THE CONSERVATION OF ARTIFACTS
FROM THE BANNEKER SITE (188A 282)

As part of the archaeological investigation undertaken by the Maryland Historical Trust, conservation treatments were performed in order to stabilize as many artifacts from the Banneker site as possible. This work was carried out in approximately twelve working days, a length of time which is very short for many preservation treatments. Nevertheless, by performing treatments on different classes of artifacts simultaneously and en masse, conservation was streamlined so that approximately 91 artifacts were processed within the time available. The classes of materials treated included copper and lead alloys and iron. A work schedule is provided at the end of this report.

SETTING PRIORITIES

From the beginning it was realized that not all the artifacts selected for conservation could be treated within the short time frame. The 113 bags of small finds received by the conservator had been numbered sequentially by the investigating archaeologist, Kristen Peters, in order of her priorities for interpreting the site. The more important artifacts (principally copper, lead, and coins) were treated first. Unidentifiable clumps of highly mineralized iron were considered beyond retrieval and were given the lowest priority for conservation, except when the interpretive priority was high. Easily recognizable artifacts like nails also were often rejected for treatment. In the end, all the non-ferrous artifacts were treated, and about one half the iron; most of the iron which remained untreated had priority numbers set by Peters lower than 75.

Once these conservation priorities were set, the artifacts selected for conservation were then divided into 11 groups by class of similar material (copper, lead, iron). Organizing the artifacts in these clusters facilitated mass treatments. Each group was comprised of about 8 numbered bags, because this number was considered the maximum number of finds that could be processed together simultaneously without losing proveniences. Each group was photographed. Two contact sheets accompany this report.

As the finds were examined, cleaned, and stabilized, a conservation record was filled out for each artifact. Quick diagrams were made, and the material of composition (brass, wrought iron, Britannia metal) was identified. However, because of time, no real spot tests could be performed on metals. Unusual details, associated fibrous remains, plating, fabrication and wear marks, inscriptions, etc. were recorded on these records. Each treatment was noted in detail. Recommendations for curation and storage were provided in many cases. These individual conservation records also accompany this report and should be curated
with the collection, maps, field notes, and photographs. Summaries of the treatments are provided below.

COPPER ALLOYS

Brass and bronze were cleaned mechanically using scalpels, glass fiber brushes, and engraving pens. Formic acid (10-20%) was also used to dissolve carbonate corrosion products. No artifacts were treated by electrochemical or electrolytic reduction.

The artifacts then were treated overnight in a vacuum chamber with a chemical inhibitor called benzotriazole (BTA), using a 3% solution in ethanol. The benzotriazole associates chemically and physically with the copper to prevent outbreaks of "bronze disease", a light green, powdery, and aggressive corrosion product. After the vacuum treatment, the artifacts were passed through ethanol, allowed to dry, and coated by brush with a protective lacquer, a 5% solution of Acryloid B-72 (Rohm and Haas acrylic co-polymer) in toluene, with 1% BTA added for extra protection.

LEAD ALLOYS

Lead, its alloy pewter, Britannia metal, and some unidentifiable "white" metals were cleaned mechanically with a glass brush and scalpel. A 5% solution of EDTA (disodium salt of ethylene diamine tetra acetic acid, a chelating agent) was used to dissolve the lead carbonate encrustation, although care had to be exercised to prevent the lead itself from being etched by the chemical. After exposure to the EDTA, the lead artifacts were then rinsed twice in delonized water, dewatered in ethanol, and waxed with a protective microcrystalline wax paste (Bareco B-Square or Renaissance wax) in petroleum spirits.

IRON

Most of the small iron artifacts were too mineralized to be cleaned by electrolytic reduction. Almost all the iron was cleaned instead mechanically by scalpel, mini chisel, and/or engraving pen to remove encrustation. Many artifacts were then boiled for an afternoon in 10% EDTA to dissolve more rust. The iron was then intensively washed in many changes of delonized water in order to remove the EDTA, electrolyte, and as many contaminating chlorides as possible. The boiling took at least two days for fragile iron; more robust artifacts were boiled for 9 days or more until a silver nitrate test for chloride was negative and the readings of dissolved solids in the wash water were constant and low.

The iron was the dewatered overnight in acetone and immersed in hot microcrystalline wax (Bareco B Square) to seal the surface. Excess wax was removed by blotting the surface with paper
towels.

FINAL RECOMMENDATIONS

It is recommended that all metals (and especially the iron) be stored in a relative humidity of less than 30% as a measure to prevent renewed corrosion. Thus, the iron, which is very sensitive to damp conditions even after treatment, was packed in a polyethylene container with silica gel and a card indicating relative humidity. The gel should be regenerated when the Rh level rises above 30%. Lead alloys should be stored away from acid-emitting materials like paper bags and tags.
**WORK SCHEDULE**

<table>
<thead>
<tr>
<th>Date</th>
<th>Hours</th>
<th>Task Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feb 3</td>
<td>3 hrs</td>
<td>photography</td>
</tr>
<tr>
<td>Feb 6</td>
<td>6 hrs</td>
<td>cleaning groups 1 and 2, BTA</td>
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<tr>
<td>Feb 8</td>
<td>1 hr</td>
<td>lacquer groups 1 and 2</td>
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<tr>
<td>Feb 11</td>
<td>3 hrs</td>
<td>cleaning, waxing group 3</td>
</tr>
<tr>
<td>Feb 12</td>
<td>4 hrs</td>
<td>mechanical cleaning group 5</td>
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<tr>
<td>Mar 17</td>
<td>3 hrs</td>
<td>photography</td>
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<tr>
<td>Mar 19</td>
<td>6 hrs</td>
<td>mechanical cleaning groups 6 and 7</td>
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<td>Mar 20</td>
<td>2 hrs</td>
<td>hot wash group 6</td>
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<td>Mar 21</td>
<td>2 hrs</td>
<td>hot wash group 6</td>
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<tr>
<td>Mar 22</td>
<td>2 hrs</td>
<td>hot wash group 6</td>
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<tr>
<td>Mar 31</td>
<td>1 hr</td>
<td>group 5 into BTA</td>
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<tr>
<td>Apr 10</td>
<td>2 hrs</td>
<td>hot wash and dewater group 6</td>
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<tr>
<td>Apr 14</td>
<td>1 hr</td>
<td>lacquer group 5</td>
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<tr>
<td>May 7</td>
<td>4 hrs</td>
<td>wax group 6; clean group 4</td>
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<td>May 15</td>
<td>2 hrs</td>
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<td>May 16</td>
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<td>May 19</td>
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<td></td>
<td></td>
<td>cleaning, waxing group 8;</td>
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<tr>
<td></td>
<td></td>
<td>mechanical cleaning group 11</td>
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<td>May 27</td>
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<td></td>
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<td>May 29</td>
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<tr>
<td>Jun 3</td>
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</tr>
<tr>
<td></td>
<td></td>
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</tr>
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<tr>
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<td>6 hrs</td>
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<tr>
<td></td>
<td></td>
<td>BTA group 10 and colls</td>
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<tr>
<td>Jun 10</td>
<td>3 hrs</td>
<td>hot wash groups 4 and 11; lacquer</td>
</tr>
<tr>
<td></td>
<td></td>
<td>group 10 and colls</td>
</tr>
<tr>
<td>Jun 11</td>
<td>2 hrs</td>
<td>hot wash group 11; wax group 4</td>
</tr>
<tr>
<td>Jun 13</td>
<td>2 hrs</td>
<td>hot wash group 11</td>
</tr>
<tr>
<td>Jun 17</td>
<td>2 hrs</td>
<td>hot wash group 11; write report</td>
</tr>
<tr>
<td>Jun 18</td>
<td>2 hrs</td>
<td>hot wash and dewater group 11</td>
</tr>
<tr>
<td>Jun 19</td>
<td>1 hr</td>
<td>wax group 11</td>
</tr>
<tr>
<td>Jun 20</td>
<td>4 hrs</td>
<td>prepare final report; pack finds</td>
</tr>
</tbody>
</table>

**Total:** 93 hrs.
CONSERVATION RECORD

Site: 188-828
Provenience: N185/L455
Artifact No.: BR
Provenience: FS 133

Date Started: June 9, 1986
Date Finished: June 11, 1986
Conservator: SIGLEY

Spanish Silver Coin, 1779

EXAMINATION

DESCRIPTION
Silver coin, 1779

DIMENSIONS
2.1 cm (dia)

CONDITION
E G P

TREATMENT PRIORITY
H M L

none

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EXAMINATION

__copper/brass/bronze  __bone/ivory  __foodstuff
__lead/tin/pewter  __cork  __glass
__iron/steel  __wood  __ceramic
__gold  __cloth  __stone
__silver  __leather  __rubber
__mineral  __rope  __other
__gem  __paper  __

microscopic examination:

TECHNICAL

spot tests:
magnet:

ANALYSIS

other:

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TREATMENT RECORD

Date

June 9 Cleared mechanically with scalpel + glass brush. 15% formic acid applied by swabs. Brush agam to compact + enhance surface.

June 10 Placed for 24 hrs. in 3% BTA (benzotriazol) in ethanol under vacuum.

June 11 Removed from vacuum, passed through stainer, + air dried. Neutralized with 5% Acetone 87% in toluene (Rehm + Har A acrylic copolymer with 19% GTA added as an inhibitor)

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SUMMARY

X scalpel
X wire brush
X glass brush
X vibrotool
X airabrasive
X electrolysis
X chemical
X ultrasonic
X hot wash
X cold wash
X dehydrated
X oven dried
Y inhibitor
X coating
X reshaped
X mended
X filled
X consolidated
X support
X biocide

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Date

Before/After

PHOTOGRAPHS

Roll 1 2-8-86

Framed 16-30 BEFORE

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CURATORIAL

RECOMMENDATIONS
CONSERVATION RECORD

Site: 188A 282
Provenience: N 1501 W 438
Artifact No.: 96
Provenience: FS 828

Date Started: June 9, 1986
Date Finished: June 11, 1986

Conservator:桑杰

DESCRIPTION: 1981 penny
DIMENSIONS: 3.16 cm
CONDITION: E G P none
TREATMENT PRIORITY: H M L

EXAMINATION:
- Copper/brass/bronze
- Lead/tin/pewter
- Iron/steel
- Gold
- Silver
- Mineral
- Gem
- Bone/ivory
- Cork
- Wood
- Ceramic
- Cloth
- Leather
- Rubber
- Rope
- Paper

Microscopic examination:
Spot tests:
Magnet:
Other:

TREATMENT RECORD

Date
June 10: Placed on 3% benzo-triazole (BTA) in ethanol under vacuum (23 lbf/10^6 m^-2) for 24 hrs.
June 11: Removed from vacuum, passed through ethanol + air dried. Lacquered with 5% Acrylic 872 (Acrylic copolymer made by Rohm & Haas) in toluene with 10% BTA added as a corrosion inhibitor.

SUMMARY
- Scalpel
- Wire brush
- Glass brush
- Vibrotool
- Abrasives
- Electrolysis
- Chemical
- Ultrasonic
- Hot wash
- Cold wash
- Dewatered
- Oven dried
- Inhibitor
- Coating
- Reshaped
- Mended
- Filled
- Consolidated
- Support
- Biocide

PHOTOGRAPHS
Roll 1 2-3-86 Before/After 6-14-86 After

CURATORIAL RECOMMENDATIONS
CONSERVATION RECORD

Site 186A 2BD                  Date Started June 9, 1986
Provenience NL2B01W460          Date Finished June 11, 1986
Artifact No. 00                  Conservator S. W. Singley
Provenience FS 778

DESCRIPTION  1748 copper coin

EXAMINATION
DIMENSIONS
CONDITION E 6 P
TREATMENT PRIORITY H  M  L  none

_metal/copper/brass/bronze_
__bone/ivory__
__foodstuff__
__lead/tin/pewter__
__cork__
__glass__
__iron/steel__
__wood__
__ceramic__
__gold__
__cloth__
__stone__
__silver__
__leather__
__rubber__
__mineral__
__rope__
__other__
__gem__
__paper__

microscopic examination:

TECHNICAL ANALYSIS
spot tests: revenue undercoat -- may be Rose pattern?
magnet: not Britannia
other: surfaces v. eroded

TREATMENT RECORD

Date
June 9  Mechanically cleaned w/ scalpel + glass brush
June 10 placed in 3% benzotriazone (BTA) in ethanol
       for 24 hr under vacuum (23 1b/in.²)
June 11 Removed, passed through ethanol + air dried
       Leached w/ 5% Amyl BTA in toluene
       (Rohm & Haas acrylic copolymer w/ 10% BTA
       added as an inhibitor)

SUMMARY

scalpel
wire brush
glass brush
vibratool
airbrasive
electrolysis
chemical
ultrasonic
hot wash
cold wash
dewatered
oven dried
X inhibitor
X coating
X reshaped
X mended
X filled
X consolidated
X support
X biocide

Date
Before/After

PHOTOGRAPHS
Roll 1 2-3-86  Frames 18-20 BEFORE

CURATORIAL RECOMMENDATIONS
CONSERVATION RECORD

Site_188A982
Provenience_Tes 10, NE quad, layer 6
Artifact No._1
Provenience_PS 958

Date Started_June 17, 1986
Date Finished_June 19, 1986
Conservator_Singley

EXAMINATION

DESCRIPTION_iron hoe fragment?
DIMENSIONS_20 x 9 cm
CONDITION_E
PRIORITY (H) M L none

TREATMENT RECORD

Date
June 17, 1986_Encrustation removed, had been backed on polyester
net in field w/PVA emulsion. Examination & probing
showed that core of plate was sound, although exposed
thin layers were frattured. It was decided to
remove the net, the PVA, & the skin of corrosion,
leaving the core. Therefore, thickness of plate was really
twice of what is now preserved. Once the plate was
mechancially cleaned, hot wash was started in
changes of deionized water to remove as many
chlorides as possible.

June 18, 1986_TP8 reading of previous day's wash water
was 6.4ppm, water changed & hot wash continued.
At end of day, TP8 reading was 1.7ppm, chloride
test was negative. Because there was no more
time in the schedule for continued hot washing,
this stage was considered the endpoint & the plate
was placed in acetone to dwatate overnight.

June 19, 1986_Removal from acetone, CRC 3-36 (inhibitor)
applied by brush. After air drying, plate immersed in
hot microconstitutent way to seal.

TECHNICAL ANALYSIS

microscopic examination:
spot tests:
magnet:
other:

TREATMENT RECORD

Date

SUMMARY
☑ scalpel
☑ wire brush
☑ glass brush
☑ vibro tool
☑ airabrasive
☑ electrolysis
☑ chemical
☑ ultrasonic
☑ hot wash
☑ cold wash
☑ dewatered
☑ oven dried
☑ inhibitor
☑ coating
☑ reshaped
☑ mended
☑ filled
☑ consolidated
☑ support
☑ blocide

PHOTOGRAPHS
Roll 2, Frames 11-14 Before 3/17

CURATORIAL RECOMMENDATIONS
Store in RH < 30%
CONSERVATION RECORD

Site: Provenience B89483 B9890
Provenience

Artifact No.: 3

Date Started: 2-12-86
Date Finished: 4-13-86
Conservator: Singh

DESCRIPTION: Copper coin - English?

EXAMINATION
DIMENSIONS: 2.6 cm
CONDITION: E G D
TREATMENT PRIORITY: H M L none

REV: Small impression on obverse

COV: Slight corrosion on reverse

Hair facing right?

Stamps surface gone?

Sealed Britannia?

microscopic examination: Stamped surface. No inscription.

TECHNICAL ANALYSIS
spot tests: Slight impression on obverse
magnet:
other:

TREATMENT RECORD

Date

2-12 Mechanically cleaned with glass brush + scalp.

Place in 15% ferric acid 5 min. Brushed excessively to bring out vestiges of decoration.

3-31 Placed in 3% benzo trisole in methanol under vacuum.

Vacuum pulled to 28" Hg.

4-13 Vacuum released. Removed, passed through methanol, + air dried. Lacquered with lacquer (acrylic lacquer with benzotriazole) in toluene.

SUMMARY

scalpel
wire brush
glass brush
vibratool
air abrasive
electrolysis
chemical
ultrasonic
hot wash
cold wash
dewatered
oven dried
inhibitor
coating
reshaped
mended
filled
consolidated
support
bioctide

Before/After PHOTOGRAPHS: 2-3-86

BEFORE ROLL 1, FRAMES 15-17

CURATORIAL RECOMMENDATIONS
CONSERVATION RECORD

<table>
<thead>
<tr>
<th>Site</th>
<th>Date Started</th>
<th>Date Finished</th>
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<tbody>
<tr>
<td></td>
<td>9/6/86</td>
<td>9/8/86</td>
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<tr>
<td>Provenience</td>
<td>20A 283 28888</td>
<td>Conservator Singley</td>
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<td>Artfact No.</td>
<td>4</td>
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EXAMINATION

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>COIN</th>
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<tbody>
<tr>
<td>DIMENSIONS</td>
<td>2.5 cm</td>
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<table>
<thead>
<tr>
<th>CONDITION</th>
<th>E</th>
<th>G</th>
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</thead>
<tbody>
<tr>
<td>TREATMENT PRIORITY</td>
<td>M</td>
<td>none</td>
</tr>
</tbody>
</table>

- copper/brass/bronze
- lead/tin/pewter
- iron/steel
- gold
- silver
- mineral
- gem
- bone/ivory
- wood
- cloth
- leather
- rope
- paper
- foodstuff
- glass
- ceramic
- stone
- rubber
- other

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<tr>
<th>microscroscopic examination:</th>
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TECHNICAL ANALYSIS

<table>
<thead>
<tr>
<th>spot tests:</th>
<th>no remnants of inscription</th>
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</table>

<table>
<thead>
<tr>
<th>magnet:</th>
<th>Solid clay</th>
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<table>
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<tr>
<th>other:</th>
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</table>

TREATMENT RECORD

Date

1. E cleaned mechanically w/ scalpel + glass brush
2. 15% formic acid applied on swab. Rinsed un methanol + then vested under vacuum w/ 3% benzotriazole un methanol 25” Hg.

3. E removed form vacuum, passed through methanol, + lacquered w/ inredac in blender, am acrylic lacquer w/ benzotriazoles added as an inhibitor.

SUMMARY

<table>
<thead>
<tr>
<th>xscalpel</th>
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<tbody>
<tr>
<td>xwire brush</td>
</tr>
<tr>
<td>xglass brush</td>
</tr>
<tr>
<td>vibrotool</td>
</tr>
<tr>
<td>xairbrasive</td>
</tr>
<tr>
<td>electrolysis</td>
</tr>
<tr>
<td>xchemical</td>
</tr>
<tr>
<td>ultrasonic</td>
</tr>
<tr>
<td>xhot wash</td>
</tr>
<tr>
<td>xcold wash</td>
</tr>
<tr>
<td>xdehydrated</td>
</tr>
<tr>
<td>oven dried</td>
</tr>
<tr>
<td>xinhibitor</td>
</tr>
<tr>
<td>xcoating</td>
</tr>
<tr>
<td>xreshaped</td>
</tr>
<tr>
<td>xmended</td>
</tr>
<tr>
<td>xfilled</td>
</tr>
<tr>
<td>xconsolidated</td>
</tr>
<tr>
<td>xsupport +</td>
</tr>
<tr>
<td>xbiocide</td>
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PHOTOGRAPHS

<table>
<thead>
<tr>
<th>Date</th>
<th>Before/After</th>
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<tbody>
<tr>
<td>2-3-86</td>
<td>BEFORE, ROLL 1, Framz 0-2</td>
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</tbody>
</table>
CONSERVATION RECORD

Site: Massachusetts Provenience: Date Started: May 21, 1986
Artifact No.: 0 Date Finished: June 19, 1986
Provenience: Conservator: SINGLEY

DESCRIPTION Knife blade fragment w/ tang

DIMENSIONS 11.5 x 2.3 cm

CONDITION E P

TREATMENT PRIORITY H M L none

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EXAMINATION rivet

-copper/brass/bronze -bone/ivory -foodstuff
-lead/tin/pewter -cork -glass
-iron/steel -wood -ceramic
-gold -cloth -stone
-silver -leather -rubber
-mineral -rope -other
-gem -paper

microscopic examination:

TECHNICAL
spot tests:
magnet: Strong
other:

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TREATMENT RECORD

Date

5-21 mechanically cleaned with scalpel & vibratool.

5-24 boiled on 100% EDTA for 4 hrs, left overnight in EDTA

5-26 boiling begun in changes hot deionized water, changed 6X/day, to remove Cu & EDTA

5-29 hot wash continued

6-3 TDS reading on previous day's water changed. Hot wash cont'd.

6-4 TDS reading at 5.4. Water changed, hot wash cont'd.

6-9 TDS reading at 5.4. Water changed, hot wash cont'd.

6-10 TDS reading at 5.6 ppm. water changed, hot wash cont'd.

6-11 TDS reading at 5.6 ppm. water changed, hot wash cont'd.

6-12 TDS reading at 3.2 ppm. Water changed, hot wash cont'd. Last wash water 1.1 ppm by neg.

6-17 no reading, hot wash cont'd.

6-18 TDS reading at 2.8 ppm. Water changed, hot wash cont'd. Last wash water 1.1 ppm by neg.

6-19 watered in hot microcrystalline wax to seal.

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SUMMARY

-scalpel
-wire brush
-glass brush
-vibratool
-airbrasive
-electrolysis
-chemical
-ultrasonic
-hot wash
-cold wash
-dewatered
-oven dried
-Inhibitor
-coating
-reshaped
-mended
-filled
-consolidated
-support
-biocide

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PHOTOGRAPHS

3-17 Roll 2, Framed 1980 before

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CURATORIAL RECOMMENDATIONS

Store in RH < 30%.
**CONSERVATION RECORD**

<table>
<thead>
<tr>
<th>Site</th>
<th>126A 227 06700</th>
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<tbody>
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<tr>
<td>Provenience</td>
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</tbody>
</table>

**DESCRIPTION**
- 2 km long, blade

**EXAMINATION**
- **DIMENSIONS**: 3/4", 2" long
- **CONDITION**: E
- **TREATMENT PRIORITY**: H

<table>
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<th>Material</th>
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<tbody>
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<tr>
<td>Silver</td>
<td>No</td>
</tr>
<tr>
<td>Leather</td>
<td>No</td>
</tr>
<tr>
<td>Rubber</td>
<td>No</td>
</tr>
<tr>
<td>Mineral</td>
<td>No</td>
</tr>
<tr>
<td>Rope</td>
<td>No</td>
</tr>
<tr>
<td>Other</td>
<td>No</td>
</tr>
</tbody>
</table>

**TECHNICAL ANALYSIS**
- Microscopic examination: Not applicable
- Spot tests: Not applicable
- Magnet: Not applicable
- Other: Cannot be joined - edge too corroded

**TREATMENT RECORD**

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>5-7</td>
<td>Mechanically cleaned with mini-chisel, scalpel, vibrotool.</td>
</tr>
<tr>
<td>5-15</td>
<td>Placed in 10% EDTA (dissodium salt) for 4 hrs. Left overnight in EDTA to cool.</td>
</tr>
<tr>
<td>5-19</td>
<td>Intensive washing started in changes of deionized water 6x/day.</td>
</tr>
<tr>
<td>5-21</td>
<td>Wash continued.</td>
</tr>
<tr>
<td>5-28</td>
<td>TOC reading of cold wash water 11 ppm. Changed hot wash continued.</td>
</tr>
<tr>
<td>5-29</td>
<td>TOC reading of cold wash water 6.2 ppm. Hot wash continued.</td>
</tr>
<tr>
<td>6-3</td>
<td>TOC reading of cold wash water 4.8 ppm. Hot wash continued.</td>
</tr>
<tr>
<td>6-4</td>
<td>TOC reading of cold wash water 2.8 ppm. Hot wash continued.</td>
</tr>
<tr>
<td>6-9</td>
<td>TOC reading of cold wash water 10.1 ppm. Hot wash continued.</td>
</tr>
<tr>
<td>6-10</td>
<td>CO2 test at day's end was negative.</td>
</tr>
<tr>
<td>6-11</td>
<td>TOC reading of cold wash water 0.7 ppm. Hot wash continued.</td>
</tr>
<tr>
<td>6-11</td>
<td>CO2 test again negative at end of day. Put into acetone to deacetone.</td>
</tr>
<tr>
<td>6-13</td>
<td>Removed from acetone to proceed until hot microcrylulp.</td>
</tr>
</tbody>
</table>

**SUMMARY**
- Scalpel
- Wire brush
- Glass brush
- Vibrotool
- Abrasive
- Electrolysis
- Chemical
- Ultrasonic
- Hot wash
- Cold wash
- De-watered
- Oven dried
- Inhibitor
- Coating
- Reshaped
- Mended
- Filled
- Consolidated
- Support
- Blecide

<table>
<thead>
<tr>
<th>Date</th>
<th>BEFORE/ AFTER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frames 1-2</td>
<td>12-14</td>
</tr>
</tbody>
</table>

**PHOTOGRAPHS**
- BEFORE, ROW 1

**CURATORIAL RECOMMENDATIONS**
- Store in RH 430%
CONSERVATION RECORD

Site: 12BA288 P911
Provenience:
Artifact No.: 5
Provenience:

Date Started: May 7, 1986
Date Finished: June 13, 1986
Conservator: SINGLET

DESCRIPTION: iron piece - a - razor blade? t- arsenic tool?

EXAMINATION:
DIMENSIONS:
CONDITION: E G (P)
TREATMENT PRIORITY: H M L none

(copper/brass/bronze, bone/ivory, foodstuff, lead/tin/pepper, cork, glass, iron/steel, wood, ceramic, gold, cloth, stone, silver, leather, rubber, mineral, rope, gem, paper)

microscopic examination:
spot tests:
magnet: poor pull
other:

TREATMENT RECORD:

Date
5-7 Mechanically cleaned w/ mini chisel, scalpel, vibrotol placed in 100o EDTA (disodium salt) for 4 hours. Left overnight in EDTA to cool.
5-15 Hot wash started in changes of deionized water changed ox 1/day.
5-19 Hot wash continued.
5-21 Hot wash continued.
5-28 TOS meter on cold wash, water 8.11 ppm. Hot wash continued.
5-29 TOS meter reading 6.2 ppm. Hot wash continued.
5-3 TOS meter reading 4.8 ppm. Hot wash continued.
6-4 TOS meter reading 8 ppm. Hot wash continued.
6-9 TOS meter reading 10.1 ppm. Hot wash continued.
6-10 TOS meter reading 1.7 ppm. Hot wash continued.

SUMMARY:
scalpel
wire brush
glass brush
vibrotol, chisel
abrasive
electrolysis
chemical
ultrasonic
hot wash
cold wash
dewatered
oven dried
inhibitor
coating
reshape
mended
filled
consolidated
support
biocide

Date Before/After

PHOTOGRAPHS Before Feb 2nd Roll #1, Frames 12-14

CURATORIAL RECOMMENDATIONS
Store at RH < 30%.
0.13 Removed from actions and placed into hot microcylindrical wax to seal.

0.17 Glued with Hardman Crystal Clear Epoxy
CONSERVATION RECORD

Site
Provenience 188828 - 88830
Artifact No. 3
Provenience

Date Started 2-8-86
Date Finished 2-8-86
Conservator SINGLEY

DESCRIPTION 3 buttons - large + small

DIMENSIONS 2.8 cm

CONDITION E O P

TREATMENT PRIORITY H M L none

EXAMINATION
- ceramic circles
- copper/brass/bronze
- lead/tin/pewter
- iron/steel
- gold
- silver
- mineral
- gem
- bone/ivory
- wooden
- glass
- ceramic
- cloth
- stone
- leather
- rubber
- rope
- paper

microscopic examination: large silk in place with white melol

TECHNICAL ANALYSIS
- spot tests: large silk in place with white melol
- magnet: copper base
- other:

TREATMENT RECORD

Date
2-6 large button cleaned w/ glass brush. loop broke w/ handling. placed on 30% benzotrizeole in methanol under vacuum, 25" Hg
2-8 removed from BRA. passed through methanol, dried, t lacquered w/ invisible acrylic lacquer in methanol, which contains the inhibitor benzotrizeole
2-9 loop reattached on large button w/ Deco cement

SUMMARY
- scalpel
- wire brush
- glass brush
- vibratool
- abrasive
- electrolysis
- chemical
- ultrasonic
- hot wash
- cold wash
- dewatered
- oven dried
- inhibitor
- coating
- reshaped
- remended
- filled
- consolidated
- support
- biocide

PHOTOGRAPHS

2-3-86 BEFORE, Row 1, Frames 0-2

CURATORIAL RECOMMENDATIONS
CONSERVATION RECORD

<table>
<thead>
<tr>
<th>Site</th>
<th>L80882</th>
<th>Date Started</th>
<th>5-27-86</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provenience</td>
<td></td>
<td>Date Finished</td>
<td>6-3-86</td>
</tr>
<tr>
<td>Artifact No.</td>
<td>B8719</td>
<td>Conservator</td>
<td>SINGLET</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>small plated w/ white metal</th>
<th>bone/ivory</th>
<th>foodstuff</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIMENSIONS</td>
<td>1.3cm (diam)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CONDITION</td>
<td>E</td>
<td>G</td>
<td>P</td>
</tr>
<tr>
<td>TREATMENT PRIORITY</td>
<td>H</td>
<td>M</td>
<td>L</td>
</tr>
</tbody>
</table>

- Copper/brass/bronze
- Lead/tin/pewter (?)
- Iron/steel
- Gold
- Silver
- Mineral
- Gem
- Bone/ivory
- Cork
- Glass
- Wood
- Cloth
- Leather
- Rubber
- Paper
- Other

microscopic examination:
"PLATE" inscribed on reverse
No remnants left on bottom

TREATMENT RECORD

<table>
<thead>
<tr>
<th>Date</th>
<th>Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>5-27</td>
<td>Mechanically cleaned w/ scalpel + glass brush</td>
</tr>
<tr>
<td>5-29</td>
<td>Plated under vacuum (23.150 in.) in 3% Benzo-tetracloride (BTA) in ethanol.</td>
</tr>
<tr>
<td>6-3</td>
<td>Removed from vacuum, passed through ethanol + air dried. Lacquered with 5% acrylic B-72 (Kraut and Hans Acrylic Co. polymer) in toluene, with 1% BTA added as an inhibitor.</td>
</tr>
</tbody>
</table>

SUMMARY

- Scalpel
- Wire brush
- Glass brush
- Vibrotool
- Airabrasive
- Electrolysis
- Chemical
- Ultrasonic
- Hot wash
- Cold wash
- Dewatered
- Oven dried
- Inhibitor
- Coating
- Reshaped
- Mended
- Filled
- Consolidated
- Support
- Biocide

PHOTOGRAPHS

<table>
<thead>
<tr>
<th>Roll</th>
<th>Date</th>
<th>Before/After</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>3-17</td>
<td>Bases 15+16</td>
</tr>
</tbody>
</table>

CURATORIAL RECOMMENDATIONS
CONSERVATION RECORD

Site: 188a 222  Date Started: 5-27-86
Provenience: 88874  Date Finished: 6-3-86
Artifact No.:  ( ) 109  Conservator: Susan M.
Provenience:  none

DESCRIPTION: plated button

DIMENSIONS:  7.1 cm (diameter)

CONDITION: E  G  P

TREATMENT PRIORITY: H  M  L none

EXAMINATION

- copper/brass/bronze
- lead/tin/ pewter (?)
- iron/steel
- gold
- silver
- mineral
- gem
- bone/ivory
- cork
- glass
- wood
- ceramic
- cloth
- stone
- leather
- rubber
- rope
- paper

microscopic examination:

TECHNICAL ANALYSIS

spot tests:

copper alloy plated with white metal
metal appears to be silver
no remnants of silver, only button

TREATMENT RECORD

Date: 5-27
Mechanically cleaned using scalpel + glass brush
10% Formic acid applied by swab. Whiting in isopropanol used as an abrasive paste to polish silver.

Date: 5-29
Placed in 3% benzoic acid in ethanol under vacuum (33 P.S.I.G.)

Date: 6-3
Removed from vacuum, passed through ethanol + air dried.
Lacquered in 5% Acryloid B-72 in toluene (Roehm + Haas Acrylic Co-Polymer) with 1% BTA added as an inhibitor.

SUMMARY

- scalpel
- wire brush
- glass brush
- vibrotool
- airbrushing
- electrolysis
- chemical
- ultrasonic
- hot wash
- de-watered
- oven dried
- inhibitor
- coating
- reshaped
- mended
- filled
- consolidated
- support
- biocide

PHOTOGRAPHS

3-17 Roll 2, Frames 15+16  Before/After

CURATORIAL RECOMMENDATIONS
CONSERVATION RECORD

Site: 1882.06
Provenience: 6847
Artifact No.: II
Provenience:

Date Started: June 9, 1986
Date Finished: June 12, 1986
 Conservator: Singleton

EXAMINATION

DESCRIPTION: button fragment + Pb bullet
DIMENSIONS:
CONDITION: E (O) P
TREATMENT PRIORITY: M L none

EXAMINATION

loop missing

Copper/brass/bronze: bone/ivory
Lead/tin/pewter: cork
Iron/steel: wood
gold: ceramic
cloth: stone
Silver: rubber
Mineral: rope
Gem: paper

May be plated

microscopic examination:
spot tests:
magnet: Button may be plated?
Solder on loop evidence on rev.

TREATMENT RECORD

Date

June 9: Bullet cleaned by immersing in 10% EDTA (diluted) for 3 minutes. Rinsed 10 minutes in deionized water, then 10 minutes in ethanol. Coated with a swab of Renaissance microcrystalline wax in a stand and solvent. Button cleaned mechanically with glass brush + scalpel. Sanded with 15% formic acid.

June 10: Button placed in 3% benzotriazole (BTA) in ethanol under vacuum (23 lbs/in2) for 24 hours.

June 11: Button removed, passed through ethanol, and air dried. Lacquered with 5% Polyimide B72 (Rohm & Haas acrylic copolymer) in toluene w/ 1% BTA added to inhibit corrosion.

SUMMARY

Scalpel
Wire brush
Glass brush
Vibrattoo
Airbrasive
Electrolysis
Chemical
Ultrasound
Hot wash
Cold wash
Dewatered
Oven dried
Inhibitor
Coating
Reshaped
Mended
Filled
Consolidated
Support
Blocide

PHOTOGRAPHS

Roll 2 3-17 Frames 17+18 Before

CURATORIAL
RECOMMENDATIONS
CONSERVATION RECORD

Site: Provenience 180A 323 80852  Date Started: 2-12-86
Provenience No.: 12  Date Finished: 4-15-86
Artifact No.: 12  Conservator: Sherry

EXAMINATION

DESCRIPTION:  Button
DIMENSIONS: 1.5 cm x 1.4 cm
CONDITION:  E  G (B)
TREATMENT PRIORITY:  B  M  L  none

☑ copper/brass/bronze  ☑ bone/ivory  ☑ foodstuff
☑ lead/tin/pewter  ☑ cork  ☑ glass
☑ iron/steel  ☑ wood  ☑ ceramic
☑ gold  ☑ cloth  ☑ stone
☑ silver  ☑ leather  ☑ rubber
☑ mineral  ☑ rope  ☑ paper  ☑ other

microscopic examination:
spot tests:  copper w/ white metal plating
magnet:  brass loop has bronze damage
other:

TREATMENT RECORD

Date
2-12  Mechanically cleaned w/ scalpel + glass brush.
      Washed w/ 15% formic acid.
3-31  Placed in 3% benzotriazoles in methanol under
      vacuum. Vacuum pulled to 23" Hg.
4-13  Removed from chamber. Passed through
      methanol + air dried. Lacquered w/ incolac
      (acrylic lacquer w/ added benzotriazoles) in
      toluene.

SUMMARY
☑ scalpel
☑ wire brush
☑ glass brush
☑ vibrotool
☑ airbrasive
☑ electrolysis
☑ chemical
☑ ultrasonic
☑ hot wash
☑ cold wash
☑ dewatered
☑ oven dried
☑ inhibitor
☑ coating
☑ reshaped
☑ mended
☑ filled
☑ consolidated
☑ support
☑ biocide

PHOTOGRAPHS

Date:  2-3-86  Before/After:  Before, Roll 1, Frames 15-17

CURATORIAL RECOMMENDATIONS
CONSERVATION RECORD

Site
Provenience 130A 302 0010
Artifact No. 844 13
Provenience

Date Started
Date Finished

CONSERVATION RECORD

DETAILED
DESCRIPTION large bottom
DIMENSIONS 2.4 cm diameter
CONDITION E (C) P
TREATMENT PRIORITY M L none

EXAMINATION

loop

 tweened in holes

3 - small hole

microscopic examination:
spot tests: no evidence of plating. Fault on horn limited to
magnet: small hole on rear? Wire twisted & inserted as loop
other:

TREATMENT RECORD

Date
2 - 6 brushed w/ glass brush, brush 15% formic acid
applied by brush to remove copper corrosion
products. Placed in methanol, then with 3%
Benzoxyphol in methanol under vacuum @ 25"
Hg
3 - 8 removed from chamber. Rinsed through methanol.
Lacquered w/ lacquer in toluene, an acrylic lacquer
with benzoxyphol as an accelerant.

SUMMARY

\underline{scapfell}
wire brush
glass brush
vibrato tool
abrasive
electrolysis
chemical
ultrasonic
hot wash
cold wash
dewatered
oven dried
inhibitor
coating
reshaped
mended
filled
consolidated
support
biocide

Before/After

PHOTOGRAPHS
2 - 3 - 86 before, roll 1, FRAM 250 - 3

CURATORIAL
RECOMMENDATIONS
CONSERVATION RECORD

Site: 18BA262
Provenience: unknown
Artifact No.: 38479
Provenience: 14

Date Started: 5-27-86
Date Finished: 6-3-86
Conservator: Singley

DESCRIPTION: copper alloy button
DIMENSIONS: 3.9 cm (diam)
CONDITION: G P
TREATMENT PRIORITY: M L
Core: copper/brass/bronze
Lead/tin/mercury (?)
Iron/steel
Gold
Silver
Mineral
Gem
Bone/ivory
glass
ceramic
cloth
leather
rubber
rope
Other:

Microscopic examination: Slightly warped concentric circles on edge on obv.

Magnetic test:

Other:

LOCATION OF HANDLED PECKING - now block

TREATMENT RECORD

5-27-86: Mechanically cleaned with scalpel + glass brush. 10% formic acid applied by brush.

5-29-86: Placed under vacuum (2310 Torr) in 3% BTA benzotriazole in ethanol.

6-13-86: Removed from vacuum; passed through ethanol, + air dried, then lacquered with 5% acrylic 0-72 (ROHM + HAAS ACRYLIC COPOLYMER) with 10% BTA as an inhibitor.

6-17-86: Fiber identified as wood under polarizing microscope.

PHOTOGRAPHS

Roll 2 3/17 Frames 15+16 Before/After

CURATORIAL RECOMMENDATIONS
# Conservation Record

**Site**

**Provenience**

**Artifact No.** 15

**Provenience**

**Date Started** 2/6/85

**Date Finished** 2-8-86

**Conservator** Single

## Description
- **small bottom**

### Examination
- **Dimensions**
  - 1.3 cm diam
- **Condition**
  - EGP
- **Treatment Priority**
  - C

<table>
<thead>
<tr>
<th>Substance</th>
</tr>
</thead>
<tbody>
<tr>
<td>copper/brass/bronze</td>
</tr>
<tr>
<td>lead/tin/pewter</td>
</tr>
<tr>
<td>iron/steel</td>
</tr>
<tr>
<td>gold</td>
</tr>
<tr>
<td>silver</td>
</tr>
<tr>
<td>mineral</td>
</tr>
<tr>
<td>gem</td>
</tr>
<tr>
<td>bone/ivory</td>
</tr>
<tr>
<td>foodstuff</td>
</tr>
<tr>
<td>glass</td>
</tr>
<tr>
<td>wood</td>
</tr>
<tr>
<td>ceramic</td>
</tr>
<tr>
<td>cloth</td>
</tr>
<tr>
<td>stone</td>
</tr>
<tr>
<td>leather</td>
</tr>
<tr>
<td>rubber</td>
</tr>
<tr>
<td>rope</td>
</tr>
<tr>
<td>other</td>
</tr>
<tr>
<td>paper</td>
</tr>
</tbody>
</table>

- **Microscopic Examination:** Remains of light gilding layer is evident on back and on edge. Bottom has rough,-burned surface. Need gilding to hold?

## Technical Analysis
- **Spot Tests:**
- **Magnet:**
- **Other:**

## Treatment Record
- 5/6 cleaned lightly w/ fine glass brush, 15%
- Formic acid applied by swab removed copper corrosion products & remnants of gilding. Placed in methanol to rinse, + rem in 30% benzotriazolate methanol + 25° Hg
- 2/8 passed through methanol + lacquer w/ lacalac in toluene, an acrylic lacquer w/ Benzotriazolate as an additive.

### Summary
- x scalpel
- x wire brush
- x glass brush
- x vibrotube
- x air abrasive
- x electrolysis
- x chemical
- x ultrasonic
- x hot wash
- x cold wash
- x dewatered
- x oven dried
- x inhibitor
- x coating
- x reshaped
- x mended
- x filled
- x consolidated
- x support
- x biocide

<table>
<thead>
<tr>
<th>Date</th>
<th>Before/After</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-3-86</td>
<td>Before, Roll 1, Frames 0-2</td>
</tr>
</tbody>
</table>

## Curatorial Recommendations
CONSERVATION RECORD

Site
Provenience: BA 822 JR 1015
Artifact No.: 16

Date Started: 2-6-86
Date Finished: 2-8-86
Conservator: SINGLET

DESCRIPTION: 2 small buttons (Gilt?)

EXAMINATION

DIMENSIONS
CONDITION: E (P)
TREATMENT PRIORITIES: C (M) L (none)

Inscription is obliterated
Probably "Gilt"

TREATMENT RECORD

Date: 2-6
Silver gilt buttons cleaned w/ 15% formic acid to enhance silvering. Glass brush, bronze brushed. Dewatered in methanol. Placed in 3% benzol/ xylene under vacuum, 24"Hg.

2-8 removed from vacuum, passed through methanol, then lacquered with lacquer, acrylic lacquer, with benzol/ xylene as an added inhibitor.

PHOTOGRAPHS

Date: 2-3-86

Before/After: BEFORE, ROUL 1, 3-5

SUMMARY

- scalpel
- wire brush
- glass brush
- vibrotool
- airabrasive
- electrolysis
- chemical
- ultrasonic
- hot wash
- cold wash
- dewatered
- oven dried
- inhibitor
- coating
- reshaped
- mended
- filled
- consolidated
- support
- biocide

CURATORIAL RECOMMENDATIONS
CONSERVATION RECORD

Site: 18 BA 388
Provenience: EPC 979
Artifact No.: 11
Provenience: 

Date Started: 3-19-86
Date Finished: 5-20-86
Conservator: Singly

DESCRIPTION: bulla
DIMENSIONS: 2.8 cm diam.
CONDITION: E @ P
TREATMENT PRIORITY: H M L none

EXAMINATION
- copper/brass/bronze
- lead/tin/pewter
- iron/steel
- bone/ivory
- wood
gold
- cloth
silver
- leather
mineral
- rubber
gem
- paper

TECHNICAL ANALYSIS
- microscopic examination: very black, powdery surface under Cu corrosion
- spot tests: remnants of plating? Sulphide? Peculiar alloy?
- magnet: 
- other: It was decided not to remove the label

TREATMENT RECORD

3-19-86: Mechanically cleaned with scalpel + glass brush
5-19-86: Placed in 20% benzotriazole in ethanol under vacuum (33183 in2) for 24 hrs.
5-20-86: Removed from vacuum, passed through ethanol, + air dried. Lacquered with 2 coats of nail lacquer (acrylic lacquer with benzotriazole added as inhibitor) applied by brush in 5% solution in toluene.

SUMMARY
- scalpel
- wire brush
- glass brush
- vibrotool
- airbrushing
- electrolysis
- chemical
- ultrasonic
- cold wash
- dewatered
- oven dried
- inhibitor
- coating
- reshaped
- mended
- filled
- consolidated
- support
- biocide

PHOTOGRAPHS

Date: 3-17
Before/After: Before, Roll 2, Frames 4-6

CURATORIAL RECOMMENDATIONS
CONSERVATION RECORD

Site: ___________________________ Date Started: 2/16/86
Provenience: 14BA 582-8A964 Date Finished: 2/24/86
Artifact No.: 18 Conservator: Single
Provenience: ____________________

EXAMINATION

DESCRIPTION: button fragment
DIMENSIONS: 1.75 mm diam.
CONDITION: E G (P)
TREATMENT PRIORITY: ( ) none

inscriptions and labels
fragment
v. poor
"...AN"?

<table>
<thead>
<tr>
<th>Material</th>
<th>Present</th>
</tr>
</thead>
<tbody>
<tr>
<td>Copper/brass/bronze</td>
<td>☒</td>
</tr>
<tr>
<td>Lead/tin/pewter</td>
<td>☐</td>
</tr>
<tr>
<td>Bone/ivory</td>
<td>☒</td>
</tr>
<tr>
<td>Foodstuff</td>
<td>☐</td>
</tr>
<tr>
<td>Iron/steel</td>
<td>☐</td>
</tr>
<tr>
<td>Cork</td>
<td>☐</td>
</tr>
<tr>
<td>Wood</td>
<td>☐</td>
</tr>
<tr>
<td>Ceramic</td>
<td>☐</td>
</tr>
<tr>
<td>Gold</td>
<td>☐</td>
</tr>
<tr>
<td>Cloth</td>
<td>☐</td>
</tr>
<tr>
<td>Silver</td>
<td>☐</td>
</tr>
<tr>
<td>Leather</td>
<td>☐</td>
</tr>
<tr>
<td>Mineral</td>
<td>☐</td>
</tr>
<tr>
<td>Rope</td>
<td>☐</td>
</tr>
<tr>
<td>Rubber</td>
<td>☐</td>
</tr>
<tr>
<td>Gem</td>
<td>☐</td>
</tr>
<tr>
<td>Paper</td>
<td>☐</td>
</tr>
<tr>
<td>Other</td>
<td>☐</td>
</tr>
</tbody>
</table>

microscopic examination:
spot tests: None
magnet: V. mineralized - not much
other: mechanical strength

TECHNICAL
ANALYSIS

TREATMENT RECORD

Date

2.6 mechanically cleaned w/ glass brush, r scalped
    inscriptions did not become more readable.
    15% formic acid applied by swab. Fractured in
    cleaning. Fragments runched w/t ushered after cleaning
    r hen placed in 3% benzotrizingol in method
    under vacuum, 75" Hg

2.8 removed from vacuum, passed through methanol,
    dried, r new lacquered w/t lacquer in toluene,
    an acrylic lacquer that contains benzotrizingol.

2.9 fragments joined w/Duco cement.

SUMMARY

<table>
<thead>
<tr>
<th>Treatment</th>
<th>☒</th>
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</thead>
<tbody>
<tr>
<td>Scalpel</td>
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<td>Wire brush</td>
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<tr>
<td>Glass brush</td>
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<tr>
<td>Vibrotool</td>
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<tr>
<td>Abrasive</td>
<td>☐</td>
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<tr>
<td>Electrolysis</td>
<td>☐</td>
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<tr>
<td>Chemical</td>
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<tr>
<td>Ultrasonic</td>
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<tr>
<td>Hot wash</td>
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<tr>
<td>Cold wash</td>
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<tr>
<td>Dewatered</td>
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<td>Oven dried</td>
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<tr>
<td>Inhibitor</td>
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<tr>
<td>Coating</td>
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<td>Reshaped</td>
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<td>Mended</td>
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<td>Filled</td>
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<td>Consolidated</td>
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<td>Support</td>
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<tr>
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</tbody>
</table>

Photographs

Date: 2/2/86
Before/After: Before, Roll 1, Frames 0-2

CURATORIAL
RECOMMENDATIONS
CONSERVATION RECORD

Site
Provenience 168A289 - 88839
Artifact No. 19
Provenience

Date Started 3-6-86
Date Finished 3-8-86
Conservator SINGLEY

EXAMINATION

DESCRIPTION chair tack
DIMENSIONS 1.5 cm
CONDITION E G P
TREATMENT PRIORITY G M L none

worn center X copper/brass/bronze _bone/ivory _foodstuff
lead/tin/pewter _cork _glass
iron/steel _wood _ceramic
gold _cloth _stone
silver _leather _rubber

TECHNICAL ANALYSIS

X microscopic examination: the brass appears to have been plated (silver
tarnished) worn center area + 2 prongs

spot tests: 
magnet: colored
other: indicates tag cap

TREATMENT RECORD

Date
1-6 mechanically cleaned w/ scalpel + glass brush
15% formic acid used also to remove copper corrosion products. Reaction enhanced w/ cleaning. Rinsed in methanol, then placed on 3% benzotrichyl acetate in methanol under vacuum, 25°C Hg.

2-8 Removed from vacuum, passed through methanol, + then lacquered with lacquer in toluene, an acrylic lacquer containing benzotrichyl acetate as an additive.

SUMMARY

_w scalpel
_w wire brush
_g glass brush
_v vibrotool
_airbrasive
_electrolysis
_chemical
_ultrasonic
_hot wash
_cold wash
_d deoxygenated
_oven dried
_x inhibitor
_coating
_reshaped
_mended
_filled
 connaît consolidated
_support
_brocade

PHOTOGRAPHS

Date 2-3-86
Before/After Before, Roll 1, Frame 3-5

CURATORIAL RECOMMENDATIONS
CONSERVATION RECORD

Site 188A282  Date Started 5-27-86
Provenience 68922  Date Finished 6-3-86
Artifact No. 20  Conservator Singler
Provenience

DESCRIPTION  Small button

EXAMINATION  DIMENSIONS  1.3 cm

CONDITION  E 6 P

TREATMENT PRIORITY  A  M  L  none

- copper/brass/bronze  - bone/ivory  - foodstuff
- lead/tin/peuter  - cork  - glass
- iron/steel  - wood  - ceramic
- gold  - cloth  - stone
- silver  - leather  - rubber
- mineral  - rope  - other
- gem  - paper  -

TECHNICAL ANALYSIS  microscopic examination: no pesting
spot tests: magnet:
other:

TREATMENT RECORD

Date
5-27  mechanically cleaned w/ scalpel & glass brush
  immersed in 10% formic acid for 5 minutes, brushed again
  w/ gb
5-29  placed in vacuum (23.661 in2) in 83% BTA (benzo-
  triazole) in ethanol
6-3  removed from vacuum, passed through ethanol,
  + air dried, then laquered with 5% acrylo-1-b-22
(KROMA-MANS acrylic co-polymer in toluene) that
  contained 10% BTA as an inhibitor.

SUMMARY
  - scalpel
  - wire brush
  - glass brush
  - vibratool
  - airbrasive
  - electrolysis
  - chemical
  - ultrasonic
  - hot wash
  - cold wash
  - dewatered
  - oven dried
  - inhibitor
  - coating
  - reshaped
  - mended
  - filled
  - consolidated
  - support
  - biocide

PHOTOGRAPHS

Before/After

PHOT 2 3-17  Framed 15/16 before

CURATORIAL RECOMMENDATIONS
CONSERVATION RECORD

Site 18 B3222
Provenience 35566
Artifact No. 21
Provenience 21

Date Started June 9, 1986
Date Finished June 11, 1986
Conservator Single

DESCRIPTION 3 buttons (9 are plated w/ white metal)

DIMENSIONS 1.3 - 1.5 cm

CONDITION E (g) P

TREATMENT PRIORITY G M L none

☑ copper/brass/bronze ☑ bone/ivory ☑ foodstuff
☐ lead/tin/pewter ☐ cork ☐ glass
☐ iron/steel ☐ wood ☐ ceramic
☐ gold ☐ cloth ☐ stone
☐ silver ☐ leather ☐ rubber
☐ mineral ☐ rope ☐ other
☐ gem ☐ paper ( )

microscopic examination: plating evident on 3 buttons

TECHNICAL ANALYSIS
spot tests:
magnet:
other:

TREATMENT RECORD

Date
June 9  mechanically cleaned w/scalpel & glass brush
15% formic acid used to remove copper corrosion

June 10 placed in 30% benzotriazole (BTA) in ethanol
under vacuum (02100)1in2) for 2 hrs.

June 11 removed from vacuum, passed through ethanol,
and air dried. Reheated w/5% Acryloid
B72 in toluene (acrylic co-polymer w/1%
BTA added to inhibit further corrosion)

SUMMARY
☑ scalpel
☐ wire brush
☐ glass brush
☐ vibrotool
☐ airbrasive
☐ electrolysis
☐ chemical
☐ ultrasonic
☐ hot wash
☐ cold wash
doctorated
don oven dried
☐ inhibitor
doctorated
doctorated
doctorated
☐ consolidated
☐ support
☐ biocide

Date Before/After

PHOTOGRAPHS March 17 Roll 2 Frames 17-18

CURATORIAL RECOMMENDATIONS
CONSERVATION RECORD

Site: 18.892892.80853
Provenience:
Artifact No.: 32
Provenience:

Date Started: 2-12-86
Date Finished: 4-12-86
Conservator: J. D. Jones

EXAMINATION

DESCRIPTION: bronce button

DIMENSIONS: 1.6 cm

CONDITION: E @ P

TREATMENT PRIORITY: H M L

DESCRIPTION:
- X: copper/brass/bronze
- x: lead/tin/pewter
- _: iron/steel
- _: gold
- _: silver
- _: mineral

CONDITION:
- _: bone/ivory
- _: wood
- _: cloth
- _: leather
- _: rope
- _: gem

TREATMENT:
- _: glass
- _: ceramic
- _: stone
- _: rubber
- _: paper
- _:

remnants of white metal plating

microscopic examination: obv. surface is roughened, v. much like bottom of 18.892892-80853 (Bag #15)

TECHNICAL ANALYSIS

spot tests: no glazing left, however, on front. some white metal on reverse

magnet:

other:

TREATMENT RECORD

Date:
2-12 Cleared with 15% formic acid (3 min.) Brushed with glass brush & cleaned w/ scalpel.
Formic acid-enhanced white metal plating.

3-21 Placed in 3% benzoltriagola in methanol under vacuum. Vacuum pulled to 23 Hg.

4-13 Removed from vacuum. Rinsed through methanol.
Air dried. Lacked with lacquer in toluene.
(acrylic lacquer with benzoltriagola)

SUMMARY

- scalpel
- wire brush
- glass brush
- vibrotool
- airbrasive
- electrolysis
- chemical
- ultrasonic
- hot wash
- cold wash
- dewatered
- oven dried
- X: Inhibitor
- X: coating
- reshaped
- mended
- filled
- consolidated
- support
- biocide

PHOTOGRAPHS

Date: 2-3-86
Before/After: BEFORE, ROLL 1, FRAMES 15-17

CURATORIAL RECOMMENDATIONS
CONSERVATION RECORD

Site: 150226
Provenience: B6978
Artifact No.: 83
Provenience:

Date Started: 3-19-86
Date Finished: 5-20-86
Conservator: S. Hoge

DESCRIPTION: Button w/plating
DIMENSIONS: 1.4 cm diam.
CONDITION: Excellent
TREATMENT PRIORITY: High

EXAMINATION:
- X-copper/brass/bronze
- X-lead/tin/ pewter
- X-iron/steel
- X-gold
- X-silver
- X-mineral
- X-gem
- _bone/ivory
- _wood
- _ceramic
- _cloth
- _leather
- _rope
- _rubber
- _other
- _paper

microscopic examination: Appears to be a copper alloy button w/white metal plating

TECHNICAL ANALYSIS:
spot tests: w/ white metal plating
magnet: Collum tubes trapped corrosion products in edop
other: Collum tubes trapped corrosion products in edop

TREATMENT RECORD
Date: 3-19
Mechanically cleaned w/glue brush r-scalped 10% formic acid used to enhance white metal plating. Loop not cleaned because of plating.

5-19: Placed in 30% benzotriazole in ethanol under vacuum (212°F) for 34 hrs.

5-20: Removed from vacuum, passed through alcohol, air dried. Lacquered w/2 coats of lacquer (acrylic w/benzotriazole added as inhibitor) applied by brush in a 5% solution in benzene.

SUMMARY:
- Scalpel
- Wire brush
- Glass brush
- Vibration tool
- Abrasive
- Electrolysis
- Chemical
- Ultrasonic
- Hot wash
- Cold wash
- Dewatered
- Oven dried
- Inhibitor
- Coating
- Reshaped
- Mended
- Filled
- Consolidated
- Support
- Biocide

PHOTOGRAPHS
Date: 3-17-86
Before/After: Before, Roll 2, Frames #1-10

CURATORIAL RECOMMENDATIONS
CONSERVATION RECORD

Site
Provenience 1922 289 00764
Artifact No. 24
Provenience

Date Started 2-6-86
Date Finished 2-9-86
Conservator Jingles

EXAMINATION
DESCRIPTION button fragment
DIMENSIONS 2.7 cm
CONDITION E ( ) P
TREATMENT PRIORITY O M L none

Crack around loop base

- copper/brass/bronze
- lead/tin/ pewter
- iron/steel
- gold
- silver
- mineral
- gem

- bone/ivory
- cork
- wood
- cloth
- leather
- rope
- paper ( )

✓ microscopic examination: Appears to be brass w/white

TECHNICAL ANALYSIS
spot tests: metal plating, concentric circles
magnet: on reverse from spinning. Large scale around loop at back, which faded.

TREATMENT RECORD
Date
2-8 mechanically cleaned w/ scalpel & glass brush. Chemically cleaned w/ 15% fomric acid to enhance silverying layer. Fragmented during cleaning. Placed in 3% benzotriazole in methanol under vacuum, 25 Hz, passed through reducing 2-8 Removed from vacuum & air dried, then lacquered with incolac in heptene, an acrylic lacquer that contains the benzotriazole inhibitor. 2-9 fragments joined w/ Duo Cement

2-9

SUMMARY
- scalpel
- wire brush
- glass brush
- vibrotool
- abrasive
- electrolysis
- chemical
- ultrasonic
- hot wash
- cold wash
- dewatered
- oven dried
- inhibitor
- coating
- reshaped
- mended
- filled
- consolidated
- support
- bicolide

PHOTOGRAPHS

Date Before/After
2-3-86
BEFORE, ROLL 1, FRAM 3-5

CURATORIAL RECOMMENDATIONS
CONSERVATION RECORD

Site 15893282
Provenience 88880
Artifact No. 25
Provenience 25

Date Started 5-27-86
Date Finished 6-3-86
Conservator Singley

DESCRIPTION copper alloy button - ccll Button

DIMENSIONS cm 1.3 (diam.)

CONDITION E G P

TREATMENT PRIORITY. (H M L none

-copper/brass/bronze _bone/Ivory _foodstuff
-lead/tin/peverITER _cork _glass
-iron/steel wood _ceramic
-gold _cloth _stone
-silver _leather _rubber
-mineral _rope _other
-gem _paper

microscopic examination: bronze disease evident on both obv + rev

TECHNICAL ANALYSIS

spot tests: "gilt" on reverse
 other:

TREATMENT RECORD

Date
5-27-86 Mechanically cleaned w/ scalpel + glass brush
10% formic acid used by immersion for 15 minutes. Brushed again with gbb.

5-29-86 Place in 3% benzotriazole (BTA) in ethanol under vacuum (23 1/2

6-3-86 Removed from vacuum, passed through ethanol, and air dried. Lacquered with 59% acrylic B-72
(Roth & Haas acrylic co. powder) in toluene, with 10% BTA added as an inhibitor.

SUMMARY
√scalpel
√glass brush
√vibrotool
√airabrasive
√electrolysis
√chemical
√ultrasonic
√hot wash
cold wash
dewatered
oven dried
Inhibitor
coating
reshaped
mended
filled
consolidated
support
biocide

PHOTOGRAPHS

Roll 2 3:17 Framed 1516 Before/After

CURATORIAL RECOMMENDATIONS
CONSERVATION RECORD

Site 12B9382  Date Started 5-27-86
Provenience  Date Finished 6-3-86
Artifact No. 88973  Conservator Singleton
Provenience 2a

EXAMINATION
DESCRIPTION  Placed button
DIMENSIONS  1.6 cm (diam)
CONDITION  G
TREATMENT PRIORITY  none

DESCRIPTION
- copper/brass/bronze  - bone/ivory  - foodstuff
- lead/tin/ pewter  - cork  - glass
- iron/steel  - wood  - ceramic
- gold  - cloth  - stone
- silver  - leather  - rubber
- mineral  - rope  - other
- gem  - paper

microscopic examination:
Spot tests: placed. Stain determination on absence

TREATMENT RECORD

Date
5-27 Mechanically cleaned w/ scalpel + glass brush
10% EDTA + formal acid used to remove copper + Fe (?)
Corrosion products. Button removed in deionized water
5-29 Placed in 3% Benzotriazole (BTA) in Ethanol under vacuum
123 lps (torr)
6-3 Removed from vacuum, pressed through ethanol, + air dried
Lacquered with 5% Acrylic 13-92 in toluene (Rohm + Haas
Acrylic Co-Polymer) with 10% BTA added as an inhibitor.

SUMMARY
- scalpel
- wire brush
- glass brush
- vibrotool
- airabrasive
- electrolysis
- Chemical
- ultrasonic
- hot wash
- cold wash
- dewatered
- oven dried
- Inhibitor
- coating
- reshaped
- mended
- filled
- consolidated
- support
- biocide

PHOTOGRAPHS

3-17 Roll 2 Frames 15+16 Before

CURATORIAL
RECOMMENDATIONS
CONSERVATION RECORD

Site: 189A 982
Provenience: 250
Artifact No.: 27
Provenience:

Date Started: 3-19-86
Date Finished: 5-00-86
Conservator: Dingley

DESCRIPTION: Silver plated cup?

EXAMINATION

DIMENSIONS: 1.2 cm

CONDITION: E 6 P

TREATMENT PRIORITY: M

TREATMENT RECORD

Date

3-19  Mechanically cleaned with qbbt scalp. 10% formic acid used to enhance silver.

5-19  Placed in 39% benzotriazole in ethanol under vacuum (221031.12) for 24 hrs.

5-20  Removed from vacuum, passed through ethanol, and dried. Then lacquered with 2 coats of 5%

Incalac in toluene (acrylic lacquer with benzotriazole added as an inhibitor) applied by brush.

TECHNICAL ANALYSIS

microscopic examination: plating on obverse appears to be silver on reverse. There is a greasy material
spot tests: magnet: (scaldent? packing material?)

other:

SUMMARY

- Scalpel
- Wire brush
- Glass brush
- Vibrotool
- Airbrasive
- Electrolysis
- Chemical
- Ultrasound
- Hot wash
- Cold wash
- Dewatered
- Oven dried
- Inhibitor
- Coating
- Reshaped
- Mended
- Filled
- Consolidated
- Support
- Biocide

PHOTOGRAPHS

Date: 3-19-86

BEFORE/ AFTER: 4-6

CURATORIAL RECOMMENDATIONS
CONSERVATION RECORD

Site 13 BA 282
Provenience 80 633
Artifact No. 28
Provenience

Date Started June 9, 1986
Date Finished June 11, 1986
Conservator Sugden

DESCRIPTION brozo bead

DIMENSIONS 17 mm diam

CONDITION E (6) P

TREATMENT PRIORITY M L none

microscopic examination:

TECHNICAL
spot tests:
magnet:
other:

ANALYSIS

TREATMENT RECORD

Date

June 9 mechanically cleaned with scalpel + glass brush.
Placed in 15% formic acid + ram brushed to remove copper corrosion products.

June 10 placed for 24 hrs. in 3% benzo triazol (BTA) in ethanol under vacuum (23 155/192)

June 11 removed from vacuum, passed through ethanol, + air dried. Leached with 5%
Polyblend B72 in toluene (Rohm + Haas acrylic copolymer, with 1% BTA added as corrosion inhibitor)

SUMMARY

✓ scalpel
✓ wire brush
✓ glass brush
✓ vibrotool
✓ air abrasive
✓ electrolysis
✓ chemical
✓ ultrasonic
✓ hot wash
✓ cold wash
✓ dehydrated
✓ oven dried
✓ inhibitor
✓ coating
✓ reshaped
✓ mended
✓ filled
✓ consolidated
✓ support
✓ biocide

Date Before/After

PHOTOGRAPHS March 17 Roll 2 Frame 17 18 BEFORE

CURATORIAL
RECOMMENDATIONS
CONSERVATION RECORD

Site ____________________________ Date Started 2-12-86
Provenience SSA 222 20860 Date Finished 2-12-86 4-13-86
Artifact No. 29 Conservator __________
Provenience _______________________

EXAMINATION

DESCRIPTION forearm caps
DIMENSIONS 1.5 cm + 2 cm diam
CONDITION E
TREATMENT PRIORITY A

- microscopical examination: wear on bottom caused by contact
- wear on surface caused by contact

TECHNICAL
ANALYSIS

- spot tests: no patina?
- magnet:
- other:

TREATMENT RECORD

Date
2-1a mechanically cleaned w/ scalpel & glass brush.
Scrubbed w/ 15% formic acid.
2-31 placed in 3% benzo triazole in methanol under vacuum, 23 Hg.
4-13 removed, passed through methanol, oven dried.
Lacquered w/ lucite (acrylic lacquer in toluene, with benzo triazole added)

SUMMARY

- scalpel
- wire brush
- glass brush
- vibrotoll
- abrasive
- electrolysis
- chemical
- ultrasonic
- hot wash
- cold wash
- dewatered
- oven dried
- inhibitor
- coating
- reshaped
- mended
- filled
- consolidated
- support
- biocide

PHOTOGRAPHS

Date 2-3-86
Before/After BEFORE, ROLL 1, FRAMES 15-17

CURATORIAL
RECOMMENDATIONS
CONSERVATION RECORD

Site: 198A982
Provenience: 88480
Artifact No.: 25
Provenience:

Date Started: 5-27-86
Date Finished: 6-3-86
Conservator: Singleton

EXAMINATION

DESCRIPTION button?
DIMENSIONS 1.4 cm (dia x m)
CONDITION E G P
TREATMENT PRIORITY H M L none

☐ copper/brass/bronze ☐ bone/ivory ☐ foodstuff
☐ lead/tin/pewter ☐ cork ☐ glass
☐ iron/steel ☐ wood ☐ ceramic
☐ gold ☐ cloth ☐ stone
☐ silver ☐ leather ☐ rubber
☐ mineral ☐ rope ☐ other
☐ gem ☐ paper

TECHNICAL ANALYSIS

microscopic examination: button was a hollow dome,
spot tests: now crushed or damaged
magnet: loop is missing
other:

TREATMENT RECORD

Date
5-27-86 mechanically cleaned with scalpel & glass brush
5-29-86 placed in 75% benzotriazolow ethanol under vacuum
23 lbs/in²
6-3-86 removed from vacuum, passed through ethanolic
+ air dried. Then vacuumed with 5% Acrylic 23-72
(Roehm & Haas Acrylic Co-polymer) in Toluene
That contains 1% BTA as an inhibitor.

SUMMARY

☐ scalpel
☒ glass brush
☐ vibrotool
☐ airabrasive
☐ electrolysis
☐ chemical
☐ ultrasonic
☐ hot wash
☐ cold wash
☐ deoiled
☐ oven dried
☐ inhibitor
☐ coating
☐ reshaped
☐ mended
☐ filled
☐ consolidated
☐ support
☐ biocide

Date
Before/After
B-17 Roll 2, Frames 15-16 Before

PHOTOGRAPHS

CURATORIAL
RECOMMENDATIONS
CONSERVATION RECORD

Site
Provenience: DA 67 676 4
Artifact No.: 31

Date Started: 2/6/86
Date Finished: 2/28/86
Conservator: SINGLEV

DESCRIPTION decorative button

DIMENSIONS 1.4 cm

CONDITION E @ P

TREATMENT PRIORITY M L N none

EXAMINATION
x_copper/brass/bronze
_xlead/tin/pewter
_leaf/iron/steel
_xgold
_xsilver
_xmineral
_xgem
Bone/ivory
_xcork
_xwood
_xceramic
_xcloth
_xleather
_xrubber
_xrope
_xpaper

microscopic examination:
no evidence of plating
bronze areas evident

TECHNICAL ANALYSIS
spot tests: in corrosion products, fiber remains in loop
other: corrosion products but not retrievable.

TREATMENT RECORD

Date
2-6-86 mechanically cleaned w/ scalpel & steel brush.
Chemically cleaned w/ 15% formic acid to remove corrosion products in decorative holes.
Rinsed thru methanol & then placed in 3%
benzotrifluoride under vacuum, 0.5" Hg
2-8-86 removed from vacuum, passed through methanol,
and lacquered with lacquer in blender, an
crylic lacquer with benzotrifluoride added as an
inhibitor

PHOTOGRAPHS

Date: 2-3-86
Before/After: BEFORE, ROLL 1, FRAMES 3, 5

SUMMARY

xscalpel
_xwire brush
_xglass brush
_xvibratool
_xairbrasive
_xelectrolysis
_xchemical
_xultrasonic
_xhot wash
_xdewatered
_xoven dried
_xdetergent
_xinhibitor
_xcoating
_xrescaped
_xmended
_xfilled
_xconsolidated
_xsupport
_xblockade

CURATORIAL RECOMMENDATIONS
CONSERVATION RECORD

Site
Provenience 1962-4. 20887
Artifact No. 32
Provenience

Date Started 2-6-66
Date Finished 2-8-66
Conservator Jingley

EXAMINATION
DESCRIPTION brass buckle part
DIMENSIONS Ø.0 cm
CONDITION E ( P
TREATMENT PRIORITY M L none

EXAMINATION
microscopic examination: brass core, but pealed up a white metal & grey
spot tests: bronze discare trapped ash, core & plastic
magnet:
other:

TREATMENT RECORD
Date
2-6 mechanically cleaned w/ scalpel + glass brush
15% formic acid applied by swab. Rinsed in
methanol + then placed in 3% Benzoic acid
in methanol, 25" Hg
2-8 removed in vacuum, passed through methanol,
+ lacquered with vernalac in toluene, an acrylic
lacquer with Benzoic acid added as an
inhibitor

SUMMARY
scalpel
wire brush
glass brush
vibrotool
airbrasive
electrolysis
chemical
ultrasonic
hot wash
cold wash
dewatered
even dried
inhibitor
coating
reshaped
mended
filled
consolidated
support
bioicide

Date
Before/After
2-3-66
BEFORE, ROLL 1, FRAME 69-2

PHOTOGRAPHS

CURATORIAL
RECOMMENDATIONS
**CONSERVATION RECORD**

<table>
<thead>
<tr>
<th>Site</th>
<th>Date Started: 2/6/66</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provenience: 1B222-2B21</td>
<td>Date Finished: 2/8/66</td>
</tr>
<tr>
<td>Artifact No: 33</td>
<td>Conservator: SINGLEY</td>
</tr>
</tbody>
</table>

**DESCRIPTION**  
Buckle part

**DIMENSIONS**  
2.3 cm long

**CONDITION**  
E (G) P

**TREATMENT PRIORITY**  
H M L none

**EXAMINATION**
- X-copper/brass/bronze
- _bone/ivory
- _foodstuff
- _lead/tin/pewter
- _cork
- _glass
- _iron/steel
- _wood
- _ceramic
- _gold
- _cloth
- _stone
- _silver
- _leather
- _rubber
- _mineral
- _rope
- _other
- _gem
- _paper ( )

**TECHNICAL ANALYSIS**
- Microscopic examination: W: mineralized below surface w/brass ducts.
- Spot tests: Possible plating on brass? How compact?
- Magnet: Surface, not consistent in metal section

**TREATMENT RECORD**

<table>
<thead>
<tr>
<th>Date</th>
<th>Treatment Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>2/6</td>
<td>Mechanically cleaned w/ qbb + scalpel. 15&quot; long. Formic acid applied by qwb. Rinsed in ethanol. New placed in 30% benzotrifluoride in methanol under vacuum, 25&quot; Hg.</td>
</tr>
<tr>
<td>2/8</td>
<td>Removed from vacuum, passed thru methanol, solution of uncrac lacquer in toluene, an acrylic lacquer with benzotriazole added as an inhibitor</td>
</tr>
</tbody>
</table>

**SUMMARY**
- X: scalpel
- X: glass brush
- _: vibrotool
- _: airabrasive
- _: electrolys
- X: chemical
- _: ultrasonic
- _: hot wash
- _: cold wash
- X: dewatered
- _: oven dried
- X: inhibitor
- _: coating
- _: reshaped
- _: mended
- _: filled
- _: consolidated
- _: support
- _: biocide

**PHOTOGRAPHS**

<table>
<thead>
<tr>
<th>Date</th>
<th>Before/After</th>
</tr>
</thead>
<tbody>
<tr>
<td>2/8/66</td>
<td>Before, Roll 1, Frame 0-2</td>
</tr>
</tbody>
</table>

**CURATORIAL RECOMMENDATIONS**
CONSERVATION RECORD

Site
Provenience 18 PA 262 BR 872
Artifact No. 34
Provenience

Date Started 2/6/86
Date Finished 2/10/86
Conservator SINGLET

DESCRIPTION bone button

DIMENSIONS 1.5 cm

CONDITION G
TREATMENT PRIORITY H

Lifting surface

microscopic examination: turning horn, leather evident on edge
spot tests: Surface was compact, polished

TECHNICAL ANALYSIS

copper/brass/bronze bone/ivory foodstuff
lead/tin/ pewter cork glass
iron/steel wood ceramic
gold cloth stone
silver leather rubber
mineral rope other

gem paper

TREATMENT RECORD

Date
2-6 loose dust removed w/scalpel + swabs of methanol. loose spot on perimeter - where surface was lifting - consolidated w/ 15% PVA - AXAT in ethanol.

SUMMARY

- scalpel
- wire brush
- glass brush
- vibrotool
- airbrush
- electrolysis
- chemical
- ultrasonic
- hot wash
- cold wash
- dewatered
- oven dried
- inhibitor
- coating
- reshaped
- mended
- filled
- consolidated
- support
- biocide

PHOTOGRAPHS

2-3-86 Before/After

BEFORE, ROLL 1, FRM 2030-2

CURATORIAL RECOMMENDATIONS
CONSERVATION RECORD

Site
Provenience 35
Artifact No. 1204221039
Provenience

Date Started 1/11/86
Date Finished 2/11/86
Conservator Single

EXAMINATION

DESCRIPTION 3 lead washers
DIMENSIONS 1 cm diameter
CONDITION E ( ) G P
TREATMENT PRIORITY ( ) H M L none

_ copper / brass / bronze _ bone / ivory
_ lead / tin / pewter _ cork _ foodstuff
_ iron / steel _ wood _ glass
_ gold _ cloth _ ceramic
_ silver _ leather _ stone
_ mineral _ rope _ rubber
_ gem _ paper _ other

microscopic examination:
spot tests:
magnet:
other:

TREATMENT RECORD

Date
3/11 Eroded mechanically w / glass brush + scalpel. Cleaned
chemically w / 3% EDTA (deoxonem 3% H) to remove
10 min.
Carbonate. Rinsed in deionized water, dehydrated in
20 min.
Microwave, oven dried, t item waxed with a micro-
crystalline wax (barco 3 - square) in naphtha.

SUMMARY
x scalpel
wire brush
y glass brush
vibrotool
airabrasive
electrolysis
chemical
ultrasonic
hot wash
cold wash
dewatered
even dried
inhibitor
c coating
reshaped
mended
filled
consolidated
support
biodide

PHOTOGRAPHS

Date 2 - 3 - 86
Before / After BEFORE, ROLL 1, FRAME 6-8

CURATORIAL RECOMMENDATIONS
store away from acidic materials (paper bags, tissue)
CONSERVATION RECORD

Site 1892 822  
Provenience 8832 
Artifact No. 316 
Provenience button fragment and leaf of embossed sheet metal

DESCRIPTION 1 cm diam.

CONDITION E 0 P

TREATMENT PRIORITY H M L none

EXAMINATION

_ copper/brass/bronze _ bone/ivory _ foodstuff
_ lead/tin/pewter _ cork _ glass
_ iron/steel _ wood _ ceramic
_ gold _ cloth _ stone
_ silver _ leather _ rubber
_ mineral _ rope _ other
_ gem _ paper 

TECHNICAL ANALYSIS

microscopic examination: Embossed lid appears to be brass w/

TREATMENT RECORD

Date

3-19 Mechanically cleaned w/vibrotool, scalped, brush placed in 10% EDTA (disodium salt) for 15 min to loosen corrosion - soln, turns blue, under presence of copper

3-20 Hot wash in changes of desorbed water

3-21 " " " "

3-22 " " " "

4-10 Then placed in methanol to dewater.

5-7 Removed from methanol and waxed with hot microcrystalline wax.

SUMMARY

X scalpel
X wire brush
X glass brush
X vibrotool
X airbrasive
X electrolysis
X chemical
X ultrasonic
X hot wash
X cold wash
X dewatered
X oven dried
X Inhibitor
X coating
X reshaped
X mended
X filled
X consolidated
X support
X biocide

PHOTOGRAPHS

3/18 Before - Roll 2 - Frames 1-3

CURATORIAL RECOMMENDATIONS

Keep @ RH < 30%
CONSERVATION RECORD

Site 180A282
Provenience Bb 549
Artifact No. 27
Provenience 97

Date Started 3-19-86
Date Finished 5-20-86
Conservator Sukey

DESCRIPTION T-shaped brass fragment - buckle fragment?

DIMENSIONS 1.8cm x 1.3 cm

CONDITION E G P

TREATMENT PRIORITY A M L
none

_T_copper/brass/bronze _bone/ivory _foodstuff
 _lead/tin/pewter _cork _glass
 _iron/steel _wood _ceramic
 _gold _cloth _stone
 _silver _leather _rubber
 _mineral _rope _other
 _gem _paper

microscopic examination: presence of plating - more compact

TECHNICAL ANALYSIS spot tests: presence of plating - more compact

magnet: layer of copper on gummy brass base

other: patchy

TREATMENT RECORD

Date
3-19 mechanically cleaned w/ glass brush & scalp
5-19 placed overnight in 3% benzotriangole in
20ml seal under vacuum (32 lbs/in²)
5-20 removed from vacuum, passed through ethanol
and air dried. Then lacquered with 2 coats
of 5% trimacol in toluene (an acrylic lacquer
with benzoaldehyde added as an inhibitor) applied
by brush.

SUMMARY

Lscalpel
Lwire brush
Lglass brush
Lvibrotool
Labrasive
Lelectrolysis
Lchemical
Lultrasonic
Lhot wash
Lcold wash
Ldewatered
Louven dried
LInhibitor
Lcoating
Lreshaped
Lmended
Lfilled
LConsolidated
Lsupport
Lbiocide

PHOTOGRAPHS

8-17-86

BEFORE, ROLL 2, FRAMES 4 & 6

CURATORIAL RECOMMENDATIONS
CONSERVATION RECORD

Site 18Q338
Provenience 18Q2
Artifact No. 38
Provenience

Date Started 3-19-86
Date Finished 5-20-86
Conservator S. Syme

EXAMINATION

DESCRIPTION: CASK BRASS BUCKLE FRAGMENT? ESCUTCHEON FRAG?
DIMENSIONS: 2.8 cm x 1.5 cm
CONDITION: E P
TREATMENT PRIORITY H M L none

X_copper/brass/bronze _bone/ivory _foodstuff
_lead/tin/pewter _cork _glass
_iron/steel _wood _ceramic
_gold _cloth _stone
_silver _leather _rubber
_mineral _rope _other
_gem _paper

microscopic examination: Y brittle - poor alloy for casting?
spot tests: bronze dezincization evident on design
magnet:
other:

TREATMENT RECORD

Date
3-19-86 Mechanically cleaned w/ scalpel + glass brush
5-19-86 Placed in 30% benzo tri a zole in ethanol under vacuum (22 in. Hg) for 24 hrs.
5-20-86 Removed from vacuum and passed through ethanol and air dried. Then lacquered w/ 2
coats of 50% linseed oil in te lin (acrylic lacquer w/ benzo tri a z ole added as an uninhibitor) applied by brush.

SUMMARY

%scalpel %wire brush
%glass brush %vibratool
%airbrush
%electrolysis
%chemical
%ultrasonic
%hot wash
%cold wash
%dewatered
%oven dried
Y_inhibitor
Y_coating
%reshaped
%mended
%filled
%consolidated
Y_support
%biocide

PHOTOGRAPHS

3-17-86 BEFORE, ROW 2, FRAMES 4-6

CURATORIAL RECOMMENDATIONS
**CONSERVATION RECORD**

Site: 1963.26.2 - BRB32  
Provenience:  
Artifact No.: 39  
Conservator:  
Date Started: 2-6-66  
Date Finished: 2-8-66

**EXAMINATION**

<table>
<thead>
<tr>
<th>Box</th>
<th>hinge</th>
<th>braze</th>
</tr>
</thead>
<tbody>
<tr>
<td>5cm x 2.2cm</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**CONDITION**

<table>
<thead>
<tr>
<th>E</th>
<th>G</th>
<th>P</th>
</tr>
</thead>
</table>

**TREATMENT PRIORITY**

<table>
<thead>
<tr>
<th>H</th>
<th>G</th>
<th>L</th>
</tr>
</thead>
</table>

**DESCRIPTION**

- Copper/brass/bronze
- Lead/tin/pewter
- Iron/steel
- Gold
- Silver
- Mineral
- Gem
- Bone/ivory
- Foodstuff
- Cork
- Wood
- Ceramic
- Cloth
- Leather
- Rubber
- Rope
- Paper

**INSCRIPTION**

PAT A B A F OR

**microscopic examination:**

v. mineralized in internal hinge area, around

**spot tests:**

v. waxed. v. warped. \(\Delta\) or force?

\*other:

pin

**TREATMENT RECORD**

**Date**

2-6 cleaned w/ wire brush, immersed in 10% formic acid to try to free the pin, which was v. coated. Hinge freed. Redeposited copper removed by brushing w/ a wire brush, then glass brush. After rinsing w/ demineralized water & air drying, hinge was placed in 37% benzotrifluorene in methanol under vacuum, 25° C.

2-8 removed from vacuum, passed through methanol, + lacquered w/ lacquer/glaze solution, an acrylic lacquer w/ benzotrifluorene added as an inhibitor.

**SUMMARY**

- Scalpel
- Wire brush
- Glass brush
- Vibrotool
- Air abrasive
- Electrolysis
- Chemical
- Ultrasonic
- Hot wash
- Cold wash
- Dewatered
- Oven dried
- Inhibitor
- Coating
- Reshaped
- Mended
- Filled
- Consolidated
- Support
- Biodentine

**PHOTOGRAPHS**

Date: 2-3-66  
Before/After: Before, Roll 1, Frames 3-5

**CURATORIAL RECOMMENDATIONS**
CONSERVATION RECORD

Site
Provenience 1802282 180224
Artifact No. ( ) 40
Provenience

Date Started 2-6-86
Date Finished 2-8-86
Conservator Singley

DESCRIPTION small brass artifact - hinge or bucklepoint?

EXAMINATION
DIMENSIONS
CONDITION E G P
TREATMENT PRIORITY H M L none

- copper/brass/bronze
- lead/tin/pewter
- iron/steel
- gold
- silver
- mineral
- gem
- bone/ivory
- wood
- ceramic
- cloth
- leather
- rope
- rubber
- other
- foodstuff
- glass
- stone
- paper

microscopic examination: bronze disease evident in corrosion

TECHNICAL ANALYSIS
spot tests: products on original surface - v. pitted
magnet:
other:

TREATMENT RECORD

Date
2-6 corrosion products removed w/ glass brush & scalpel
15% formic acid swabbed on to remove corrosion products. Placed in methanol, then into 3% benzotriazole in methanol under vacuum, 25" Hg
2-8 removed from vacuum, passed through methanol, then lacquered with Incolac in toluene, acrylic lacquers with benzotriazole as an additive

SUMMARY
- scalpel
- wire brush
- glass brush
- vibrotool
- airbrasive
- electrolysis
- chemical
- ultrasonic
- hot wash
- cold wash
- dehydrated
- oven dried
- inhibitor
- coating
- reshaped
- mended
- filled
- consolidated
- support
- biocide

DATE 2-13-86
BEFORE/ AFTER BEFORZ, ROLL 1, FRAMES 3-5

PHOTOGRAPHS

CURATORIAL RECOMMENDATIONS
CONSERVATION RECORD

Site: 
Provenience: 1889.288.888.00

Artifact No.: 41
Provenience: 

Date Started: 2-12-86
Date Finished: 2-13-86 
Conservator: J. H. E.

EXAMINATION

DESCRIPTION buckle point
DIMENSIONS: 1.3 x 2.3 cm
CONDITION: E D P
TREATMENT PRIORITY: H M L none

- copper/brass/bronze
- lead/tin/pewter
- iron/steel
- gold
- silver
- mineral
- gem
- bone/ivory
- foodstuff
- cork
- glass
- wood
- ceramic
- cloth
- stone
- leather
- rubber
- rope
- paper
- (other)

microscopic examination: not plated, file marks evident
spot tests: unknown
magnet: in corners
other:

TECHNICAL ANALYSIS

TREATMENT RECORD

Date

2-12 Cleaned mechanically w/ scalpels + glass brush to remove corrosion. Swabbed w/ 15% formic acid.
3-31 placed in 3% benzotriazole in methanol under vacuum, 23" Hg.
4-13 removed, passed through methanol, & air-dried. Lacquered w/ locanalac un tentum. (acrylic lacquer w/ benzotriazole added)

SUMMARY

- scalpel
- wire brush
- glass brush
- vibrotool
- airbrasive
- electrolysis
- chemical
- ultrasonic
- hot wash
- cold wash
- dewatered
- oven dried
- inhibitor
- coating
- reshaped
- mended
- filled
- consolidated
- support
- biocide

PHOTOGRAPHS

Date: 2-3-86
Before/After: Before, Roll 1, Frames 15-17

CURATORIAL RECOMMENDATIONS
CONSERVATION RECORD

Site
Provenience 160A288 160A288
Artifact No. 42
Provenience

Date Started 2-6-86
Date Finished 2-8-86
Conservator Single

EXAMINATION

DESCRIPTION: Brass buckle fragment - 2
DIMENSIONS: 3 cm long x 2 cm wide
CONDITION: E
TREATMENT PRIORITY: H

EXAMINATION

DESCRIPTION: Leaded tin/lead
DIMENSIONS: 3 cm long x 2 cm wide
CONDITION: E
TREATMENT PRIORITY: H

EXAMINATION

DESCRIPTION: Copper/brass/bronze
DIMENSIONS: 3 cm long x 2 cm wide
CONDITION: E
TREATMENT PRIORITY: H

EXAMINATION

DESCRIPTION: Lead/lead/lead
DIMENSIONS: 3 cm long x 2 cm wide
CONDITION: E
TREATMENT PRIORITY: H

EXAMINATION

DESCRIPTION: Iron/steel
DIMENSIONS: 3 cm long x 2 cm wide
CONDITION: E
TREATMENT PRIORITY: H

EXAMINATION

DESCRIPTION: Gold/gold/gold
DIMENSIONS: 3 cm long x 2 cm wide
CONDITION: E
TREATMENT PRIORITY: H

EXAMINATION

DESCRIPTION: Silver/silver/silver
DIMENSIONS: 3 cm long x 2 cm wide
CONDITION: E
TREATMENT PRIORITY: H

EXAMINATION

DESCRIPTION: Mineral/mineral/mineral
DIMENSIONS: 3 cm long x 2 cm wide
CONDITION: E
TREATMENT PRIORITY: H

EXAMINATION

DESCRIPTION: Gem
DIMENSIONS: 3 cm long x 2 cm wide
CONDITION: E
TREATMENT PRIORITY: H

TECHNICAL ANALYSIS

microscopic examination: In 2 pieces, w/ remnants of paper
spot tests: Iron plating, white deposit soluble in formic acid
magnet: W/ rubbing, Copper chloride? W. brittle brass
other: W. mineralized, w/ tissue

TREATMENT RECORD

Date
2-6 Mechanical cleaning of glass fibers, brush & scalpel, 15% formic acid swabbed on surface to remove loose corrosion. Placed in 3% benzoic acid in masnoline under vacuum, 25° N2
3-8 Removed from vacuum. Passed through masnoline, then soaked w/ Inconalac solution in bluene, which contains the benzoic acid inhibitors. Passed not joined, joint too tenuous

PHOTOGRAPHS

Date
2-3-86
Before/After
Before, Roll 1, Frames 3-5

SUMMARY

\( \times \) scalpel
\( \times \) wire brush
\( \times \) glass brush
\( \times \) vibratool
\( \times \) airbrush
\( \times \) electrolysis
\( \times \) chemical
\( \times \) ultrasonic
\( \times \) hot wash
\( \times \) cold wash
\( \times \) dewatered
\( \times \) oven dried
\( \times \) inhibitor
\( \times \) coating
\( \times \) reshaped
\( \times \) mended
\( \times \) filled
\( \times \) consolidated
\( \times \) support
\( \times \) blockide

CURATORIAL RECOMMENDATIONS
CONSERVATION RECORD

Site
Provenience 1968.282 8A 1015
Artifact No. 43
Provenience

Date Started 2-6-86
Date Finished 2-8-86
Conservator JINGLEY

EXAMINATION
DESCRIPTION 2 straight pins
DIMENSIONS 1.3cm; 2.5cm
CONDITION E P
TREATMENT PRIORITY H M L none

X copper/brass/bronze _ bone/ivory _ foodstuff
 lead/tin/pewter _ cork _ glass
 iron/steel _ wood _ ceramic
gold _ cloth _ stone
silver _ leather _ rubber
mineral _ rope _ other
gem _ paper _

microscopic examination:

TECHNICAL ANALYSIS
spot tests: lead applied separately.
magnet:
other:

TREATMENT RECORD
Date
2-6 pins cleaned w/ scalpel + glass brush.
Cleaned chemically w/ 15% formic acid,
rinsed in methanol. Placed in 30% benzotrifluoride in methanol under
vacuum, 25" Hg
2-8 removed from vacuum, passed through methanol,
and lacquered w/ Invarlac in toluene, an
acrylic lacquer w/ Benzotrifluoride added as an
inhibitor.

SUMMARY
X scalpel
wire brush
X glass brush
X vibrotol
X airbrasive
X electrolysis
X chemical
ultrasonic
hot wash
cold wash
dewatered
oven dried
inhibitor
coating
reshaped
mended
filled
consolidated
support
biocide

PHOTOGRAPHS
Date 2-3-86
Before/After BEFORE ROLL 1, FRAMES 3-5

CURATORIAL RECOMMENDATIONS
CONSERVATION RECORD

Site 1808898 9860
Provenience
Artifact No. 56
Provenience

Date Started 1986
Date Finished 1986

DESCRIPTION nail + looped pin (?)

DIMENSIONS 2 3/4 - 2 1/2 " long

CONDITION E G M none

TREATMENT PRIORITY H M L none

EXAMINATION

- copper / brass / bronze
- lead / tin / pewter
- iron / steel
- gold
- silver
- mineral
- gem
- bone / ivory
- wood
- glass
- cloth
- leather
- rope
- paper

- foodstuff
- ceramic
- stone
- rubber
- other

- microscopic examination: squared nail

- spot tests:
- magnet:
- others:

TECHNICAL ANALYSIS

TREATMENT RECORD

Date
May 7
Mechanically cleaned w/ scalpel, mini chisel, & vibrotool.

May 15
placed in 10% EDTA (reagents 5211) + boiled for 4 hrs. Left overnight in EDTA to cool.

May 16
Intensive washing started in changes of deionized water, changed 6x / day.

5-19
Hot wash continued.

5-24
Hot wash continued.

5-29
TDQ meter reading of cooled wash water 0.1 ppm, solution changed + hot wash continued.

5-29
TDQ reading 0.2 ppm, solution changed + hot wash continued.

6-3
TDQ meter reading 4.8 ppm, solution changed + hot wash continued.

6-4
TDQ meter reading 8.8 ppm, solution changed + hot wash continued.

6-9
TDQ meter reading 10.1 ppm, solution changed + hot wash continued.

Cl test @ end of day on wash water was negative.

6-10
TDQ reading of cold wash water was 1.7 ppm, Hot wash continued. Cl test @ end of day again negative. Placed in acetone to de-water.

6-13
Remover from acetone + sealed w/ hot microcrystalline wax. Mended w/ Duco cement.

SUMMARY
- scalpel
- wire brush
- glass brush
- vibrotool + chisel
- abrasive
- electrolysis
- chemical
- ultrasonic
- hot wash
- cold wash
- de-watered
- oven dried
- inhibitor
- coating
- reshaped
- mended
- filled
- consolidated
- support
- blockide

PHOTOGRAPHS Before 2/3  Roll 1, Frames 12-14

CURATORIAL RECOMMENDATIONS

STORE IN RH < 30%
CONSERVATION RECORD

Site: D32A D38 203 2031
Provenience
Artifact No. 63
Provenience

Date Started: May 31, 1986
Date Finished: June 19, 1986
Conservator: Singleton

DESCRIPTION: 3 pieces of iron (nails)

EXAMINATION:
Knife block?
Bone nail 4.6 cm
Screw nail 4.6 cm

DIMENSIONS:

CONDITION:
E G P

TREATMENT PRIORITY:
H M L none

magneto

TECHNICAL ANALYSIS:

OTHER:

microscopic examination:
spot tests:

TREATMENT RECORD

Date:
5/21/86 Mechanically cleaned w/ scalpel & vibrotool.
8 inches removed in cleaning & repaired w/ Duro Cement.

5/12/86 Boiled in 10% EDTA for 4 hrs. Kept overnight in EDTA.

5/19/86 Buffing begun in daily changes de-ionized water, changed 6x/day to remove EDTA & CaO.

5.29
Hot wash continued.

6.3
TDS reading from previous day & 11 ppm. Solution changed & hot wash continued.

6.41
TDS reading at 5.6 ppm. Solution changed & hot wash continued.

6.9
TDS reading at 5.4 ppm.

6.11
TDS reading 5.6 ppm.

6.13
TDS reading 5.6 ppm.

6.17
No reading. Solution changed & hot wash continued.

6.18
TDS reading at 5.6 ppm. Water changed & hot wash continued. Last wash water 1.1 ppm w/ negative chloride.

6.19
Immersed in hot microcrystalline wax to seal.

SUMMARY:
✓ scalpel
✓ wire brush
✓ glass brush
✓ vibrotool
✓ airbrasive
✓ electrolysis
✓ chemical
✓ ultrasonic
✓ hot wash
✓ cold wash
✓ dewatered
✓ oven dried
✓ inhibitor
✓ coating
✓ reshaped
✓ mended
✓ filled
✓ consolidated
✓ support
✓ biocide

PHOTOGRAPHS

Date Before/After
3-17 Roll 2 Hamm 1930 Before

CURATORIAL RECOMMENDATIONS
STORE IN RH < 30%
CONSERVATION RECORD

Site: 188A 282  
Provenience: BG767  
Artifact No.: 69  
Provenience:  

Date Started: 3-19-86  
Date Finished: 5-7-86  
Conservator: SINGLEY

DESCRIPTION: squared nail

DIMENSIONS: 3.5 cm

CONDITION: E ( ) P
TREATMENT PRIORITY: H ( ) L: none

EXAMINATION:
- copper/brass/bronze
- lead/tin/pewter
- iron/steel
- gold
- silver
- mineral
- gem
- bone/ivory
- wood
- cloth
- leather
- rope
- paper

microscopic examination:

TECHNICAL ANALYSIS:
- spot tests:
- magnet:
- other:

TREATMENT RECORD

Date

3-19  mechanically cleaned w/scalpel, brush, vibrotool
3-20  boiling started in changes of deionized water
3-21  boiled in changes of deionized water
3-22  boiled in changes of deionized water
4-10  boiled in changes of deionized water, then placed in methanol to de-water.
5-7  removed from methanol and washed in hot microcrystalline wax

SUMMARY
- scalpel
- wire brush
- glass brush
- vibrotool
- abrasive
- electrolysis
- chemical
- ultrasonic
- hot wash
- cold wash
- dewatered
- oven dried
- inhibitor
- coating
- reshaped
- mended
- filled
- consolidated
- support
- biocide

<table>
<thead>
<tr>
<th>Date</th>
<th>Before/After</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-18</td>
<td>BEFORE - ROLL 2 - FRAMES 1-3</td>
</tr>
</tbody>
</table>

PHOTOGRAPHS

CURATORIAL RECOMMENDATIONS

Keep @ RH 630%
CONSERVATION RECORD

Site: 40B0383
Provenience: 
Artifact No.: 71
Provenience: 

DESCRIPTION: horseshoe + nail

EXAMINATION

DIMENSIONS: 11.5 cm x 7.5 cm

CONDITION: E G P

TREATMENT PRIORITY: H M L none

-microscopic examination:

TECHNICAL

ANALYSIS

OTHER:

TREATMENT RECORD

Date
5-27-86 placed in electrolysis in 5% NaCl, 3% H2O.
5-28-86 removed + hot wash. Stored in changes, 6x/day of deionized water. To remove Cl- + electrolyte.
June 3 TDs reading of previous day. Water changed + hot wash continued.
June 4 TDs reading at 5.6 ppm. Water changed + hot wash continued.
June 9 TDs reading at 5.6 ppm.
June 10 TDs reading at 5.6 ppm.
June 11 TDs reading at 1.6 ppm.
June 13 TDs reading at 2.3 ppm.
June 17 No TDs reading. Hot wash continued.
June 18 TDs reading at 1.6 ppm. Water changed + hot wash continued. Last water reading at 1.1 ppm + Chloride test negative. Removed + placed in acetic overnite to de-water.
June 19 Immersed in hot microcrystalline wax to seal.

SUMMARY

Scalpel
-ware brush
glass brush
-airbrush tool
-electrolysis
-chemical
-ultrasonic
-hot wash
cold wash
dewatered
-oven dried
-Inhibitor
-coating
-reshaped
-mended
-filled
-consolidated
-support
-biocide

DATE

Before/After

PHOTOGRAPHS

3/17 Roll 2, framed 19x20
BEFORE

CURATORIAL

RECOMMENDATIONS

STORE IN RH < 30%
CONSERVATION RECORD

Site 18BA283 06-72
Provenience
Artifact No. 72
Provenience

Date Started May 17, 1986
Date Finished June 19, 1986
Conservator: Sunley

DESCRIPTION 2 pieces curved iron - chain link?

DIMENSIONS 6.8 + 3.3 cm long

CONDITION E G P

TREATMENT PRIORITY H M L

none

microscopic examination:

TECHNICAL

spot tests:

ANALYSIS

magnet: patchy "pull" - mineralized areas?

other:

TREATMENT RECORD

Date

5-17-86 Mechanically cleaned w/ chisel, vibratool; scalped, boiled in 4 hrs. in 100% EDTA.

5-18-86 Boiling started in changes deionized water, changed 1/6 day, to remove CI/EDTA.

5-19-86 Hot wash continued.

6-0 TDS reading from previous day's water & 11 ppm.

SOLUTION CHANGED + HOT WASH CONTINUED.

6-4 TDS reading at 5 ppm, soln. changed + hot wash continued.

6-11 TDS reading at 3.6 ppm.

6-13 TDS reading at 1.6 ppm.

6-17 NO TDS reading, solution changed + hot wash continued.

6-18 TDS reading at 3 ppm, water changed + hot wash continued, last wash water & 1 ppm + negative test for chlorides, removed + de-watered in acetone.

6-19 Immersed in hot microcrystalline wax to seal.

SUMMARY

scalpel

wire brush

glass brush

vibratool

airbrasive

electrolysis

gem

chemical

ultrasonic

hot wash

cold wash

dewatered

even dried

inhibitor

coating

reshaped

mended

filled

consolidated

support

biocide

Date Before/After

3-17 Row 2, Front 19-30 Before

PHOTOGRAPHS

CURATORIAL RECOMMENDATIONS

STORE IN RH < 30%
CONSERVATION RECORD

Site: 188388 188388
Provenience: 
Artifact No.: 77
Provenience: 

Date Started: May 31, 1986
Date Finished: June 19, 1986
Conservator: S. Atley

DESCRIPTION: Nail and iron fragment

EXAMINATION:

DIMENSIONS:

CONDITION: E (6) P

TREATMENT PRIORITY: H M (1) none

TREATMENT RECORD:

Date 5-27-86 Mechanically cleaned w/ chased, scalped, vibrotool
Bonded in 10% EDTA for 4 hrs, left overnight

5-28-86 Boiling begun in changes of deionized water,
changed ex/dy, to remove Cl- + EDTA

5-29 Hot wash continued.

6-3 TDS reading on previous day water at 1 ppm. Water changed
Hot wash continued.

6-4 TDS reading at 5.4 ppm. Water changed or hot wash cont'd.

6-9 TDS reading at 5.4 ppm. Water change or hot wash cont'd

6-10 TDS reading at 2.6 ppm. Water changed or hot wash cont'd

6-11 TDS reading at 1.6 ppm. Water changed or hot wash cont'd

6-13 TDS reading at 3.3 ppm.

6-17 No TDS reading. Hot wash cont'd.

6-18 TDS reading at 3.8 ppm. Water changed, hot wash cont'd.
Last wash water 1.1 ppm with negative chloride test.
Removed - dehydrated overnight in acetic acid

6-19 Immersed in hot microcrystalline wax to seal.

SUMMARY:

☑ Scalpel
☑ Wire brush
☑ Glass brush
☑ Airabrasive
☑ Electrolysis
☑ Chemical
☑ Ultrasonic
☑ Hot wash
☑ Cold wash
☑ Dewatered
☑ Oven dried
☑ Inhibitor
☑ Coating
☑ Reshaped
☑ Mended
☑ Filled
☑ Consolidated
☑ Support
☑ Biocide

Date
Before/After

PHOTOGRAPHS
3-17 Roll 2 Frame 19 20 BEFOO

CURATORIAL RECOMMENDATIONS
Store in RH 430%
CONSERVATION RECORD

Site 126A-28 09.12
Provenience
Artifact No. 78
Provenience

Date Started May 27, 1986
Date Finished June 19, 1986
Conservator Gayley

DESCRIPTION 2 Wrought Nails

EXAMINATION
DIMENSIONS
CONDITION E (G) P
TREATMENT PRIORITY H M (I) none

[copper/brass/bronze] [bone/ivory] [foodstuff]
[lead/tin/pewter] [cork] [glass]
[iron/steel] [wood] [ceramic]
[gold] [cloth] [stone]
[silver] [leather] [rubber]
[mineral] [rope] [other]
[gem] [paper] [ ]

microscopic examination:
spot tests:
magnet:
other:

TREATMENT RECORD

Date

5-27 Mechanically cleaned w/ chisel, vibrotool, scalpel.
Boiled in 10% EDTA for 4 mos. + left overnight.

5-28 Boiling begun in change of deionized water,
changed every day, to remove Ca and EDTA

5-29 Hot wash continued.

6-3 TDS reading on previous day's water was 11 ppm, water
changed + hot wash continued.

6-4 TDS reading at 5.6 ppm, water changed + hot wash cont'd.

6-9 TDS reading at 5.6 ppm

6-11 TDS reading at 2.6 ppm

6-13 TDS reading at 1.6 ppm

6-17 No TDS reading, solution changed + hot wash cont'd.

6-18 TDS reading at 2.8 ppm, water changed + hot wash
continued. Last wash water 11 ppm + chlorate.
Test was negative. Placed in acetone overnight to dry.

6-19 Immersed in hot microcrystalline wax to seal.

SUMMARY

scalpel
wire brush
glass brush
vibrotool
abrasive
electrolysis
chemical
ultrasonic
hot wash
dewatered
oven dried
inhibitor
coating
resropped
mended
filled
consolidated
support
biocide

Date Before/After

PHOTOGRAPHS

9-17 Roll 2 No. 130490 BEFORE

CURATORIAL RECOMMENDATIONS

Store in RH <30%
CONSERVATION RECORD

Site 186A 282  86775                      Date Started  May 27, 1986
Provenience                           Date Finished  June 19, 1986
Artifact No.                            Conservator  P. H. Rigby
Provenience  sb

DESCRIPTION  gold
DIMENSIONS  E 6 4 P
CONDITION  E 6 P
TREATMENT PRIORITY  H M L

EXAMINATION

- copper/brass/bronze  bone/ivory  foodstuff
- lead/tin/pewter  cork  glass
- iron/steel  wood  ceramic
- gold  cloth  stone
- silver  leather  rubber
- mineral  rope  other
- gem  paper  ( )

microscopic examination:

TECHNICAL
spot tests:
magnet:  strong
other:

ANALYSIS

TREATMENT RECORD

Date

5-27  Mechanically cleaned w/ scalpel, chisel, vibrotool
     Fractured in cleaning, repaired w/ Duco cement
     Boiled in 10% EDTA for 4 hrs, left overnight in cold salt
5-28  Bonding begun in daily changes of denatured water,
     Changed 6x/day, to remove EDTA & C10
5-29  HOT WASH CONTINUED
6-3  TDS Reading from previous day @ 11 ppm. Solution changed.
     HOT WASH CONTINUED
6-4  TDS Reading at 5.6 ppm. Solution changed, hot wash continued.
6-9  TDS Reading at 5.6 ppm.
6-11 TDS Reading at 2.6 ppm.
6-13 TDS Reading at 1.6 ppm.
6-17  NO TDS READING. Solution changed, hot wash continued.
6-18  TDS Reading at 3.8 ppm. Water changes, hot wash continued.
     Last wash water 1.1 ppm, negative test for chloroform.
     Removed & dewaxed overnight in acetone.
6-19  Immersed in hot microcrystalline wax to seal.

SUMMARY

- scalpel
- wire brush
- glass brush
- vibrotool
- airbrush
- electrolysis
- chemical
- ultrasonic
- hot wash
- cold wash
- dewaxed
- oven dried
- inhibitor
- reating
- reshaped
- mended
- filled
- consolidated
- support
- biocide

Date  Before/After

PHOTOGRAPHS

3-17  Roll 2 Framed 19-20  before

CURATORIAL
RECOMMENDATIONS

STORE IN RH<30%
CONSERVATION RECORD

Site 544A082
Provenience 5A5:N 13:5 [w450
Artifact No. 44 Feb 23 level
Provenience

Date Started 3-19-86
Date Finished 3-20-86
Conservator Sugley

EXAMINATION
DESCRIPTION Brass pins + pin fragments (5 small parts)
DIMENSIONS 0.3 cm (longest) / 0.4 cm (smallest)
CONDITION E G (2)
TREATMENT PRIORITY H M L none

X copper/brass/bronze ______ bone/ivory ______ foodstuff
lead/tin/pewter ______ cork ______ glass
iron/steel ______ wood ______ ceramic
gold ______ cloth ______ stone
silver ______ leather ______ rubber
mineral ______ rope ______ other
gem ______ paper ______

microscopic examination:
bronze disease evident on heads of pins

TECHNICAL ANALYSIS
spot tests:
magnet: other:

TREATMENT RECORD

Date
5-19 cleaned mechanically w/ scalpel + gbb
5-19 placed un 30% benzotriazole un ethanol
under vacuum (22166/102) for 24 hrs.
5-20 removed from vacuum, passed through
ethanol, and air-dried. Then lacquered wth
lacquer (acrylic lacquer in toluene wth benzotriazole added as an inhibitor) by applying
2 coats by brush.

SUMMARY
✓ scalpel
✓ wire brush
✓ glass brush
✓ vibrotouch
✓ abrasive
✓ electrolysis
✓ chemical
✓ ultrasonic
✓ hot wash
✓ cold wash
dewatered
oven dried
✓ inhibitor
✓ coating
✓ reshaped
✓ mended
✓ filled
✓ consolidated
✓ support
✓ blocide

PHOTOGRAPHS

Date 3-17-86
Before/After BEFORE, ROLL 2, FRAMES 4-6

CURATORIAL RECOMMENDATIONS
CONSERVATION RECORD

Site: 18933 E2  
Provenience: 83901  
Artifact No.: 45  
Provenience:  

Date Started: 5-27-80  
Date Finished: 6-3-80  
Conservator:  

DESCRIPTION:  
Straight pin + mini ball  

DIMENSIONS:  
see diagram  

CONDITION:  
E (O) P  

TREATMENT PRIORITY:  
H (M) L none  

Examination:  
X copper/brass/bronze  
X lead/tin/ pewter  
_ iron/steel  
_ gold  
_ silver  
_ mineral  
_ gem  
_ bone/ivory  
_ wood  
_ glass  
_ ceramic  
_ cloth  
_ leather  
_ rubber  
_ rope  
_ paper  

Microscopic examination:  

TECHNICAL ANALYSIS:  
spot tests:  
magnet:  
other:  

TREATMENT RECORD

Date:  
5-27  
PIN and mini ball mechanically cleaned w/ scalpel + glob  
Mini ball placed in 5% EDTA (chelating agent) to remove corrosion.  Removed + rinsed in deionized water, then ethanol, 15 min. each. LACQUERED w/ INCALAC.  

5-29  
PIN placed in vacuum (23 lb.) for 3% Benzotrichzone (BTZ) in ethanol.  

6-3  
PIN removed from vacuum, passed through ethanol, + air dried. LACQUERED with 9% INCALAC in toluene (KROHN + VMA ACRYLIC CO. POLYMER) w/ 1% BTA added as an inhibitor.  

SUMMARY:

X scalpel  
X wire brush  
_ glass brush  
_ vibrotol  
_ airbrush  
_ electrolysis  
_ chemical  
_ ultrasonic  
_ hot wash  
_ cold wash  
_ dewatered  
_ oven dried  
_ inhibitor  
_ coating  
_ reshaped  
_ mended  
_ filled  
_ consolidated  
_ support  
_ blocide  

Date:  
Before/After  

PHOTOGRAPHS:  
3-17  
Roll 2 Transparency  
Before  

CURATORIAL RECOMMENDATIONS:  

CONSERVATION RECORD

Site
Provenience 8g 83 12 8912
Artifac No. 450
Provenience

Date Started 2-12-86
Date Finished 4-13-86
Conservator SVEY

DESCRIPTION bent straight pin

EXAMINATION
DIMENSIONS
CONDITION E G P
TREATMENT PRIORITY H G L none

microscopic examination:

TECHNICAL
ANALYSIS spot tests:
magnet:
other:

TREATMENT RECORD

Date
2-12 cleaned mechanically w/ Scalpel & glass brush.
No chemicals used.
3-31 placed in 30% benzotriazole in methanol under vacuum. Pulled to 23" Hg
4-13 removed, pinned through methanol, air dried, & lacquered with varnish (acrylic lacquer with benzotriazole added) in toluene.

SUMMARY
Xscalpel
Xwire brush
Xglass brush
Vibrotool
Xabrasive
Xelectrolysis
Xchemical
Xultrasonic
Xhot wash
Xcold wash
Xdewatered
Xoven dried
Xinhibitor
Xcoating
Xreshaped
Xmended
Xfilled
Xconsolidated
Xsupport
Xbiodide

PHOTOGRAPHS

Date 2-3-86
Before/After Before, Roll 1, Frames 15-17

CURATORIAL
RECOMMENDATIONS
CONSERVATION RECORD

Site
Provenience: 88A 28 1 39-76-7
Artifact No: 089 47
Provenience

Date Started: 2-11-86
Date Finished: 2-13-86
Conservator: Singleton

DESCRIPTION: spoon handle
DIMENSIONS: 5.7 cm
CONDITION: E G (B)
TREATMENT PRIORITY: H (M) L none

EXAMINATION:
- copper/brass/bronze
- lead/tin/copper
- iron/steel
- gold
- silver
- mineral
- gem
- bone/ivory
- cork
- glass
- wood
- ceramic
- cloth
- stone
- leather
- rubber
- rope
- paper

microscopic examination:
- v. focussed, but not excessively

TECHNICAL ANALYSIS:
- spot tests: Carbonized
- magnet:
- other:

TREATMENT RECORD

Date
2-11: Mechanically cleaned w/ scalpel & glass brush. No EDTA used; carbonate not that heavy. De-greased in methanol & air-dried. T upset coated w/ glaze of microcrystalline wax (Barco B-Square) in naphtha.

SUMMARY
- Scalpel
- Wire brush
- Glass brush
- Vibration
- Abrasive
- Electrolysis
- Chemical
- Ultrasonic
- Hot wash
- Cold wash
- Dewatered
- Oven dried
- Inhibitor
- Coating
- Reshaped
- Mended
- Filled
- Consolidated
- Support
- Biocide

Before/After

PHOTOGRAPHS
2-3-86 Before, Row 1, Farm 36-8

CURATORIAL RECOMMENDATIONS
Store away from materials which emit organic acids (fiberboard, cardboard, tissue paper)
CONSERVATION RECORD

Site: 13 BR 282
Provenience: BB 767
Artifact No.: 42
Provenience:

Date Started: 5-19-86
Date Finished: 5-20-86
Conservator: SINGLEY

EXAMINATION
DESCRIPTION
- copper/brass/bronze
- lead/tin/pewter
- iron/steel
- gold
- silver
- mineral
- gem

MINI BALL
DIMENSIONS: 1.5 cm diam.
CONDITION: E G P
TREATMENT PRIORITY: H M L none

bone/ivory
- foodstuff
- cork
- glass
- wood
- ceramic
- cloth
- stone
- leather
- rubber
- rope
- other
- paper

microscopic examination: The surface appears to be exfoliating.

TECHNICAL ANALYSIS
- spot tests:
- magnet:
- other:

TREATMENT RECORD
Date
5-19-86: Mechanically cleaned w/ scalpel + glass brush
5-20-86: Placed in the following baths to destroy the rest of carbonate corrosion: 10% EDTA disodium salt for 20 minutes; 2 changes deionized water, 20 minutes each; 2 changes ethanol, 10 minutes each. Surface then sealed with a slurry of microcrystalline wax in petroleum spirit. Waxed mini ball to air dried.

SUMMARY
- scalpel
- wire brush
- glass brush
- vibrotol
- abrasive
- electrolysis
- chemical
- ultrasonic
- hot wash
- cold wash
- dewatered
- oven dried
- inhibitor
- coating
- reshaped
- mended
- filled
- consolidated
- support
- biocide

PHOTOGRAPHS
Date: 3-17-86
Before/After: Before, Roll 2, Frame 8-10

CURATORIAL RECOMMENDATIONS
Store with acid free materials (tissue) and away from materials that emit organic acids (cardboard, fiberboard, etc.)
### CONSERVATION RECORD

**Site:**

**Provenience:**

**Artifact No.:** 49

**Provenience:**

**Date Started:** 9-11-86

**Date Finished:** 9-11-86

**Conservator:** Single

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>large missball</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIMENSIONS</td>
<td>1.5 cm diam.</td>
</tr>
<tr>
<td>CONDITION</td>
<td>E (G P)</td>
</tr>
<tr>
<td>TREATMENT PRIORITY</td>
<td>H (M L) none</td>
</tr>
</tbody>
</table>

- copper/brass/bronze
- bone/ivory
- foodstuff
- lead/tin/ pewter
- cork
- glass
- iron/ steel
- wood
- ceramic
- gold
- cloth
- stone
- silver
- leather
- rubber
- mineral
- rope
- other
- gem
- paper

**EXAMINATION**

- flat bottom
- fibrous compression in carbonate corrosion layer (grass?)
- microscopic examination:
- magnet:
  - corroded w/ carbonate layer

### TREATMENT RECORD

**Date**

- All cleaned chemically w/ 10% EDTA (diluted 1:10) by immersing 30 minutes. Rinsed in 3 changes of deionized water, 2 at 10 minutes each. Dried under infrared. Air dried. Then given 2 coats of Barco B: Squares (microcylinders) in naptha.

### SUMMARY

- scalpel
- wire brush
- glass brush
- vibrotool
- abrasives
- electrolysis
- chemical
- ultrasonic
- hot wash
- cold wash
- dehydrated
- oven dried
- inhibitor
- coating
- reshaped
- mended
- filled
- consolidated
- support
- biocide

### PHOTOGRAPHS

**Date**

- 2-3-86

**Before/After**

- REBOX 1, FRAME 6-8

### CURATORIAL RECOMMENDATIONS

Keep away from materials that emit organic acids: cardboard, tissue paper, paper bag, file folders.
CONSERVATION RECORD

Site
Provenience 1982.66 - 8839
Artifact No. 50
Provenience

Date Started 2/1/86
Date Finished 3/1/86
Conservator Singley

EXAMINATION
DESCRIPTION small mammal
DIMENSIONS 
CONDITION E G B
TREATMENT PRIORITY H M L

--copper/brass/bronze --bone/ivory --foodstuff
Klead/tin/pewter --cork --glass
--iron/steel --wood --ceramic
--gold --cloth --stone
--silver --leather --rubber
--mineral --rope --other
--gem --paper 

microscopic examination: appears to be totally mineralized w/ carbonate

TECHNICAL ANALYSIS
spot tests: Encrustation, if too much removed, would change the dimensions of the bone
magnet: 
other: 

TREATMENT RECORD
Date 2/11

Cleaned of carbonate corrosion w/scalpel. Needle used as a probe to see extent of mineralization. Placed in 5% EDTA solution for 3 minutes. Some solution seen. Found cleaning unsuitable because extent of corrosion is so severe that removal of corrosion would prob. change information about bone dimensions. Rinsed in 20% H2O. Then methanol was dried, 100% alcohol, 70% alcohol, 100% methanol, then mopped with a swirl of microcrystalline wax (Bareco B-Square) w/Mothra.

SUMMARY

scalpel
--wire brush
--glass brush
--vibrotool
--air abrasive
--electrolysis
Kchemical
--ultrasonic
--hot wash
--cold wash
Kdewatered
--oven dried
KInhibitor
Kcoating
--reshaped
--mended
--filled
--consolidated
--support
--blocide

PHOTOGRAPHS

Date 2-3-86

BEFORE, ROLL 1, FRAMES 6-8

CURATORIAL RECOMMENDATIONS
Keep away from materials that irritate organic acids:
(carbonboard, tissue paper, fiberboard)
CONSERVATION RECORD

Site 18.86283  Date Started June 9, 1986
Provenience ________________________________ Date Finished June 9, 1986
Artifact No. B8912
Provenience 51

DESCRIPTION lead shot - 3 pieces

EXAMINATION

DIMENSIONS .3 cm diam.

CONDITION E ( ) P

TREATMENT PRIORITY H ( ) M

L none

X copper/brass/bronze ___ bone/ivory ___ foodstuff
___ lead/tin/ pewter ___ cork ___ glass
___ iron/steel ___ wood ___ ceramic
___ gold ___ cloth ___ stone
___ silver ___ leather ___ rubber
___ mineral ___ rope ___ other
___ gem ___ paper ___

microscopic examination:

TECHNICAL

spot tests:

ANALYSIS

magnet:

other:

TREATMENT RECORD

Date

June 9 cleaned with scalpels, glass brush. Dipped in 10% EDTA (disodium salt) to dissolve carbonate corrosion -- 5 minutes. Rinsed 10 minutes in deionized water, 10 minutes in ethanol. Coated with a slurry of Renaissance microcrystalline wax in toluene and solvent.

SUMMARY

X scalpels
X wire brush
X glass brush
X vibrotol
X airbrushes
X electrolysis
X chemical
X ultrasonic
X hot wash
X cold wash
X dehydrated
X oven dried
X inhibitor
X coating
X reshaped
X mended
X filled
X consolidated
X support
X biocide

Date Before/After

PHOTOGRAPHS Before March 17 Frames 17-18 After

CURATORIAL
RECOMMENDATIONS
CONSERVATION RECORD

<table>
<thead>
<tr>
<th>Site</th>
<th>188A 282</th>
<th>Date Started</th>
<th>5-19-86</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provenience</td>
<td>88-978</td>
<td>Date Finished</td>
<td>5-20-86</td>
</tr>
<tr>
<td>Artifact No.</td>
<td>52</td>
<td>Conservator</td>
<td>Singley</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>EXAMINATION</th>
<th>DESCRIPTION</th>
<th>DIMENSIONS</th>
<th>CONDITION</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2 small shot</td>
<td>4 + 3 cm</td>
<td>E</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>G</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>P</td>
</tr>
<tr>
<td>TREATMENT PRIORITY</td>
<td>H</td>
<td>M</td>
<td>L</td>
</tr>
</tbody>
</table>

- copper/brass/bronze
- bone/ivory
- foodstuff
- lead/tin/bronze
- cork
- glass
- iron/steel
- wood
- ceramic
- gold
- cloth
- stone
- silver
- leather
- rubber
- mineral
- rope
- other
- gem
- paper

- microscopic examination:
- depression in larger of 2 shot
- spot tests:
- magnet:
- other:

TREATMENT RECORD

<table>
<thead>
<tr>
<th>Date</th>
<th>Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>5-19-86</td>
<td>Cleaned with glass brush &amp; scalpel</td>
</tr>
<tr>
<td>5-20-86</td>
<td>Placed in the following baths to dissolve the rest of the carbonate corrosion: 10% EDTA diacetate solution for 20 minutes; 2 changes of deionized water, 10 minutes each; 2 changes of ammonia, 10 minutes each. Surface then sealed with a slurry of microcrystalline wax in petroleum spirit after air-dry.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Date</th>
<th>Before/After</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-17-86</td>
<td>Before, Roll 2, Fanso 8-10</td>
</tr>
</tbody>
</table>

PHOTOGRAPHS

<table>
<thead>
<tr>
<th>PHOTOGRAHS</th>
<th>CURATORIAL RECOMMENDATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-17-86</td>
<td>Store in cool, dry, and away from materials that emit organic acids (cardboard, fiberboard, etc.)</td>
</tr>
</tbody>
</table>

GROUP 3
CONSERVATION RECORD

Site: 1889 20a
Provenience: B074
Artifact No.: 63
Provenience:

Date Started: 5-19-86
Date Finished: 5-20-86
Conservator: Singleton

DESCRIPTION: min. ball
DIMENSIONS: 0.9 cm diam.
CONDITION: E G (P)
TREATMENT PRIORITY: H (M) L none

- copper/brass/bronze
- lead/tin/pewter
- iron/steel
- gold
- silver
- mineral
- gem
- bone/ivory
- cork
- wood
- cloth
- leather
- rope
- paper

microscopic examination: smooth surface
spot tests:

magnet:
other:

TREATMENT RECORD

Date: 5-19 mechanically cleaned with scalpels + glass brush
5:30 10% EDTA (diluted 5:1) used to dissolve carbonate corrosion layer. The mini ball was placed on Petri dish and treated with EDTA for about 10 minutes, and then rinsed through 2 changes of deionized water, 20 minutes each. The mini ball was then dehydrated in a chamber of ethanol, 10 minutes each, and then washed with a slurry of microcrystalline wax in petroleum spirit after air drying.

Date: 5-20

BEFORE/AFTE

PHOTOGRAPHS

3-17-86

CURATORIAL
RECOMMENDATIONS

Stored in acid-free tissue and away from materials (fiberboard, cardboard) that emit organic acids.
CONSERVATION RECORD

Site
Provenience MACA 288 80911
Artifact No. 825
Provenience

Date Started 2-11-86
Date Finished 2-11-86
Conservator AADAEY

EXAMINATION
DESCRIPTION tin, lead shot
DIMENSIONS 3 cm diam.
CONDITION E @ P
TREATMENT PRIORITY H X L none

microscopic examination:

TECHNICAL
ANALYSIS spot tests:
magnet:
other:

TREATMENT RECORD
Date 2-11-86
Chemical treatment in 10% EDTA (disodium EDTA) for 5 min to dissolve tin carbonate corrosion. Rinsed in one change of deionized water 10 min. Dewatered in methanol 10 minutes. Air dried + coated with Barazec B. Squared microporous wax, thinned with naphtha.

SUMMARY
_mixing
_wire brush
_glass brush
_vibratool
_airbrasive
_electrolysis
_chemical
_ultrasonic
_hot wash
_cold wash
_dewatered
_oven dried
_inhibitor
_coating
_reshaped
_mended
_filled
_consolidated
_support
_biodide

Date Before/After
PHOTOGRAPHS 2-3-86 before, roll 1, frames 6-8

CURATORIAL
RECOMMENDATIONS
Keep away from materials which emit organic acids (cardboard, tissue, tissueboard)
CONSERVATION RECORD

Site 188A 382
Provenience B8979
Artifact No. 55
Provenience

Date Started May 19, 1986
Date Finished May 20, 1986
Conservator S. Webley

EXAMINATION
DESCRIPTION N piece shot
DIMENSIONS 0.2 - 0.6 diam (mm)
CONDITION E G P
TREATMENT PRIORITY H M L none

0.2 - 0.6 diameters
- copper/brass/bronze
- lead/tin/ pewter
- iron/steel
- gold
- silver
- mineral
- gem

- bone/ivory
- cork
- wood
- cloth
- leather
- rope
- paper

- foodstuff
- glass
- ceramic
- stone
- rubber
- other

microscopic examination:

TECHNICAL
spot tests:
magnet:
one
other:

TREATMENT RECORD
Date
5-19 EDTA (10% disodium salt) used to dissolve carbonates
5-20 corrosion. The pieces were then run through 2
changes of deionized water (20 minutes each)
and 2 changes of ethanol (18 minutes each)
After air drying, the shot was waxed with a
slurry of microcrystalline wax in petroleum
spirit.

SUMMARY
- scalpel
- wire brush
- glass brush
- vibrotool
- abrasive
- electrolysis
- chemical
- ultrasonic
- hot wash
- cold wash
- dewatered
- oven dried
- inhibitor
- coating
- reshaped
- mended
- filled
- consolidated
- support
- blocide

PHOTOGRAPHS
3-17, 86
Before/After
Report, Row 2, Frame B-10

CURATORIAL
RECOMMENDATIONS
Store with acid free tissue and away from
materials which emit organic acids (fiberboard,
cardboard)
CONSERVATION RECORD

Site: 186A282 88663
Provenience: 
Artifact No.: 56
Provenience: 

**Date Started:** 5-19-86  
**Date Finished:** 5-26-86  
**Conservator:** Singleton

**DESCRIPTION**
3 small pieces lead

**Dimensions**

<table>
<thead>
<tr>
<th>Material</th>
</tr>
</thead>
<tbody>
<tr>
<td>copper/brass/bronze</td>
</tr>
<tr>
<td>lead/tin/pewter</td>
</tr>
<tr>
<td>iron/steel</td>
</tr>
<tr>
<td>gold</td>
</tr>
<tr>
<td>silver</td>
</tr>
<tr>
<td>mineral</td>
</tr>
<tr>
<td>gem</td>
</tr>
</tbody>
</table>

**EXAMINATION**

**Condition**
E   G   P   none

**Treatment Priority**
H   M   L

**Microscopic Examination:** none. V. heavy carbonate crust.

**Technical Analysis**

- spot tests:
- magnet:
- other:

**TREATMENT RECORD**

- 5-19. mechanically cleaned with scalpel + glass brush.
- 5-20. 10% EDTA (ethylenediaminetetraacetic acid) used to dissolve carbonate crust. The artifacts were then rinsed in 8 changes of deionized water (90 minutes each) and deaerated in 2 changes of ethano1 (10 minutes each). After air drying, a wax coating of microcrystalline wax in petroleum spirit was applied as a slurry.

**SUMMARY**

- scalpel  
- wire brush  
- glass brush  
- vibrotol  
- airbrasive  
- electrolysis  
- chemical  
- ultrasonic  
- hot wash  
- cold wash  
- dewatered  
- oven dried  
- inhibitor  
- coating  
- reshaped  
- mended  
- filled  
- consolidated  
- support  
- biocide

**PHOTOGRAPHS**

3-17-86  
**Before/After:** BEFORE, Row 2, Lane 23 B-10

**CURATORIAL RECOMMENDATIONS**

Store in acid-free tissue and away from materials (cardboard, fiberboard) which emit organic acids.
CONSERVATION RECORD

Site  
Provenience: BBA 382 313784  
Artifact No.: 57  
Provenience: 

Date Started: 2/1/86  
Date Finished: 9/1/86  
Conservator: G. Worley

EXAMINATION

DESCRIPTION: Lead fragments - decorature?

CONDITION: 

TREATMENT PRIORITY: H M L none

copper/brass/bronze: _  
iron/tin/pewter: _  
iron/steel: _  
gold: _  
silver: _  
mineral: _  
gem: _  
foodstuff: _  
wool: _  
cloth: _  
leather: _  
rubber: _  
glass: _  
ceramic: _  
stone: _  
paper: _  ( )

microscopic examination: 
spot tests: v. brittle  
magnet: v. Little carbonate  
other: but v. brittle

TECHNICAL ANALYSIS

SUMMARY

scalpel: X  
wire brush: _  
glass brush: _  
vibrotool: _  
sirbrasive: _  
electrolysis: _  
chemical: _  
ultrasonic: _  
hot wash: _  
cold wash: _  
air dried: _  
oven dried: _  
inhibitor: _  
coating: _  
reshaped: _  
mended: _  
filled: _  
consolidated: _  
support: _  
blocide: _

TREATMENT RECORD

Date: 2-11

mechanically cleaned w/ scapula + glass brush. No cleaned.
Dewatered in methanol. Air dried. Coated with
Barco 6.5g/m2 microcrystalline wax on naphtha.

PHOTOGRAPHS

Date: 2-3-86  
Before/After: BEFORE, Rolls 1, Frames 6-8

CURATORIAL RECOMMENDATIONS

Keep away from materials which emit organic acids: cardboard, tissue paper, fiberboard.
CONSERVATION RECORD

Site 19 B2262 B-78
Provenience
Artifact No. 58
Provenience

Date Started May 7, 1986
Date Finished June 13, 1986
Conservator Singley

DESCRIPTION iron hook

DIMENSIONS c. 6" long

CONDITION E G P

TREATMENT PRIORITY H M L none

EXAMINATION

- copper/brass/bronze
- bone/ivory
- foodstuff
- lead/tin/ pewter
- cork
- glass
- iron/steel
- wood
- ceramic
- gold
- cloth
- stone
- silver
- leather
- rubber
- mineral
- rope
- other
- gem
- paper

microscopic examination:

TECHNICAL

spot tests: v. robust

magnet:

other:

TREATMENT RECORD

Date

5-7 Mechanically cleaned w/ scalpels, mini-sawd, vibrotool.
5-15 placed in 10% EDTA (dissodium salt) + boiled for 4 hrs. Left overnight in EDTA to cool.
5-16 intensive washing started w/ changes of deionized water, changed by day.
5-19 Hot wash continued.
5-24 Hot wash continued.
5-28 BDS meter reading of cold wash water @ 11 ppm. Solution changed + hot wash continued.
5-29 BDS reading @ 1 ppm. Solution changed + hot wash (cont).
6-3 BDS reading @ 1 ppm. Solution changed + hot wash (cont).
6-4 BDS reading @ 1 ppm. Solution changed + hot wash cont.
6-9 BDS reading @ 10.1 ppm. Solution changed + hot wash continued. C10 test at end of day is negative.
6-10 BDS reading @ 0.7 ppm. Hot wash continued. C10 test again negative at end of day. Put into acetone to dewaters.
6-13 Removed from acetone + put into hot microcrystalline wax to seal.

SUMMARY

- scalpel
- wire brush
- glass brush
- vibrotool + chisel
- abrasives
- electrolysis
- chemical
- ultrasonic
- hot wash
- cold wash
- dewatersed
- oven dried
- inhibitor

- coating
- reshaped
- mended
- filled
- consolidated
- support
- blocide

PHOTOGRAPHS 3/2  Before, Row 1, Frames 9-11

CURATORIAL

RECOMMENDATIONS

Store in RH < 30%
CONSERVATION RECORD

Site: 188A 282
Provenience: FS823
Artifact No.: 59
Provenience:

Date Started: 3-20-86
Date Finished: 5-7-86
Conservator: [Signature]

EXAMINATION

DESCRIPTION: [Image of a stringed instrument]
DIMENSIONS: 4.8 cm
CONDITION: E G P
TREATMENT PRIORITY: H M L none

-macroscopic examination: original steel - good surface in spots

TECHNICAL ANALYSIS

spot tests:
magnet:
other:

TREATMENT RECORD

Date  
3-20 broken during cleaning - unable to be mended  
3-20 mechanically cleaned w/scalpel, brush, vibrotool  
boiled in changes of deionized water

3-21 boiled in changes of deionized water
3-22 boiled in changes of deionized water
5-10 boiled in changes of deionized water
Then placed in methanol to dewater

5-1 removed from methanol + waxed with hot microcrystalline wax

SUMMARY

-scalpel
-wire brush
-glass brush
-vibrotool
-airbrasive
-electrolysis
-chemical
-ultrasonic
-hot wash
-cold wash
-dewatered
-oven dried
-inhibitor
-coating
-reshaped
-mended
-filled
-consolidated
-support
-biocide

PHOTOGRAPHS

3-18 BEFORE - ROLL 2 - FRAMED 1-3

CURATORIAL RECOMMENDATIONS

STORE AT RH <30%
CONSERVATION RECORD

<table>
<thead>
<tr>
<th>Site</th>
<th>180066 60885</th>
</tr>
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<tbody>
<tr>
<td>Provenience</td>
<td></td>
</tr>
<tr>
<td>Artifact No.</td>
<td>400</td>
</tr>
<tr>
<td>Provenience</td>
<td></td>
</tr>
</tbody>
</table>

**DESCRIPTION**
- Copper/bronze
- Lead/tin/termer
- Iron/steel
- Gold
- Silver
- Mineral
- Gem
- Bone/ivory
- Cork
- Wood
- Cloth
- Leather
- Rope
- Paper
- Foodstuff
- Glass
- Ceramic
- Stone
- Rubber
- Other

**EXAMINATION**
- Fragments in washing
- Now clean

**TECHNICAL ANALYSIS**
- Magnets:
- Other:

**TREATMENT RECORD**

<table>
<thead>
<tr>
<th>Date</th>
<th>Before/After</th>
</tr>
</thead>
<tbody>
<tr>
<td>5-7</td>
<td></td>
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<tr>
<td>5-15</td>
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<td>6-4</td>
<td></td>
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<td>6-9</td>
<td></td>
</tr>
<tr>
<td>6-10</td>
<td></td>
</tr>
<tr>
<td>6-13</td>
<td></td>
</tr>
</tbody>
</table>

**SUMMARY**
- Ascalpel
- Wire brush
- Glass brush
- Vibrotool + chisel
- Abrasive
- Electrolysis
- Chemical
- Ultrasonic
- Hot wash
- Cold wash
- Dewatered
- Oven dried
- Inhibitor
- Coating
- Reshaped
- Mended
- Filled
- Consolidated
- Support
- Blolclde

**PHOTOGRAPHS**
- 2/12 Before
- 1/1 After
- Frames 12-14

**CURATORIAL RECOMMENDATIONS**
- Store in RH < 30%
CONSERVATION RECORD

Site: ________
Provenience: B0010999
Artifact No.: 61
Provenience: ________

Date Started: 2-12-86
Date Finished: 4-13-86
Conservator: SINGLEY

DESCRIPTION: button fragment

DIMENSIONS: 1.3 cm

CONDITION: G

TREATMENT: [ ] copper/brass/bronze [ ] bone/ivory [ ] foodstuff
[ ] lead/tin/pewter [ ] cork [ ] glass
[ ] iron/steel [ ] wood [ ] ceramic
[ ] gold [ ] cloth [ ] stone
[ ] silver [ ] leather [ ] rubber
[ ] mineral [ ] rope [ ] other
[ ] gem [ ] paper [ ]

EXAMINATION:

microscopic examination: white metal containing Cu (Cu corrosion?
spot tests: product
magnet: ________
other: ________

TECHNICAL ANALYSIS:

TREATMENT RECORD

Date

2-12: Cleaned with scalpel. Swabbed with 15% formic acid to lighten patina.

3-31: Placed in 3% benzo triazolene under vacuum. Vacuum raised to 23" Hg.

4-13: Removed from chamber. Passed through methanol and allowed to dry. Lacquered with lucalac (acrylic lacquer with benzo triazolene added) in toluene.

SUMMARY:

[ ] scalpel
[ ] wire brush
[ ] glass brush
[ ] vibrot tool
[ ] airbraise
[ ] electrolysis
[ ] chemical
[ ] ultrasonic
[ ] hot wash
[ ] cold wash
[ ] dewatered
[ ] oven dried
[ ] inhibitor
[ ] coating
[ ] reshaped
[ ] mended
[ ] filled
[ ] consolidated
[ ] support
[ ] biocide

PHOTOGRAPhS

Date: 2-3-86

BEFORE: Roll 1, Frames 15-17

CURATORIAL RECOMMENDATIONS
CONSERVATION RECORD

Site 19.8A982
Provenience 88863
Artifact No. 62
Provenience

Date Started 3-19-86
Date Finished 5-20-86
Conservator DIXI

DESCRIPTION Bucke fragment
DIMENSIONS 4.2 cm x 2.2 cm
CONDITION E (6) P none
TREATMENT PRIORITY H M L none

___copper/brass/bronze  ___bone/ivory  ___foodstuff
___lead/tin/pekerja  ___cork  ___glass
___iron/steel  ___wood  ___ceramic
___gold  ___cloth  ___stone
___silver  ___leather  ___rubber
___mineral  ___rope  ___other
___gem  ___paper

microscopic examination: raised bands of decorrahm

TECHNICAL analysis
spot tests:

magnet:

other:

TREATMENT RECORD

Date
3-19-86 Mechanically cleaned with scalpel & glass brush
5-19-86 proced. overnight in 3% benzotriazole in ethane under vacuum (22.16 psig)
5-20-86 Removed from vacuum, passed through ethanol, r an dried. Then lacquered with 2 coats of lacquer (acrylic lacquer in toluene with benzotriazole added as an inhibitor) applied by brush.

SUMMARY

___scalpel
___wire brush
___glass brush
___vibrotool
___airabrasive
___electrolysis
___chemical
___ultrasonic
___hot wash
___cold wash
___dewatered
___oven dried
___inhibitor
___coating
___reshaped
___mended
___filled
___consolidated
___support
___biocide

Date
3-17-86

Before/After
4-6

PHOTOGRAPHS

3-17-86 Before, Rec 2, Framed

CURATORIAL
RECOMMENDATIONS
CONSERVATION RECORD

Site
Provenience: 1894 2B 289
Artifact No.: 63
Provenience:

Date Started: 2-8-86
Date Finished: 2-11-86
Conservator: Sigourney

EXAMINATION
DESCRIPTION: Rolled piece of lead
DIMENSIONS: 3.5 x 10
CONDITION: E G P
TREATMENT PRIORITY: H M L none

Copper/brass/bronze: bone/ivory: foodstuff
lead/tin/pewter: cork: glass
Iron/steel: wood: ceramic
Gold: cloth: stone
Silver: leather: rubber
Mineral: rope: other
Gem: paper

microscopic examination: Carbon, hydrated silica, pigment
spot tests: Glass flakes? In corrosion product
magnet: In corrosion product
other: 3000 of window?

TREATMENT RECORD
Date: 2-11-86
Cleaned with glass fiber brush, scalp, and steel to remove loose corrosion. Then placed for 3 min. in EDTA (EDTA) 5% to remove corrosion on oxalate in roll.
Then soaked in deionized water 5 minutes, followed for 3 min. by methanol to de-water. Allowed to air dry; it then coated with microcrystalline wax (Beckco 23-25%) in naphtha.

SUMMARY
Scalpel
Wire brush
Glass brush
Vibrating tool
Abrasive
Electrolysis
Chemical
Ultrasonic
Hot wash
Cold wash
Dewatered
Oven dried
Inhibitor
Coating
Reshaped
Mended
Filled
Consolidated
Support
Blocide

PHOTOGRAPHS
Date: 2-3-86
Before/After: Before, Row 1, frames 6-9

CURATORIAL RECOMMENDATIONS
Keep away from materials that emit organic acids:
cardboard, tissue paper, fiberboard.
CONSERVATION RECORD

Site_ 18BA232
Provenience_ B8770
Artifact No._ 64
Provenience

Date Started_ March 19, 1986
Date Finished_ May 7, 1986
Conservator_ SINGLET

EXAMINATION
DESCRIPTION_ squared nail
DIMENSIONS_ 8cm
CONDITION_ E ( ) P
TREATMENT PRIORITY_ H ( ) M ( ) L ( ) none

__copper/brass/bronze
__lead/tin/pewter
__iron/steel
__gold
__silver
__mineral
__gem

__bone/ivory
__wood
__cloth
__leather
__rope
__paper

__foodstuff
__glass
__ceramic
__stone
__rubber
__other

microscopic examination:

TECHNICAL ANALYSIS
spot tests:

magnet:

other:

TREATMENT RECORD

Date
Mechanically cleaned w/ scalpel & vibrotol
Boiled in changes of deionized water
Boiled in changes of deionized water
Boiled in changes of deionized water
Boiled in changes of deionized water
Then placed in methanol to dewater.
Removed from methanol + waxed with hot microcysticium wax.

Before/After
3-18

PHOTOGRAPHS

photographs

CURATORIAL RECOMMENDATIONS

STORE C RH < 30%
CONSERVATION RECORD

Site: 13B382 30832
Provenance: 
Artifact No.: 65
Provenance: 

DESCRIPTION: IRON - FOLDED BAR
DIMENSIONS: 6.5 x 1.9 cm
CONDITION: E P
TREATMENT PRIORITY: H ( ) L ( )

EXPRESSED CONSERVATION ISSUES:
- Copper/brass/bronze
- Bone/ivory
- Foodstuff
- Lead/tin/pewter
- Cork
- Glass
- Iron/steel
- Wood
- Ceramic
- Gold
- Cloth
- Stone
- Silver
- Leather
- Rubber
- Mineral
- Rope
- Other
- Gem
- Paper

TECHNICAL ANALYSIS:
- Microscopic examination:
- Spot tests:
- Magnet: strong
- Other:

TREATMENT RECORD

Date:
May 27, 1986
May 29, 1986: Placed in electrolyte in 5% Na₂CO₃, 4 V.
Removal from electrolysis and placed in hot wash in changed or deionized water, changed by day.
June 3, 1986: TDS reading of previous day's water was 1.1 ppm.
Water changed; hot wash continued.
June 4: TDS reading at 5.0 ppm; water changed; hot wash.
June 9: TDS reading at 5.6 ppm.
June 10: TDS reading at 1.6 ppm.
June 11: TDS reading at 1.6 ppm.
June 12: TDS reading at 1.3 ppm.
June 17: No TDS reading; hot wash continued.
June 18: TDS reading at 3.8 ppm; water changed; hot wash continued. Last water reading 1.1 ppm with a negative chlorine test. Removed and placed in acetone overnight to overnight to water.
June 19: Immersed in hot microcrystalline wax to seal.

Date: Before/After

PHOTOGRAPHS:
3-17 Roll 2, Frame 1930 Before

CURATORIAL RECOMMENDATIONS:
Store in RH < 30%
CONSERVATION RECORD

Site: 188A22
Provenience: B8340
Artifact No.: 79
Provenience:

Date Started: 3-19-86
Date Finished: 5-28-86
Conservator: Singleton

DESCRIPTION: bronze rod/wire

DIMENSIONS: 18 cm (6.5") dia. 2 cm in diameter

CONDITION: E (C) P
TREATMENT PRIORITY: H M (L) none

EXAMINATION:
- Ends are bevelled
- Copper/brass/bronze
- Lead/tin/pewter
- Iron/steel
- Gold
- Silver
- Mineral
- Gem
- Bone/ivory
- Wood
- Cloth
- Leather
- Rope
- Paper
- Glass
- Ceramic
- Stone
- Rubber
- Other

Microscopic examination: Not ends of wire -- not blunt.

Spot tests: Magnet: cut and angled from a side.

OTHER:

TREATMENT RECORD

Date
3-19: Mechanically cleaned w/m, scalpel, & glass brush.
3-19: Immersed in 3% benzotriangles in ethanol
under vacuum (22 lbs/1 in.²) for 24 hrs.
3-20: Removed from vacuum, passed through ethanol,
tamanned. Then lacquered w/m, lacquer (acrylic
lacquers in toluene w/m benzotriangles added as
an inhibitor). 2 coats applied by brush.

SUMMARY
- Scalpel
- Wire brush
- Glass brush
- Vibrotool
- Airbrush
- Electrolysis
- Chemical
- Ultrasonic
- Hot wash
- Cold wash
- Dewatered
- Oven dried
- Inhibitor
- Coating
- Reshaped
- Mended
- Filled
- Consolidated
- Support
- Blockade

PHOTOGRAPHS

Date: 3-17-86
Before/After: 4-6

PHOTOGRAPHS

CURATORIAL RECOMMENDATIONS

Drawings

ERBEZ, Room 2, Frames 1, 2, 3, 4, 5

Drawings
CONSERVATION RECORD

Site  18 BA 282
Provenience  Q6712
Artifact No.  ( ) 907
Provenience

Date Started  5-19-86
Date Finished  5-20-86
Conservator  Singleton

EXAMINATION
DESCRIPTION  Piece of lead

DIMENSIONS
CONDITION  E G (P)
TREATMENT PRIORITY  H M (L) none

-microscopic examination:
- spot tests:  v. heavy, v. mineralized

-technical analysis:
  - magneto:
  - other:

TREATMENT RECORD
 date
5-19: The very heavy coating of lead carbonate was removed partially using scalpels, glass brush + vibrato.
5-20: The rest of the tenacious carbonate was removed chemically with 10% EDTA (dichromate salt)
by immersing in a solution for ½ hr. The fragment was then rinsed in a change of distilled water, ½ hr each, 2 changes of change, 30 minutes each. The surface was coated with a slurry of microcrystalline wax in petroleum spirit after air drying,

SUMMARY

- Scalpel
- Wire brush
- Glass brush
- Vibrotool
- Airabrasive
- Electrolysis
- Chemical
- Ultrasonic
- Hot wash
- Cold wash
- Dewatered
- Oven dried
- Inhibitor
- Coating
- Reshaped
- Mended
- Filled
- Consolidated
- Support
- Biocide

PHOTOGRAPHS

- Date  3-17-86
- Before/After  BEFO, ROU 2, Farm 8-10

CURATORIAL RECOMMENDATIONS
- Store with acid-free materials (tissue) away

- from materials (cardboard, fiberboard) which emit organic acids.
CONSERVATION RECORD

Site  1869282
Provenience  88632
Artifact No.  31
Provenience

Date Started  3-19-86
Date Finished  5-7-86
Conservator  [Name]

EXAMINATION
DESCRIPTION  Knife blade fragment
DIMENSIONS  4.5 cm
CONDITION  E 6  P
TREATMENT PRIORITY  H  M  L

_copper/brass/bronze  _bone/ivory  _foodstuff
_lead/tin/pewter  _cork  _glass
_iron/steel  _wood  _ceramic
_gold  _cloth  _stone
_silver  _leather  _rubber
_mineral  _rope  _other
_gem  _paper  _

microscopic examination:

TECHNICAL
ANALYSIS
spot tests:
magnet:
other:

TREATMENT RECORD

Date  Summary
3-19  Mechanically cleaned by brush, vibrotool, scalpel
3-20  boiling begun in changes of deionized waters
3-31  boiled in changes of deionized water
4-10  boiled in changes of deionized water, then placed in methanol to dehydrate.
5-7  removed from methanol and waxed with hot microcrystalline wax.

Date  Before/After
PHOTOGRAPHS  3-18  Before - Roll 2 - Frames 1-3

CURATORIAL
RECOMMENDATIONS  Keep e. rh 30%
CONSERVATION RECORD

Site 18.BA.282
Provenience BB 720
Artifact No. 82
Provenience

Date Started 3/19/76
Date Finished 5/7/76
Conservator Singley

DESCRIPTION Square iron buckle
DIMENSIONS 3cm
CONDITION E G B
TREATMENT PRIORITY H M 0 none

- copper/brass/bronze
- lead/tin/pewter
- iron/steel
- gold
- silver
- mineral
- gem
- bone/ivory
- wood
- cloth
- leather
- rope
- paper
- foodstuff
- glass
- ceramic
- stone
- rubber
- other

microscopic examination: one side well preserved
spot tests:
other: fractured during cleaning

TREATMENT RECORD

Date
3-19
3-20
3-21
3-22
4-10
5-7

Mechanically cleaned w/ scalpels + vibrotweezers
Bailing + rinsed in chambers of deionized water
Boiled in chambers of deionized water
Boiled in chambers of deionized water, then placed in methanol to de-water.
Boiled in chambers of deionized water, then placed in methanol to de-water.
Removed from methanol, and waxed with hot microcrystalline wax. Fractures rejoined w/ Duo Cement (dissolved in methanol)

SUMMARY
- scalpel
- wire brush
- glass brush
- vibrotweezers
- airabrasive
- electrolysis
- chemical
- ultrasonic
- hot wash
- cold wash
- de-watered
- oven dried
- inhibitor
- coating
- reshaped
- mended
- filled
- consolidated
- support
- blocide

PHOTOGRAPHS

Date Before/After
3-18 BEFORE - ROLL 2 - FRAMES 1-3

CURATORIAL RECOMMENDATIONS
Keep at RH 430%
CONSERVATION RECORD

Site 1629282  Date Started June 9, 1986
Provenience 14A264  Date Finished June 9, 1986
Artifact No. 83  Conservator SINGLEY

EXAMINATION
DESCRIPTION lead, paint
DIMENSIONS 5.5 cm
CONDITION E G D
TREATMENT PRIORITY H M D none

EXAMINATION继续...

microscopic examination: possible waste from Pb
spot tests: ball or shot manufacture?

TREATMENT RECORD
Date
June 9, mechanically cleaned with scalpel, glass brush
Place in 10% EDTA (disodium salt) for 10
minutes to dissolve carbonate corrosion. Ultra
sonic used for 60 seconds as well. Rinsed
in a change of deionized water for 10 minutes,
then ethanol for 10 minutes. Air dried and
coated with Renovar. Wax microcrystalline wax
spurry in stoddard solvent.

SUMMARY
- Scalpel
- Wire brush
- Glass brush
- Vibrotool
- Abrasive
- Electroliftings
- Chemical
- Ultrasonic
- Hot wash
- Cold wash
- Dewatered
- Oven dried
- Inhibitor
- Coating
- Reshaped
- Mended
- Filled
- Consolidated
- Support
- Biocide

PHOTOGRAPHS March 17 Roll 2 Framed 17+18 Before

CURATORIAL RECOMMENDATIONS
CONSERVATION RECORD

Site_188A 292 80764
Provenience
Artifact No. 54
Provenience

Date Started: May 7, 1986
Date Finished: June 13, 1986
Conservator: Singlet

DESCRIPTION: iron ring + flat piece
DIMENSIONS: ring 1 3/8 diam, piece 1 3/4"
CONDITION: E G P
TREATMENT PRIORITY: H M L

---

copper/brass/bronze
lead/tin/ pewter
Iron/ steel
Gold
Silver
Mineral
gem

bone/Ivory
Cork
Wood
Ceramic
Cloth
Leather
Rope
Paper
Foodstuff
Glass
Stone
Rubber
Other

microscopic examination:
spot tests:
magnet:
other:

---

TREATMENT RECORD

Date
May 7
Mechanically cleaned w/ scalpel, mini. chisel, w/ vibrato+.

May 15
Placed in 10% EDTA (disodium salt) to boil for 4 hrs.
Left overnight in EDTA to cool.

May 16
Intensive washing in deionized water, changed b x day, begun
hot wash continued.

5-19
Hot wash continued.

5-28
TDS meter reading of cold wash water @ 11 ppm. Solution
changed + hot wash continued.

5-29
TDS reading @ 6.3 ppm. Solution changed + hot wash continued.

6-3
TDS reading @ 4.8 ppm.

6/4
TDS reading @ 8 ppm.

6/8
TDS reading @ 10.1 ppm.

6/10
C10 test @ end of day was negative.

6/12
TDS reading of cold wash water was 1.7 ppm. Hot wash
continued, C10 test @ end of day again negative. Placed
into acetone to dewater.

6/18
Removed from acetone + sealed w/ hot microcrystalline wax

Date
Before/After

PHOTOGRAPHS

2/2
Before, Roll 1, Frames 9-11

SUMMARY
scalpel
wire brush
glass brush
vibrato+ chisel
abrasive
electrolysis
chemical
ultrasonic
hot wash
cold wash
dewatered
oven dried
inhibitor
coating
reshaped
mended
filled
consolidated
support
biocide

CURATORIAL RECOMMENDATIONS

STORE IN: RH 430%
CONSERVATION RECORD

Site 1984 282 86 890  
Provenience  
Artifact No. 37  
Provenience  

Date Started 2/12  
Date Finished 4-13-86  
Conservator Sung Lee

DESCRIPTION  
braze sheet magnet

DIMENSIONS  
2CM

CONDITION  
E 6 P

TREATMENT PRIORITY  
H M L none

EXAMINATION

Y copper/brass/bronze  
Y bone/ivory  
Y foodstuff  

Y lead/tin/pewter  
Y cork  
Y glass  

Y iron/steel  
Y wood  
Y ceramic  

Y gold  
Y cloth  
Y stone  

silver  
Y leather  
Y rubber  

mineral  
Y rope  
Y other  

gem  
Y paper  

microscopic examination: bronze disease on patches

spot tests: may have been turned?

TECHNICAL ANALYSIS

magnet:

other:

TREATMENT RECORD

Date

2.12 mechanically cleaned w/ fine brush and scalp

3-31 placed in 3% benzotriazole under vacuum. Vacuum drawn e 23" Hg

4/13 removed from vacuum, passed through methanol, and lacquered w/ lacquer (acrylic lacquer w/ benzotriazole) in toluene.

SUMMARY

Y scalp

Y wire brush

Y glass brush

Y vibrotool

Y air abrasive

Y electrolysis

Y chemical

Y ultrasonic

Y hot wash

Y cold wash

Y de-watered

Y oven dried

X inhibitor

X coating

Y reshaped

Y mended

Y filled

Y consolidated

Y support

Y biocide

PHOTOGRAPHS

Date

2-3-86

Before/After

Before, Roll 1, Frames 15-19

CURATORIAL RECOMMENDATIONS
CONSERVATION RECORD

Site 18.D 282
Provenience 87D 979
Artifact No. 25
Provenience

Date Started 5.19.86
Date Finished 5.20.86
Conservator Singley

EXAMINATION
DESCRIPTION 2 small lead fragments

DIMENSIONS
CONDITION E P F
TREATMENT PRIORITY H M L none

- copper/brass/bronze
- lead/tin/pewter
- iron/steel
- gold
- silver
- mineral
- gem
- bone/ivory
- cork
- wood
- cloth
- leather
- rope
- paper
- foodstuff
- glass
- ceramic
- stone
- rubber
- other

microscopic examination:

TECHNICAL analysis:
spot tests: none
magnet:
other:

TREATMENT RECORD

Date
5.19 10% EDTA (disodium salt) used is dissolve
+ 5-90 corrosive corrosion. A glass brush was also
used to remove the corrosion. The pieces were
then rinsed in 2 changes of cleaned water
(20 minutes each) + 2 changes of ethanol
(10 minutes each). A wax slurry of microcryo-
filler wax on Petroleum spirit was applied
to seal the surface after air drying.

SUMMARY
- scalpel
- wire brush
- glass brush
- vibrotool
- airbrush
- electrolysis
- Chemical
- ultrasonic
- hot wash
- cold wash
- dewatered
- oven dried
- inhibitor
- coating
- reshaped
- mended
- filled
- consolidated
- support
- biocide

Date 5.19
Before/After BEFORE, Row 2; Frame 8-10

PHOTOGRAPHS

CURATORIAL RECOMMENDATIONS
store w/ acid-free tissue & away from
materials (cardboard, fiberboard, which emit
organic acids).
CONSERVATION RECORD

Site: 1983-0002
Provenience: B01015
Artifact No.: 90
Provenience: 90

Date Started: June 9, 1986
Date Finished: June 11, 1986
Conservator: Singlet

EXAMINATION

DESCRIPTION: Iron tack
DIMENSIONS: 1/4" x 3/8"

CONDITION: E G D
TREATMENT: Priority: H M O, none

- copper/brass/bronze
- lead/tin/pewter
- iron/steel
- gold
- silver
- mineral
- gem
- bone/ivory
- wood
- cloth
- leather
- rope
- paper
- foodstuff
- glass
- ceramic
- stone
- rubber
- other

microscopic examination:
spot tests:
magnet:
other:

TREATMENT RECORD

Date
June 9: mechanically cleaned with scalpels. Placed overnight in 10% EDTA (disodium salt) to loosen rust products.

June 10: Hot washed in changes of denatured water (detergent 6 x 1 day) to flush out chlorides and EDTA. No monitoring of wash water.

June 11: TDS reading of cold wash water, 3.5. Hot wash continued. At end of day, put into acetone to de-water.

June 13: Removed from acetone, placed onto hot micro-oven for 10 minutes. Washed in acetone.

Date: Before/After

PHOTOGRAPHS
March 17, Row 2, Farmedo 1713 Before

CURATORIAL RECOMMENDATIONS

Keep at RH ≤ 30%
CONSERVATION RECORD

Site
Provenience
Provenience
Artifact No.

Date Started: 2-11-86
Date Finished: 2-11-86
Conservator: SINGLEY

EXAMINATION
DESCRIPTION: Small piece of curled lead
DIMENSIONS: 1.5 cm
CONDITION: E G (O) none
TREATMENT PRIORITY: H M (O) none

microscopic examination: slight ridge on edge
spot tests: v. bypassed
magnet:
other:

TREATMENT RECORD
Date
2-11: cleaned chemically w/ 5% EDTA (disodium salt) 5 min & with scalp cap glass fiber brush. Rinsed in deionized water 10 min. Air-dried + coated with a slurry of microcrystalline wax (Barsoo B-Square) in naphtha

SUMMARY
scalpel
wire brush
glass brush
vibrotool
airabrasive
electrolysis
chemical
ultrasonic
hot wash
cold wash
dewatered
oven dried
inhibitor
coating
reshaped
mended
filled
consolidated
support
bioclde

PHOTOGRAPHS
2-3-86
BEFORE/ AFTER

Before/After

PHOTOGRAPHS
2-3-86
BEFORE/ AFTER

PHOTOGRAPHS
2-3-86
BEFORE/ AFTER

CURATORIAL
RECOMMENDATIONS
Stead away from materials that emit organic acids
(tree board, tissue, paper bags, cardboard)
CONSERVATION RECORD

Site: 18G296 50674
Provenience: ( ) A3?
Artifact No.: ( ) A3?
Provenience: 

Date Started: May 7, 1986
- Date Finished: June 13, 1986
Conservator: Singleton

DESCRIPTION: Kerria fragment
DIMENSIONS: 3 1/2 x 3"
CONDITION: E (O P)
TREATMENT PRIORITY: M L none

---

copper/brass/bronze
lead/tin/ pewter
iron/steel
silver
mineral
gem

bone/ivory
wood
leather
rope
paper

foodstuff
glass
ceramic
stone
rubber
other

---

microscopic examination: v. substantial
spot tests:
magnet:
other:

---

TREATMENT RECORD

Date
May 7 mechanically cleaned with scalpels, chisel, vibrotol
May 15 placed in boiling 10% EDTA (ethylenediaminetetraacetic acid) for 4 hrs. Left overnight to cool.
May 16 immersed in deionized water. (No) day deionized water started.
5-19 hot wash continued.
5-24 hot wash continued.
5-28 TDS reading of cold water was 11 ppm. Solution changed to hot wash continued.
5-29 TDS reading 6.2 ppm. Solution changed to hot wash continued.
6-3 TDS 4.8 ppm.
6-4 TDS reading 8.8 ppm.
6-9 TDS reading 10.1 ppm.
6-10 CIA test at damp end on wash water is negative.
6-10 TOS reading of cold wash water is 1.7 ppm. Hot wash continued. CIA test at damp end again negative. Placed in acetone to dissolve.
6-15 removed from acetone & sealed with hot microcrystalline wax

SUMMARY

- scalpel
- vibrotol
- wire brush
- abrasive
- electrolysis
- chemical
- ultrasonic
- hot wash
- cold wash
- dehydrated
- oven dried
- inhibitor
- coating
- reshaped
- mended
- filled
- consolidated
- support
- biocide

---

PHOTOGRAPHS 2/1 BEFORE Row 1 9-11

CURATORIAL
RECOMMENDATIONS
STORE IN RH < 30%
CONSERVATION RECORD

Site 1959 282
Provenience 88888
Artifact No. ( ) 105

Date Started 3-19-86
Date Finished 5-7-86
Conservator Susie y

DESCRIPTION red + hunge fragments

EXAMINATION

DIMENSIONS 12 cm
CONDITION E G O
TREATMENT PRIORITY H M O none

__copper/brass/bronze __bone/ivory __foodstuff
__lead/tin/ pewter __cork __glass
✓ iron/steel __wood __ceramic
__gold __cloth __stone
__silver __leather __rubber
__mineral __rope __other
__gem __paper ( )

microscopic examination:

TECHNICAL
spot tests: Raised knob on hunge fragments

ANALYSIS
magnet: other:

TREATMENT RECORD

Date
3-19 mechanically cleaned w/ scalpel, brush, vibratolet
3-20 boiled in changes of deionized water
3-21
3-22
4-10 Then placed in methanol to dewater
5-7 Removed from methanol and warmed with hot monocrystalline wax

SUMMARY

scalpel
glass brush
vibrotol
abrasive
electrolysis
chemical
ultrasonic
hot wash
cold wash
dewatered
oven dried
inhibitor
coating
reshaped
mended
filled
consolidated
support
biocide

PHOTOGRAPHS

3-18 Roll 2 - Framed 1-3

CURATORIAL
RECOMMENDATIONS

Should be kept at a RH 30%
CONSERVATION RECORD

Site: 1389928 30929
Provenience: 
Artifact No.: 107
Provenience: 

Date Started: May 9, 1986
Date Finished: June 13, 1986
Conservator: Shek

DESCRIPTION: Iron buckle
DIMENSIONS: 7/8" x 7/8"
CONDITION: E G P
TREATMENT PRIORITY: H M Q
none

-copper/brass/bronze
-lead/tin/pewter
-Iron/steel
-gold
-silver
-mineral
-gem

bone/ivory
-wood
-cloth
-leather
-rope
-

-foam, expanded during cleaning

TREATMENT RECORD

Date
May 1
Mechanically cleaned with scalpel, vibrotool, + m. chisel.

May 15
Placed in boiling 10% EDTA (diacium salt) for 4 hrs.
Left overnight to cool in the EDTA.

May 16
Intensive washing in deionized water, changed every day.

5/19
Hot wash continued.

5/24
Hot wash continued.

5/28
TDS meter reading of deionized water at 11 ppm.
Solution changed + hot wash continued.

5/29
TDS meter 5.6 ppm. Solution changed + hot wash continued.

6-3
TDS meter 4.6 ppm.

6-4
TDS meter 3 ppm.

6-9
TDS meter 10.1 ppm.
Q10 test on wash water at damp end is negative.

SUMMARY

-scalpel
-wire brush
-glass brush
-vibrotool + chisel
-airbrush
-electrolysis
-chemical
-ultrasonic
-hot wash
-cold wash
-dewatered
-oven dried
-Inhibitor
-coating
-reshaped
-mended
-filled
-consolidated
-support
-biocide

Date
Before/After

PHOTOGRAPHS

Before, Roll 1, Frames 12-14

CURATORIAL RECOMMENDATIONS

Store in RH 430%
6.10 TDS reading of cold wash water is 1.7 ppm. Hot wash continued. CIE test at end of day was again negative. Placed in acetone to dewater.

6.13 Removed from acetone + sealed with hot microcrystalline wax.
CONSERVATION RECORD

Site 185A 2282  Date Started 3-19-86
Provenience B B 10  Date Finished 5-7-86
Artifact No. 111  Conservator S. Y. Y.
Provenience Fea 1047

DESCRIPTION: Fragment of shoe buckle (tongue)

EXAMINATION

Dimensions 2.8 cm

Condition E (C) P

Treatment Priority H (M) L (none)

-microscopic examination:

-technique: spot tests:

-technical analysis: magnet:

-other:

TREATMENT RECORD

<table>
<thead>
<tr>
<th>Date</th>
<th>Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-19</td>
<td>Mechanically cleaned w/ scalpel, brush, vibrotool</td>
</tr>
<tr>
<td>3-20</td>
<td>Boiling started in change of deaerated water</td>
</tr>
<tr>
<td>3-21</td>
<td>Boiled in change of deaerated water</td>
</tr>
<tr>
<td>3-22</td>
<td>Boiled in change of deaerated water, then placed in methacrylate to deaerate</td>
</tr>
<tr>
<td>4-10</td>
<td>Removed from methacrylate wax, then placed in methacrylate to deaerate</td>
</tr>
<tr>
<td>5-9</td>
<td>Removed from methacrylate wax. Fragmented in handling when cooled, joined w/ Duco cement (see diagram)</td>
</tr>
<tr>
<td>5-17</td>
<td>Duco failed. Join recorded with Hardman crystal clear epoxy.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Date</th>
<th>Before/After</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-19</td>
<td>BEFORE, ROLL 2, FRAMES 1-3</td>
</tr>
</tbody>
</table>

PHOTOGRAPHS

<table>
<thead>
<tr>
<th>Date</th>
<th>Before/After</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-19</td>
<td>BEFORE, ROLL 2, FRAMES 1-3</td>
</tr>
</tbody>
</table>

SUMMARY

-Scalpel
-Wire brush
-Glass brush
-Vibrotool
-Aluminum oxide
-Electrolysis
-Chemical
-Ultrasonic
-Hot wash
-Cold wash
-Dewatered
-Oven dried
-Inhibitor
-Coating
-Reshaped
-Mended
-Filled
-Consolidated
-Support
-Biocide

CURATORIAL

RECOMMENDATIONS

SIDE E RH < 30%
CONSERVATION RECORD

Site 189A387
Provenience 112
Artifact No. 96 955
Provenience

Date Started May 20, 1986
Date Finished May 20, 1986
Conservator SINGSLEY

DESCRIPTION Lead sheeting peg.

DIMENSIONS 5.4 x 1.6 cm.

CONDITION E G P
TREATMENT PRIORITY H M L none

-copper/brass/bronze
-lead/tin/pewter
-iron/steel
-gold
-silver
-mineral
-gem

_bone/ivory
-cork
-wood
-cloth
-leather
-rope
-paper

Foodstuff
-glass
-ceramic
-stone
-rubber
-other

microscopic examination:

spot tests: v. soluble + weak

magnet:
other:

TREATMENT RECORD

Date
5-20 The sheeting was cleaned using a scalpel and a glass brush. The rest of the carbonate corrosion was removed with 10% EDTA (disodium salt) for 10 minutes. The sheeting was then removed in 2 changes of deionized water for 20 minutes each and dehydrated in 2 changes of ethanol for 10 minutes each. A wax coating of microcrystalline wax in petroleum spirit was then applied in a slurry to seal.

SUMMARY

scalpel
wire brush
glass brush
vibratool
abrasive
electrolysis
chemical
ultrasonic
hot wash
cold wash
dewatered
oven dried
inhibitor
coating
reshaped
mended
filled
consolidated
support
biodioxide

PHOTOGRAPHS

Date Before/After
3-17-86

BEFORE, ROW Z, 3AM 5-10

CURATORIAL RECOMMENDATIONS

Store with acid free materials and away from materials that emit organic acids (cardboard, plastic)
Glass

B 1 3 large pieces 18th wine bottle
(1 w/ neck rim; 1 shoulder; 1 base)

B 2 1 lens - eyeglass?

Metal

B 4 #1233 2 straight pins
B 5 #1234 3 1/2 straight pins
B 6 #1235 1 straight pin
B 3 #1235 1 iron object - nail? w/ square head

B 10 #1201 1 straight pin
B 11 #1203 1 broken straight pin
B 12 #1203 1 button
B 13 #1203 1 button
B 14 #1203 1 button
B 20 #1203 1 button w/ PLATED ...
B 15 #1202 1 large iron bolt?
B 9 #1208 1 button
B 6 #1208 1 straight pin
B 7 #1208 1 iron object - fork and ?
Piezozone - Metal

- 695 / button
- 1152 / buckle fragment (matches one from 1985)
- 1162 / coin
- 1162 / button
- 1166 / handle fragment
- 1167 / button
- 1167 / button
- 1167 / button
- 1146 / button
- 1146 / button large
- 1153 / button "WARRANTED"
Artifact: SHEET
AND TREATMENT RECORD

Site 18BA 282 BANNEKER

<table>
<thead>
<tr>
<th>Date logged into conservation</th>
<th>2-9-87</th>
</tr>
</thead>
<tbody>
<tr>
<td>Artifact number</td>
<td>1</td>
</tr>
<tr>
<td>Date treatment started</td>
<td>March 2, 1987</td>
</tr>
<tr>
<td>Artifact type</td>
<td>1734</td>
</tr>
<tr>
<td>Date completed</td>
<td>April 15, 1987</td>
</tr>
<tr>
<td>Date of recovery</td>
<td></td>
</tr>
<tr>
<td>Site Log Entry</td>
<td></td>
</tr>
<tr>
<td>Provenience</td>
<td>Foa 10 44 '/4 layer33</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Description</th>
<th>bone handled knife</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimensions</td>
<td>17 cm long</td>
</tr>
<tr>
<td>Weight</td>
<td></td>
</tr>
<tr>
<td>Condition</td>
<td>E (6) P</td>
</tr>
</tbody>
</table>

| Photo attached:              | copper/brass/bronze x bone, ivory foodstuff |
|                              | lead/tin/pewter cork glass |
|                              | iron/steel wood rubber |
|                              | gold cloth ceramic |
|                              | silver leather stone, clay |
|                              | mineral rope other |
|                              | gam paper |

Post excavation history:
processed: bagged in plastic

Recording:
Photographs: see contact sheets

Drawing:

Location:

Priority for treatment:
(3) 2 1 0 (high) (medium) (low) (none)
Analysis/Examination

Spot tests
Chloride test (+) (-)

Magnet
Probe
Magnification

Dates
Treatment Record

March 2-18

The artifact was cleaned mechanically using vibrotool, scalpel, and chemical.
Bone panels removed in cleaning. Iron fragmented in cleaning.

March 18

Iron was boiled in changes of deionized water for 3 days, changed 8x/day. Iron air dried afterwards.

March 13-

The artifact was treated with a chemical inhibitor to prevent further corrosion. The artifact was placed under vacuum (1 lbs/in²) for hrs. in a solution of CRC 3-36 for a month.

April 13

The artifact was removed, air dried, and given a protective coating of 10% Araldite 0-72 in toluene. Bone panels + fragments adhered with UHU adhesive.

Treatment Summary

☑ scalpel, pick
☐ wire brush
☑ glass brush
☐ air abrasive/sand blast
☐ electrolytic reduction
☐ chemical cleaning
☐ ultrasonic
☑ vibrotool

☑ intensive wash, hot
☐ intensive wash, cold
☐ de-watered (solvent)
☐ oven dried
☐ inhibitor
☑ coating
☐ reshaped
☑ mended
☐ bleached
☐ filled
☐ consolidated
☐ special support
☐ silica gel
☐ biocide

Dates
Photographs

Before treating
After treating

2-5-87
contact sheet 1, frame 16-20
X

4-19-87
contact sheet 2, frame 0-5
X
Site: 18BA 282 BANNEKER

Date logged into conservation: 2-9-87

Artifact number: 03

Date treatment started: 4-15-87

Artifact type:

Date completed:

Date of recovery:

Conservator: K. Singer

Site Log Entry:

Provenience: 18BA 282 - 1835

Description:

Dimensions: 4.1 cm long

Weight:

Condition: E 6 P

Photo attached: copper/brass/bronze bone, ivory foodstuff lead/tin/ pewter cork glass iron/steel wood rubber gold cloth ceramic silver leather stone, clay mineral rope other paper ( )

Post excavation history:

processed: bagged in plastic

Recording:

Photographs: see contact sheets

Drawing:

Location:

Priority for treatment: 3 2 1 0

(high) (medium) (low) (none)
### Analysis/Examination

<table>
<thead>
<tr>
<th>Spot tests</th>
<th>Chloride test (+)</th>
<th>(-)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Magnet</td>
<td>x-ray</td>
<td></td>
</tr>
<tr>
<td>Probe</td>
<td>other</td>
<td></td>
</tr>
<tr>
<td>Magnification</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Dates | Treatment Record

**4-15-87**

The artifact was cleaned mechanically using vibrotool + scalped

**4-15-87**

The artifact was soaked in changes of deionized water to remove as many chlorides as possible. The wash water was changed at least 8x per day.

**4-17-87**

The artifact was treated with a chemical inhibitor to prevent further corrosion. It was placed under vacuum (~1 ps/ln²) for ~1 hr.

**4-17-87**

The artifact was removed, air dried, and given a protective coating of 10% Acrylic 37-22 alkylsilane

### Treatment Summary

- scalpel, pick
- wire brush
- glass brush
- air abrasive/sand blast
- electrolytic reduction
- chemical cleaning
- ultrasonic
- intensive wash, hot
- intensive wash, cold
- de-watered (solvent)
- oven dried
- inhibitor
- coating
- reshaped
- mended
- bleached
- filled
- consolidated
- special support
- silica gel
- biocide

### Dates | Photographs | Before treating | After treating

| 3-5-87 | contact sheet 2, frame 51-53 | X |   |
| 4-19-87 | contact sheet 3, frame 6-9 |  | X |
Site: 18BA 282 BANNEKER
Date logged into conservation: 2-9-87
Artifact number: B-1
Date treatment started: 4-13-87
Artifact type: [ ]
Date completed: 4-15-87
Date of recovery: [ ]
 Conservator: K. Singley
Site Log Entry: 18BA 282 - 1233

Description: 2 straight pins, plated w/ tin
Dimensions: 2.7 cm long
Weight: [ ]
Condition: E G P

Photo attached: [ ]
[ ] copper/brass/bronze
[ ] bone, ivory
[ ] foodstuff
[ ] lead/tin/pewter
[ ] cork
[ ] glass
[ ] iron/steel
[ ] wood
[ ] rubber
[ ] gold
[ ] cloth
[ ] ceramic
[ ] silver
[ ] leather
[ ] stone, clay
[ ] mineral
[ ] rope
[ ] other
[ ] gem
[ ] paper

Post excavation history:
[ ] processed; bagged in plastic

Recording:
Photographs: [ ] see contact sheets
Drawing: [ ]

Location:

Priority for treatment:

(3) (2) (1) (0)
(high) (medium) (low) (none)
### Analysis/Examination

<table>
<thead>
<tr>
<th>Spot tests</th>
<th>Chloride test (+)</th>
<th>(-)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Magnet</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Probe</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Magnification</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Dates

<table>
<thead>
<tr>
<th>Dates</th>
<th>Treatment Record</th>
</tr>
</thead>
<tbody>
<tr>
<td>4-18-87</td>
<td>The artifact was cleaned mechanically using glass brush lightly. No formic acid because of tim</td>
</tr>
</tbody>
</table>

| 4-14-87 | The artifact was treated with a chemical inhibitor to prevent further corrosion. The artifact was placed under vacuum (20 lbs/in²) for 24 hrs. in a solution of 370 Benzoylazole (BTA) in methanol. The artifact was removed, air dried, and given a protective coating of Incolac (acrylic copolymer in toluene w/ TBN) after passing through methanol. |

### Treatment Summary

| scalpel, pick | intensive wash, hot | mend |
| wire brush    | intensive wash, cold | bleached |
| glass brush   | de-watered (solvent) | filled |
| air abrasive/sand blast | oven dried | consolidated |
| electrolytic reduction | inhibitor | special support |
| chemical cleaning | coating | silica gel |
| ultrasonic   | reshaped             | biocide |

### Dates

<table>
<thead>
<tr>
<th>Dates</th>
<th>Photographs</th>
<th>Before treating</th>
<th>After treating</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-5-87</td>
<td>contact sheet 2, frame 25-27</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>4-17-87</td>
<td>contact sheet 3, frame 10-12</td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>
ARTIFACT SHEET
AND TREATMENT RECORD

Site 18BA 282 BANNEKER

Date logged into conservation 2-9-87

Artifact number B5

Date treatment started 3-11-87

Artifact type

Date completed 3-13-87

Date of recovery

Conservator K. Singley

Site Log Entry

Provenience 18BA 282-1234

Description three straight pins; one straight pin fragment

Dimensions 0.2 cm long

Weight

Condition E 6 P

Photo attached ___

See contact sheets

X copper/brass/bronze ___ bone, ivory ___ foodstuff

X lead/tin/pewter ___ cork ___ glass

X iron/steel ___ wood ___ rubber

gold ___ cloth ___ ceramic

X silver ___ leather ___ stone, clay

X mineral ___ rope ___ other

X gem ___ paper ___

Post excavation history:
processed; bagged in plastic

Recording:
Photos photographs see contact sheets

Drawing

Head are all wrapped & trimming evident under head & at tips

Location:

Priority for treatment: 3 2 1 0

(high) (medium) (low) (none)
Analysis/Examination

Spot tests
Chloride test (+)  (-)
Magnet
X-Ray
Probe
Other
Magnification

Residual copper on artifacts indicates acid spoil? Tinning attacked esp.

---

Dates  Treatment Record

3-11-87  The artifact was cleaned mechanically using glass brush, scalpel.
         No formic acid used because of tinning.

3-14-87  The artifact was treated with a chemical inhibitor to prevent further corrosion. The artifact was placed under vacuum (30 lbs/in²) for 24 hrs. in a solution of 3% benzoic acid in methanol.

3-13-87  The artifact was removed, air dried, and given a protective coating of Norlac (acrylate methacrylate copolymer in solution w/ BPA added) after passing through methanol.

---

Treatment Summary

- scalpel, pick  - intensive wash, hot  - mended
   - wire brush  - intensive wash, cold  - bleached
   - glass brush  - de-watered (solvent)  - filled
   - air abrasive/sand blast  - oven dried  - consolidated
   - electrolytic reduction  - inhibitor  - special support
   - chemical cleaning  - coating  - silica gel
   - ultrasonic  - reshaped  - biocide

---

Dates  Photographs  Before treating  After treating

3-5-87  contact sheet 2, frame 26-30  X

4-17-87  contact sheet 3, frame 15-15  X
ARTIFACT SHEET
AND TREATMENT RECORD

Site 18BA 282 BANNEKER

Date logged into conservation 2-9-87

Artifact number B6

Date treatment started 4-13-87

Artifact type p

Date completed 4-15-87

Date of recovery

Conservator K. Singley

Site Log Entry

Provenience 18BA 282 - 1235

Description bent straight gun - remnants of plating

Dimensions 2.3 cm

Weight

Condition E G P

Photo attached see contact sheets

☑ copper/brass/bronze ☑ bone, ivory ☑ foodstuff

☑ lead/tin/pewter ☑ cork ☑ glass

☑ iron/steel ☑ wood ☑ rubber

☐ gold ☑ cloth ☑ ceramic

☐ silver ☑ leather ☑ stone, clay

☐ mineral ☑ rope ☑ other

☐ gem ☑ paper ( )

Post excavation history:

processed: bagged in plastic

Recording:

Photographs see contact sheets

Drawing

Location:

Priority for treatment: 3 2 1 0

(high) (medium) (low) (none)
Analysis/Examination

Spot tests
Chloride test (+) (-)
X-Ray
Other

Dates Treatment Record

4-13-87 The artifact was cleaned mechanically using *scalpel* + *light glass brush*
*No formic acid used because of ten*

4-14-87 The artifact was treated with a chemical inhibitor to prevent further corrosion. The artifact was placed under vacuum (20 lbs/in²) for 24 hrs. in a solution of 3% benzotriazole (BTA) in methanol. The artifact was removed, air dried, and given a protective coating of *Lucite* (acrylic copolymer in toluene, w/ BTA) after passing thru methanol.

Treatment Summary

- ✓ scalpel, pick
- ✓ wire brush
- ✓ glass brush
- ✓ air abrasive/sand blast
- ✓ electrolytic reduction
- ✓ chemical cleaning
- ✓ ultrasonic
- ✓ intensive wash, hot
- ✓ intensive wash, cold
- ✓ de-watered (solvent)
- ✓ oven dried
- ✓ inhibitor
- ✓ coating
- ✓ reshaped
- ✓ mended
- ✓ bleached
- ✓ filled
- ✓ consolidated
- ✓ special support
- ✓ silica gel
- ✓ biocide

Dates Photographs Before treating After treating
3-5-87 contact sheet 2, frame 23-24 X X
4-17-87 contact sheet 2, frame 10-12
Site: 18BA 282 BANNEKER  
Date logged into conservation: 2-9-87

Artifact number: B7  
Date treatment started: 4-15-87

Artifact type:  
Date completed: 4-18-87

Date of recovery: 18BA282-1208

Conservator: K. Singley

Provenience:__________________________

Description: nail (fork tine?)  
Dimensions: 3.5 cm

Weight:__________________________

Condition: E (6) P

Photo attached:__________

---

copper/brass/bronze  
lead/tin/ pewter  
iron/steel  
gold  
silver  
mineral  
gem  
---

bone, ivory  
cork  
cloth  
wood  
rubber  
leather  
rope  
paper  
---

---

Post excavation history:  
processed: bagged in plastic

Recording:
Photographs: see contact sheets

Drawing:__________________________

Location:__________________________

---

Priority for treatment:  
1 2 3 4 5  
(high) (medium) (low) (none)
Analysis/Examination

Spot tests
Chloride test (+) (-)
Magnet
Probe
Magnification

X-Ray
Other

Dates
Treatment Record

4-15-87
The artifact was cleaned mechanically using a scalpel and vibrotool.

4-15-87
The artifact was boiled in changes of chlorine water. The water was changed at least 8x per day.

4-17-87 thru
The artifact was treated with a chemical inhibitor to prevent further corrosion. The artifact was placed under vacuum (1 lb/in²) for 3 hrs.

4-17-87 thru
The artifact was dewaxed in ethyl alcohol overnight.

4-18-87
The artifact was removed, air-dried, and given a protective coating of 10% Acriloid B72 as volume.

Treatment Summary

scalpel, pick
wire brush
glass brush
air abrasive/sand blast
electrolytic reduction
chemical cleaning
ultrasonic

intensive wash, hot
intensive wash, cold
de-watered (solvent)
oven dried
inhibitor
coating
mended
bleached
filled
consolidated
special support
silica gel
biocide

Dates
Photographs

Before treating
After treating

3-5-87
contact sheet 2, frame 31-33
X

4-18-87
contact sheet 3, frame 6-9
X
Site 18BA 282 BANNEKER  
Date logged into conservation 2-9-87
Artifact number 38  
Date treatment started 3-11-87
Artifact type  
Date completed 3-13-87
Date of recovery  
Conservator K. Singley
Site Log Entry: 
Provenience 18BA 282 1208

Description: straight pin - thin plated copper?  
Dimensions: 2.4 cm long
Weight:  
Condition: E G P

Photo attached ___  
X copper/brass/bronze ___ bone, ivory ___ foodstuff
X lead/tin/pewter ___ cork ___ glass
___ iron/steel ___ wood ___ rubber
___ gold ___ cloth ___ ceramic
___ silver ___ leather ___ stone, clay
___ mineral ___ rope ___ other
___ gem ___ paper ___

Post excavation history: processed; bagged in plastic  
Recording: Photographs see contact sheets
Drawing: tiin plating gone
Location:

Priority for treatment:  
3 2 1 0  
(high) (medium) (low) (none)
### Analysis/Examination

- Spot tests
- Chloride test (+) (-)
- X-Ray
- Other

Magnification

V. acid & sod. tinning largely gone - re-deposited sod.

### Dates and Treatment Record

<table>
<thead>
<tr>
<th>Date</th>
<th>Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-11-87</td>
<td>The artifact was cleaned mechanically using glass brush &amp; scalpel. No chemicals used.</td>
</tr>
<tr>
<td>3-11-87</td>
<td>The artifact was treated with a chemical inhibitor to prevent further corrosion. The artifact was placed under vacuum (30 lbs/in²) for 24 hrs. in a solution of 3% benzotriazole in methanol.</td>
</tr>
<tr>
<td>3-12-87</td>
<td>The artifact was removed, air dried, and given a protective coating of lacquer (enamel varnish) copolymer in toluene w/ BTA added after passing through methanol.</td>
</tr>
</tbody>
</table>

### Treatment Summary

- Scalpel, pick
- Wire brush
- Glass brush
- Air abrasive/sand blast
- Electrolytic reduction
- Chemical cleaning
- Ultrasonic
- Intensive wash, hot
- Intensive wash, cold
- De-watered (solvent)
- Oven dried
- Inhibitor
- Coating
- Reshaped
- Mended
- Bleached
- Filled
- Consolidated
- Special support
- Silica gel
- Biocide

### Dates

- **3-5-87**
  - Contact sheet 2, frame 28-36
  - Before treating: X
  - After treating: X

- **4-17-87**
  - Contact sheet 2, frame 13-15
ARTIFACT SHEET
AND TREATMENT RECORD

Site 18BA 282 BANNEKER
Date logged into conservation 2-9-87

Artifact number 69
Date treatment started 3-11-81

Artifact type
Date completed 3-13-87

Date of recovery
Conservator K. Singley

Site Log Entry
Provenience 1869282 1208

Description button - brass pecked w/ white metal

Dimensions 1.3 cm dia

Weight

Condition E P

Photo attached see contact sheets

- copper/brass/bronze
- lead/tin/pewter
- iron/steel
- gold
- silver
- mineral
- gem

- bone, ivory
- foodstuff
- cork
- wood
- cloth
- leather
- rope
- paper
- other

Post excavation history:
processed; bagged in plastic

Recording:
Photographs see contact sheets
Drawing

Priority for treatment: 3 2 1 0
(high) (medium) (low) (none)
Analysis/Examination

- Spot tests
- Chloride test: (+) (-)
- Magnet
- Probe
- Magnification

Fibers found on inside of loop + sample taken. Probable cotton

<table>
<thead>
<tr>
<th>Dates</th>
<th>Treatment Record</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-11-87</td>
<td>The artifact was cleaned mechanically using glass brush + scalpel. Sample taken.</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>3-11-87</td>
<td>The artifact was treated with a chemical inhibitor to prevent further corrosion. The artifact was placed under vacuum (20 lbs/in²) for 24 hrs. in a solution of 3% benzoic acid (BTA) in methanol.</td>
</tr>
<tr>
<td>3-13-87</td>
<td>The artifact was removed, air dried, and given a protective coating of nonlac (acrylate methacrylate copolymer in toluene, 15% BTA added) after passing through methanol.</td>
</tr>
</tbody>
</table>

Treatment Summary

- Scalpel, pick
- Wire brush
- Glass brush
- Air abrasive/sand blast
- Electrolytic reduction
- Chemical cleaning
- Ultrasonic

- Intensive wash, hot
- Intensive wash, cold
- De-watered (solvent)
- Oven dried
- Inhibitor
- Coating
- Reshaped

- Mended
- Bleached
- Filled
- Consolidated
- Special support
- Silica gel
- Biocide

<table>
<thead>
<tr>
<th>Dates</th>
<th>Photographs</th>
<th>Before treating</th>
<th>After treating</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-5-87</td>
<td>Contact sheet 2, frame 26-30</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>4-17-87</td>
<td>Contact sheet 3, frame 13-15</td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>
ARTIFACT SHEET
AND TREATMENT RECORD

Site 18BA 282 BANNEKER

Date logged into conservation 2-9-87

Artifact number 

Date treatment started 4-13-87

Artifact type 

Date completed 4-15-87

Date of recovery 

Conservator K. Singley

Site Log Entry

Provenience 18BA 282-1201

Description Bent straight end of horn

Dimensions 1/4 cm

Weight

Condition E G (P)

Photo attached see contact sheets

copper/brass/bronze

bone, ivory

foodstuff

lead/tin/pewter

bone, ivory

foodstuff

iron/steel

cork

glass

rubber

gold

wood

rubber

gold

cloth

rubber

silver

leather

stone, clay

mineral

rope

clay

gem

paper

Other

Post excavation history:
processed: bagged in plastic

Recording:
Photographs see contact sheets

Drawing

Location:

Priority for treatment: 3
(high)

2
(medium)

1
(low)

0
(none)
Analysis/Examination

Spot tests
Chloride test (+) (-)
X-Ray
Other

Magnet
Probe
Magnification

Dates Treatment Record

4-13-87 The artifact was cleaned mechanically using glass brush.
No chemicals used because of tin.

4-14-87 The artifact was treated with a chemical inhibitor to prevent further corrosion. The artifact was placed under vacuum (30 lbs/in²) for 24 hrs. in a solution of 5% Benzo triazole (CBM) in methanol.

4-15-87 The artifact was removed, air dried, and given a protective coating of Noracol (acrylic copolymer in toluene w/ TMA added) after passing through methanol.

Treatment Summary

scalpel, pick
wire brush
glass brush
air abrasive/sand blast
electrolytic reduction
chemical cleaning
ultrasonic

intensive wash, hot mended
intensive wash, cold bleached
de-watered (solvent) filled
oven dried consolidated
inhibitor special support
coating silica gel

Dates Photographs Before treating After treating
3-5-87 contact sheet 2, frame 05-27 X X
4-18-87 contact sheet 3, frame 10-12 X
ARTIFACT SHEET
AND TREATMENT RECORD

Site 18BA 282 BANNEKER Date logged into conservation 2-9-87
Artifact number G-11 Date treatment started 3-11-87
Artifact type ______ Date completed 3-13-87
Date of recovery ______ Conservator K. Singles
Site Log Entry ______
Provenience 1800a-82-1203

-------------

Description fragment of straight pin
Dimensions 0.8 cm long
Weight
Condition E G P

Photo attached ______
see contact sheets

_____ copper/brass/brassen _____ bone, ivory _____ foodstuff
_____ lead/tin/ pewter _____ cork _____ glass
_____ iron/steel _____ wood _____ rubber
_____ gold _____ cloth _____ ceramic
_____ silver _____ leather _____ stone, clay
_____ mineral _____ rope _____ other
_____ gem _____ paper (__________)

-------------

Post excavation history:
processed; bagged in plastic

Recording:
Photographs see contact sheets
Drawing

-------------

Location:

-------------

Priority for treatment: 3 2 1 0
(high) (medium) (low) (none)
Analysis/Examination

Spot tests
Chloride test (+) (-)
X-Ray
Other
Magnification
Biowaste evident.

Very mineralize, probably tinred originally.

Dates

3-11-87
The artifact was cleaned mechanically using scalpel + glass brush. Fragmented in cleaning + joined with Cyanoacrylate (Crazy Glue). Jellied below bed. No chemicals used because of probable tinred.

3-13-87
The artifact was treated with a chemical inhibitor to prevent further corrosion. The artifact was placed under vacuum (30 lbs/in²) for 24 hrs in a solution of 3% Benzaldehyde (BTA) in naphtha.

3-17-87
The artifact was removed, air dried, and given a protective coating of Lincolite (acrylate methacrylate copolymer in toluene w/ BTA added) after passing through methane.

Treatment Summary

✓ scalpel, pick
✓ wire brush
✓ glass brush
✓ air abrasive/sand blast
✓ electrolytic reduction
✓ chemical cleaning
✓ ultrasonic
✓ intensive wash, hot
✓ intensive wash, cold
✓ de-watered (solvent)
✓ oven dried
✓ inhibitor
✓ coating
✓ reshaped
✓ mended
✓ bleached
✓ filled
✓ consolidated
✓ special support
✓ silica gel
✓ biocide

Dates

Photographs

Before treating

After treating

2-5-87
contact sheet 2, frame 28-30
X

4-17-87
contact sheet 2, frame 13-15
X
Site 18BA 282 BANNEKER  Date logged into conservation 2-9-87
Artifact number B12  Date treatment started 4-13-87
Artifact type  Date completed 4-15-87
Date of recovery  Conservator K. Singley
Site Log Entry
Provenience 18BA 282 - 1203

Description Plated button - brass w/ white metal  Dimensions 1.5 cm

Weight  Condition E G P

Photo attached  copper/brass/bronze X bone, ivory  foodstuff
lead/tin/pewter  cork  glass
iron/steel  wood  rubber
gold  cloth  ceramic
silver  leather  stone, clay
mineral  rope  other
gem  paper  ( )

Post excavation history: processed: bagged in plastic
Recording:
Photographs see contact sheets
Drawing

Location:

Priority for treatment: 3 2 1 0
(high) (medium) (low) (none)
Analysis/Examination

<table>
<thead>
<tr>
<th>Test</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Magnet</td>
<td></td>
</tr>
<tr>
<td>Probe</td>
<td></td>
</tr>
<tr>
<td>Magnification</td>
<td></td>
</tr>
<tr>
<td>Chloride test</td>
<td>(+)</td>
</tr>
<tr>
<td>Spot tests</td>
<td></td>
</tr>
<tr>
<td>X-Ray</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
</tr>
</tbody>
</table>

Dates | Treatment Record
--- | ---
4-13-87 | The artifact was cleaned mechanically using glass brush + scalpel
4-14-87 | The artifact was treated with a chemical inhibitor to prevent further corrosion. The artifact was placed under vacuum (20 lbs/in²) for 24 hrs. in a solution of 3% Benzotriazol (BTA) in methanol. The artifact was removed, air dried, and given a protective coating of Lacral (acrylic copolymer in toluene) after passing through methanol.

Treatment Summary

- scalpel, pick
- wire brush
- glass brush
- air abrasive/sand blast
- electrolytic reduction
- chemical cleaning
- ultrasonic
- intensive wash, hot
- intensive wash, cold
- de-watered (solvent)
- oven dried
- inhibitor
- coating
- mended
- bleached
- filled
- consolidated
- special support
- silica gel
- biocide

Dates | Photographs | Before treating | After treating
--- | --- | --- | ---
3-5-87 | contact sheet 2, frame 25-57 | X |
4-17-87 | contact sheet 3, frame 10-12 | X |
**ARTIFACT SHEET AND TREATMENT RECORD**

**Site** 18BA 282 BANNEKER  
**Artifact number** B18  
**Artifact type**  
**Date of recovery**  
**Site Log Entry**  
**Provenience** 18BA282-1208  

**Date logged into conservation** 2-9-87  
**Date treatment started** 4-13-87  
**Date completed** 4-15-87  
**Conservator** K. Singley

---

**Description** button - white metal  
**Dimensions** 1.3 cm  
**Weight**  
**Condition** E G P

**Photo attached**  
- copper/brass/bronze  
- lead/tin/ pewter  
- iron/steel  
- gold  
- silver  
- mineral  
- gem  
- bone, ivory  
- foodstuff  
- cork  
- wood  
- cloth  
- leather  
- rope  
- paper  
- glass  
- rubber  
- ceramic  
- stone, clay  
- other

---

**Post excavation history:** processed; bagged in plastic  
**Recording:** Photographs see contact sheets  
**Drawing**

---

**Location:**

---

**Priority for treatment:**  
- High (3)  
- Medium (2)  
- Low (1)  
- None (0)
**Analysis/Examination**

- Spot tests
- Chloride test (+) (-)
- X-Ray
- Other

---

**Dates**

**Treatment Record**

4-13-87 The artifact was cleaned mechanically using a brush and scalpel.

4-14-87 The artifact was treated with a chemical inhibitor to prevent further corrosion. The artifact was placed under vacuum (20 lbs/in²) for 24 hrs. in a solution of 3% BTA (benzoic acid) in methanol.

4-15-87 The artifact was removed, air dried, and given a protective coating of Lucral (acrylic polymer, w/ BTA added, in toluene) after passing through methanol.

---

**Treatment Summary**

- Scalpel, pick
- Wire brush
- Glass brush
- Air abrasive/sand blast
- Electrolytic reduction
- Chemical cleaning
- Ultrasonic
- Intensive wash, hot
- Intensive wash, cold
- De-watered (solvent)
- Oven dried
- Inhibitor
- Coating
- Reshaped
- Mended
- Bleached
- Filled
- Consolidated
- Special support
- Silica gel
- Biocide

---

**Dates**

**Photographs**

Before treating After treating

<table>
<thead>
<tr>
<th>Dates</th>
<th>Photographs</th>
<th>3-5-87</th>
<th>4-17-87</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>contact sheet 2, frame 25-27</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>contact sheet 3, frame 10-12</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
ARTIFACT SHEET
AND TREATMENT RECORD

Site 18BA 282 BANNEKER  Date logged into conservation  2-9-87
Artifact number  314  Date treatment started  3-11-87
Artifact type  Date completed  3-13-87
Date of recovery  Conservator  K. Singley
Site Log Entry
Provenience  18BA 282. 1203

Description  button - copper / brass pealed w / white metal
Dimensions  1.3 cm diam

Weight
Condition  E  O  P

Photo attached  X copper / brass / bronze  X lead / tin / pewter
  see contact sheets  bone, ivory  foodstuff
  X iron / steel  cork  glass
  gold  wood  rubber
  silver  cloth  ceramic
  mineral  leather  stone, clay
  gem  rope  other
  paper  ( )

Post excavation history:
  processed; bagged in plastic

Recording:
  Photographs  see contact sheets
  Drawing

Location:

Priority for treatment:  3  2  1  0
  (high)  (medium)  (low)  (none)
Analysis/Examination

- Magnet
- Probe
- Magnification

Spot tests
Chloride test (+) (-)
X-Ray
Other

---

Dates  Treatment Record

3-11-87 The artifact was cleaned mechanically using scalpel and glass brush.
15% formic acid also used to remove corrosion, especially on loop.

3-11-87 The artifact was treated with a chemical inhibitor to prevent further corrosion. The artifact was placed under vacuum (30 lbs/in²) for 24 hrs. in a solution of 3% Benzotriazole (BTA) in methanol.

3-13-87 The artifact was removed, air dried, and given a protective coating of Trinuclec (acrylate methacrylate copolymer with BTA added) intoluene after passing through methanol.

---

Treatment Summary

- scalpel, pick
- wire brush
- glass brush
- air abrasive/sand blast
- electrolytic reduction
- chemical cleaning
- ultrasonic
- intensive wash, hot
- intensive wash, cold
- de-watered (solvent)
- oven dried
- inhibitor
- coating
- mended
- bleached
- filled
- consolidated
- special support
- silica gel
- biocide

---

Dates  Photographs  Before treating  After treating

3-5-87 contact sheet 2, frame 28-30  X

4-17 contact sheet 3, frame 13-15  X
**ARTIFACT SHEET AND TREATMENT RECORD**

**Site:** 18BA 282 BANNEKER  
**Date logged into conservation:** 2-9-87  
**Artifact number:** B15  
**Date treatment started:** 4-15-87  
**Artifact type:**  
**Date completed:** 4-18-87  
**Date of recovery:**  
**Site Log Entry:**  
**Provenience:** 189A-282-1202  

**Description:** large na/d  
**Dimensions:** 7cm long  
**Weight:**  
**Condition:** E (6) P  

- Photo attached  
  - copper/brass/bronze  
  - bone, ivory  
  - foodstuff  
  - lead/tin/pewter  
  - cork  
  - glass  
  - iron/steel  
  - wood  
  - rubber  
  - gold  
  - cloth  
  - ceramic  
  - silver  
  - leather  
  - stone, clay  
  - mineral  
  - rope  
  - other  
  - gem  
  - paper  
  - ( )  

**Post excavation history:**  
- processed; bagged in plastic

**Recording:**  
- Photographs  
- see contact sheets

**Drawing:**

- Location:  

**Priority for treatment:**

<table>
<thead>
<tr>
<th>(high)</th>
<th>(medium)</th>
<th>(low)</th>
<th>(none)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>
Analysis/Examination

Spot tests
Chloride test (+) (-)
Magnet
Probe
Magnification
X-Ray
Other

Dates Treatment Record

4-15-87 The artifact was cleaned mechanically using scalpel, wire brush, cloth.

4-13-87 to
4-17-87 The artifact was intensively washed in changes of de minimus water to remove chloride. Wash water was changed at least 8x/day.

4-17-87 thru
4-18-87 The artifact was treated with a chemical inhibitor to prevent further corrosion. The artifact was placed under vacuum (6 lbs/sq in) for 48 hrs. in a solution of de-watered oven dried in ammonia. The artifact was removed, air dried, and given a protective coat of 10% Angelus B-72 in Parma.

Treatment Summary

scalpel, pick intensive wash, hot mended
wire brush intensive wash, cold bleached
glass brush de-watered (solvent) filled
air abrasive/sand blast oven dried consolidated
electrolytic reduction inhibitor special support
chemical cleaning coating silica gel
ultrasonic reshaped biocide
v. bleach

Dates Photographs Before treating After treating
3-5-87 contact sheet 2, frame 31-33 X
4-18-87 contact sheet 3, frame 6-9 X
Site: 18BA 282 BANNEKER

Date logged into conservation: 2-9-87

Artifact number: 216

Date treatment started: 3-11-87

Artifact type: Buckle part

Date completed: 3-13-87

Date of recovery:

Site Log Entry:

Conservator: K. Singley

Provenience:

Description: Buckle part

Dimensions: 2.3 cm long

Weight:

Condition: E 6 P

Photo attached: Copper/bronze

Lead/tin/pewter

Iron/steel

Gold

Silver

Bone, ivory

Foodstuff

Cork

Wood

Rubber

Cloth

Ceramic

Leather

Stone, clay

Mineral

Rope

Paper

Other

Post excavation history:

Processed: bagged in plastic

Recording:

Photographs: See contact sheets

Drawing:

Location:

Priority for treatment: 3 (high) 2 (medium) 1 (low) 0 (none)
Analysis/Examination

<table>
<thead>
<tr>
<th>Magnet</th>
<th>Chloride test (+)</th>
<th>(-)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Probe</td>
<td>X-Ray</td>
<td></td>
</tr>
<tr>
<td>Magnification</td>
<td>Other</td>
<td></td>
</tr>
</tbody>
</table>

Acidic soil caused redeposited copper layer?

 Dates  Treatment Record

3-11-87  The artifact was cleaned mechanically using scalpel, glass brush, 15% formic acid also used.

3-11-87  The artifact was treated with a chemical inhibitor to prevent further corrosion. The artifact was placed under vacuum (~20 lbs/in²) for 24 hrs. in a solution of 3% Benzo-triazol (BTA) in methanol.

3-13-87  The artifact was removed, air dried, and given a protective coating of Inrico (acrylate methacrylate copolymer with BTA added) in toluene after passing through methanol.

Treatment Summary

- scalpel, pick
- wire brush
- glass brush
- air abrasive/sand blast
- electrolytic reduction
- chemical cleaning
- ultrasonic
- intensive wash, hot
- intensive wash, cold
- de-watered (solvent)
- oven dried
- inhibitor
- coating
- mended
- bleached
- filled
- consolidated
- special support
- silica gel
- biocide

 Dates  Photographs  Before treating  After treating
3-5-87  contact sheet 2, frame 28-30  X  
4-14-87  contact sheet 3, frame 15-15  X  
ARTIFACT SHEET
AND TREATMENT RECORD

Site 18BA 282 BANNEKER  Date logged into conservation 2-9-87
Artifact number B17  Date treatment started 4-13-87
Artifact type  Date completed 4-15-87
Date of recovery Conservator K. Singley
Site Log Entry: 
Provenience 18BA 282-1162

Description penny Dimensions 3.8 cm diameter

Weight

Condition E G P

Photo attached ___ Copper/brass/bronze ___ bone, ivory ___ foodstuff
___ lead/tin/pewter ___ cork ___ glass
___ iron/steel ___ wood ___ rubber
___ gold ___ cloth ___ ceramic
___ silver ___ leather ___ stone, clay
___ mineral ___ rope ___ other
___ gem ___ paper ___ (__________)

Post excavation history:
processed; bagged in plastic

Recording:
Photographs see contact sheets
Drawing

Location:

Priority for treatment: 3 2 1 0
(high) (medium) (low) (none)
Analysis/Examination

Spot tests
Chloride test (+) (-)
X-Ray
Other

Magnification

Dates Treatment Record

4-13-87 The artifact was cleaned mechanically using glass brush. Also used to remove light corrosion

4-14-87 The artifact was treated with a chemical inhibitor to prevent further corrosion. The artifact was placed under vacuum (20 lbs/in²) for 24 hrs. in a solution of 3% BTA (benzotriazole) in methanol.

4-15-87 The artifact was removed, air dried, and given a protective coating of acrylic copolymer in benzene after passing through methanol.

Treatment Summary

scalpel, pick
wire brush
glass brush
air abrasive/sand blast
electrolytic reduction
chemical cleaning
ultrasonic

intensive wash, hot
intensive wash, cold
de-watered (solvent)
oven dried
Inhibitor
coating
reshaped

mended
bleached
filled
consolidated
special support
silica gel
biocide

Dates Photographs Before treating After treating
2-5-87 contact sheet 1, frame 25-27 X
4-17-87 contact sheet 2, frame 10-12 X
Site 18BA 282  BANNEKER  Date logged into conservation  2-9-87
Artifact number  A48  Date treatment started  4-13-87
Artifact type  Date completed  4-15-87
Date of recovery  Conservator  K. Singley
Site Log Entry
Provenience  18BA 282  IIb2

Description  Plated brass button - white metal  Dimensions  2.4 cm diam.

Photo attached  copper/brass/bronze  bone, ivory  foodstuff
lead/tin/pewter  cork  glass
iron/steel  wood  rubber
gold  cloth  ceramic
silver  leather  stone, clay
mineral  rope  other
gem  paper  (___________)

Post excavation history:
processed: bagged in plastic

Recording:
Photographs  see contact sheets
Drawing

Location:

Priority for treatment:  3  2  1  0
(high)  (medium)  (low)  (none)
### Analysis/Examination

<table>
<thead>
<tr>
<th>Test</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chloride test</td>
<td>(+)</td>
</tr>
<tr>
<td>X-Ray</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
</tr>
</tbody>
</table>

---

### Dates

<table>
<thead>
<tr>
<th>Date</th>
<th>Treatment Record</th>
</tr>
</thead>
<tbody>
<tr>
<td>4-13-87</td>
<td>The artifact was cleaned mechanically using glass brush. Most of the plating was</td>
</tr>
<tr>
<td></td>
<td>removed during cleaning, as if had formed up the sheet was very loosely held.</td>
</tr>
<tr>
<td>4-14-87</td>
<td>The artifact was treated with a chemical inhibitor to prevent further corrosion.</td>
</tr>
<tr>
<td></td>
<td>The artifact was placed under vacuum (30 lbs/in²) for 24 hrs. in a solution of</td>
</tr>
<tr>
<td></td>
<td>3% Benzoicola (BTA) in methanol.</td>
</tr>
<tr>
<td>4-15-87</td>
<td>The artifact was removed, air dried, and given a protective coating of</td>
</tr>
<tr>
<td></td>
<td>lacquer (acrylic co-polymer in toluene with BTA added) after passing through</td>
</tr>
<tr>
<td></td>
<td>methanol.</td>
</tr>
</tbody>
</table>

### Treatment Summary

- Scalpel, pick
- Wire brush
- Glass brush
- Air abrasive/sand blast
- Electrolytic reduction
- Chemical cleaning
- Ultrasonic
- Intensive wash, hot
- Intensive wash, cold
- De-watered (solvent)
- Oven dried
- Inhibitor
- Coating
- Reshaped
- Mended
- Bleached
- Filled
- Consolidated
- Special support
- Silica gel
- Biocide

### Dates

<table>
<thead>
<tr>
<th>Date</th>
<th>Photographs</th>
<th>Before treating</th>
<th>After treating</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-5-87</td>
<td>contact sheet 2, frame</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>4-18-87</td>
<td>contact sheet 3, frame</td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>
Site: 18BA 282 BANNEKER
Date logged into conservation: 2-9-87
Artifact number: 81q
Date treatment started: 4-13-87
Artifact type: Bone
Date completed: 4-15-87
Date of recovery:
Site Log Entry: 18BA 282 - 1190
Provenience:

Description: Tag. gum. mount?
Dimensions: 5.3 cm long
Weight:
Condition: E G P

Photo attached:
- Yes: copper/brass/bronze
- No: lead/tin/pewter
- Yes: iron/steel
- Yes: gold
- Yes: silver
- No: mineral
- No: gem
- No: bone, ivory
- No: foodstuff
- No: cork
- No: wood
- No: rubber
- No: cloth
- No: leather
- No: rope
- No: paper
- No: stone, clay
- No: other

Post excavation history:
- Yes: processed; bagged in plastic

Recording:
- Photographs: see contact sheets
- Drawing: see contact sheets

Location:

Priority for treatment:
- High: 3
- Medium: 2
- Low: 1
- None: 0
Analysis/Examination

Spot tests

Chloride test (+) (-)

X-Ray

Other

Magnet

Probe

Magnification

Dates

Treatment Record

4-13-87 The artifact was cleaned mechanically using scalpel + glass brush.

4-14-87 The artifact was treated with a chemical inhibitor to prevent further corrosion. The artifact was placed under vacuum (20 lbs/in²) for 24 hrs. in a solution of 3% Benzotriazole (BTA) in methanol.

4-15-87 The artifact was removed, air dried, and given a protective coating of rubberize (acrylic copolymers in toluene w/ BTA) after passing through methanol.

Treatment Summary

☑ scalpel, pick
☐ wire brush
☐ glass brush
☐ air abrasive/sand blast
☐ electrolytic reduction
☐ chemical cleaning
☐ ultrasonic

☐ intensive wash, hot
☐ intensive wash, cold
☐ de-watered (solvent)
☐ oven dried
☐ inhibitor
☐ coating
☐ reshaped

☐ mended
☐ bleached
☐ filled
☐ consolidated
☐ special support
☐ silica gel
☐ biocide

Dates

Photographs

Before treating

After treating

3-5-87 contact sheet 2, frame 25-31 X

4-11-87 contact sheet 3, frame 10-12 X
Site: 18BA 282 Banneker  Date logged into conservation: 2-9-87

Artifact number: 320  Date treatment started: March 11, 1987

Artifact type:  Date completed: March 13, 1987

Date of recovery:  Conservator: K. Singley

Site Log Entry:  

Provenience: 18BA 282 1167

Description: brass lack  Dimensions: 0.8 cm diameter

Weight: 

Condition: E G P

Photo attached:  

- copper/brass/bronze  - bone, ivory  - foodstuff
- lead/tin/pewter  - cork  - glass
- iron/steel  - wood  - rubber
- gold  - cloth  - ceramic
- silver  - leather  - stone, clay
- mineral  - rope  - other
- gem  - paper ( )

Post excavation history:  

processed: bagged in plastic

Recording:

Photographs: see contact sheets

Drawing:

Location:  

Priority for treatment:  

3 (high)  2 (medium)  1 (low)  0 (none)
Analysis/Examination

Spot tests
Chloride test (+) (-)
X-Ray
Other

Magnet
Probe
Magnification


Dates Treatment Record

3-11-87 The artifact was cleaned mechanically using a scalpel & glass brush. 15% formic acid used to remove corrosion products also.

3-11-87 The artifact was treated with a chemical inhibitor to prevent further corrosion. The artifact was placed under vacuum (20 lbs/in²) for 24 hrs. in a solution of 3% benzotriazole (BTA) in methanol.

3-13-87 The artifact was removed, air dried, and given a protective coating of benzal in toluene (acrylate/methylacrylate copolymer w/ BTA added) after passing through methanol.

Treatment Summary

✓ scalpel, pick
✓ wire brush
✓ glass brush
✓ air abrasive/sand blast
✓ electrolytic reduction
✓ chemical cleaning
✓ ultrasonic
✓ intensive wash, hot
✓ intensive wash, cold
✓ de-watered (solvent)
✓ oven dried
✓ inhibitor
✓ coating
✓ reshaped
✓ mended
✓ bleached
✓ filled
✓ consolidated
✓ special support
✓ silica gel
✓ biocide

Dates Photographs Before treating After treating
3-5-87 contact sheet 2, frame 28-30 X
4-15-87 contact sheet 3, frame 13-15 X
ARTIFACT SHEET
AND TREATMENT RECORD

Site 18BA 282 BANNEKER
Artifact number B21
Artifact type
Date of recovery
Date logged into conservation 2-9-87
Date treatment started 3-11-87
Date completed 3-13-87
Conservator K. Singley
Site Log Entry
Provenience 18BA282-1167

<table>
<thead>
<tr>
<th>Description</th>
<th>Dimensions</th>
<th>Weight</th>
<th>Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brazo bottom / white metal plating</td>
<td>1.5cm</td>
<td></td>
<td>E G P</td>
</tr>
</tbody>
</table>

Photo attached __________
- x copper/brass/bronze
- x lead/tin/pewter
- ___ iron/steel
- ___ gold
- ___ silver
- ___ mineral
- ___ gem
- ___ bone, ivory
- ___ foodstuff
- ___ cork
- ___ wood
- ___ cloth
- ___ leather
- ___ rope
- ___ paper
- ___ glass
- ___ rubber
- ___ ceramic
- ___ stone, clay
- ___ other
- ___ (___________)

Post excavation history:
- processed: bagged in plastic

Recording:
Photographs see contact sheets
Drawing see contact sheets

Location:

Priority for treatment:
<table>
<thead>
<tr>
<th>3</th>
<th>2</th>
<th>1</th>
<th>0</th>
</tr>
</thead>
<tbody>
<tr>
<td>(high)</td>
<td>(medium)</td>
<td>(low)</td>
<td>(none)</td>
</tr>
</tbody>
</table>
Analysis/Examination

Spot tests
Chloride test (+) (-)
X-Ray
Other

---

Dates Treatment Record

3-11-87 The artifact was cleaned mechanically using scalpel + glass brush.

3-11-87 The artifact was treated with a chemical inhibitor to prevent further corrosion. The artifact was placed under vacuum (90 lbs/in²) for 24 hrs. in a solution of 3% benzotriazole (BTA) in methanol.

3-13-87 The artifact was removed, air dried, and given a protective coating of Inadac (acrylate methacrylate copolymers w/ BTA added) in toluene after passing through methanol.

---

Treatment Summary

✓ scalpel, pick
→ wire brush
✓ glass brush
→ air abrasive/sand blast
→ electrolytic reduction
→ chemical cleaning
→ ultrasonic

→ intensive wash, hot
→ intensive wash, cold
✓ de-watered (solvent)
→ oven dried
✓ inhibitor
→ coating
→ reshaped

→ mended
→ bleached
→ filled
→ consolidated
→ special support
→ silica gel
→ biocide

---

Dates Photographs Before treating After treating
3-5-87 contact sheet 2, frame 29-30 X

4-17-87 contact sheet 3, frame 13-15 X
ARTIFACT SHEET
AND TREATMENT RECORD

Site 18BA 282 BANNEKER

Artifact number 322

Artifact type

Date of recovery

Site Log Entry

Provenience 18BA 282 - Hill7

Date logged into conservation 2-9-87

Date treatment started 4-13-87

Date completed 4-15-87

Conservator K. Singley

Description plated roll, bottom - brass w/ white metal

Dimensions 1.3 cm

Weight

Condition E G P

Photo attached ✓

copper/brass/bronze

bone, ivory

foodstuff

lead/tin/pewter

cork

glass

iron/steel

wood

rubber

gold

cloth

ceramic

silver

leather

stone, clay

mineral

rope

other

gem

paper

Post excavation history: processed; bagged in plastic

Recording:
Photographs see contact sheets

Drawing

Location:

Priority for treatment: 3 2 1 0

(high) (medium) (low) (none)
Analysis/Examination

Spot tests
Chloride test (+) (-)
X-Ray
Other

Magnification

Dates Treatment Record
4-15-87 The artifact was cleaned mechanically using glass brush. 15% formic acid applied by brush.

4-19-87 The artifact was treated with a chemical inhibitor to prevent further corrosion. The artifact was placed under vacuum (20 lbs/in²) for 24 hrs. in a solution of 37% benzoic acid in methanol (BTA).
The artifact was removed, air dried, and given a protective coating of incolac (acylic copolymer w/ BTA added, in toluene) after passing through methanol.

Treatment Summary
✓ scalpel, pick
✓ wire brush
✓ glass brush
✓ air abrasive/sand blast
✓ electrolytic reduction
✓ chemical cleaning
✓ ultrasonic

intensive wash, hot mended
intensive wash, cold bleached
de-watered (solvent) filled
oven dried consolidated
inhibitor special support
coating silica gel
resheped biocide

Dates Photographs Before treating After treating
3-5-87 contact sheet 2, frame 25-07 X
4-17-87 contact sheet 3, frame 16-42 X
ARTIFACT SHEET
AND TREATMENT RECORD

Site 18BA 282 BANNEKER

Date logged into conservation 2-9-87

Artifact number 224

Date treatment started 4-13-87

Artifact type

Date completed 4-15-87

Date of recovery

Conservator K. Singley

Site Log Entry

Provenience 18BA 282, 1146

Description brass/cooper, button plated w/ white metal

Dimensions 1.6 cm diam

Weight

Condition E G P

Photo attached copper/brass/bronze

see contact sheets lead/tin/pewter

iron/steel

gold

silver

mineral

gem

bone, ivory

cork

cloth

leather

rope

paper

foodstuff

glass

rubber

ceramic

stone, clay

other

Priority for treatment:

3 high

2 medium

1 (low)

0 (none)
Analysis/Examination

Spot tests
Chloride test (+) (-)

Magnet
X-Ray
Probe
Other
Magnification

Dates Treatment Record

4-13-87 The artifact was cleaned mechanically using glass brush + scalpel. 15% formic acid used to remove loose corrosion.

4-14-87 The artifact was treated with a chemical inhibitor to prevent further corrosion. The artifact was placed under vacuum (20 lbs/in²) for 24 hrs. in a solution of 3% Benezotriazole (BTH) in methanol.

4-15-87 The artifact was removed, air-dried, and given a protective coating of Inralac (acrylic copolymer in toluene w/ BTH added) after passage thru methanol.

Treatment Summary

☑ scalpel, pick
☐ wire brush
☑ glass brush
☐ air abrasive/sand blast
☐ electrolytic reduction
☑ chemical cleaning
☐ ultrasonic

☐ intensive wash, hot
☐ intensive wash, cold
☐ de-watered (solvent)
☐ oven dried
☑ inhibitor
☐ coating
☐ mended
☐ bleached
☐ filled
☐ consolidated
☐ special support
☐ silica gel
☐ biocide

Dates Photographs Before treating After treating
3-5-87 contact sheet 2, frame 25-37 X
4-14-87 contact sheet 3, frame 16-17 X
**ARTIFACT SHEET AND TREATMENT RECORD**

**Site** 18BA 282 BANNEKER

**Date logged into conservation** 2-9-87

**Artifact number** 324

**Date treatment started** 4-13-87

**Artifact type**

**Date completed** 4-15-87

**Date of recovery**

**Conservator** K. Singley

**Site Log Entry**

**Provenience** 18BA 282 1146

---

**Description** button fragment - copper/brass plated w/ white metal

**Dimensions**

**Weight**

**Condition** E (p)

---

**Photo attached**

- ✔ copper/brass/bronze
- ✔ lead/tin/pewter
- ✔ iron/steel
- ✔ gold
- ✔ silver
- ✔ mineral
- ✔ gem

- ✔ bone, ivory
- ✔ foodstuff
- ✔ cork
- ✔ glass
- ✔ wood
- ✔ rubber
- ✔ cloth
- ✔ ceramic
- ✔ leather
- ✔ stone, clay
- ✔ rope
- ✔ paper

---

**Post excavation history:**

- processed: bagged in plastic

---

**Recording:**

- Photographs see contact sheets

- Drawing

---

**Location:**

---

**Priority for treatment:**

3 (high) 2 (medium) 1 (low) 0 (none)
Analysis/Examination

Spot tests
Chloride test (+) (-)
X-Ray
Other

-----

Dates Treatment Record

4-13-87 The artifact was cleaned mechanically using scalpel + glass brush. 15% formic acid applied by spray to remove carbonate corrosion.

4-14-87 The artifact was treated with a chemical inhibitor to prevent further corrosion. The artifact was placed under vacuum (20 lbs/in²) for 24 hrs. in a solution of 3% BTA (benzotriazole) in methanol.
The artifact was removed, air dried, and given a protective coating of Lucite (acrylic copolymers w/ BTA added, in toluene) after passing through methanol.

-----

Treatment Summary

✓ scalpel, pick
✓ wire brush
✓ glass brush
✓ air abrasive/sand blast
✓ electrolytic reduction
✓ chemical cleaning
✓ ultrasonic
✓ intensive wash, hot
✓ intensive wash, cold
✓ de-watered (solvent)
✓ oven dried
✓ inhibitor
✓ coating
✓ mended
✓ bleached
✓ filled
✓ consolidated
✓ special support
✓ silica gel
✓ biocide

-----

Dates Photographs Before treating After treating
3-5-87 contact sheet 2, frame 25-27 X
4-17-87 contact sheet 3, frame 16-12 X
ARTIFACT SHEET
AND TREATMENT RECORD

Site 18BA 282 BANNEKER

Artifact number 805
Artifact type
Date of recovery

Date logged into conservation 2-9-87
Date treatment started 2-11-87
Date completed 2-13-87

Conservator K. Singley

Site Log Entry
Provenience 18BAA282-STE 645

Description brass button filled w/white metal

Dimensions 1.6 cm diam.
Weight
Condition E 6 P

Photo attached see contact sheets

X copper/brass/bronze- X lead/tin/pewter
bone, ivory cork
iron/steel wood rubber
gold cloth ceramic
silver leather stone, clay
mineral rope other
gem paper (__________)

Post excavation history: processed; bagged in plastic

Recording:
Photographs see contact sheets
Drawing

Location:

Priority for treatment: 3 2 1 0
(high) (medium) (low) (none)
Analysis/Examination

Spot tests
Chloride test (+) (-)
X-Ray
Other

Magnet
Probe
Magnification

Dates Treatment Record

2-11-87 The artifact was cleaned mechanically using scalpel or glass brush.

3-11-87 The artifact was treated with a chemical inhibitor to prevent further corrosion. The artifact was placed under vacuum (50 lbs/in²) for 24 hrs. in a solution of 3% benzotriazole (BTA) in methanol.

3-12-87 The artifact was removed, air dried, and given a protective coating of lacquer (acylate methacrylate in toluene w/ BTA added) after passing through methanol.

Treatment Summary

√scalpel, pick
_ wire brush
√glass brush
√air abrasive/sand blast
√electrolytic reduction
√chemical cleaning
√ultrasonic

_ intensive wash, hot
_ intensive wash, cold
√de-watered (solvent)
√oven dried
√inhibitor
√coating
√reshaped

√mended
_ bleached
_ filled
_ consolidated
_ special support
_ silica gel
_ biocide

Dates Photographs Before treating After treating

2-5-87 contact sheet 2, frame 28-30 X

4-17-87 contact sheet 3, frame 15-15 X
ARTIFACT SHEET
AND TREATMENT RECORD

Site 18BA 282 BANNEKER Date logged into conservation 2-9-87
Artifact number B-30 Date treatment started 3-11-87
Artifact type Date completed 3-13-87
Date of recovery Conservator K. Singley
Provenience 18BA 282-1203

Description Brass buffalo Dimensions 1.5 cm diam

Weight
Condition E G O

Photo attached ___ copper/brass/bronze ___ bone, ivory ___ foodstuff
___ lead/tin/pewter ___ cork ___ glass
___ iron/steel ___ wood ___ rubber
___ gold ___ cloth ___ ceramic
___ silver ___ leather ___ stone, clay
___ mineral ___ rope ___ other
___ gem ___ paper (___________)

Post excavation history: processed; bagged in plastic

Recording:
Photographs see contact sheets
Drawing

Location:

Prioriety for treatment: 3 2 1 0
(high) (medium) (low) (none)
### Analysis/Examination

<table>
<thead>
<tr>
<th>Spot tests</th>
<th>Chloride test (+) (-)</th>
</tr>
</thead>
<tbody>
<tr>
<td>X-Ray</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
</tr>
</tbody>
</table>

**MAY HAVE BEEN BURNED / CHARRED?**

### Dates

<table>
<thead>
<tr>
<th>Dates</th>
<th>Treatment Record</th>
</tr>
</thead>
</table>
| 3-11-87 | The artifact was cleaned mechanically using **scalpel + glass brush**.  
No chemicals used. |
| 3-11-87 | The artifact was treated with a chemical inhibitor to prevent further corrosion. The artifact was placed under vacuum (30 lbs/in²) for 24 hrs. in a solution of 3% benzotriazoles (BTA) in methanol. |
| 3-13-87 | The artifact was removed, air dried, and given a protective coating of **anodic (acrylate methacrylate copolymer in blurs w/BTH added)** after passing through methanol. |

### Treatment Summary

- **X** scalpel, pick
- **X** wire brush
- **X** glass brush
- **X** air abrasive/sand blast
- **X** electrolytic reduction
- **X** chemical cleaning
- **X** ultrasonic
- **X** intensive wash, hot
- **X** intensive wash, cold
- **X** de-watered (solvent)
- **X** oven dried
- **X** inhibitor
- **X** coating
- **X** reshaped
- **X** mended
- **X** bleached
- **X** filled
- **X** consolidated
- **X** special support
- **X** silica gel
- **X** biocide

### Dates

<table>
<thead>
<tr>
<th>Dates</th>
<th>Photographs</th>
<th>Before treating</th>
<th>After treating</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-5-87</td>
<td>contact sheet 2, frame 28-30</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>4-17-87</td>
<td>contact sheet 3, frame 13-15</td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>
## Artifact Sheet

**Site**: 18BA 282 BANNEKER  
**Date logged into conservation**: 2-9-87

**Artifact number**: Ba1  
**Date treatment started**: 3-11-87

**Artifact type**:  
**Date completed**: 3-15-87

**Date of recovery**:  
**Conservator**: K. Singley

**Site Log Entry**:  
**Provenience**: 18BA 282 – 1153

---

**Description**: brass button plated w/silver (?)  
**Dimensions**: 1.8 cm diam

**Weight**:  
**Condition**: E (6) P

---

**Photo attached**: see contact sheets

- X copper/brass/bronze  
- lead/tin/pewter  
- iron/steel  
- gold  
- silver  
- mineral  
- gem  
- bone, ivory  
- foodstuff  
- cork  
- wood  
- rubber  
- cloth  
- ceramic  
- leather  
- rope  
- stone, clay  
- paper  

---

**Post excavation history**: processed; bagged in plastic  

**Recording**: Photographs see contact sheets

**Drawing**:  

**Location**:  

---

**Priority for treatment**:  
- (3) high  
- (2) medium  
- (1) low  
- (0) none
Analysis/Examination

Spot tests
Chloride test (+) (-)
X-Ray
Other
Magnet
Probe
Magnification

Date Treatment Record

3-11-81
The artifact was cleaned mechanically using scalpel + glass brush. 15% formic acid also used.

3-11-87
The artifact was treated with a chemical inhibitor to prevent further corrosion. The artifact was placed under vacuum (30 lbs/in²) for 24 hrs. in a solution of 3% benzotriazole (BTA) in methanol.

3-13-87
The artifact was removed, air dried, and given a protective coating of Incolac (acrylate-methacrylate copolymer w/BTA) in talcum after passing through methanol.

Treatment Summary

☑ scalpel, pick
☐ wire brush
☑ glass brush
☐ air abrasive/sand blast
☐ electrolytic reduction
☑ chemical cleaning
□ ultrasonic
☐ intensive wash, hot
☐ intensive wash, cold
☐ de-watered (solvent)
☐ oven dried
□ inhibitor
□ coating
☐ mended
□ bleached
☐ filled
☐ consolidated
□ special support
□ silica gel
□ biocide

Dates Photographs Before treating After treating

3-5-87 contact sheet 2, frame 28-30 X
4-17-87 contact sheet 3, frame 13-15 X
821 → 894
907 → 911
934 → 939
943 → 947
959 → 980
996 → 1000
1011 → 1016
1028.
<table>
<thead>
<tr>
<th>F-10 NE</th>
<th>F-10 NW</th>
</tr>
</thead>
<tbody>
<tr>
<td>901 L.1 7 w.w.f.</td>
<td>919 L.1</td>
</tr>
<tr>
<td>903 L.1 2 w.w.f.</td>
<td>920 L.1</td>
</tr>
<tr>
<td>904 L.1</td>
<td>921 L.1</td>
</tr>
<tr>
<td>905 L.1</td>
<td>922 L.1</td>
</tr>
<tr>
<td>906 L.1</td>
<td>923 L.1</td>
</tr>
<tr>
<td>912 L.2 2 w.w.f./2 w.w.w. 1-5.3 cm(2.0-2.5)</td>
<td>953 L.2</td>
</tr>
<tr>
<td>413 L.2</td>
<td>982 L.2</td>
</tr>
<tr>
<td>414 L.2</td>
<td>983 L.2</td>
</tr>
<tr>
<td>415 L.2</td>
<td>988 L.2</td>
</tr>
<tr>
<td>416 L.2</td>
<td>990 L.4</td>
</tr>
<tr>
<td>924 L.3 1 w.h.w.m.</td>
<td>1005 L.5</td>
</tr>
<tr>
<td>929 L.4</td>
<td>1010 L.6</td>
</tr>
<tr>
<td>940 L.5 1 w.w.f.</td>
<td>1027 L.7</td>
</tr>
<tr>
<td>948 L.6 3 w.w.f.</td>
<td></td>
</tr>
</tbody>
</table>
ARTIFACT SHEET
AND TREATMENT RECORD

Site 18BA 282 BANNEKER

Artifact number 3
Artifact type

Date of recovery
Site Log Entry
Provenience 18BA 282 1138

Date logged into conservation 2-9-87
Date treatment started 2-19-87
Date completed 3-25-87
Conservator K. Singley

Description BRASS THIMBLE; ENCUSTED DIRT ON INSIDE
(SEE OVER)
Dimensions 1.8 cm

Weight
Condition G P

Photo attached SEE CONTACT SHEETS

x copper/brass/bronze
x lead/tin/pewter

bone, ivory

foodstuff
cork
wood
rubber
cloth

silver
gold

leather

mineral
gem

other

(SEEDS INSIDE?)

Post excavation history:
processed; bagged in plastic

Recording:
Photographs SEE CONTACT SHEETS
Drawing

Location:

Priority for treatment:

3 2 1 0
(high) (medium) (low) (none)
Analysis/Examination

Spot tests
Chloride test (+) (-)
X-Ray
Other

Magnification

ENCROCUTATION INSIDE VIOLIOG COTTON FIBER + SEEDS -- BOXED + KEPT.
THAD BEEN PLATED WITH WHITE METAL - TIN ALLOY? NOW MOSTLY LOST, EXCEPT FOR
BAND ON EXTERIOR BASE & INSIDE.

Dates Treatment Record

2-19 The artifact was cleaned mechanically using SCALPEL & GLASS FIBER BRUSH
2-19 The artifact was cleaned chemically using 15% formic acid

2-24 thru 2-25

The artifact was treated with a chemical inhibitor to prevent further corrosion. The artifact was placed under vacuum (20 lbs/in^2) for 24 hrs. in a solution of 3% benzoic acid in methanol.
The artifact was removed, air dried, and given a protective coating of Lacryl (acrylic methylcellulose in toluene) after passing through methanol.

Treatment Summary

X scalpel, pick
wire brush
X glass brush
air abrasive/sand blast
electrolytic reduction
chemical cleaning
ultrasonic

 intensive wash, hot
 intensive wash, cold
 de-watered (solvent)
 oven dried
 inhibitor
 coating
 reshaped

 mended
 bleached
 filled
 consolidated
 special support
 silica gel
 biocide

Dates Photographs Before treating After treating

2-5-87 contact sheet 1, frame 10-14 X
3-2-87 contact sheet 2, frame 7-8-9 X
Site: 188A 282 BANNEKER  Date logged into conservation: 2-9-87
Artifact number: 2  Date treatment started: 2-14-87
Artifact type:  Date completed: 2-27-87
Date of recovery: Conservator: K. Singley
Site Log Entry:  
Provenience: 188A282-1234

Description: 6-Hw  Dimensions: 2 cm diam.

Weight:  
Condition:  E  G  P

Photo attached:  
see contact sheets  
   copper/brass/bronze  bone, ivory  foodstuff
   lead/tin/pewter  cork  glass
   iron/steel  wood  rubber
   gold  cloth  ceramic
   silver  leather  stone, clay
   mineral  rope  other
   gem  paper  

Post excavation history:  
   processed: bagged in plastic

Recording:  
Photographs: see contact sheets
Drawing:  

Location:  

Priority for treatment:  
(3) (high) 2 (medium) 1 (low) 0 (none)
Analysis/Examination

Spot tests __________
Chloride test (+) (-)
X-Ray
Other

---

Dates               Treatment Record

2-14  The artifact was cleaned mechanically using glass brush + scalpel.

10% EDTA (disodium salt) was used to remove Pb carbonate encrustation.
Brushed twice. 24 hrs. in demineralized water afterwards.  V. compact surface
that responded well to glass brush burnishing.

0-07-67  The artifact was treated with a chemical inhibitor to prevent further
corrosion. The artifact was placed under vacuum (~ 1 lbs/in²) for 6 hrs.
in a solution of

The artifact was removed, air-dried, and given a protective coating of
Renaissance (microncrystalline) wax in naphtha after dewaxing in methanol.

---

Treatment Summary

☑ scalpel, pick
☐ wire brush
☑ glass brush
☐ air abrasive/sand blast
☐ electrolytic reduction
☑ chemical cleaning
☐ ultrasonic
☐ intensive wash, hot
☐ intensive wash, cold
☐ de-watered (solvent)
☐ oven dried
☐ inhibitor
☑ coating
☐ reshaped
☐ mended
☐ bleached
☐ filled
☐ consolidated
☐ special support
☐ silica gel
☐ biocide

---

Dates               Photographs          Before treating  After treating
2-5-87               contact sheet 1, frame 5-9  X
3-2-87               contact sheet 2, frame 4-6  X
ARTIFACT SHEET
AND TREATMENT RECORD

Site 18BA 282 BANNEKER

Artifact number 4

Artifact type

Date of recovery

Site Log Entry

Provenience 18BA 282 1057

---

Description BRASS THIMBLE

Dimensions 1/4 cm

Weight

Condition E G P

Photo attached X copper/brass/bronze ___ bone, ivory ___ foodstuff

lead/tin/pewter ___ cork ___ glass

iron/steel ___ wood ___ rubber

gold ___ cloth ___ ceramic

silver ___ leather ___ stone, clay

mineral ___ rope ___ other

gem ___ paper ___

---

Post excavation history:
processed: bagged in plastic

Recording:
Photographs see contact sheets

Drawing

TOP MISSING

Location:

---

Priority for treatment: 3 2 1 0
(high) (medium) (low) (none)
The dimples of the thimble are very corroded. Original surface exists in some areas. No evidence of plating or thinning.

Dates Treatment Record

2-19 The artifact was cleaned mechanically using scalpel, fiberglass brushes. 15% formic acid used also to remove corrosion.

2-24 The artifact was treated with a chemical inhibitor to prevent further corrosion. The artifact was placed under vacuum (20 lbs/in²) for 24 hrs. in a solution of 3% benzotriazole in methanol. The artifact was removed, air dried, and given a protective coating of lucite (acryloct methacrylates co-polymer with toluene) after passing through methanol.

Treatment Summary
- scalpel, pick
- wire brush
- glass brush
- air abrasive/sand blast
- electrolytic reduction
- chemical cleaning

- intensive wash, hot
- intensive wash, cold
- de-watered (solvent)
- oven dried
- inhibitor
- coating
- reshaped

- mended
- bleached
- filled
- consolidated
- special support
- silica gel
- biocide

Dates Photographs Before treating After treating
2-5-87 contact sheet 1, frame 10-14 X
3-2-87 contact sheet 2, frame 7-8-9 X
**ARTIFACT SHEET**

**AND TREATMENT RECORD**

<table>
<thead>
<tr>
<th>Site</th>
<th>18BA 282 BANNEKER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date logged into conservation</td>
<td>2-9-87</td>
</tr>
<tr>
<td>Artifact number</td>
<td>5</td>
</tr>
<tr>
<td>Date treatment started</td>
<td>Feb. 19, 1987</td>
</tr>
<tr>
<td>Artifact type</td>
<td></td>
</tr>
<tr>
<td>Date completed</td>
<td>March 2, 1987</td>
</tr>
<tr>
<td>Date of recovery</td>
<td></td>
</tr>
<tr>
<td>Site Log Entry</td>
<td></td>
</tr>
<tr>
<td>Conservator</td>
<td>K. Singley</td>
</tr>
<tr>
<td>Provenience</td>
<td>18BA282-1208</td>
</tr>
</tbody>
</table>

**Description**
- clock part?
- iron/steel w/ good original surface
- High carbon [6%]

**Dimensions** 3.1 cm

**Weight**

**Condition** G P

**Photo attached**
- see contact sheets

**Material**
- copper/brass/bronze
- lead/tin/pewter
- iron/steel
- gold
- silver
- mineral
- gem
- bone, ivory
- foodstuff
- cork
- wood
- cloth
- leather
- rope
- paper
- glass
- rubber
- ceramic
- stone, clay
- other

**Post excavation history:**
- processed; bagged in plastic

**Recording:**
- Photographs: see contact sheets
- Drawing:

**Location:**

**Priority for treatment:**
- 3 (high)
- 2 (medium)
- 1 (low)
- 0 (none)
Analysis/Examination

Spot tests
Chloride test (+)  (-)
X-Ray
Other

Magnification

Dates Treatment Record
Feb. 14, 1987 The artifact was cleaned mechanically using scalp + glass brush.
Feb. 20-28 The artifact was hot washed to remove C10 by boiling daily in changes of deionized water. The wash water was changed 6-8x/day and eachmeaning was monitored with a TDS meter. To test the level of
mL 3 4 1 5.4 ppm -- indicating a low and constant level of
Solids released (as NaCl)
Feb. 28 The artifact was treated with a chemical inhibitor to prevent further
corrosion. The artifact was placed under vacuum (10 lbs/in²) for 4 hrs.
in a solution of Rust Erase, a commercial product containing phosphonic acid.
March 2 The artifact was removed, air dried, and given a protective coating of hot
microcrystalline wax after drying over silica gel (70% RH) overnight.

Treatment Summary
✓ scalpel, pick
✓ wire brush
✓ glass brush
✓ air abrasive/sand blast
✓ electrolytic reduction
✓ chemical cleaning
✓ ultrasonic
✓ intensive wash, hot
✓ intensive wash, cold
✓ de-watered (solvent)
✓ oven dried
✓ inhibitor
✓ coating
✓ reshaped
✓ mended
✓ bleached
✓ filled
✓ consolidated
✓ special support
✓ silica gel
✓ biocide

Dates Photographs Before treating After treating
2-5-87 contact sheet 1, frame X
contact sheet 2, frame X
**ARTIFACT SHEET AND TREATMENT RECORD**

**Site** 18BA 282 BANNEKER  
**Date logged into conservation** 2-9-87

**Artifact number** 6  
**Date treatment started** 2-22-87

**Artifact type**  
**Date completed** 2-25-87

**Date of recovery**  
**Conservator** K. Singley

**Site Log Entry:**

**Provenience** 18BA282-1335

---

**Description** dimed brass straight pin

**Dimensions** 2.3 cm.

**Weight**

**Condition** E [6] P

---

**Photo attached**

<table>
<thead>
<tr>
<th>X</th>
<th>copper/brass/bronze</th>
<th>bone, ivory</th>
<th>foodstuf</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>lead/tin/pewter</td>
<td>cork</td>
<td>glass</td>
</tr>
<tr>
<td></td>
<td>iron/steel</td>
<td>wood</td>
<td>rubber</td>
</tr>
<tr>
<td></td>
<td>gold</td>
<td>cloth</td>
<td>ceramic</td>
</tr>
<tr>
<td></td>
<td>silver</td>
<td>leather</td>
<td>stone, clay</td>
</tr>
<tr>
<td></td>
<td>mineral</td>
<td>rope</td>
<td>other</td>
</tr>
</tbody>
</table>
|   | gem                 | paper       | (        )

---

**Post excavation history:**

processed: bagged in plastic

---

**Recording:**

Photographs see contact sheets

Drawing

[wrapped head]

---

**Location:**

---

**Priority for treatment:**

<table>
<thead>
<tr>
<th>3</th>
<th>2</th>
<th>1</th>
<th>0</th>
</tr>
</thead>
<tbody>
<tr>
<td>(high)</td>
<td>(medium)</td>
<td>(low)</td>
<td>(none)</td>
</tr>
</tbody>
</table>
Analysis/Examination

- Spot tests
- Chloride test (+) (-)
- X-Ray
- Other

Dates

Treatment Record

2-22-87 The artifact was cleaned mechanically using scalpel & glass brush. No chemicals used, because of the presence of tin.

2-24 hrs. The artifact was treated with a chemical inhibitor to prevent further corrosion. The artifact was placed under vacuum (201bs/in^2) for 24 hrs. in a solution of 3% benzolazol in methanol.

2-25-87 The artifact was removed, air dried, and given a protective coating of lacquer (acrylate-methacrylate w/ BTA added in toluene) after passing through methanol.

Treatment Summary

- scalpel, pick
- intensive wash, hot
- mended
- wire brush
- intensive wash, cold
- bleached
- glass brush
- de-watered (solvent)
- filled
- air abrasive/sand blast
- oven dried
- consolidated
- electrolytic reduction
- inhibitor
- special support
- chemical cleaning
- coating
- silica gel
- ultrasonic
- reshaped
- biocide

Dates | Photographs | Before treating | After treating
---|---|---|---
2-5-87 | contact sheet 1, frame 20-24 | X | 
2-2-87 | contact sheet 2, frame 10-12 | | X
ARTIFACT SHEET
AND TREATMENT RECORD

Site 18BA 282 BANNEKER

Date logged into conservation 2-9-87

Artifact number 7

Date treatment started 2-21-87

Artifact type

Date completed 2-25-87

Date of recovery

Conservator K. Singley

Site Log Entry

Provenience 18BA282-1261

Description tinned bronze pum

Dimensions 3.2 cm

Weight

Condition E G F

Photo attached x copper/brass/bronze  x lead/tin/pewter

bone, ivory  wood  glass

gold  cloth  ceramic

silver  leather  stone, clay

mineral  rope  other

gem  paper  

Post excavation history:
processed; bagged in plastic

Recording:
Photographs see contact sheets

Drawing

Location:

Priority for treatment: 3 2 1 0
(high) (medium) (low) (none)
Analysis/Examination

Spot tests
Chloride test (+) (-)
X-Ray
Other
Magnification

The finding is not determined. Evident just under unwrapped head.

Dates Treatment Record

2-01-87
The artifact was cleaned mechanically using scalpel + glass brush. No chemicals used.

2-04 thru 2-05-87
The artifact was treated with a chemical inhibitor to prevent further corrosion. The artifact was placed under vacuum (20 lbs/in²) for 24 hrs. in a solution of 3% mometazone in methanol.
The artifact was removed, air dried, and given a protective coating of lacquer (acrylic methacrylate w/ ASA added in toluene) after passing through methanol.

Treatment Summary

✓ scalpel, pick
✓ wire brush
✓ glass brush
✓ air abrasive/sand blast
✓ electrolytic reduction
✓ chemical cleaning
✓ ultrasonic

✓ intensive wash, hot
✓ intensive wash, cold
✓ de-watered (solvent)
✓ oven dried
✓ inhibitor
✓ coating
✓ mended
✓ bleached
✓ filled
✓ consolidated
✓ special support
✓ silica gel
✓ biocide

Dates Photographs Before treating After treating

2-5-87 contact sheet 1, frame 28-29 X

3-2 contact sheet 2, frame 10-12 X
ARTIFACT SHEET
AND TREATMENT RECORD

Site 18BA 282 BANNEKER Date logged into conservation 2-9-87
Artifact number 8 Date treatment started 2-22-87
Artifact type Date completed 2-25-87
Date of recovery Conservator K. Singley
Site Log Entry
Provenience 18BA282-1153

Description brass - clock part? hinge fragment? Dimensions 2.3 cm
Weight
Condition E G P

Photo attached ☑ copper/brass/bronze ☐ bone, ivory ☐ foodstuff
see contact sheets ☐ lead/tin/pewter ☐ cork ☐ glass
☐ iron/steel ☐ wood ☐ rubber
☐ gold ☐ cloth ☐ ceramic
☐ silver ☐ leather ☐ stone, clay
☐ mineral ☐ rope ☐ other
☐ gem ☐ paper (__________)

Post excavation history:
processed: bagged in plastic

Recording:
Photographs see contact sheets
Drawing

Location:

Priority for treatment: 3 2 1 0
(high) (medium) (low) (none)
Analysis/Examination

Spot tests

Chloride test ( ) (+) ( - )

X-Ray

Other

______________________________

Date Range

2-22-87

The artifact was cleaned mechanically using scalpel and glass brush. Also, 15% formic acid used to remove corrosion.

2-24 m/o

2-25-87

The artifact was treated with a chemical inhibitor to prevent further corrosion. The artifact was placed under vacuum (≈1 lbs/in²) for 24 hrs. in a solution of 3% Benzyl alcohol in methanol.
The artifact was removed, air dried, and given a protective coating of lacquer (acrylate monomers w/ BITA added in solvone) after passing through methanol.

Treatment Summary

✓ scalpel, pick
✓ wire brush
✓ glass brush
✓ air abrasive/sand blast
✓ electrolytic reduction
✓ chemical cleaning
✓ ultrasonic

__ intensive wash, hot
__ intensive wash, cold
__ de-watered (solvent)
__ oven dried
__ inhibitor
✓ coating
__ reshaped
__ bleached
__ filled
__ consolidated
__ special support
__ silica gel
__ biocide

Dates

Photographs

Before treating

After treating

2-5-87
contact sheet 1, frame 20-24
X

X

3-2-87
contact sheet 2, frame 10-12
**ARTIFACT SHEET**

AND TREATMENT RECORD

Site 18BA 282 BANNEKER  
Artifact number 9  
Date logged into conservation 2-9-87  
Date treatment started 2-19-87  
Date completed 2-27-87  
Artifact type  
Date of recovery  
Site Log Entry  
Provenience 18BA 282 1174  

Description Pb washer  
Dimensions 1.3 cm diam.  
Weight  
Condition E 6 P  

Photo attached  
see contact sheets  

- copper/brass/bronze  
- bone, ivory  
- foodstuff  
- lead/tin/pewter  
- cork  
- glass  
- iron/steel  
- wood  
- rubber  
- gold  
- cloth  
- ceramic  
- silver  
- leather  
- stone, clay  
- mineral  
- rope  
- other  
- gem  
- paper  

Post excavation history:  
processed: bagged in plastic  
Recording:  
Photographs see contact sheets  
Drawing  

Location:  

Priority for treatment:  
3 2 1 0  
(high) (medium) (low) (none)
Analysis/Examination

Spot tests
Chloride test (+) (-)
X-Ray
Other
Magnification
V. deformed

Dates Treatment Record

2-19-87 The artifact was cleaned mechanically using glass brush + scalpel. 10% EDTA (dissodium salt) was used to remove carbonate encrustation; the wash was rinsed 1/2 hr. in deionized water afterwards and air-dried.

2-27 The artifact was treated with a chemical inhibitor to prevent further corrosion. The artifact was placed under vacuum (~1 lbs/in²) for ~hrs. in a solution of... The artifact was removed, air-dried, and given a protective coating of Remaenoac wax (microcrystalline) in naphtha after dewaxing 5 min. in xylene.

Treatment Summary
✓ scalpel, pick
✓ wire brush
✓ glass brush
✓ air abrasive/sand blast
✓ electrolytic reduction
✓ chemical cleaning
✓ ultrasonic

✓ intensive wash, hot
✓ intensive wash, cold
✓ de-watered (solvent)
✓ oven dried
✓ inhibitor
✓ coating
✓ reshaped

✓ mended
✓ bleached
✓ filled
✓ consolidated
✓ special support
✓ silica gel
✓ biocide

Dates Photographs Before treating After treating
2-5-87 contact sheet 1, frame 5-9 X
3-2-87 contact sheet 2, frame 4-L X
ARTIFACT SHEET
AND TREATMENT RECORD

Site 18BA 282 BANNEKER
Artifact number 10
Artifact type
Date of recovery
Site Log Entry
Provenience 18BA282-1168

Date logged into conservation 2-9-87
Date treatment started 1-29-87
Date completed 2-25-87
Conservator K. Singley

Description coin - copper
Dimensions 2.4 cm diam.
Weight
Condition E (0) P

Photo attached X copper/brass/bronze ___ bone, ivory ___ foodstuff
see contact sheets ___ lead/tin/pewter ___ cork ___ glass
___ iron/steel ___ wood ___ rubber
___ gold ___ cloth ___ ceramic
___ silver ___ leather ___ stone, clay
___ mineral ___ rope ___ other
___ gem ___ paper ___ (__________)

Post excavation history:
processed: bagged in plastic

Recording:
Photographs see contact sheets
Drawing

Location:

Priority for treatment: 3 2 1 0
(high) (medium) (low) (none)
### Analysis/Examination

<table>
<thead>
<tr>
<th>Test</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spot tests</td>
<td></td>
</tr>
<tr>
<td>Chloride test (+)</td>
<td>(-)</td>
</tr>
<tr>
<td>X-Ray</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
</tr>
</tbody>
</table>

The coin has a profile facing on obverse & a seated figure on reverse. Inscription quite clean, although date (below figure on rev) is obscured. Gouged on both sides - for splitting?

### Dates

<table>
<thead>
<tr>
<th>Treatment Date</th>
<th>Treatment Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-22-87</td>
<td>The artifact was cleaned mechanically using glass brush &amp; scalp. No chemicals used.</td>
</tr>
<tr>
<td>2-24 thru 2-25-87</td>
<td>The artifact was treated with a chemical inhibitor to prevent further corrosion. The artifact was placed under vacuum (~30 lbs/in²) for 24 hrs. in a solution of 3% benzoate in methanol. The artifact was removed, air dried, and given a protective coating of lacquer (acrylic methacrylate copolymer w/ BHT added) in toluene after passing through methanol.</td>
</tr>
</tbody>
</table>

### Treatment Summary

- Scalpel, pick
- Wire brush
- Glass brush
- Air abrasive/sand blast
- Electrolytic reduction
- Chemical cleaning
- Ultrasonic
- Intensive wash, hot
- De-watere (solvent)
- Oven dried
- Inhibitor
- Coating
- Reshaped
- Mended
- Bleached
- Filled
- Consolidated
- Special support
- Silica gel
- Biocide

### Dates

<table>
<thead>
<tr>
<th>Date</th>
<th>Photographs</th>
<th>Before treating</th>
<th>After treating</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-5-87</td>
<td>Contact sheet 1, frame 20-24</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>3-2-87</td>
<td>Contact sheet 2, frame 10-12</td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>
ARTIFACT SHEET
AND TREATMENT RECORD

Site 18BA 282 BANNEKER
Date logged into conservation 2-9-87
Artifact number 11
Date treatment started 2-27-87
Artifact type
Date completed 2-28-87
Date of recovery
Conservator K. Singley
Provenience 18BA 282-1170

Description button - plated white metal
Dimensions 2.4 cm diam.
Weight
Condition E G D

Photo attached see contact sheets
Deopper/brass/bronze bone, ivory foodstuff
lead/tin/pewter cork glass
iron/steel wood rubber
gold cloth ceramic
silver leather stone, clay
mineral rope other
gem paper (wood remains associted)

Post excavation history:
processed; bagged in plastic

Recording:
Photographs see contact sheets
Drawing

Location:

Priority for treatment: 3 2 1 0
(high) (medium) (low) (none)
Analysis/Examination

Spot tests
Chloride test (+) (-)
Magnet
Probe
Magnification

Plating layer v. loose & granular. Copper in alloy -- evident from corrosion products. Ferric deposit on rear contains used fish.

Dates

2-27
The artifact was cleaned mechanically using scalpel & fiber brush. 15% formic acid used to remove loose corrosion.

2-27 thru 2-28
The artifact was treated with a chemical inhibitor to prevent further corrosion. The artifact was placed under vacuum (20 lbs/in²) for 24 hrs. in a solution of 37% benzotriazole in methanol. The artifact was removed, air dried, and given a protective coating of Visulec (acrylate methacrylate co-polymer in toluene with DMSO added) after passing through methanol.

Treatment Summary

✓ scalpel, pick  
✓ wire brush  
✓ glass brush  
✓ air abrasive/sand blast  
✓ electrolytic reduction  
✓ chemical cleaning  
✓ ultrasonic  

intensive wash, hot  
intensive wash, cold  
de-watered (solvent)  
oven dried  
inhibitor  
coating  
reshaped  
mended  
bleached  
filled  
consolidated  
special support  
silica gel  
biocide

Dates

2-5-87  
3-2-91
Photographs
contact sheet 1, frame 25-29  
contact sheet 2, frame 13-15
Before treating  
X
X
After treating
**ARTIFACT SHEET AND TREATMENT RECORD**

**Site** 18BA 282 BANNEKER  
**Date logged into conservation** 2-9-87

**Artifact number** 12  
**Date treatment started** 2-21-87

**Artifact type**  
**Date completed** 2-25-87

**Date of recovery**  
**Conservator** K. Singley

**Site Log Entry**

**Provenience** 18BA282/1168

<table>
<thead>
<tr>
<th>Description</th>
<th>Dimension</th>
<th>Weight</th>
<th>Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>button - white metal plated on brass</td>
<td>2.5 cm</td>
<td></td>
<td>E (G) P</td>
</tr>
</tbody>
</table>

**Photo attached**  
see contact sheets

**Material**  
- [X] copper/brass/bronze  
- [X] lead/tin/pewter  
- [ ] iron/steel  
- [ ] gold  
- [ ] silver  
- [ ] mineral  
- [ ] gem  
- [ ] bone, ivory  
- [ ] cork  
- [ ] wood  
- [ ] cloth  
- [ ] leather  
- [ ] rope  
- [ ] paper  
- [ ] glass  
- [ ] rubber  
- [ ] ceramic  
- [ ] stone, clay  
- [ ] other  

**Post excavation history:**  
processed: bagged in plastic

**Recording:**  
Photographs see contact sheets

**Drawing:**

**Location:**

**Priority for treatment:**

<table>
<thead>
<tr>
<th>(high)</th>
<th>(medium)</th>
<th>(low)</th>
<th>(none)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>
Analysis/Examination

Spot tests
Chloride test (+) (-)
X-Ray
Other

Magnification

>Darwe Disease in Pits Below Plating -- Indic. Brass Core?

Dates Treatment Record

2-21 The artifact was cleaned mechanically using glass brush and scalpel.

15% formic acid used to clean pits. Loop fragment during cleaning.

2-24 thru 2-25 The artifact was treated with a chemical inhibitor to prevent further corrosion. The artifact was placed under vacuum (98 lbs/in²) for 34 hrs. in a solution of 3% benzotriazole in methanol.

The artifact was removed, air dried, and given a protective coating of lacquer (acylate methacrylate co-polymer in toluene) after passing through methanol. Loop reattached with cyanoacrylate.

Treatment Summary

✓ scalpel, pick
✓ wire brush
✓ glass brush
✓ air abrasive/sand blast
✓ electrolytic reduction
✓ chemical cleaning
✓ ultrasonic

✓ intensive wash, hot
✓ intensive wash, cold
✓ de-watered (solvent)
✓ oven dried
✓ inhibitor
✓ coating
✓ reshaped
✓ mended
✓ bleached
✓ filled
✓ consolidated
✓ special support
✓ silica gel
✓ biocide

Dates Photographs Before treating After treating
2-5-87 contact sheet 1, frame 1-4 X
3-2-87 contact sheet 2, frame 1-3 X
Site 18BA 282 BANNEKER

Artifact number 13

Artifact type lead/tin/pewter

Date of recovery

Date logged into conservation 2-9-87

Date treatment started 2-20-87

Date completed Mar 25-87

Conservator K. Singley

Site Log Entry

Provenience 18BA 282 - 1144

Description: button - brass plated w/white metal

Dimensions: 1.3 cm diam.

Weight

Condition: G P

Photo attached: 

x copper/brass/bronze

x lead/tin/pewter

iron/steel

gold

silver

mineral

gem

bone, ivory

cork

wood

rubber

x cloth

leather

rope

paper

Foodstuff

Glass

Ceramic

Other: cotton fiber

Post excavation history:

Processed: bagged in plastic

Recording:

Photographs see contact sheets

Drawing

Location:

Priority for treatment:

3 2 1 0

(high) (medium) (low) (none)
Analysis/Examination

Spot tests
Chloride test (+) (-)
X-Ray
Other

Magnification

Fibersample removed & housed separately. Remnants of a white metal plating on raised area of obverse, + on edge + cantin of reverse

Dates Treatment Record

2-21-87 The artifact was cleaned mechanically using scalpel, probe, glass brush. 15% formic acid used v. gently to remove corrosion, but without removing plating.

2-24-87 The artifact was treated with a chemical inhibitor to prevent further corrosion. The artifact was placed under vacuum (20 lbs/in²) for 24 hrs. in a solution of 3% benzoisotianol on methanol. The artifact was removed, air dried, and given a protective coating of Inersil (acrylic methacrylate in toluene w/ BTA added) after passed through methanol.

Treatment Summary

scalpel, pick intensive wash, hot mended
wire brush intensive wash, cold bleached
wire brush de-watered (solvent) filled
glass brush oven dried consolidated
air abrasive/sand blast inhibitor special support
electrolytic reduction coating silica gel
chemical cleaning reshaped biocide

Dates Photographs Before treating After treating

2-5-87 contact sheet 1, frame 1-4 X
2-2-87 contact sheet 2, frame 1-9 X
ARTIFACT SHEET  
AND TREATMENT RECORD

Site 18BA 282 BANNEKER          Date logged into conservation 2-9-87
Artifact number 14               Date treatment started 2-21-81
Artifact type                Date completed 2-25-87
Date of recovery
Site Log Entry
Provenience 18BA 282-1137

<table>
<thead>
<tr>
<th>Description</th>
<th>Dimensions</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>cuff button - metal plated on brass</td>
<td>1.2 cm.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Photo attached</th>
<th>Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>see contact sheets</td>
<td>E G P</td>
</tr>
</tbody>
</table>

| X copper/brass/bronze | bone, ivory | foodstuffs |
| lead/tin/pewter       | cork        | glass      |
| iron/steel            | wood        | rubber     |
| gold                  | cloth       | ceramic    |
| X silver              | leather     | stone, clay|
| mineral               | rope        | other      |
| gem                   | paper       |            |

Post excavation history:
processed; bagged in plastic

Recording:
Photographs see contact sheets
Drawing

Location:

Priority for treatment:
3 (high) 2 (medium) 1 (low) 0 (none)
Ag plating is very deteriorated and easily disrupted on reverse - evident only at loop bar.
Large break occurs in between bars + Ag plating.

Analysis/Examination

Spot tests
Chloride test (+) (-)
X-Ray
Other

Magnification

Dates | Treatment Record

2-21-87 | The artifact was cleaned mechanically using scalpels + glass brush.
15% formic acid also applied.

2-24 thru 2-25 | The artifact was treated with a chemical inhibitor to prevent further corrosion. The artifact was placed under vacuum (20 lbs/in²) for 24 hrs in a solution of 3% benzoic acid in methanol. The artifact was removed, air dried, and given a protective coating of Inercote (acrylic co-polymer w/ BTA added) after passing through methanol.

Treatment Summary
☑ scalpel, pick
☐ wire brush
☑ glass brush
☐ air abrasive/sand blast
☑ electrolytic reduction
☑ chemical cleaning
☐ ultrasonic
☐ intensive wash, hot
☐ intensive wash, cold
☐ de-watered (solvent)
☐ oven dried
☒ inhibitor
☐ coating
☐ reshaped
☐ mended
☐ bleached
☐ filled
☐ consolidated
☐ special support
☐ silica gel
☐ biocide

Dates | Photographs | Before treating | After treating

2-5-87 | contact sheet 1, frame 1-4 | X

3-2-87 | contact sheet 2, frame 1-3 | X
Site 18BA 282 BANNEKER  
Artifact number 15  
Artifact type  
Date of recovery  
Provenience 1210 (F22 N180 W455)  

Description: plaid button  
Dimensions: 1.3 cm  
Weight:  
Condition: E G P  

Photo attached:  
- copper/brass/bronze  
- lead/tin/pewter  
- iron/steel  
- gold  
- silver  
- mineral  
- gem  
- bone, ivory  
- foodstuff  
- cork  
- wood  
- cloth  
- leather  
- rope  
- paper  
- glass  
- rubber  
- ceramic  
- stone, clay  
- other  

Post excavation history:  
processed; bagged in plastic  

Recording:  
Photographs: see contact sheets  
Drawing:  

Location:  

Priority for treatment:  
3 (high)  
2 (medium)  
1 (low)  
0 (none)
Analysis/Examination

- Magnet
- Probe
- Magnification

Spot tests
- Chloride test (+) (-)
- X-Ray
- Other

Dates Treatment Record

2-26-87 The artifact was cleaned mechanically using scalpels and glass brushes.

2-27-87 The artifact was treated with a chemical inhibitor to prevent further corrosion. The artifact was placed under vacuum (20 lbs/in²) for 24 hrs. in a solution of 3% benzoic acid in methanol. The artifact was removed, air dried, and given a protective coating of varnish (acrylic methacrylate copolymer in toluene with BTA added) after passing through methanol.

2-28-87

Treatment Summary

- scalpels, pick
- wire brush
- glass brush
- air abrasive/sand blast
- electrolytic reduction
- chemical cleaning
- ultrasonic
- intensive wash, hot
- intensive wash, cold
- de-watered (solvent)
- oven dried
- inhibitor
- coating
- mended
- bleached
- filled
- consolidated
- special support
- silica gel
- biocide

Dates Photographs Before treating After treating
2-5-87 contact sheet 1, frame 25-29 X
3-2-87 contact sheet 2, frame 13-15 X
Site 18BA 282 BANNEKER  Date logged into conservation 2-9-87
Artifact number 16  Date treatment started 2-25-87
Artifact type  Date completed 2-28-87
Date of recovery Conservator K. Singley
Site Log Entry
Provenience H42

Description plated button Dimensions 1.5 cm
Weight
Condition E G P

Photo attached see contact sheets
X copper/brass/bronze _ bone, ivory _ foodstuff
X lead/tin/pewter _ cork _ glass
_ iron/steel _ wood _ rubber
_ gold _ cloth _ ceramic
_ silver _ leather _ stone, clay
_ mineral _ rope _ other
_ gem _ paper _

Post excavation history:
processed; bagged in plastic

Recording:
Photographs see contact sheets
Drawing

Location:

Priority for treatment: 3 (high) 1 (low) 0 (none)
Evidence of iron being plated in brass? 
While more over brass

KEV
Analysis/Examination

Spot tests
Chloride test (+) (-)
X-Ray
Other

Magnet
Probe
Magnification

Dates

2-25
The artifact was cleaned mechanically using glass brush and scalpel.
15% formic acid used to remove loose corrosion.

2-29-87
The artifact was treated with a chemical inhibitor to prevent further corrosion. The artifact was placed under vacuum (20 lbs/in²) for 24 hrs. in a solution of 3% benzotriazole in methanol.
The artifact was removed, air dried, and given a protective coating of
lacquar (acrylic methacrylate in terene w/ 5% added)
after passing through methanol.

Treatment Summary

☑ scalpel, pick
☐ wire brush
☑ glass brush
☐ air abrasive/sand blast
do CR reduction
dlà chemical cleaning
☐ ultrasonic
☐ intensive wash, hot
☐ intensive wash, cold
☐ de-watered (solvent)
☐ oven dried
☐ inhibitor
☐ coating
☐ mended
☐ bleached
☐ filled
☐ consolidated
☐ special support
☐ silica gel
☐ biocide

Dates

Photographs

2-5-87
contact sheet 1, frame 25-29

2-29-87
contact sheet 2, frame 13-15

Before treating After treating

X

X
ARTIFACT SHEET
AND TREATMENT RECORD

Site 18BA 282 BANNEKER Date logged into conservation 2-9-87
Artifact number 17 Date treatment started 2-20-87
Artifact type Date completed 2-25-87
Date of recovery Conservator K. Singley
Site Log Entry
Provenience 18BA 282 - 1139

Description b. Ham Dimensions 1.5 cm. chem.

Weight Condition E G P

Photo attached 
copper/brass/bronze bone, ivory foodstuff
lead/tin/pewter cork glass
iron/steel — rop remnant wood rubber
gold cloth ceramic
silver leather stone, clay
mineral rope other

gem paper ( )

Post excavation history:
processed; bagged in plastic

Recording:
Photographs see contact sheets
Drawing

Location:

Priority for treatment: 3 2 1 0
(high) (medium) (low) (none)
**Analysis/Examination**

<table>
<thead>
<tr>
<th>Magnet</th>
<th>Spot tests</th>
<th>Chloride test (+) (-)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>X Probe</td>
<td>X-Ray</td>
</tr>
<tr>
<td></td>
<td>Magnification</td>
<td>Other</td>
</tr>
</tbody>
</table>

Button is composed of a white metal (~ tin? Pb? antimony?) with copper added in alloy. CAST + spun. Line (Fe) embedded on reverse.

---

**Dates | Treatment Record**

2-20-87 | The artifact was cleaned mechanically using scalpel, probe, glass brush. 15% formic acid used to remove green Cu carbonate patches. Needs BTA treatment for Cu, corroding selectively.

3-04 thru 3-25-87 | The artifact was treated with a chemical inhibitor to prevent further corrosion. The artifact was placed under vacuum (~20 lbs/in²) for 24 hrs. in a solution of 3% benzoic acid in methanol. The artifact was removed, air dried, and given a protective coating of Incrospac (acrylate methacrylate) after passing through methanol.

---

**Treatment Summary**

- scalpel, pick
- intensive wash, hot
- mended
- wire brush
- intensive wash, cold
- bleached
- glass brush
- de-watered (solvent)
- filled
- air abrasive/sand blast
- oven dried
- consolidated
- electrolytic reduction
- inhibitor
- special support
- chemical cleaning
- coating
- silica gel
- ultrasonic
- reshaped
- biocide

---

**Dates | Photographs | Before treating | After treating**

2-5-87 | contact sheet 1, frame 1-4 | X |

3-2-87 | contact sheet 2, frame 1-3 | X |
**ARTIFACT SHEET**
**AND TREATMENT RECORD**

**Site:** 18BA 282 BANNEKER  
**Date logged into conservation:** 2-9-87

**Artifact number:** 18  
**Date treatment started:** 2-21-87

**Artifact type:**  
**Date completed:** 2-25-87

**Date of recovery:**  
**Conservator:** K. Singley

**Site Log Entry:**
**Provenience:** 18BA 282 - 1/43

---

**Description:** button with brass wire  
**Dimensions:** 1.4 cm. diam.

**Weight:**

**Condition:** E (☐) P

**Photo attached:**
- ☑ copper/brass/bronze
- ☑ lead/tin/pewter
- ☑ iron/steel
- ☑ gold
- ☑ silver
- ☑ mineral
- ☑ gem
- ☑ bone, ivory
- ☑ cork
- ☑ wood
- ☑ cloth
- ☑ leather
- ☑ rope
- ☑ paper
- ☑ foodstuff
- ☑ glass
- ☑ rubber
- ☑ ceramic
- ☑ stone, clay
- ☑ other

---

**Post excavation history:**
- processed; bagged in plastic

---

**Recording:**
- Photographs see contact sheets
- Drawing

---

**Location:**

---

**Prioritity for treatment:**
- (high) 3
- (medium) 0
- (low) 1
- (none) 0
Analysis/Examination

- Magnet
- Probe
- Magnification

Spot tests
- Chloride test (+) (-)
- X-Ray
- Other

The object may have been brazed plated - Cu corrosion products here. Case in white metal spinning lines on reverse.

Dates Treatment Record

2-21 The artifact was cleaned mechanically using scalpel + glass brush.

15% formic acid applied by swab on obvious Cu corrosion.

3-24 thru 3-25 The artifact was treated with a chemical inhibitor to prevent further corrosion. The artifact was placed under vacuum (30 lbs/in²) for 24 hrs. in a solution of 3% benzotriazole in methanol.

The artifact was removed, air dried, and given a protective coating of Inco-lac (acylate methacrylate copolymer) in several after passing through methanol.

---

Treatment Summary

☑ scalpel, pick  ☑ intensive wash, hot  ☑ mended
☐ wire brush  ☐ intensive wash, cold  ☐ bleached
☐ glass brush  ☐ de-watered (solvent)  ☑ filled
☐ air abrasive/sand blast  ☑ oven dried  ☑ consolidated
☐ electrolytic reduction  ☑ inhibitor  ☑ special support
☑ chemical cleaning  ☑ coating  ☐ silica gel
☐ ultrasonic  ☑ reshaped  ☑ biocide

---

Dates Photographs Before treating After treating
2-5-87 contact sheet 1, frame 1-4 X X
3-2-87 contact sheet 2, frame 1-3
**Artifact Sheet and Treatment Record**

**Site:** 18BA 282 Banneker  
**Date logged into conservation:** 2-9-87  
**Artifact number:** 19  
**Date treatment started:** 2-21-87  
**Artifact type:**  
**Date completed:** 2-25-87  
**Date of recovery:**  
**Site Log Entry:** 17BA 282  
**Provenience:** M 1172

---

**Description:** brass button  
**Dimensions:** 1.2 cm  
**Weight:**  
**Condition:** E P

---

**Photo attached:** see contact sheets  
1. copper/brass/bronze  
2. lead/tin/pewter  
3. iron/steel  
4. gold  
5. silver  
6. mineral  
7. gem  
8. bone, ivory  
9. cork  
10. wood  
11. cloth  
12. leather  
13. rope  
14. paper  
15. glass  
16. rubber  
17. ceramic  
18. stone, clay  
19. other

---

**Post excavation history:** processed; bagged in plastic  
**Recording:** Photographs see contact sheets  
**Drawing:** very thin in cross section  
**Location:**  
**Priorities for treatment:** 3 (high) 2 (medium) 1 (low) 0 (none)
Analysis/Examination

Spot tests
Chloride test (+) (-)
X-Ray
Other
Magnification

No evidence of peeling. Loop is soldered?

------------------------------

Dates Treatment Record

2-21-87 The artifact was cleaned mechanically using scalpel & glass brush.
15% formic was used to remove loose corrosion.

2-24 thru
2-26-87 The artifact was treated with a chemical inhibitor to prevent future corrosion. The artifact was placed under vacuum ( 20 lbs/in²) for 24 hrs. in a solution of 3% benzotriazole in methanol.
The artifact was removed, air dried, and given a protective coating of lacquer (acrylate methacrylate copolymer in toluene) after passing through methanol.

------------------------------

Treatment Summary

- scalpel, pick
- wire brush
✓ glass brush
- air abrasive/sand blast
- electrolytic reduction
✓ chemical cleaning
- ultrasonic

- intensive wash, hot
- intensive wash, cold
- de-watered (solvent)
- oven dried
✓ inhibitor
✓ coating
- reshaped

- mended
- bleached
- filled
- consolidated
- special support
- silica gel
- biocide

------------------------------

Dates Photographs Before treating After treating
2-5-87 contact sheet 1, frame 1-4 X
3-2-87 contact sheet 2, frame 1-3 X
ARTIFACT SHEET
AND TREATMENT RECORD

Site 18BA 282 BANNEKER               Date logged into conservation  2-9-87
Artifact number 20                   Date treatment started  2-26-87
Artifact type                      Date completed  2-28-87
Date of recovery
Site Log Entry
Provenience 18BA 282 - 1168

Description plated button - white metal (or brass?)

Dimensions 1.7 cm diam. Weight

Condition E (P

Photo attached see contact sheets

[c] copper/brass/bronze [c] bone, ivory [c] foodstuff
[c] lead/tin/pewter [c] cork [c] glass
[c] iron/steel [c] wood [c] rubber
[c] gold [c] cloth [c] ceramic
[c] silver [c] leather [c] stone, clay
[c] mineral [c] rope [c] other
[c] gem [c] paper (f.6v?

Post excavation history:
Processed; bagged in plastic

Recording:
Photographs see contact sheets

Drawing

Location:

Priority for treatment: 3 2 1 0
(high) (medium) (low) (none)
Analysis/Examination

Spot tests
Chloride test (+) (-)
X-Ray
Other
Magnification

White metal alloy contains copper--corrosion products are cuprous. Possible fibers wrapped around loop on reverse are v. deteriorated or mineralized.

Date	Treatment Record

2-27	The artifact was cleaned mechanically using glass brush + scalpel. 15% formic acid used to remove an raise on reverse around loop after removing possible fiber sample/corroded/mineralized. Needs DTA due to presence of copper.

2-27 thru 2-28	The artifact was treated with a chemical inhibitor to prevent further corrosion. The artifact was placed under vacuum (20 lbs/in²) for 24 hrs. in a solution of 3% benzotriazole in methanol. The artifact was removed, air dried, and given a protective coating of Loculac (acrylate methacrylate copolymer in toluene w/ DTA added) after pressing through methanol.

Treatment Summary

- Scalpel, pick
- Wire brush
- Glass brush
- Air abrasive/sand blast
- Electrolytic reduction
- Chemical cleaning
- Ultrasonic
- Intensive wash, hot
- Intensive wash, cold
- De-watered (solvent)
- Oven dried
- Inhibitor
- Coating
- Reshaped
- Mended
- Bleached
- Filled
- Consolidated
- Special support
- Silica gel
- Biocide

Dates	Photographs	Before treating	After treating
2-5-87	Contact sheet 1, frame 25-29	X
3-2-87	Contact sheet 2, frame 13-15	X
ARTIFACT SHEET
AND TREATMENT RECORD

Site 18BA 282 BANNEKER  Date logged into conservation 2-9-87
Artifact number 21  Date treatment started 2-19-87
Artifact type  Date completed 2-28-87
Date of recovery  Conservator K. Singley
Site Log Entry
Provenience 18BA 282 1174

______________________________

Description button
Dimensions 1.6 cm.
Weight
Condition E □ P

Photo attached □
see contact sheets

□ copper/brass/bronze  □ bone, ivory  □ foodstuff

□ lead/tin/pewter  □ cork  □ glass

□ iron/steel  □ wood  □ rubber

□ gold  □ cloth  □ ceramic

□ silver  □ leather  □ stone, clay

□ mineral  □ rope  □ other

□ gem  □ paper  (___________)

______________________________

Post excavation history:
processed: bagged in plastic

______________________________

Recording:
Photographs see contact sheets
Drawing

brass plated?

Location:

______________________________

Priority for treatment: 3 2 1 0
(high) (medium) (low) (none)
Analysis/Examination

Spot tests
Clayide test (+) (-)
X-Ray
Other
Magnification

The central depression on the obverse appears to have remnants of a copper wash or plating. The rest of the button appears to be a white metal/Britannia metal.

Treatment Record

2-19
The artifact was cleaned mechanically using glass fiber brush & scalpel. 10% EDTA was used to remove white carbonate encrustation found on lead alloys, but solution turned blue/green, indicating presence of Cu. Will need to be treated w/ BTA. Rinsed 1/2 hr. in deionized water.

2-27 thru 2-28-87
The artifact was treated with a chemical inhibitor to prevent further corrosion. The artifact was placed under vacuum (~10 lbs/in^2) for 24 hrs. in a solution of 0.3% benzotriazole in methanol (BTA). The artifact was removed, air dried, and given a protective coating of Locolac - acrylic methacrylate copolymer in toluene w/ BTA added - after passing through methanol.

Treatment Summary

- scalpel, pick
- wire brush
x glass brush
- air abrasive/sand blast
- electrolytic reduction
x chemical cleaning
- ultrasonic

- intensive wash, hot
- intensive wash, cold
- de-watered (solvent)
- oven dried
- inhibitor
- coating
- reshaped

- mended
- bleached
- filled
- consolidated
- special support
- silica gel
- biocide

Dates Photographs Before treating After treating
2-5-87 contact sheet 1, frame 5-9 X X
3-2-87 contact sheet 2, frame 4-6
**ARTIFACT SHEET AND TREATMENT RECORD**

Site: 18BA 282 BANNEKER  
Artifact number: 22  
Artifact type:  
Date logged into conservation: 2-9-87  
Date treatment started: 2-17-87  
Date completed: 2-28-87  
Date of recovery:  
Conservator: K. Singley  
Site Log Entry:  
Provenience: BM282/1201  

---

**Description:** button, brass  
**Dimensions:** 1.3 cm diam.  
**Weight:** [ ]  
**Condition:** E [ ] G [ ] P [ ]

---

**Photo attached:** [ ]  
**Processed:** bagged in plastic  
**Material:**  
- [ ] copper/brass/bronze  
- [ ] bone, ivory  
- [ ] foodstuffs  
- [ ] lead/tin/pewter  
- [ ] cork  
- [ ] glass  
- [ ] iron/steel  
- [ ] wood  
- [ ] rubber  
- [ ] gold  
- [ ] cloth  
- [ ] ceramic  
- [ ] silver  
- [ ] leather  
- [ ] stone, clay  
- [ ] mineral  
- [ ] rope  
- [ ] paper  
- [ ] other

---

**Post excavation history:** processed: bagged in plastic  
**Recording:**  
- Photographs: see contact sheets  
- Drawing: remnant of plating around hoof  
- Incription: v. deburred  
- Designated:  

---

**Priority for treatment:**  
- 3 (high)  
- 2 (medium)  
- 1 (low)  
- 0 (none)
Analysis/Examination

Spot tests

Chloride test (+) (-)

Magnet

Probe

Magnification

Silica v. well preserved on obverse / not so well on reverse.

---

Dates Treatment Record

2-27

The artifact was cleaned mechanically using scalpel + glass brush
15% formic acid used to remove copper corrosion product

2-28

The artifact was treated with a chemical inhibitor to prevent further corrosion. The artifact was placed under vacuum (20 lbs/in^2) for 24 hrs. in a solution of 3% benzoic acid in methanol.
The artifact was removed, air dried, and given a protective coating of lacquer (acrylic methacrylate co-polymer in toluene w/ BTA added) after passing through methanol.

---

Treatment Summary

☑ scalpel, pick
☐ wire brush
☐ glass brush
☑ air abrasive/sand blast
☐ electrolytic reduction
☑ chemical cleaning
☐ ultrasonic

☐ intensive wash, hot
☐ intensive wash, cold
☐ de-watered (solvent)
☐ oven dried
☐ inhibitor
☐ coating
☐ reshaped

☐ mended
☐ bleached
☐ filled
☐ consolidated
☐ special support
☐ silica gel
☐ biocide

---

Dates Photographs Before treating After treating

2-5-87 contact sheet 1, frame 25-29 X

3-2-87 contact sheet 2, frame 13-15 X
## ARTIFACT SHEET
### AND TREATMENT RECORD

**Site** 18BA 282 BANNEKER  
**Date logged into conservation** 2-9-87

**Artifact number** 23  
**Date treatment started** 2-25-87

**Artifact type**  
**Date completed** 2-28-87

**Date of recovery** 18BA 282 - 1171  
**Conservator** K. Singley

**Site Log Entry**

---

### Description

<table>
<thead>
<tr>
<th>Material</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Copper/brass/bronze</td>
<td>✔️</td>
</tr>
<tr>
<td>Lead/tin/pewter</td>
<td></td>
</tr>
<tr>
<td>Gold</td>
<td></td>
</tr>
<tr>
<td>Silver</td>
<td></td>
</tr>
<tr>
<td>Gem</td>
<td></td>
</tr>
<tr>
<td>Bone, ivory</td>
<td></td>
</tr>
<tr>
<td>Foodstuff</td>
<td></td>
</tr>
</tbody>
</table>

**Dimensions** 1.5 cm.

**Weight**

**Condition** E G P

**Photo attached**

- See contact sheets

---

### Post excavation history:

- Processed; bagged in plastic

### Recording:

- Photographs see contact sheets
- Drawing

**REMARK - PATCH OF GILDING/PLATING**

---

### Location:

---

### Priority for treatment:

- **3** (high)
- **2** (medium)
- **0** (low)
- **0** (none)
Analysis/Examination

Spot tests
- Chloride test (+) (-)
- X-Ray
- Other

Gilding remnant on reverse.

Dates Treatment Record

2-25-87
The artifact was cleaned mechanically using scalpel and glass brush.
No chemicals used.

2-27 thru
2-28, 1987
The artifact was treated with a chemical inhibitor to prevent further corrosion. The artifact was placed under vacuum (20 lbs/in²) for 24 hrs. in a solution of 3% benzotriazole in methanol.
The artifact was removed, air dried, and given a protective coating of Inconel in toluene (amylate metacrylate copolymer w/ DMA added).
After passing through methanol.

Treatment Summary

- scalpel, pick
- wire brush
- glass brush
- air abrasive/sand blast
- electrolytic reduction
- chemical cleaning
- ultrasonic
- intensive wash, hot
- intensive wash, cold
- de-watered (solvent)
- oven dried
- inhibitor
- coating
- mended
- bleached
- filled
- consolidated
- special support
- silica gel
- biocide

Dates Photographs Before treating After treating

2-5-87 contact sheet 1, frame 25-29 X
3-3-87 contact sheet 2, frame 43-15 X
ARTIFACT SHEET
AND TREATMENT RECORD

Site 18BA 282 BANNEKER

<table>
<thead>
<tr>
<th>Description</th>
<th>Dimensions</th>
<th>Weight</th>
<th>Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>9/14 button</td>
<td>1.3 cm dia.</td>
<td></td>
<td>E 6 P</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Photo attached</th>
<th>Copper/brass/bronze</th>
<th>Bone, ivory</th>
<th>Foodstuff</th>
</tr>
</thead>
<tbody>
<tr>
<td>X lead/tin/pewter</td>
<td>Cork</td>
<td>Wood</td>
<td>Glass</td>
</tr>
<tr>
<td>Iron/steel</td>
<td>Cloth</td>
<td>Ceramic</td>
<td>Rubber</td>
</tr>
<tr>
<td>Gold</td>
<td>Leather</td>
<td>Stone, Clay</td>
<td>Other</td>
</tr>
<tr>
<td>Silver</td>
<td>Rope</td>
<td>Paper</td>
<td></td>
</tr>
<tr>
<td>Mineral</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gem</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Post excavation history: processed; bagged in plastic

Recording:
Photographs see contact sheets
Drawing

Priority for treatment: 3 (high) 2 (medium) 1 (low) 0 (none)

Site Log Entry: 19BA282 - 1207
Conservator: K. Singley
Provenience: ____________________________

Rev.:
Analysis/Examination

Magnet
Probe
Magnification

Spot tests
Chloride test (+) (-)
X-Ray
Other

Golding is gone. May have been burned? Surface is charred?

---

Dates Treatment Record

2-26 The artifact was cleaned mechanically using then brush or scalpel.

15% formic acid used to remove loose corrosion.

2-29 The artifact was treated with a chemical inhibitor to prevent further corrosion. The artifact was placed under vacuum (20 lbs/in²) for 24 hrs. in a solution of 3% Bnzotriazole in methanol.
The artifact was removed, air dried, and given a protective coating of inhibitor (acrylate monomeric copolymers in toluene) with BTA added.
Often passing through methanol.

---

Treatment Summary

✓ scalpel, pick
✓ wire brush
✓ glass brush
✓ air abrasive/sand blast
electrolytic reduction
✓ chemical cleaning
✓ ultrasonic

intensive wash, hot
intensive wash, cold
de-watered (solvent)
oven dried
✓ inhibitor
✓ coating

mended
bleached
filled
consolidated
special support
silica gel
biocide

---

Dates Photographs Before treating After treating
2-5-87 contact sheet 1, frame 25-29 X X
3-9-87 contact sheet 2, frame 13-15 X
ARTIFACT SHEET
AND TREATMENT RECORD

Site 18BA 282 BANNEKER
Artifact number 25
Artifact type
Date of recovery
Provenience 18BA 282/1176
Date logged into conservation 2-9-87
Date treatment started 2-20-87
Date completed 2-25-87
Conservator K. Singley

Site Log Entry:

Description
Dimensions 1.7cm diam.
Weight
Condition E G P

Photo attached Y

✓ copper/brass/bronze   bone, ivory   foodstuff
✓ lead/tin/pewter     cork         glass
✓ iron/steel      wood         rubber
    gold          cloth         ceramic
    silver       leather       stone, clay
    mineral      rope          other
    gem          paper         ( )

Post excavation history:
processed; bagged in plastic

Recording:
Photographs see contact sheets

Drawing

Location:

Priority for treatment: 3 0
(high) (medium) (low) (none)

Iron wire

while metal of copper component
Analysis/Examination

- Spot tests
- Chloride test (+) (-)
- X-Ray
- Other
- Magnification

The copper is selectively corroding from the white metal area.

<table>
<thead>
<tr>
<th>Dates</th>
<th>Treatment Record</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-20-87</td>
<td>The artifact was cleaned mechanically using scalpel, vibrate tool, glass brush. No chemical cleaning.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Dates</th>
<th>Treatment Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-24 hr</td>
<td>□ scalpel, pick</td>
</tr>
<tr>
<td>2-25-87</td>
<td>□ intensive wash, hot mended</td>
</tr>
<tr>
<td></td>
<td>□ meat brush</td>
</tr>
<tr>
<td></td>
<td>□ intensive wash, cold bleached</td>
</tr>
<tr>
<td></td>
<td>□ glass brush</td>
</tr>
<tr>
<td></td>
<td>□ de-watered (solvent) filled</td>
</tr>
<tr>
<td></td>
<td>□ air abrasive/sand blast</td>
</tr>
<tr>
<td></td>
<td>□ oven dried</td>
</tr>
<tr>
<td></td>
<td>□ electrolytic reduction</td>
</tr>
<tr>
<td></td>
<td>□ inhibitor</td>
</tr>
<tr>
<td></td>
<td>□ chemical cleaning</td>
</tr>
<tr>
<td></td>
<td>□ coating</td>
</tr>
<tr>
<td></td>
<td>□ ultrasonic</td>
</tr>
<tr>
<td></td>
<td>□ reshapened</td>
</tr>
<tr>
<td></td>
<td>✔ vibrate tool</td>
</tr>
<tr>
<td></td>
<td>□ silica gel</td>
</tr>
<tr>
<td></td>
<td>□ biocide</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Dates</th>
<th>Photographs</th>
<th>Before treating</th>
<th>After treating</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-5-87</td>
<td>contact sheet 1, frame 1-4</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>2-2-87</td>
<td>contact sheet 2, frame 1-3</td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>
**ARTIFACT SHEET**

**AND TREATMENT RECORD**

**Site:** 18BA 282 BANNEKER  
**Date logged into conservation:** 2-9-87

**Artifact number:** 56  
**Date treatment started:** Feb. 20, 1987

**Artifact type:**  
**Date completed:** March 2, 1987

**Date of recovery:**  
**Conservator:** K. Singley

**Site Log Entry:**

**Provenience:** 18BA 282 - 1210

---

**Description:** fork fragment  
**Dimensions:** 5 cm long

**Weight:**

**Condition:** E G P

**Photo attached:**

- [ ] copper/brass/bronze
- [ ] lead/tin/pewter
- [ ] iron/steel
- [x] gold
- [ ] silver
- [ ] mineral
- [ ] gem

- [ ] bone, ivory
- [ ] foodstuff
- [ ] cork
- [ ] wood
- [ ] cloth
- [ ] leather
- [ ] rope
- [ ] paper
- [ ] other

---

**Post excavation history:**

- [ ] processed; bagged in plastic

**Recording:**

- Photographs: see contact sheets

**Drawing:**

---

**Location:**

---

**Priority for treatment:**

<table>
<thead>
<tr>
<th>(high)</th>
<th>(medium)</th>
<th>(low)</th>
<th>(none)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>
Analysis/Examination

Spot tests
Chloride test (+) (-) X-Ray Other

Magnet
Probe
Magnification

Treatment Record
Feb. 20, 1987 The artifact was cleaned mechanically using mini-chisel, scalpel, wire brush.

Feb. 20 - Feb. 28 The artifact was boiled in change of deionized water (changed 6x/day) to remove chlorides. Each morning the previous day’s wash water was monitored for chlorides with a Tds meter. The last four morning gave readings at 5.2, 2.3, 2.6, + 1.4 ppm, indicating a low & relatively constant level of dissolved solids (no Tds)

Feb. 28 The artifact was treated with a chemical inhibitor to prevent further corrosion. The artifact was placed under vacuum (1 lbs/in²) for 4 hrs. in a solution of Rubr Erase - a commercial product based on phosphoric acid.

March 2 The artifact was removed, air dried, and given a protective coating of hot microcrystalline wax after placing in a de-accelerating chamber with silica gel (40% RH) overnight.

Treatment Summary
☑ scalpel, pick ☑ intensive wash, hot ☑ mend
☐ wire brush ☑ intensive wash, cold ☑ bleached
☐ glass brush ☑ de-watered (solvent) ☑ filled
☐ air abrasive/sand blast ☑ oven dried ☑ consolidated
☐ electrolytic reduction ☑ inhibitor ☑ special support
☐ chemical cleaning ☑ coating ☑ silica gel
☐ ultrasonic ☑ reshaped ☑ biocide

Dates Photographs Before treating After treating
2-5-87 contact sheet 1, frame 30-33 X
9-2-87 contact sheet 2, frame 19-22 X
**ARTIFACT SHEET**
**AND TREATMENT RECORD**

Site 18BA 282 BANNEKER

<table>
<thead>
<tr>
<th>Description</th>
<th>Dimensions 1.3 cm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Irregular fragment of lead</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Photo attached</th>
<th>copper/brass/bronze</th>
<th>bone, ivory</th>
<th>foodstuff</th>
</tr>
</thead>
<tbody>
<tr>
<td>see contact sheets</td>
<td>lead/tin/pewter</td>
<td>cork</td>
<td>glass</td>
</tr>
<tr>
<td></td>
<td>iron/steel</td>
<td>wood</td>
<td>rubber</td>
</tr>
<tr>
<td></td>
<td>gold</td>
<td>cloth</td>
<td>ceramic</td>
</tr>
<tr>
<td></td>
<td>silver</td>
<td>leather</td>
<td>stone, clay</td>
</tr>
<tr>
<td></td>
<td>mineral</td>
<td>rope</td>
<td>other</td>
</tr>
<tr>
<td></td>
<td>gem</td>
<td>paper</td>
<td>( )</td>
</tr>
</tbody>
</table>

Post excavation history:
 processed: bagged in plastic

Recording:
 Photographs see contact sheets
 Drawing

Location:

Priority for treatment: 3 (high) 2 (medium) 1 (low) 0 (none)
Analysis/Examination

Spot tests
Chloride test (+) (-)
X-Ray
Other
Magnification

Fragment is very brittle.

Dates

Treatment Record

2-20-67
The artifact was cleaned mechanically using scalpel & glass brush
10% EDTA (EDTA salt of ethylene diamine tetracetic) used to remove carbonate corrosion. Rinsed 2 hrs. in de-ionized water.

2-27-67
Mechanically cleaned again. Dewatered in methanol.

3-27-67
The artifact was treated with a chemical inhibitor to prevent further corrosion. The artifact was placed under vacuum (-16 lbs/in²) for 16 hrs. in a solution of
The artifact was removed, air dried, and given a protective coating of 15% acrylic D-72 in toluene (acrylate methacrylate copolymer), which helped consolidate it to brittle bone.

Treatment Summary

✓ scalpel, pick
✓ wire brush
✓ glass brush
✓ air abrasive/sand blast
✓ electrolytic reduction
✓ chemical cleaning
✓ intensive wash, hot
✓ intensive wash, cold
✓ de-watered (solvent)
✓ oven dried
✓ inhibitor
✓ coating
✓ mended
✓ bleached
✓ filled
✓ consolidated
✓ special support
✓ silica gel
✓ biocide

Dates

Photographs
Before treating
After treating

2-5-67
contact sheet 1, frame 20-24
X

3-2-67
contact sheet 2, frame 10-12
X
ARTIFACT SHEET
AND TREATMENT RECORD

Site 18BA 282 BANNEKER  Date logged into conservation 2-9-87
Artifact number 28  Date treatment started 2-28-87
Artifact type  Date completed March 4, 1987
Date of recovery  Conservator K. Singley
Site Log Entry
Provenience 18BA 282-1910

Description Knife blade fragment  Dimensions 3.2 cm
Weight
Condition E G F

Photo attached  copper/brass/bronze  bone, ivory  foodstuff
copper/brass/bronze  bone, ivory  foodstuff
lead/tin/pewter  bone, ivory  foodstuff
iron/steel  bone, ivory  foodstuff
gold  bone, ivory  foodstuff
silver  bone, ivory  foodstuff
mineral  bone, ivory  foodstuff
gem  bone, ivory  foodstuff

copper/brass/bronze  bone, ivory  foodstuff
lead/tin/pewter  bone, ivory  foodstuff
iron/steel  bone, ivory  foodstuff
gold  bone, ivory  foodstuff
silver  bone, ivory  foodstuff
mineral  bone, ivory  foodstuff
gem  bone, ivory  foodstuff

Post excavation history: processed; bagged in plastic

Recording:
Photographs see contact sheets
Drawing

Location:

Priority for treatment: 3 (high) 2 (medium) 1 (low) 0 (none)
Analysis/Examination

<table>
<thead>
<tr>
<th>Magnet</th>
<th>Probe</th>
<th>Magnification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spot tests</td>
<td>Chloride test (+) (-)</td>
<td>X-Ray</td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Dates

<table>
<thead>
<tr>
<th>2-28-87</th>
<th>Treatment Record</th>
</tr>
</thead>
<tbody>
<tr>
<td>The artifact was cleaned mechanically using scalpels and vibrators. Blocks fractured during cleaning -- v. mineralized. Jailed w/ cyanacrylate.</td>
<td></td>
</tr>
<tr>
<td>3-8-87</td>
<td>Break for 3 days in changes of deionized water to remove salts.</td>
</tr>
<tr>
<td>3-9-87</td>
<td>No treatment w/ chemical passivator (phosphoric acid).</td>
</tr>
<tr>
<td>3-3-87</td>
<td>The artifact was treated with a chemical inhibitor to prevent further corrosion. The artifact was placed under vacuum (~ 0.1 psi) for 8 hrs. in a solution of</td>
</tr>
<tr>
<td>3-4-87</td>
<td>The artifact was removed, air dried, and given a protective coating of hot microcrystalline wax.</td>
</tr>
</tbody>
</table>

Treatment Summary

- scalpels, pick
- wire brush
- glass brush
- air abrasive/sand blast
- electrolytic reduction
- chemical cleaning
- ultrasonic

X intensive wash, hot
X intensive wash, cold
X de-watered (solvent)
X oven dried
X inhibitor
X coating
X reshaped
X mended
X bleached
X filled
X consolidated
X special support
X silica gel
X biocide

Dates

<table>
<thead>
<tr>
<th>Photographs</th>
<th>Before treating</th>
<th>After treating</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-5-87</td>
<td>contact sheet 1, frame 34-36</td>
<td>X</td>
</tr>
<tr>
<td>3-4-87</td>
<td>contact sheet 2, frame</td>
<td></td>
</tr>
</tbody>
</table>
ARTIFACT SHEET
AND TREATMENT RECORD

Site 18BA 282 BANNEKER Date logged into conservation 2-9-87
Artifact number 29 Date treatment started Feb. 19, 1987
Artifact type Date completed March 2, 1987
Date of recovery Conservator K. Singley
Site Log Entry
Provenience 1868 382 1234

Description section (not visible)
Dimensions 3.5 cm
Weight
Condition E 6 P

Photo attached see contact sheets
__ copper/brass/bronze __ bone, ivory __ foodstuff
__ lead/tin/pewter __ cork __ glass
__ iron/steel __ wood __ rubber
__ gold __ cloth __ ceramic
__ silver __ leather __ stone, clay
__ mineral __ rope __ other
__ gem __ paper (________)

Post excavation history:
processed; bagged in plastic

Recording:
Photographs see contact sheets
Drawing

Location:

Priority for treatment: 3 2 1 0
(high) (medium) (low) (none)
**Analysis/Examination**

<table>
<thead>
<tr>
<th>Spot tests</th>
<th>Chloride test (+)</th>
<th>(-)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Magnet</td>
<td>X-Ray</td>
<td>Other</td>
</tr>
<tr>
<td>Probe</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Magnification</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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**Dates**

<table>
<thead>
<tr>
<th>Dates</th>
<th>Treatment Record</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feb. 19, 20</td>
<td>The artifact was cleaned mechanically using mini channel, scalpel, wire brush.</td>
</tr>
<tr>
<td>Feb. 20-08</td>
<td>The artifact was hot washed to remove chlorides by boiling in changes of deionized water. The wash water was changed 6-8 times/day. On the last four days of the cycle, a TDS reading was taken of the wash water from the previous day. The readings were 5.2, 0.3, 0.6, and 1.4 ppm, indicating a low relatively constant level of dissolved solids (NaCl).</td>
</tr>
<tr>
<td>Feb. 28</td>
<td>The artifact was treated with a chemical inhibitor to prevent further corrosion. The artifact was placed under vacuum (~100 mm Hg) for 4 hrs. in a solution of Rust-Eze (a commercial product containing phosphoric acid). The artifact was removed, air dried, and given a protective coating of hot microcrystalline wax after drying overnight in a desiccating chamber at 40% Rh.</td>
</tr>
<tr>
<td>March 2</td>
<td></td>
</tr>
</tbody>
</table>

**Treatment Summary**

- Scalpel, pick
- Wire brush
- Glass brush
- Air abrasive/sand blast
- Electrolytic reduction
- Chemical cleaning
- Ultrasonic
- Intensive wash, hot
- Intensive wash, cold
- De-watered (solvent)
- Oven dried
- Inhibitor
- Coating
- Reshaped
- Mended
- Bleached
- Filled
- Consolidated
- Special support
- Silica gel
- Biocide

---

**Dates**

<table>
<thead>
<tr>
<th>Dates</th>
<th>Photographs</th>
<th>Before treating</th>
<th>After treating</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-5-87</td>
<td>contact sheet 1, frame 30-33</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>3-2-87</td>
<td>contact sheet 2, frame 14-21</td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>
ARTIFACT SHEET
AND TREATMENT RECORD

Site 18BA 282 BANNEKER

Date logged into conservation 2-9-87

Artifact number 30

Date treatment started 2-20-87

Artifact type

Date completed March 4, 1987

Date of recovery

Conservator K. Singley

Site Log Entry:

Provenience 18BA 988 - 1933

Description Weight iron rod w/ worked ends

Dimensions 17 cm long

Weight

Condition E 6 P

Photo attached ___ copper/brass/bronze ___ bone, ivory ___ foodstuff

___ lead/tin/pewter ___ cork ___ glass

___ iron/steel-wrought ___ wood ___ rubber

___ gold ___ cloth ___ ceramic

___ silver ___ leather ___ stone, clay

___ mineral ___ rope ___ other

___ gem ___ paper ___

Post excavation history:

processed; bagged in plastic

Recording:

Photographs see contact sheets

Drawing

Location:

Priority for treatment: 3 2 (1) 0

(high) (medium) (low) (none)
Analysis/Examination

Spot tests
Chloride test (+) (-)
X-Ray
Other
Magnification

Costed w/ very grainy deposit -- vitrified rubble? burned? Also v. carbonized.

Dates Treatment Record
2-20-87 The artifact was cleaned mechanically using mini chisel, vibrotool, scalpel
2-21- March 1 The artifact was intensively washed in changes of deionised water
(changed 6-8 times/day) to remove chlorides. The last four readings of the wash waters were 5.3, 2.3, 2.6, + 1.4 parts per million, indicating very little ionizable sulfate (NaCl) being released after boiling.
No passivating chemicals used.
The artifact was treated with a chemical inhibitor to prevent further corrosion. The artifact was placed under vacuum (1 lbs/in) for hrs. in a solution of
March 1 - 4 The artifact was removed, air dried, and given a protective coating of hot microcrystalline wax.

Treatment Summary
scalpel, pick
wire brush
glass brush
air abrasive/sand blast
electrolytic reduction
chemical cleaning
ultrasonic

✓ intensive wash, hot
✓ intensive wash, cold
✓ de-watered (solvent)
✓ oven dried
✓ inhibitor
✓ coating
✓ reshaped
✓ mended
✓ bleached
✓ filled
✓ consolidated
special support
silica gel
biocide

Dates Photographs Before treating After treating
2-5-87 contact sheet 1, frame 34-36 X
3-1-87 contact sheet 2, frame 21-23 X
Site 18BA 282 BANNEKER

Artifact number 31

Artifact type

Date of recovery

Site Log Entry

Provenience 18BA 282 1040

Date logged into conservation 2-9-87

Date treatment started February 19, 1987

Date completed March 2, 1987

Conservator K. Singley

Description Knife fragment? quapant?

Dimensions 5.75 cm

Weight

Condition E (6) P

Photo attached see contact sheets

Material: copper/brass/bronze lead/tin/pewter iron/steel gold silver mineral gem

Bone, ivory foodstuff cork cloth leather rope paper

glass rubber ceramic stone, clay other

Post excavation history: processed: bagged in plastic

Recording:

Photographs see contact sheets

Drawing

Location:

Priority for treatment: 3 2 1 0

(high) (medium) (low) (none)
Analysis/Examination

Spot tests

Chloride test (+) (-)

Magnet

Probe

Magnification

---

Dates Treatment Record

Feb. 19 The artifact was cleaned mechanically using mumir, scalpel, and wire brush.

Feb. 20 - Feb. 28 The artifact was boiled for 5 days in changes of deionized water (1 time per 2 days) to flush chlorides out. Each morning, the wash water was tested with a TDS meter. The final four readings were 5.2, 2.3, 2.4, and 1.4 ppm -- indicating that the iron was free from Cl.

The artifact was removed.

Feb. 28 The artifact was treated with a chemical inhibitor to prevent further corrosion. The artifact was placed under vacuum for 4 hrs. in a solution of "Rust Eater" -- a commercial product based on phosphoric acid. The artifact was removed, air dried, and given a protective coating of hot microcrystalline wax, then drying overnight with silica gel (40% RH).

---

Treatment Summary

✓ scalpel, pick
✓ wire brush
✓ glass brush
✓ air abrasive/sand blast
✓ electrolytic reduction
✓ chemical cleaning
✓ ultrasonic

✓ intensive wash, hot
✓ intensive wash, cold
✓ de-watered (solvent)
✓ oven dried
✓ inhibitor
✓ coating
✓ reshaped

mended
bleached
filled
consolidated
special support
silica gel
biocide

---

Dates Photographs Before treating After treating
2-5-87 contact sheet 1, frame 30-35 X
3-2-87 contact sheet 2, frame 10-21 X
ARTIFACT SHEET
AND TREATMENT RECORD

Site 18BA 282 BANNEKER  Date logged into conservation  2-9-87
Artifact number 32  Date treatment started  2-20-87
Artifact type  Date completed  March 2, 1987
Date of recovery  Conservator  K. Singley
Site Log Entry:  
Provenience  18BA 282 - 1137

---

Description:  

Dimensions:  4.9 cm

Weight:  

Condition:  E G P

Photo attached:  

- copper/brass/bronze
- lead/tin/pewter
- iron/steel* wrought
- gold
- silver
- mineral
- gem
- bone, ivory
- foodstuff
- cork
- wood
- rubber
- cloth
- leather
- rope
- paper
- other

Post excavation history:  
processed; bagged in plastic

Recording:  

Photographs  see contact sheets

Drawing

Location:  

Priority for treatment:  

(high)  (medium)  (low)  (none)
#### Analysis/Examination

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spot tests</td>
<td></td>
</tr>
<tr>
<td>Chloride test (+)</td>
<td>(-)</td>
</tr>
<tr>
<td>X-Ray</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
</tr>
</tbody>
</table>

Striations indicative of wrought Fe.

#### Dates | Treatment Record

**Feb 20**

The artifact was cleaned mechanically using mini chisel, wire brush, vibrobel.

**Feb 26-28**

The artifact was not washed in deionized water to remove Cl. No water was changed 6-8 times/day. Each morning the wash water from the previous day was monitored with a TDS meter. The final four readings were 5.2, 2.3, 1.6, 1.4 ppm, indicating a constant + low level of released ionizable particles (NaCl).

**March 2**

The artifact was treated with a chemical inhibitor to prevent further corrosion. The artifact was placed under vacuum (180 mTorr) for 4 hrs. in a solution of Rust Eater - a commercial product containing phosphoric acid.

The artifact was removed, air dried, and given a protective coating of hot microcrystalline wax after drying in a desiccating chamber with silica gel (40% RH) overnight.

#### Treatment Summary

- Scalpel, pick
- Wire brush
- Glass brush
- Air abrasive/sand blast
- Electrolytic reduction
- Chemical cleaning
- Ultrasonic
- Vibrobel

- Intensive wash, hot mended
- De-watered (solvent) bleached
- Oven dried filled
- Inhibitor consolidated
- Coating special support
- Reshaped silica gel
- Biocide

#### Dates | Photographs | Before treating | After treating

| 2-5-87 | contact sheet 1, frame 34-36 | X |     |
| 3-4-87 | contact sheet 2, frame 21-23 |     | X |
ARTIFACT SHEET
AND TREATMENT RECORD

Site 18BA 282 BANNEKER
Artifact number 33
Artifact type
Date of recovery Site Log Entry
Provenience 18BA 282 - 142

Date logged into conservation 2-9-87
Date treatment started 9-20-1987
Date completed March 2-1987
Conservator K. Singley

Description bent nail
Dimensions 2.5 cm
Weight
Condition E ☑ P

Photo attached see contact sheets

copper/ brass/ bronze bone, ivory foodstuff
lead/ tin/ pewter cork glass
iron/ steel wood rubber
gold cloth ceramic
silver leather stone, clay
mineral rope other
gem paper ( )

Post excavation history:
processed; bagged in plastic

Recording:
Photographs see contact sheets
Drawing

Location:

Priority for treatment: 3 2 1 0
(high) (medium) (low) (none)
Analysis/Examination

Spot tests
Chloride test (+) (-)
X-Ray
Other


Dates Treatment Record

Feb. 20, 1987 The artifact was cleaned mechanically using mini chisel, scalpel, wire brush.

Feb. 20, 1987 The artifact was hot washed to remove chlorides. The wash water was changed 6-8/day. Every morning the last wash of the previous day was monitored with a TDS meter. The first four days gave readings of 5.2, 3.2, 2.6, 1.4 ppm, indicating a constant and low level of emitted dissolved solids (NaCl) in the wash water.

Feb. 28 The artifact was treated with a chemical inhibitor to prevent further corrosion. The artifact was placed under vacuum (1 lbs/in²) for 4 hrs.

March 1 The artifact was removed, air dried, and given a protective coating of hot microcrystalline wax after drying in a desiccating cabinet overnight with silica gel (40% RH).


Treatment Summary

scalpel, pick
wire brush
glass brush
air abrasive/sand blast
electrolytic reduction
chemical cleaning
ultrasonic

intensive wash, hot
intensive wash, cold
de-watered (solvent)
oven dried
inhibitor
coating

mended
bleached
filled
consolidated
special support
silica gel
biocide


Dates Photographs Before treating After treating
2-5-87 contact sheet 1, frame 30-33 X
3-2-87 contact sheet 2, frame 19-21 X
**ARTIFACT SHEET**

**AND TREATMENT RECORD**

**Site** 18BA 282 BANNEKER  
**Date logged into conservation** 2-9-87

**Artifact number** 34  
**Date treatment started** 2-20-87

**Artifact type**  
**Date completed** March 2, 1987

**Date of recovery**  
**Conservator** K. Singley

**Site Log Entry**

**Provenience** 18DB282/1131

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**Description** Iron hoop made of wood - 0050.400  
**Dimensions** 6 cm  
**Weight**

<table>
<thead>
<tr>
<th>Condition</th>
<th>E</th>
<th>G</th>
<th>P</th>
</tr>
</thead>
</table>

**Photo attached**  
| copper/brass/bronze | bone, ivory | foodstuff |
| lead/tin/pewter | cork | glass |
| iron/steel | wood | rubber |
| gold | cloth | ceramic |
| silver | leather | stone, clay |
| mineral | rope | other |
| gem | paper | ( ) |

**Post excavation history:**  
processed; bagged in plastic

**Recording:**  
Photographs: see contact sheets

**Drawing:**

**Location:**

---

**Priority for treatment:**  
(high) (medium) (low) (none)
Analysis/Examination

Spot tests
Chloride test (+) (-)
X-Ray
Other

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Dates Treatment Record

2-30-87 The artifact was cleaned mechanically using mini chisel, scalpel, vibrotool.
2-20 thru 3-20 1987 The artifact was intensively washed in changes of demineralized water to remove chlorides. The wash water was changed 6-8 times/day. Each morning the previous day's last wash was monitored for dissolved solids (NaCl) to exact 4 days gave reading of 5.2, 0.3, 0.61 + 1.4 ppm indicating a low level of insoluble particles in the water.
2-30 The artifact was treated with a chemical inhibitor to prevent further corrosion. The artifact was placed under a constant temperature for 4 hrs. in a solution of Rust Eraser, a commercial product containing phosphoric acid.
March 2 The artifact was removed, air dried, and given a protective coating of hot microcrystalline wax, after drying overnight in a desiccator with silica gel (40% RH)

---

Treatment Summary

☑ scalpel, pick
☑ wire brush
☑ glass brush
☑ air abrasive/sand blast
☑ electrolytic reduction
☑ chemical cleaning
☑ vibrotool
☑ intensive wash, hot
☑ intensive wash, cold
☑ de-watered (solvent)
☑ oven dried
☑ inhibitor
☑ coating
☑ mended
☑ bleached
☑ filled
☑ consolidated
☑ special support
☑ silica gel
☑ biocide

---

Dates Photographs Before treating After treating
2-5-87 contact sheet 1, frame 34-36
3-4-87 contact sheet 2, frame 21-23
X
X