

Rock You Like a Hurricane: Storm Surge and the Archaeological Record

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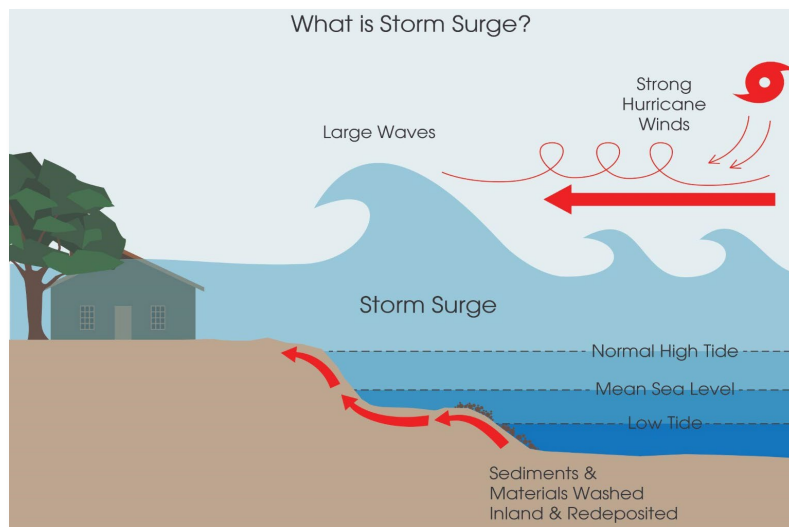
What is Storm Surge?

Storm surge occurs when waves and strong winds of a storm or hurricane, force water from gulfs, bays, and rivers onshore. Storm surge results in drastic changes in the sea level. Storm surges during major hurricanes (Category 3 to 5) measure between 20 to 30 feet (AMS 2017; Pilkey and Young 2009)



Flooding in Mobile, AL, 1916 (Erik Overbey Collection. The Doy Leale McCall Rare Book and Manuscript Library, University of South Alabama).

Storm surges frequently inundate inland coastal locales, including areas of the I-10 MRB Archaeology Project area, during hurricanes and tropical storms. Storm surge results in the movement and redeposition of sediments across the affected area, producing distinctive water-sorted, mottled storm deposits.



Storm surge activity (graphic courtesy Amy Vega, 2022).

Impacts to the Archaeological Record

Storm surges pose a substantial threat to archaeological sites and cultural resources:

- Flooding disproportionately impacts precontact sites, which are more likely to be located adjacent to the coast (Reeder-Myers and McCoy 2019).
- Coastal resources impacted by storm surge face higher risk for continued erosion.
- Archaeological deposits and strata documented during this project illustrate the impact that flooding, wash-outs, and the redeposition of sediments and cultural materials have on the archaeological record (Images 3, 4, and 5)



Storm deposits within unit profile in the MRB Project Area.

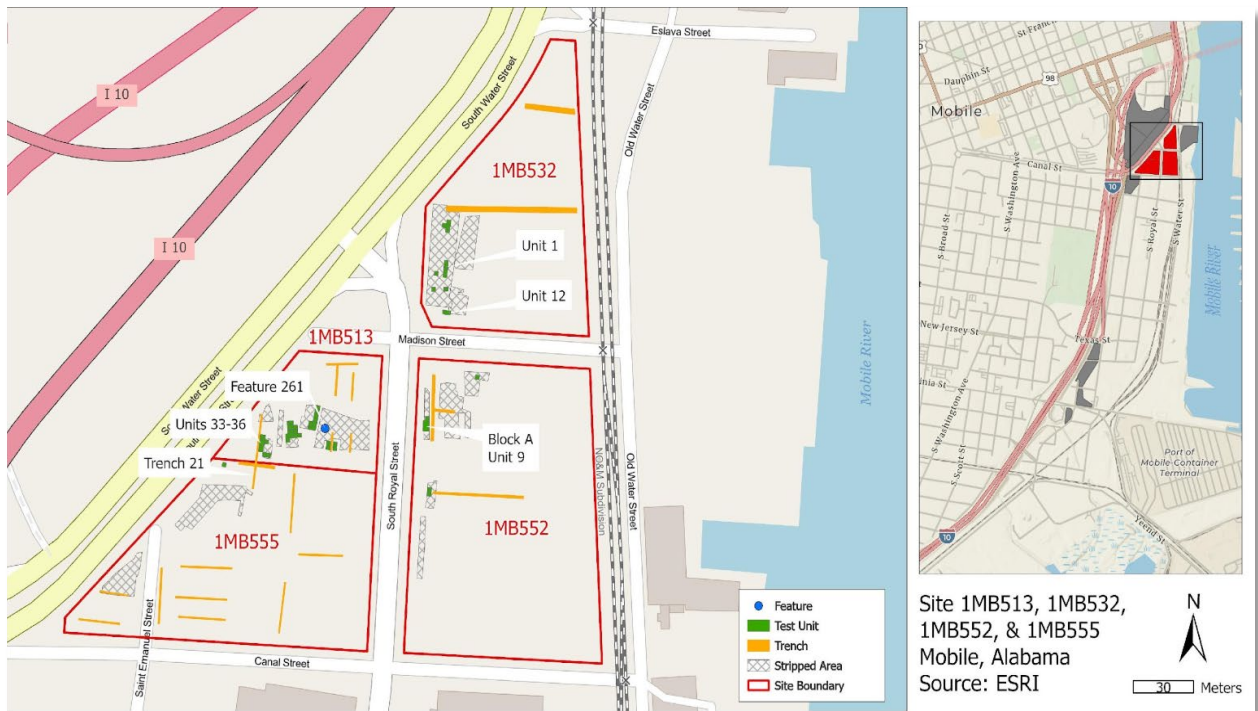


Storm deposits in an excavation unit, 1MB552.

Storm Deposits and Interpretations

Natural disasters such as hurricanes produce ideal settings in which we can examine social life (Elliott 2006):

- Investigation of hurricane response can expand understandings of human behavior, social organization and sociological theories.
- Identities, along with resources, shape human response to natural disasters.
- Class, along with social race determine the accessibility to response resources now and in the past (Elliott 2006).
- Natural disasters cause communities to change rapidly, this change can be observed in the archaeological record (Bagwell 2009)



Location of documented storm deposits across MRB project area.

Learn More

Major hurricanes (Category 3-5) have become increasingly more common in areas along the Gulf Coast, a trend anticipated to continue due to anthropogenic climate change (Reeder-Myers and McCoy 2019). To learn more about the steps archaeologists are taking to reconcile the past with our present and future, visit the University of South Alabama's Center for Archaeological Studies' virtual exhibit, *Weathering the Storm: the Archaeology of Hurricanes*.

The exhibit further examines the impacts of hurricanes and storm surge on our valuable cultural resources and explores how past peoples dealt with the challenges associated with hurricanes.



Scan the QR code to visit the interactive exhibit!

References Cited

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