Uncovering the Unknown Hazards in US Navy Collections

NAVAL HISTORY AND HERITAGE COMMAND

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We Are a National Enterprise with Presence Across the Country

NHHC CURATOR BRANCH

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Artifact Baseline Reset

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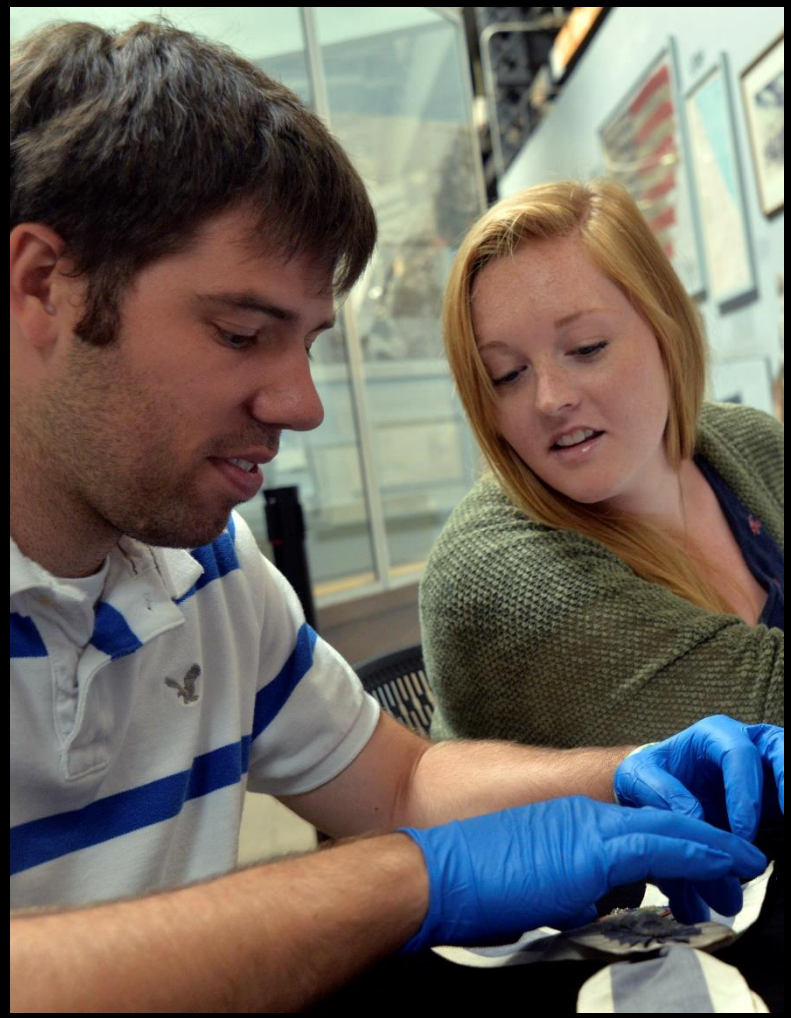

Artifact Baseline Reset

ABR in the National Museum of the US Navy

GOALS OF PROJECT

- MAIN GOAL: Wall to wall inventory (ABR) of all Curator Branch artifacts in NMUSN (approximately 90% of objects on display)

- SUB GOALS:
  - Evaluate objects on display
  - Evaluate displays
  - Ensure all objects in NMUSN identified for ownership

ABR at the NMUSN

- Found multiple hazards in or on artifacts:
- DDD (similar to DDT)
- Asbestos
- Mercury
- Arsenic
- Radiological
- Lead Dust
- Picric Acid

Discovery of Artifact

NHHC 1980-25-A-003

Inventory 80-25 A to go to NHM WWII

M1936 field bag

1. Bag, medical with shoulder straps (musette)
2. Safety pins (3 large) (11 med.) (6 sm.)
3. (2) thermometers in black vials
4. (1) Shell dressing 2/1942 Johnson + Johnson
5. (1) paper w/ Japanese characters printed; medicine names written in pencil
6. 7/6 rolls of "Bandage Gauze Roller Plain" 3 4 in boxes
7. Packet (13) of Gauze pads 3x3". 1 is a Picric acid pad for burns. Tied together
8. (1) roll of absorbent cotton, sterilized. In

PICRIC ACID

History:

- Discovered in 1771
- Late 1800s discovered its explosive properties
- Used in bombs and grenades in World War I
- Also used in First Aid kits for treatment for burns, malaria, smallpox and trench foot

Controlled Chaos Ensued

- Informed superiors
- Explosive experts and fire department called
- Gave first responders the information on the issue and relayed where it was in the building – unlocked the building for them
- Intersection in front of Building 70 was blocked
- Incident took over 4 hours to resolve
- First responders disposed of the object in question
- Paperwork written for record and to Navy Senior Leadership

LEAD DUST

Exhibit in Polar Exploration dedicated to the explorer Captain Finn Ronne

Wall over of Byrd Hut with peeling paint

Remediation Process

Step 1 – Test dust on objects

Results

Wipe Samples Results					
Date	Sample Number	LOCATION	Results ug/ft^2	Recommendation Level ug/ft^2	EXCEEDED (N/Y)
26 August 2016	NY16-0126 (wipe)	B.76 Polar Exhibit Floor Behind Chest	86.6	200	N
26 August 2016	NY16-0127 (wipe)	B.76 Polar Exhibit Floor In front of Chest	302	200	Y
26 August 2016	NY16-0128 (wipe)	B.76 Polar Exhibit Canvas	129	200	N
26 August 2016	NY16-0129 (wipe)	B.76 Polar Exhibit Chest (left side)	87.8	200	N
26 August 2016	NY16-0130 (wipe)	B.76 Polar Exhibit Bicycle	27.9	200	N
26 August 2016	NY16-0131 (wipe)	B.76 Polar Exhibit Chest (right side)	262	200	Y

Remediation Process

STEP 2

RE: Lead Dust Abatement – Naval History and Heritage Command Museum Polar Exhibit
Washington Navy Yard Building 76
Washington, DC

Project Cost:

Lead Dust Abatement Labor, Materials, Waste Transportation & Disposal for stabilization/encapsulation	$1,775.00
DDOE Lead Abatement Permit	

Remediation of lead dust and removal of objects

Mitigating Pharmaceuticals

Safety and Security
Historic Research
Provenience Research
Identification
Translation
Legalities of Controlled Substances
Disposal and Retention

Entire set of medical equipment transferred from Contractors to NHHC staff for securing and further study

Overnight the materials emitted a noticeable odor, materials removed to secure cage in more isolated section of Collection Management Facility

Clear photos were taken to send for translation before other handling occurred

Identified controlled substances which needed legal research to guide disposition

World War II Medical Kit Used in the Okinawa Hospital Caves

- Limited information in accession file
- In very good to excellent condition
- Colleagues at other military museums did not have similar items
- Significant link to dramatic historic events

“Metal case containing 7 vials of medicinal drugs”

“Metal case containing 35 ampules; 2 vials; 1 tube and 1 siphon”

“Small wood box w/3 jars of medicinal drugs”

No Translations in the Records

Morphine
Cocaine
Novocain
Caffeine w/sodium benzoate
Grelan Solution
Pavinal

Digitalis preparation
Strophanthin
Camphenal
Camphor
Lobeline hydrochloride
Alkalic eye ointment
Baking soda tablets

Consulted:

- DEA
- Colleagues at other museums
- Base Police
- Medical Professional on site

DEA—no response on legal disposition

Colleagues had no examples of similar kits or had experience working through related issues

Base police were notified, NHHC advised to secure materials until solution was found

Drug turn in program was not viable as the drugs were in liquid form

NHHC opted to dispose of controlled substances to reduce risk

Worked directly with base medical personnel who advised us on the most expedient and safe way to dispose of controlled substances

The base medical professional worked with NHHC staff to:

- Use over the counter disposal bags which neutralized the compounds
- Dispose of limited substances
- Clean and dry the remaining containers for retention to the collection
- Documented for the record the disposition of the compounds for the accession record

LESSONS LEARNED

- Communicate early on safety concerns
- Do thorough research prior to action
- Know your desired end result for the artifact/collection
- Consult colleagues
- Consider outside assistance from non-museum resources