

Navigating Hidden Hazards in Collections: Emotional, Physical, and Chemical

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Raft used by Cuban *balseros* (1996.0008.0001)



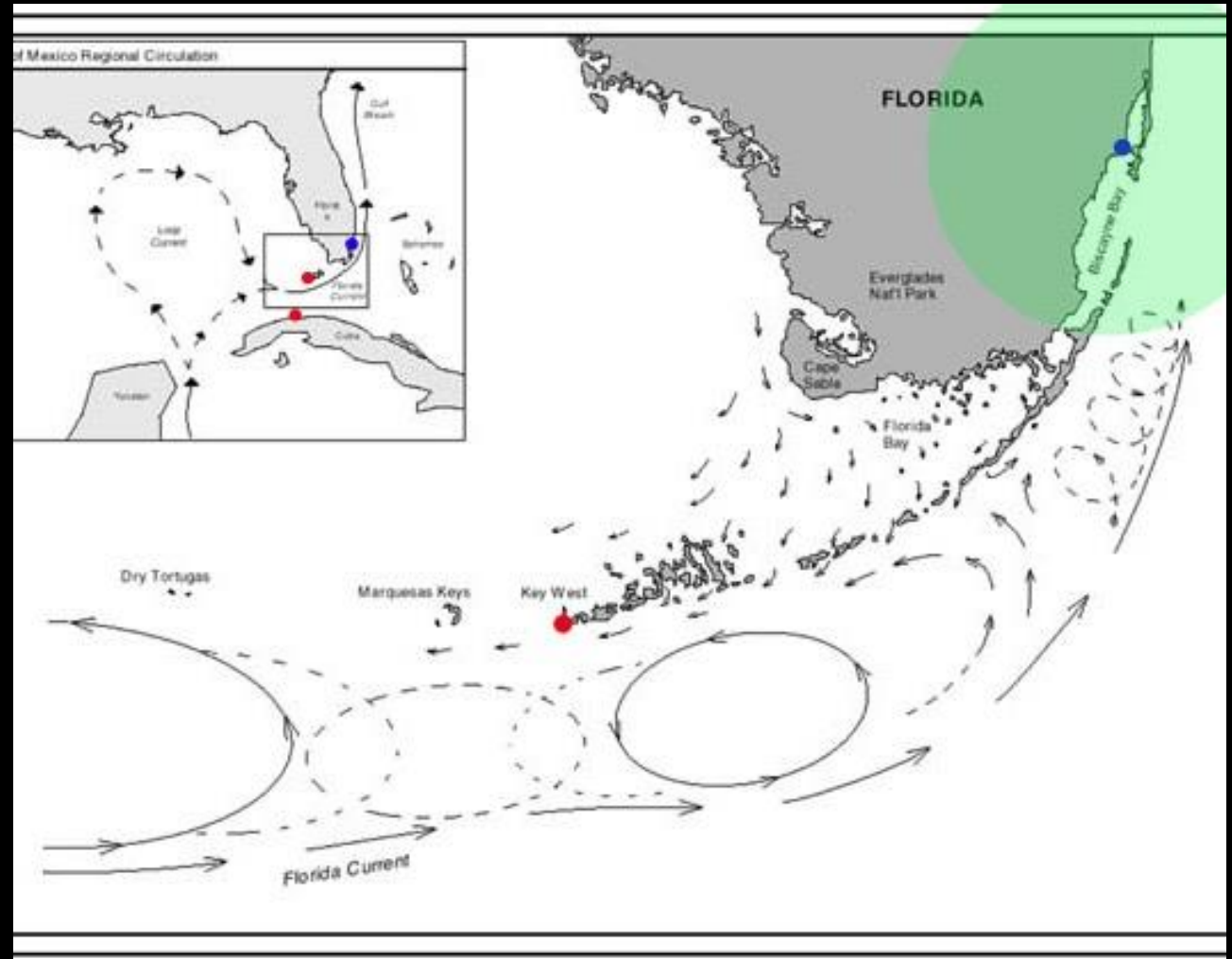
- As displayed in the exhibition *Black Mosaic: Race, Color and Ethnicity Among Black Immigrants in Washington, DC* at the Anacostia Community Museum (1994).
- Existing data in the museum database focused on the history of the object's arrival at the museum with little actual data regarding construction and current condition except that gleaned from cursory observation.

A *balsero* is any person who exits Cuba illegally, by sea, in a small boat or homemade craft.

“Between 1959 and 1994, at least 63,175 rafters survived the trip and entered the United States.”

“Knowledgeable Cuban and U.S. sources point to a possible death rate as high as 75%. Findings from a computer model of favorable winds and currents show that, under the best of conditions, only one in four rafters would make it to Florida or survive long enough to be rescued.”

(Ackerman, Holly, and Juan M. Clark. 1995. *The Cuban Balseros: Voyage of Uncertainty*. Miami, FL: Policy Center of the Cuban American National Council)

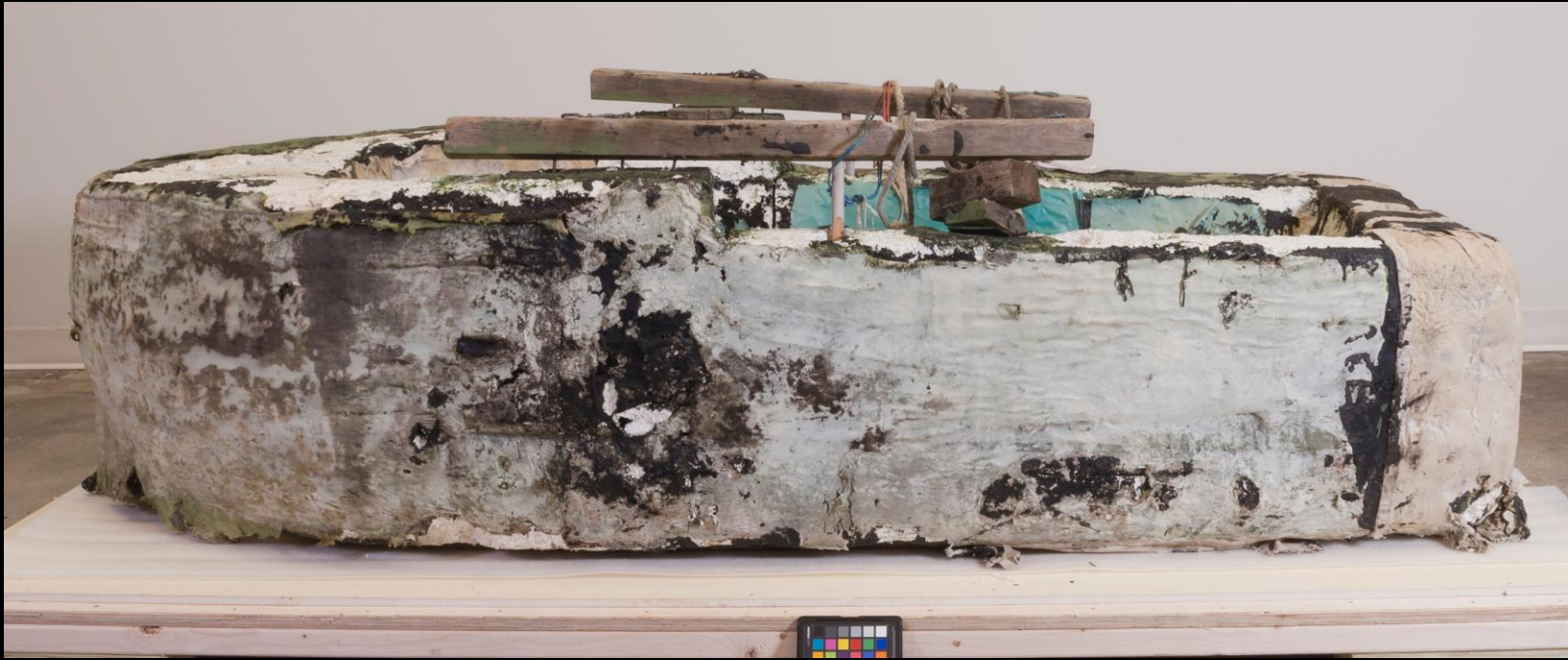


Florida Straits diagram (modified) from National Oceanic and Atmospheric Administration - (http://oceanexplorer.noaa.gov/explorations/islands01/background/wind/media/fl_currents.html)

Raft used by Cuban *balseros* (1996.0008.0001)



As viewed during initial inspection in storage in March 2019



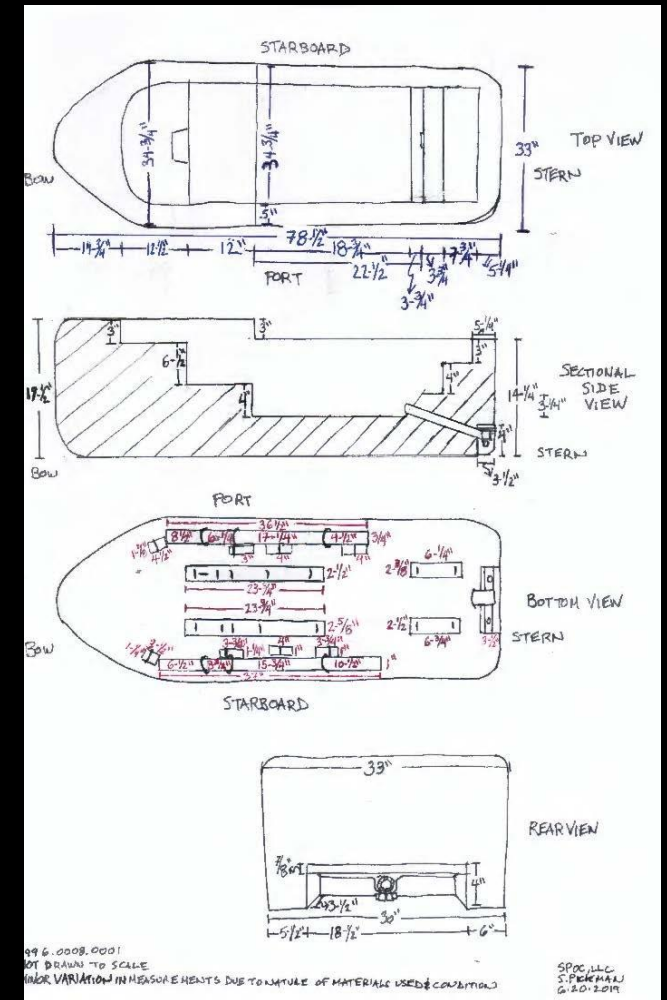
View of port face with details of damage and construction,
Before Treatment



Dynamic starboard views of raft; detail of textile on forward end of interior compartment, Before Treatment



Magnified images of textiles on raft, 35x – 55x, After Treatment (taken with Dino-Lite, Digital DinoXcope).



Diagrams of top, sectional side, bottom, and rear views of the raft with measurements

Helpful information for Potential Hazardous Materials from Industrial Hygienists



- Bodily fluids were not a concern for this object under these circumstances with negligible potential risks for infectious bodily fluids and no testing required.
 - Urine on the surface would have evaporated.
 - Fecal matter fungal structures would not have survived and residual solid remains having likely flaked off after 25+ years.
- Concerns of dry mold spores on the surface and associated contact/inhalation.
 - Due to the potential presence on the one fabric element, conservator's assumption should be that all organic elements on the raft are contaminated and should be treated in the same procedural manner identified for remediation.

Mock-up image – PPE for actual cleaning also included non-venting goggles and Tyvek suit

Practical Implementation of Control and Remediation

REAGENT (Solids in saturated solution unless indicated otherwise)	Exposure		Chemical Exposure Performance S = Satis. M = Marginal U = Unsatis.	Permeability (gm./24 hr./100 sq. in/mil)
	Temp., °F	Time, days		
Ethyl Alcohol 95%	77	365	M	
Isopropyl Alcohol	77	365	M	

A=Good, B=Fair, C=Poor					
Resin in contact for 24h					
No load applied			(PS)		
°C					
Conc.			23	50	75
ALCOHOLS	Ethyl Alcohol (Ethanol)	85%	B	B	
	Isopropyl Alcohol (Isopropanol)		A	B	

From *Expandable Polystyrene Chemical Resistance Table* (http://texas.transconsteel.com/products/ultraframe/docs/Chemical_Resistance.pdf?fbclid=IwAR2qALudxCSCaAGCWsFh8wVOnMhIXK4lz561xoKuyq59dlhMJbuMUkTfByA) and

From *Chemical Resistance Polystyrene* (http://www.alwusa.com/wp-content/uploads/2017/03/Chemical_Resistance_Polystyrene.pdf)

• PPE

• For Conservator:

- Suit: Tyvek
- Mask: Half-mask Respirator/P100
- Gloves: Nitrile or Latex
- Goggles: non-vented

• For Handlers:

- Gloves: Nitrile or Latex
- Mask: N95

• Treatment SOP

- Initial cleaning with HEPA filtered vacuum, nylon screen, soft bristle brush
- Mist applications (3x) of organic surfaces using 70% Isopropanol solution, allowing evaporation between applications
- Re-vacuuming of surfaces followed by additional dry cleaning using latex-free polyurethane foam sponges to remove residual surface dirt and reduced ingrained soiling

(collaboration between stakeholders + flexibility) +
(absorption and adaption of concepts) = successful outcomes



Dynamic views from bow and port faces, After Treatment

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- Ranauld Woodaman, Lola Ramirez, and the SI Latino Center
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- Seth Waite and SITES
- Kathryn Makos
- Emerging Freelance Conservators Facebook Group



The Great Wave Off Kanagawa
(Katsushika Hokusai, c.1829 – 1833)

