

MEASUREMENTS
SELVAGE EDGES

- Pole Sleeve: 2"
- Green Bar: 18 1/2"
- White bar: 17 3/4"
- Red bar: 18 1/2" (estimated)
- Lettering: 1 5/8"

← 55" → (measurements estimated)



TPA # 1072

Toluca Battalion Battle Flag

Scale: 1/8" = 1" 6 2 4 6 8 inches

REVERSE

Drawing # 10

PREVIOUS TREATMENT
SILK BACKING
W/ADHESIVE



← 55" →

↑ 19" ↓

TPA# 1072

Toluca Battalion Battle Flag
Scale = 1/8" = 1" 0 2 4 6 8 = inches

OBVERSE

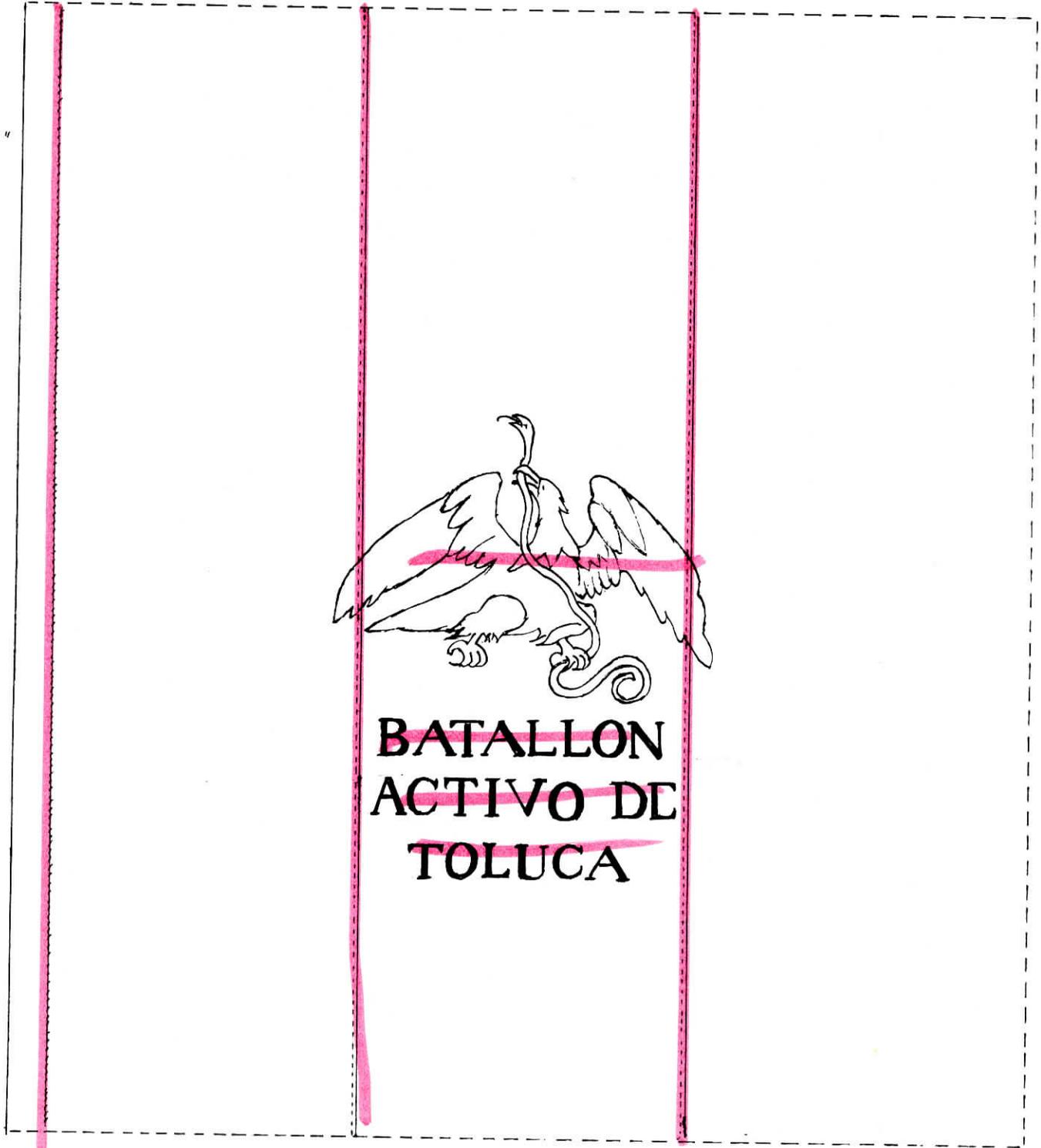
Drawing # 6

SEWING THREADS

SILK

← 6" →

← 55" → (measurements estimated)



**BATALLON
ACTIVO DE
TOLUCA**

TPA # 1072

Toluca Battalion Battle Flag
Scale. $\frac{1}{8}$ " = 1" $\frac{6}{2}$ $\frac{4}{6}$ $\frac{6}{6}$ = inches

REVERSE

Drawing # 7

SEWING THREADS

SILK



← .55 →

↑
"19"
↓

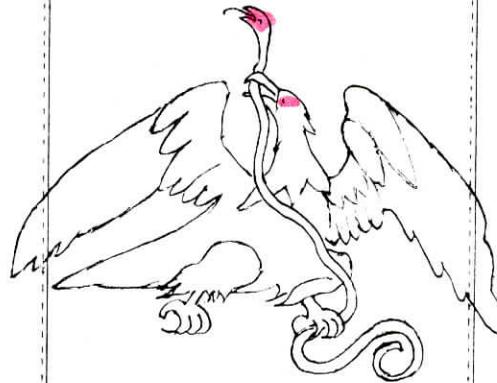
TFA # 1072

Toluca Battalion Battle Flag
Scale = 1/8" = 1" 6 1/2 4 6 8 = inches

OBV RSE Drawing # 9

PREVIOUS RECONSTRUCTION
← 6" → LETTERING REPRODUCED
ENHANCED

← 55" → (measurements estimated)



**BATALLON
ACTIVA DE
TOLUCA**