

**Washington Conservation Guild,  
Industrial Hygiene Association, &  
Smithsonian Institution's Office of Safety, Health  
& Environmental Management (OSHEM)**

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**Lead & Asbestos Issues with the new  
National Museum of African American  
History & Culture (NMAAHC)  
Artifacts and Collections**

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# NMAAHC Overview

- ❖ Grand opening September 24, 2016
- ❖ Broke ground February 2012
- ❖ Broad themes: resiliency, spirituality, hope and optimism
- ❖ Landscape layered with trees native to the South: oaks, magnolias, and American beeches
- ❖ 3,600 exterior bronze-colored cast aluminum “Corona” panels (230 tons)
- ❖ 400,000 ft<sup>2</sup> building
- ❖ 60% underground
- ❖ LEED Gold certification



# Lead & Asbestos Abatement of Iconic Artifacts

## ❖ Jim Crow Era Railroad Car

- Both Lead-based paint & Asbestos-containing materials were discovered.
- Both Exterior & Interior Painted Surfaces were in poor condition.
- All sampled components revealed elevated concentrations of Lead (Pb) (In excess of 5,000 parts per million).
- Thermal system insulation (TSI) pipe wrap was discovered on the undercarriage of the railcar.



# Lead & Asbestos Abatement of Iconic Artifacts

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# Louisiana State Penitentiary (Angola) Prison Guard Tower

- **Asbestos-containing materials were discovered on the guard tower.**
- **Black roof flashing (2% Chrysotile)**
- **Black window frame flashing (6% Chrysotile)**
- **Bulk paint chip samples were collected from the guard tower and none were considered to be lead-containing.**

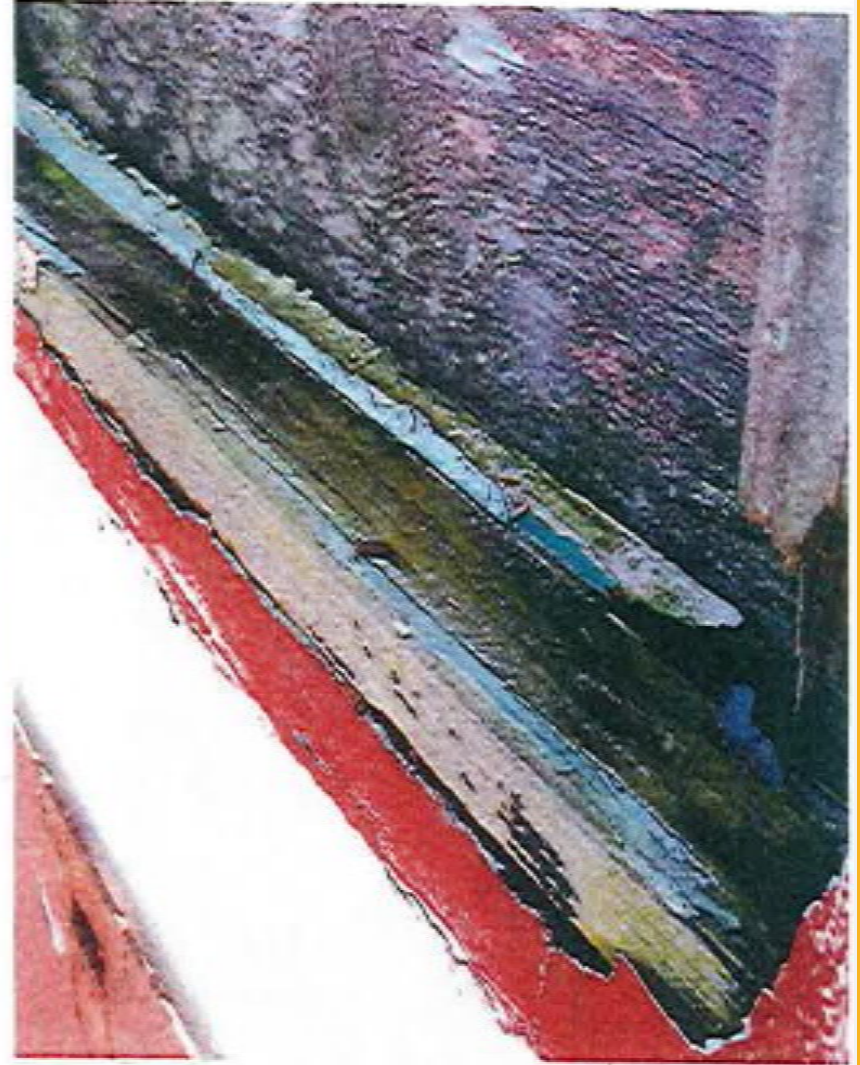


# Angola Prison Guard Tower

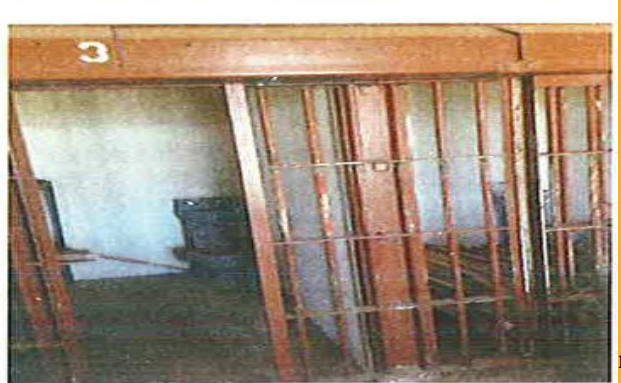
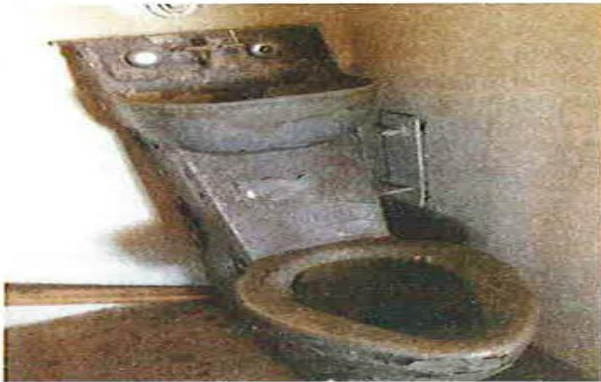




# Angola Prison Guard Tower

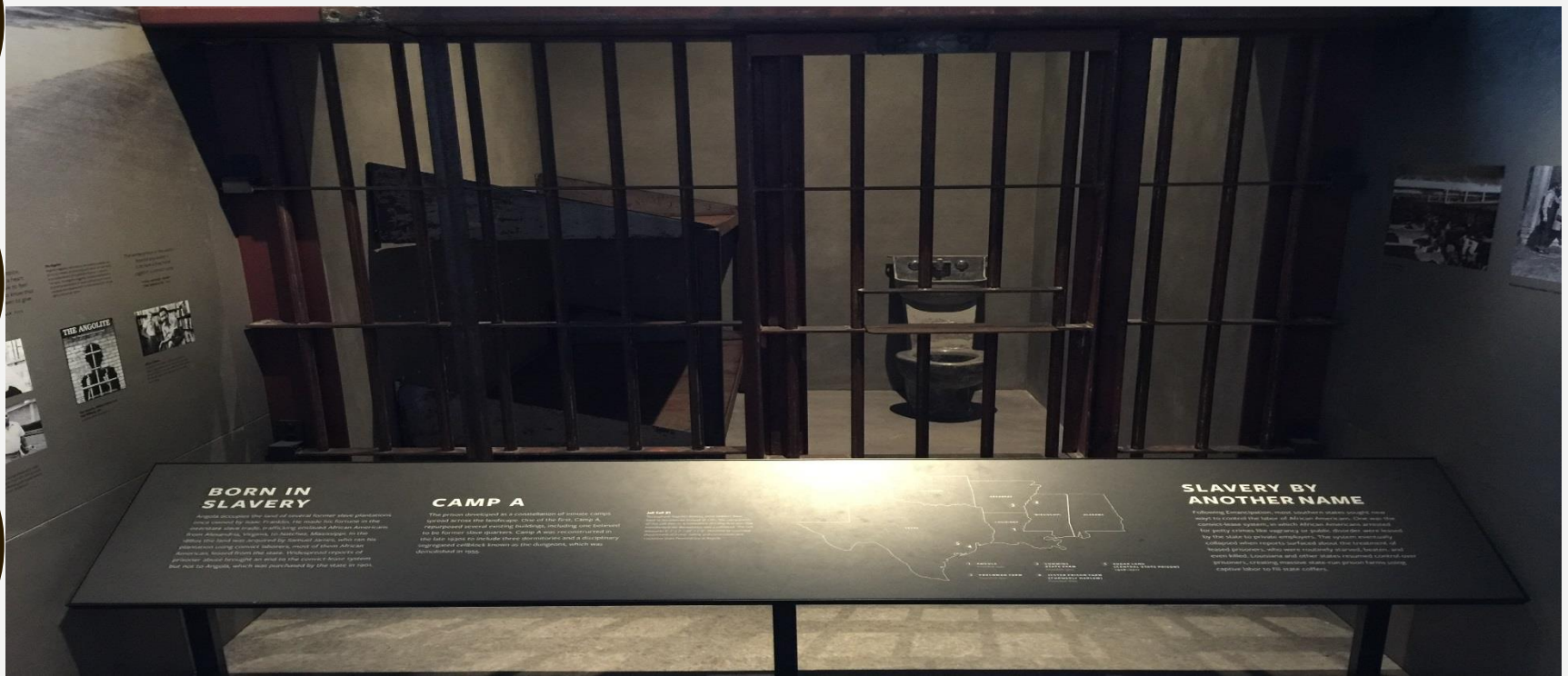


# Angola Prison Jail Cell



# Angola Prison Jail Cell

- Paint chips collected from the ceiling and a beam within the prison cell, revealed the presence of lead-based paint.
- Recommendations were made to utilize licensed abatement personnel to abate lead-based paint before delivering to NMAAHC.



## BORN IN SLAVERY

Many of the men who were enslaved in the Americas were born in Africa. They were brought to the Americas by slave ships and sold to plantations, mines, and other labor-intensive enterprises. In the Americas, they were used for a variety of purposes, including as a source of labor for the plantations and mines. Many of these men were born in Africa and were sold into slavery by their own people.

## CAMP A

The prison developed as a concentration of prison camps. It was the first of many camps that were built in the area. The prison was built in the area of the prison and was used for a variety of purposes, including as a source of labor for the plantations and mines. Many of these men were born in Africa and were sold into slavery by their own people.

and the



## SLAVERY BY ANOTHER NAME

Following Reconstruction, many freedmen were forced to work on plantations and other labor-intensive enterprises. This was often done through a system of sharecropping, in which the freedmen would work the land for the landowner in exchange for a share of the crop. This system was often exploitative and kept many freedmen in a state of economic dependence on the landowner. Many of these men were born in Africa and were sold into slavery by their own people.

# Chicago Defend

Chicago Defend

Primarily African

(printing process)



print side

**Molded type slug**

side view

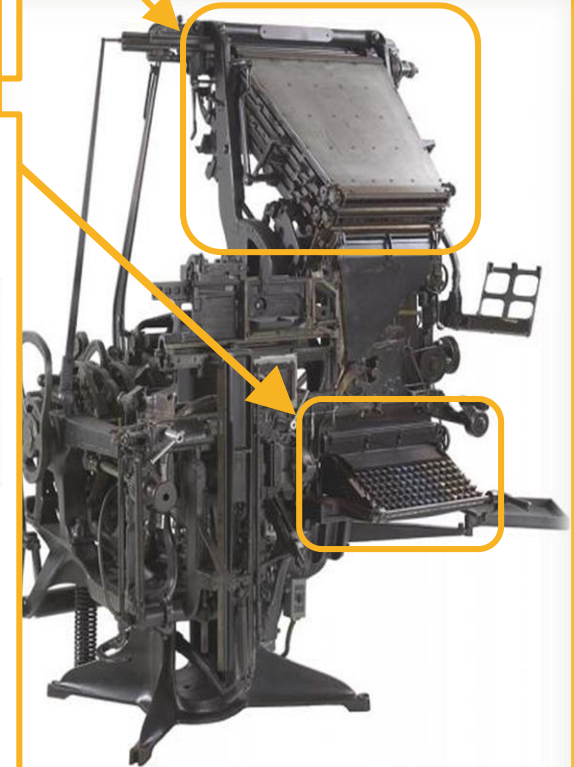
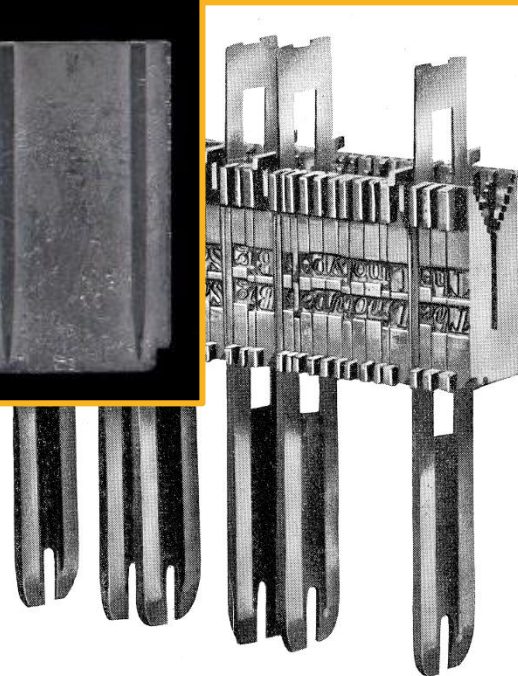


Recommended  
and/or encaps

**Air sampling**

- 3 inside, 2 out

Matrices assembled with spacebars



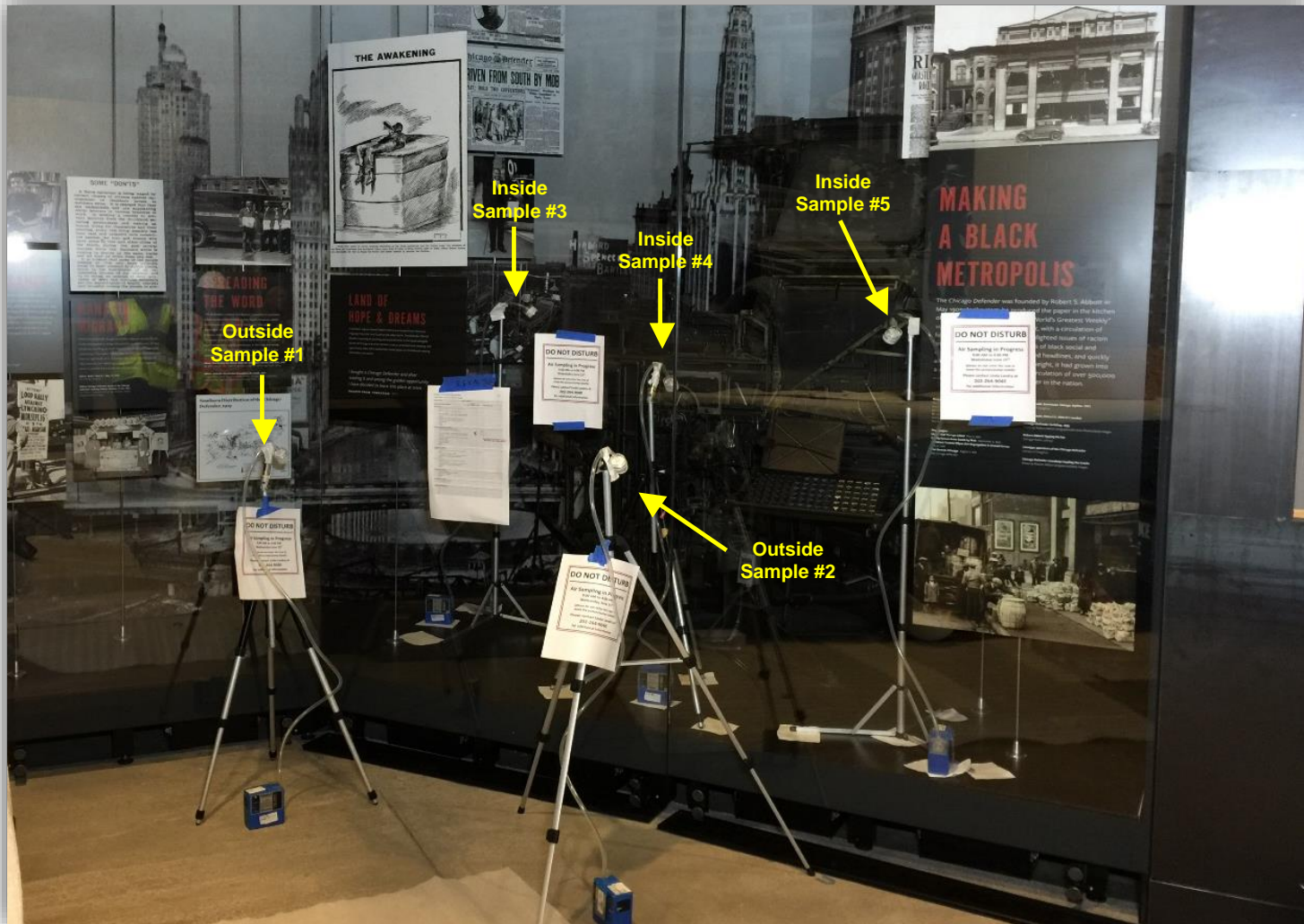
Magazine

# Chicago Defender Linotype

- ❖ Lead source from molten lead alloy used to cast a line of type called a “slug”
- ❖ September 16, 2011, OSHEM lead wipe sampling
- ❖ 2 lead abatement efforts (contractors)
- ❖ Lead permanently embedded in wood, grease, coated on metal components, etc.
- ❖ OSHEM recommendations:
  - Encapsulation
  - Enclosure
- ❖ June 15, 2016, lead in air sampling conducted inside and outside the exhibit

**NMAAHC Office of Collection  
incorporated BOTH recommendations**

# Chicago Defender Linotype



Air sampling locations: Linotype object in Chicago Defender exhibit (case #PP09.02.ca.01)

# With Thanks

- ❖ **Reneé Anderson & Linda Landry, Smithsonian Institution's National Museum of African American History & Culture, Office of Collections**
- ❖ **Richard Wright, Smithsonian Institution's Office of Safety, Health & Environmental Management**
- ❖ **Washington Conservation Guild**
- ❖ **Potomac Section of the American Industrial Hygiene Association**

# Questions?