



MAHS Survey and Field School 2016





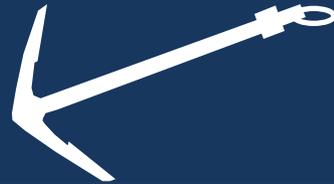
The site of the 2016 MAHS Field School was again Pickles Reef, which lies about 6 miles off shore from Key Largo in the Florida Keys National Marine Sanctuary.



The mapping technique we use is baseline trilateration. It's a simple, accurate, and replicable procedure.

We stretch a long tape measure down the center of the site, like the one marked by the red arrow in the picture.

baseline



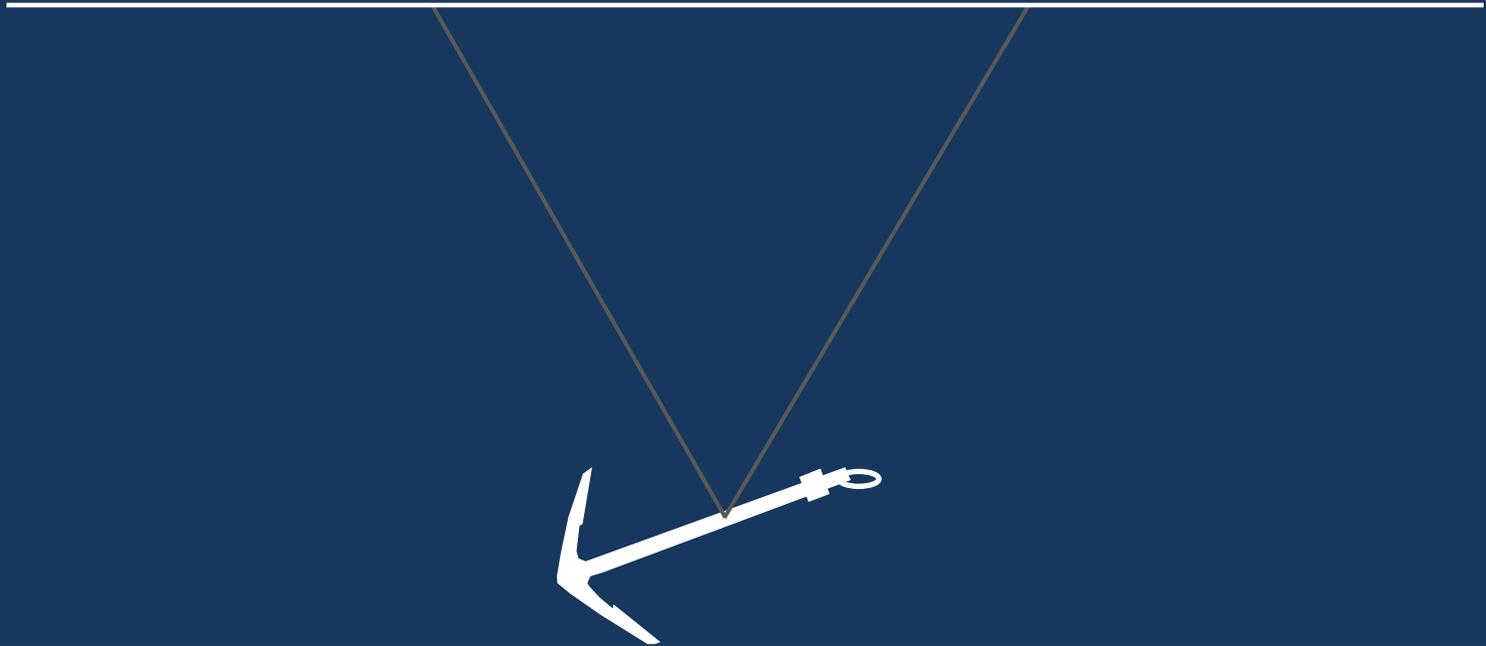
Then we take two measurements to each object we want to map.

baseline



One...

baseline

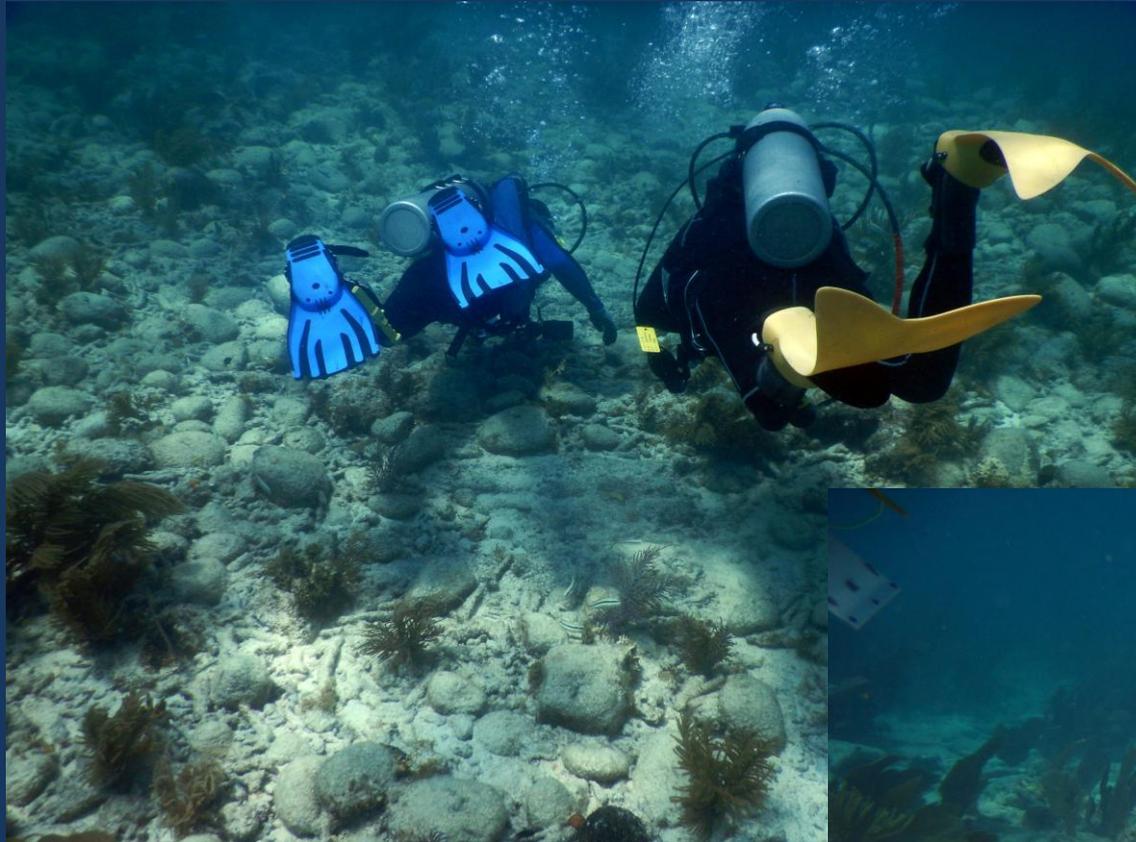


...two.

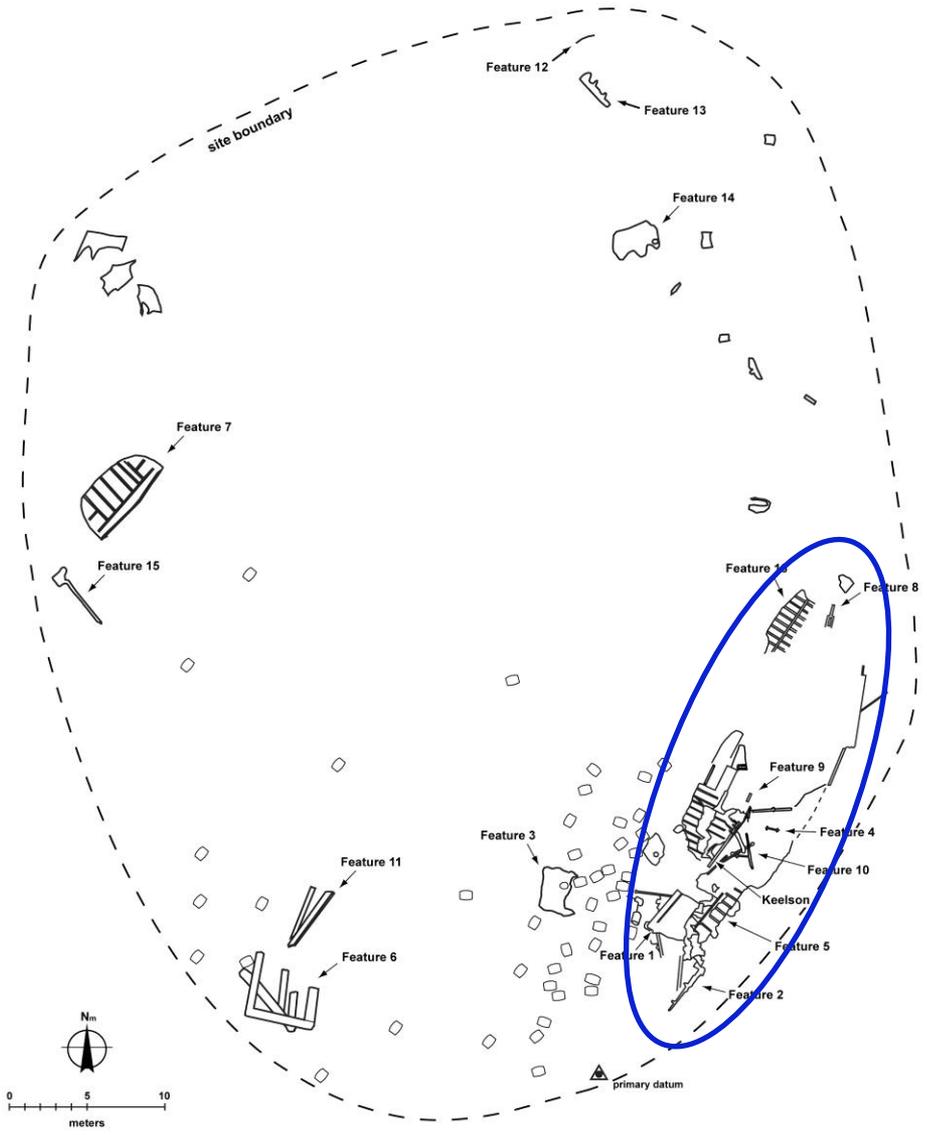
The measurements can then be reproduced on a site map at any scale.



As usual, we practice with a run through on dry land before going into the water the first time so we can talk about things to be sure we all understand the process and how to carry it out.



OK, here we go. Time to get wet.

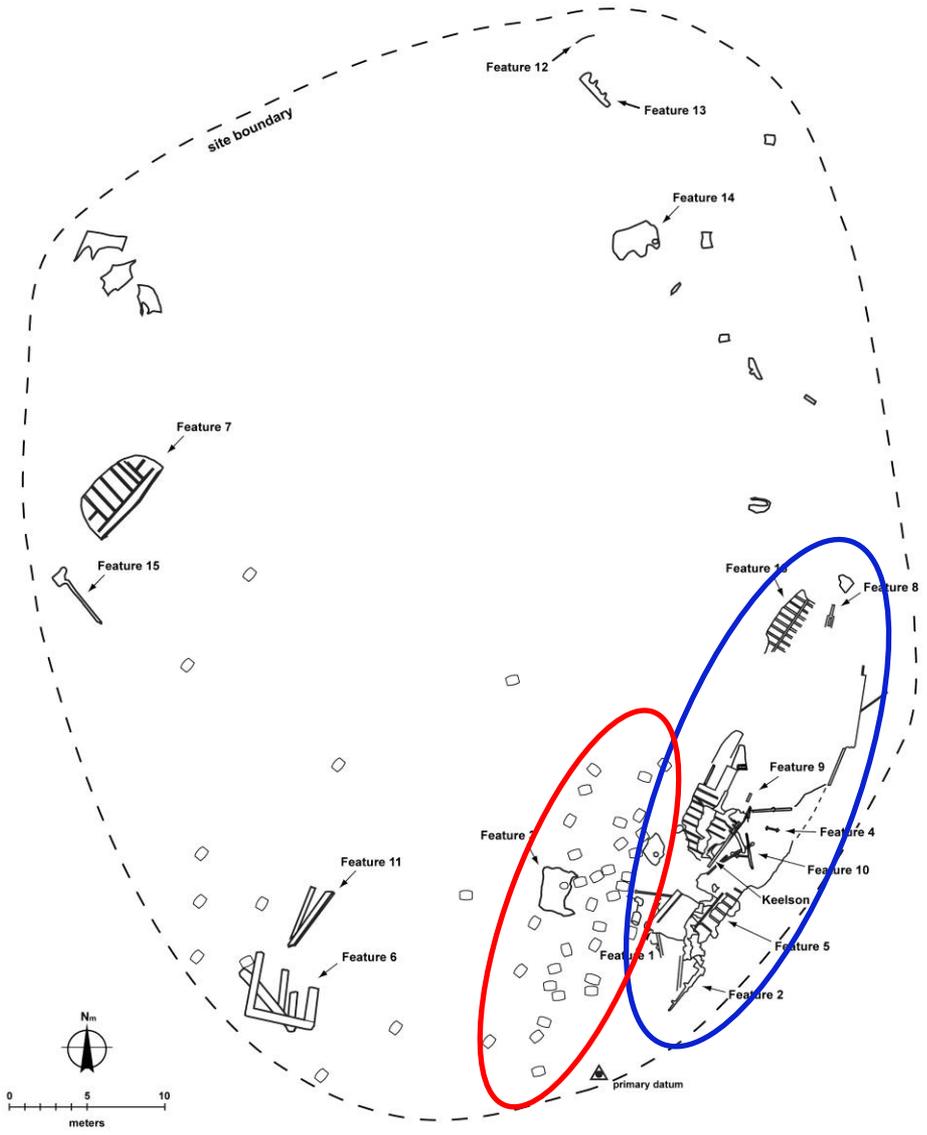


This is the site map as of 2015.
 In the lower right are the remains of
 a metal wreck .

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 Pickles Reef Survey
 Site Map June 2015

-  metal features
-  barrels



Adjacent to the metal wreck is a distribution of cement barrels that we now think were thrown off of another ship that grounded on the reef in a separate incident.

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 Site Map June 2015

-  metal features
-  barrels



The field school concentrated on mapping details of what we believe to be the bow end of the metal wreck. They also made drawings of disarticulated features that may help determine what kind of vessel this is and just what happened to it.



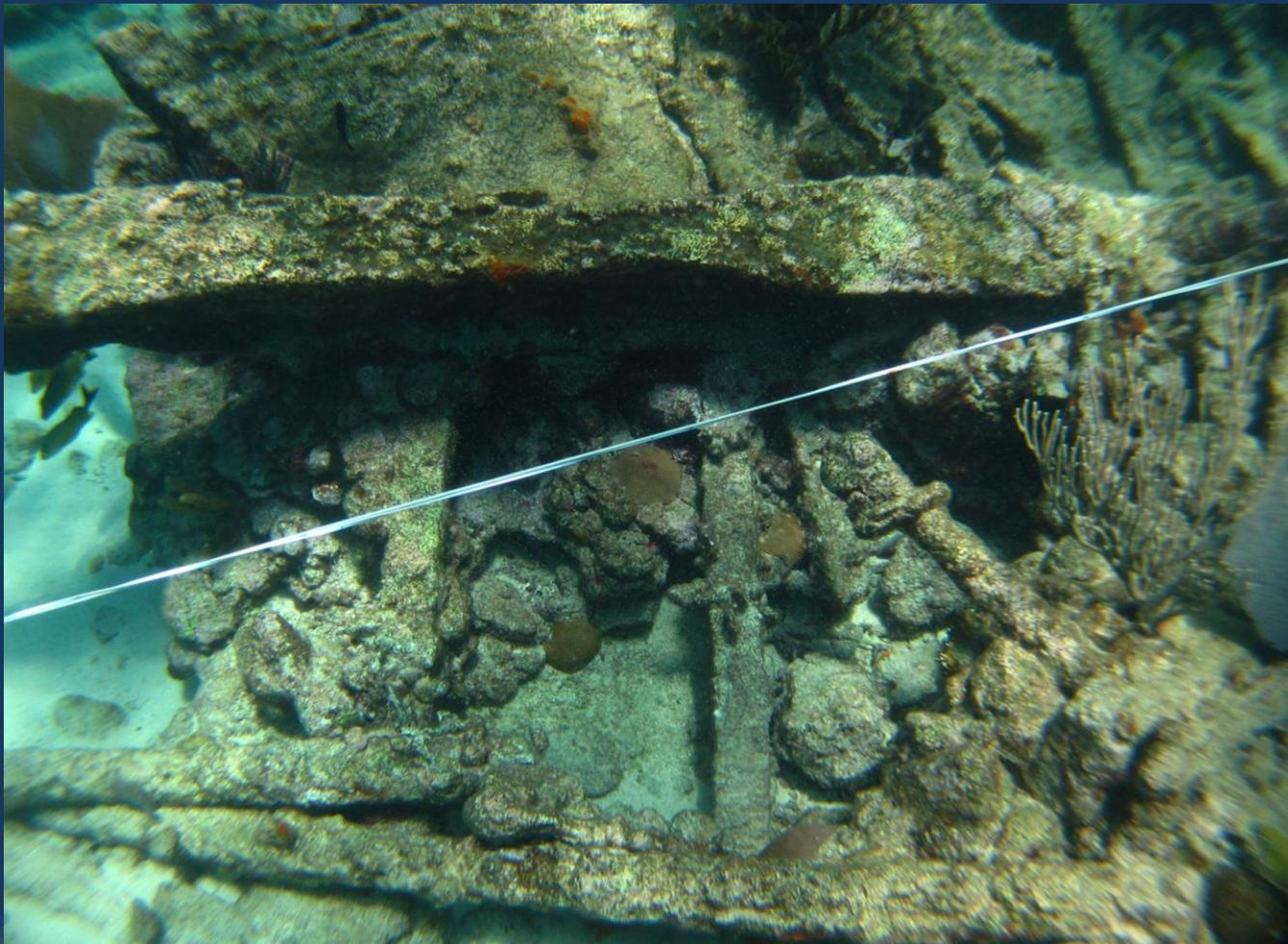
There are many broken plates at the bow end of the wreck that we think are hull plating. The mapping is aimed at figuring out what is articulated, or still attached to the vessel, and what is no longer in place.



We also took a closer look at the frames and hull plates attached to the keel assembly, the I-beam on the far right.



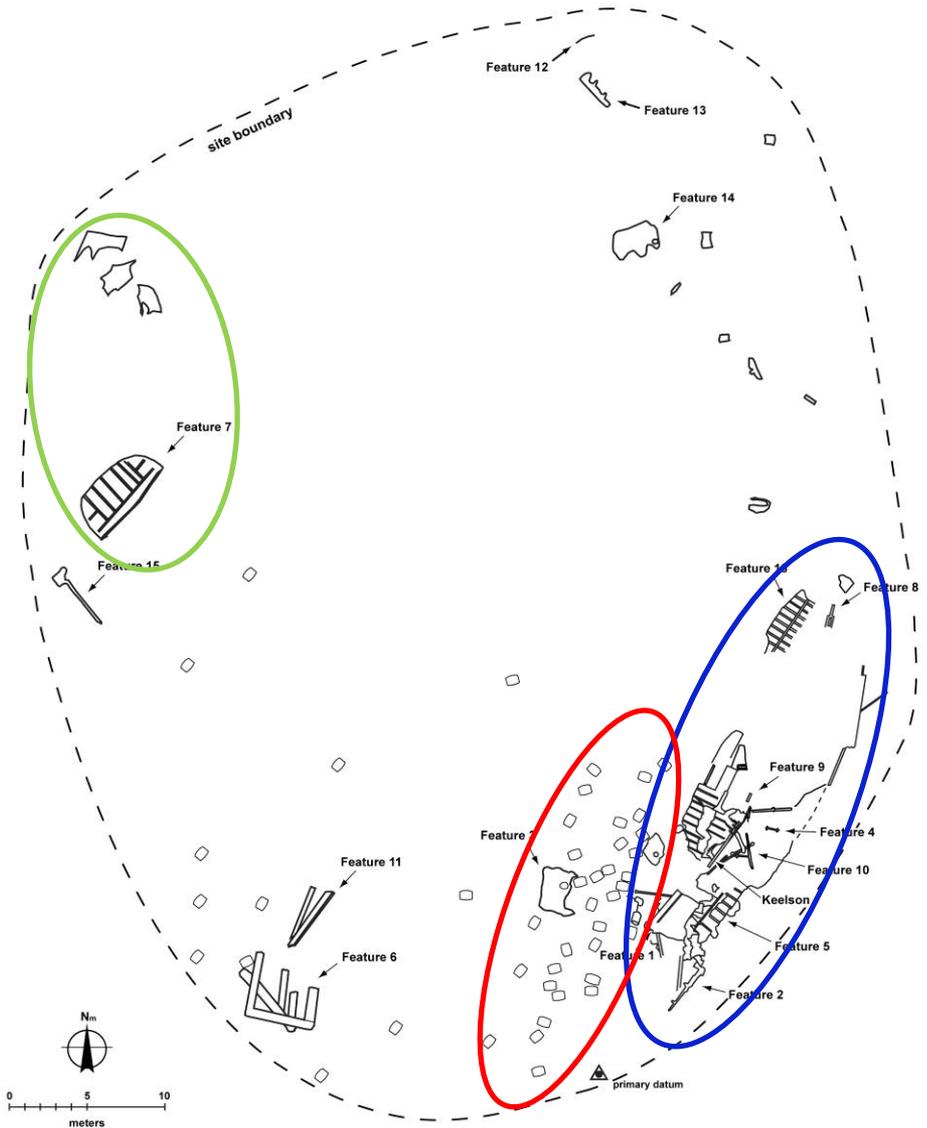
We also took a closer look at the frames and hull plates attached to the keel assembly, the I-beam on the far right -- here.



This is an overhead view. The keel assembly runs left-right across the top part of the image and the frames are perpendicular. We made detailed measurements to compare against other structural features.



The site is a complicated mix of debris, and it takes careful and painstaking work to document things sufficiently to work it all out.



There is widely scattered debris to the north and west of the metal wreck and barrel group.

We spent some time collecting additional data on what may be a bulkhead, Feature 7, and several large pieces of hull plating nearby (upper left on the map).

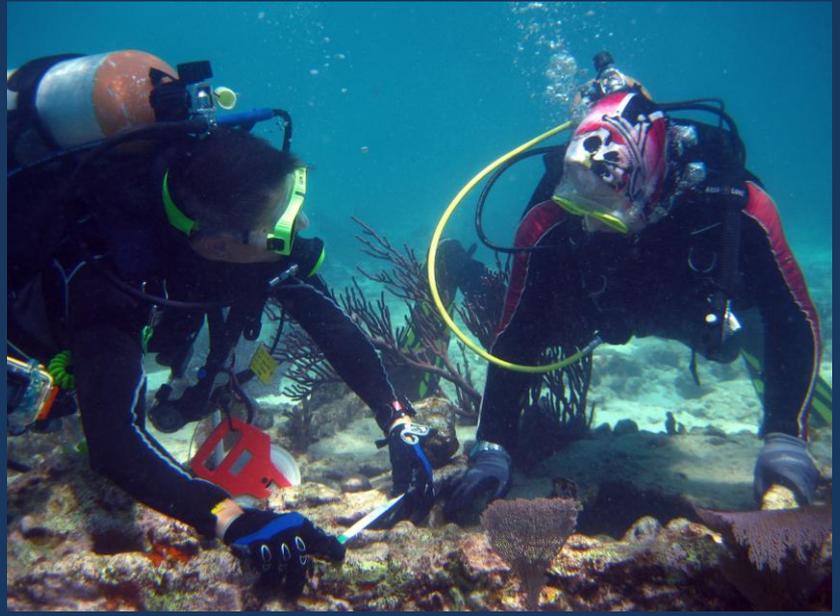
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 Site Map June 2015

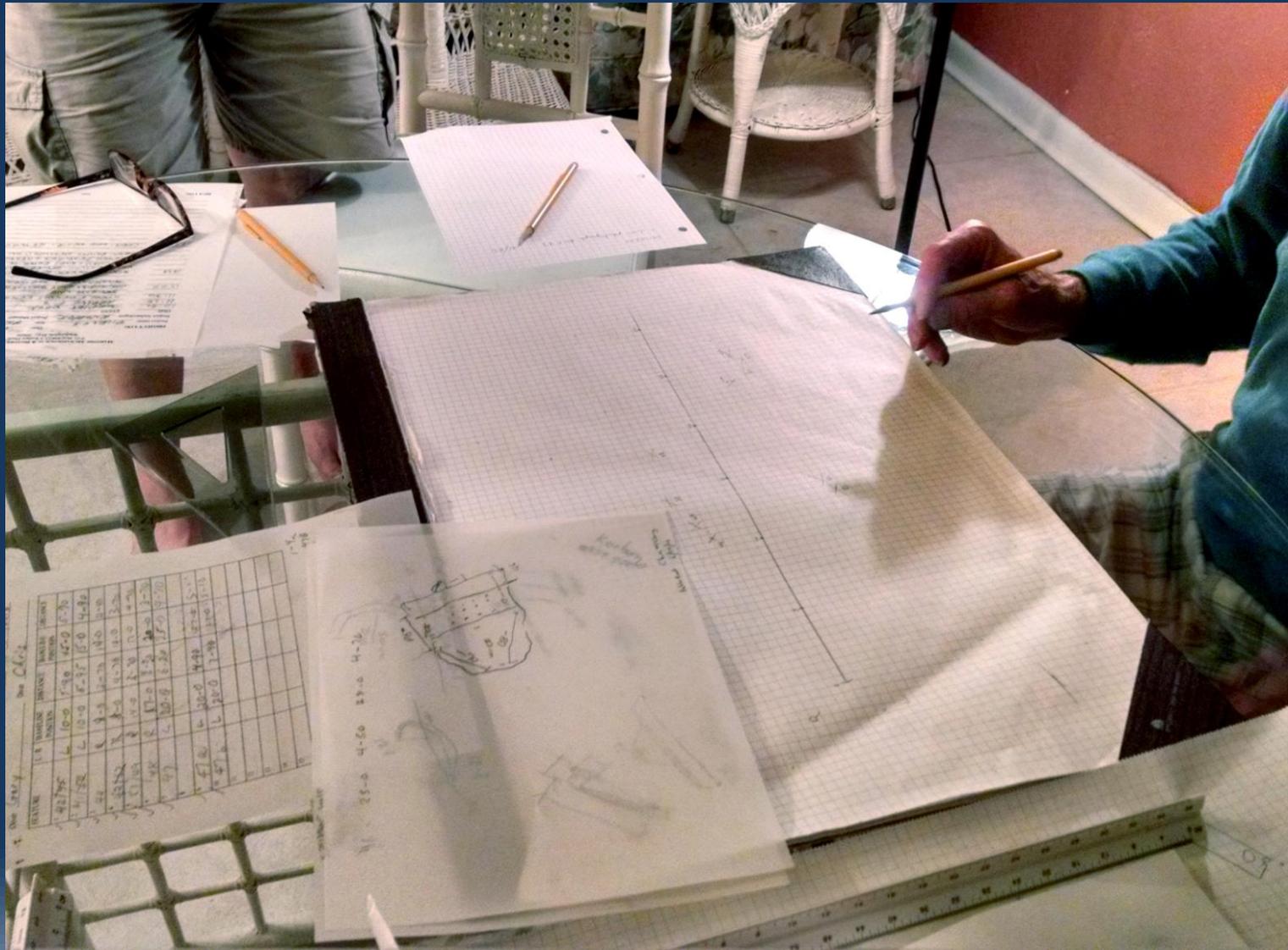
-  metal features
-  barrels



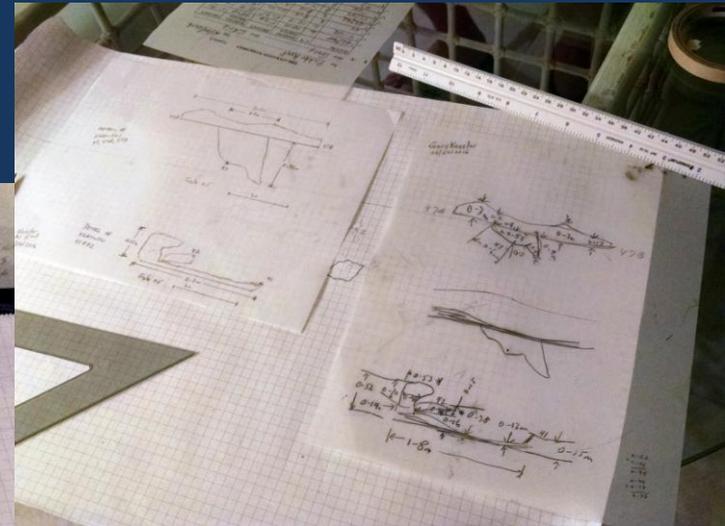
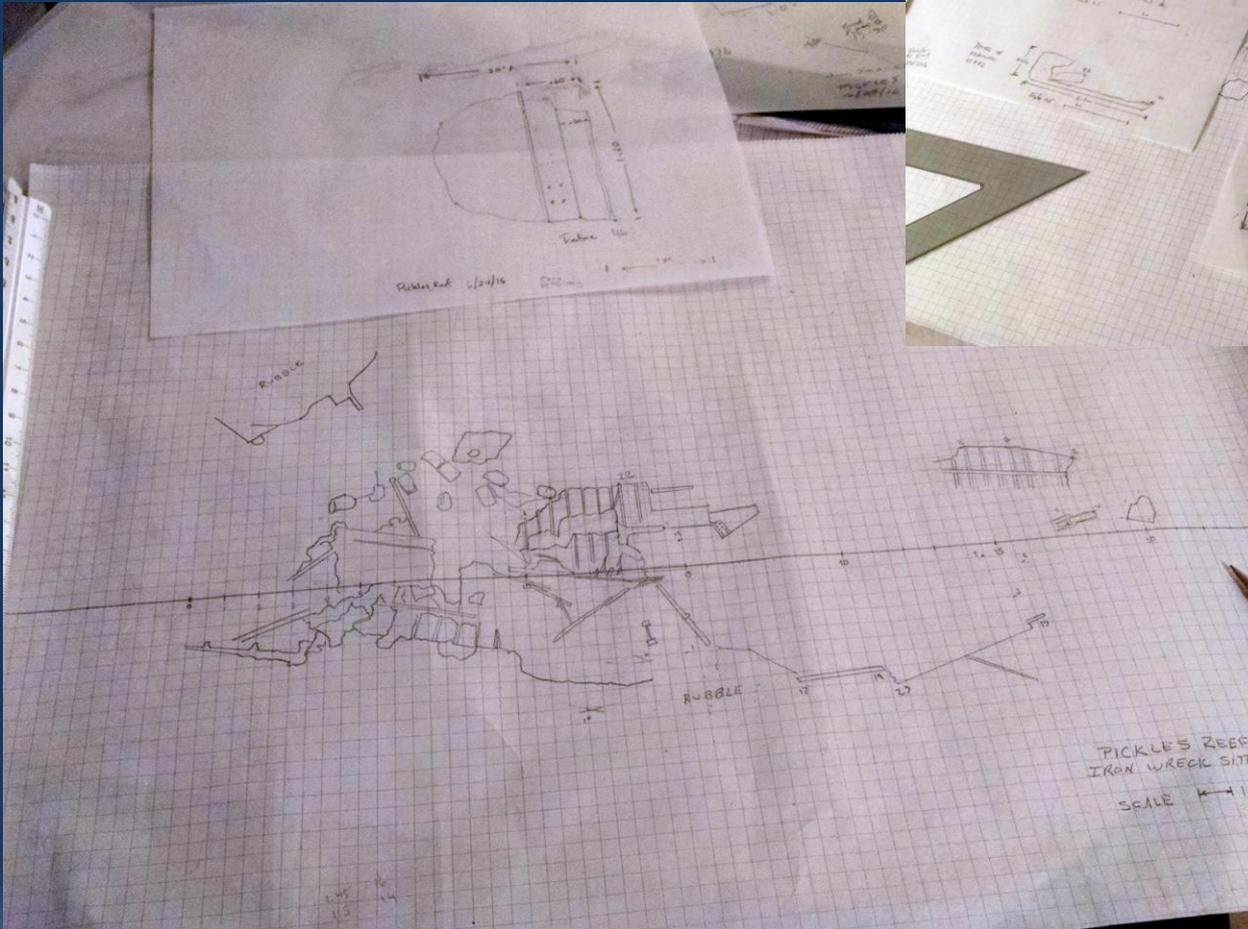
Taking measurements of Feature 7.



...plenty of measurements.



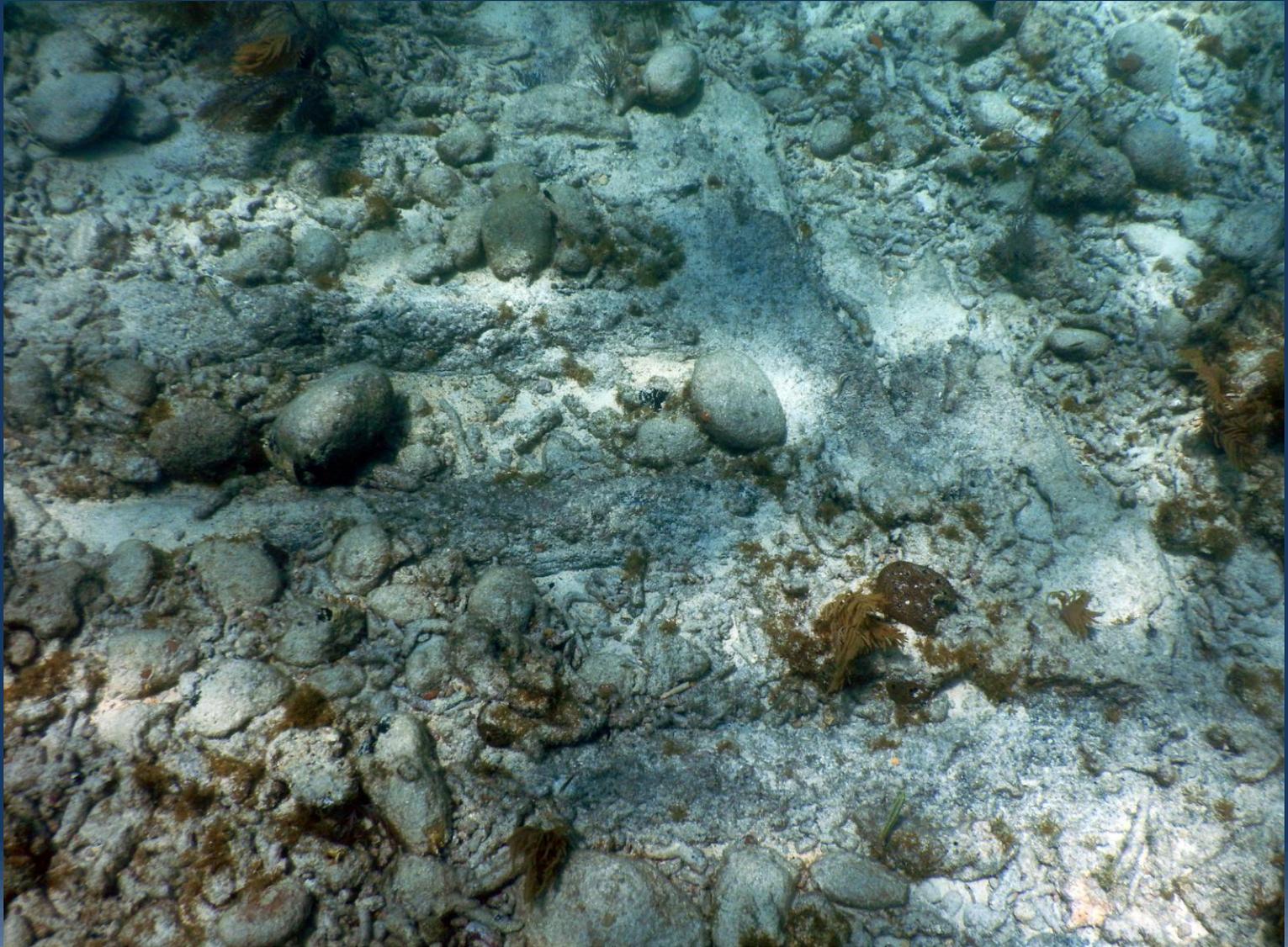
Evenings are spent plotting the data collected during the day's dives.



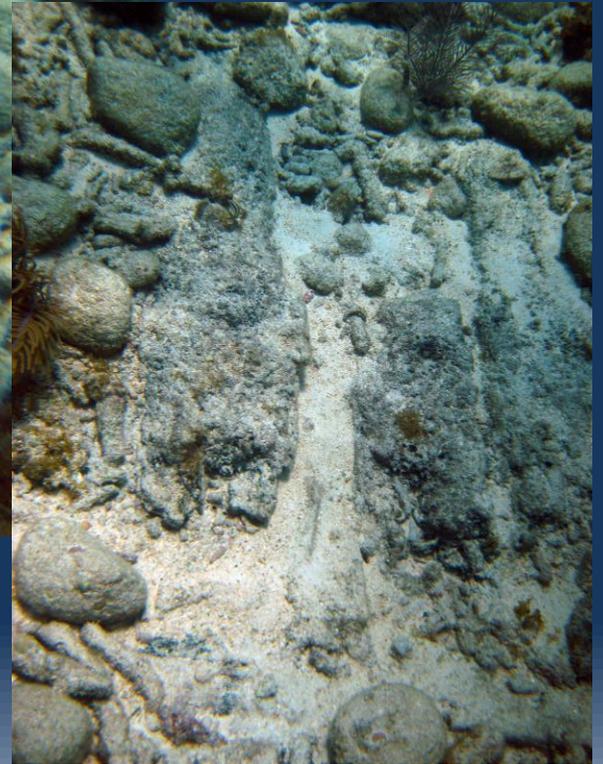
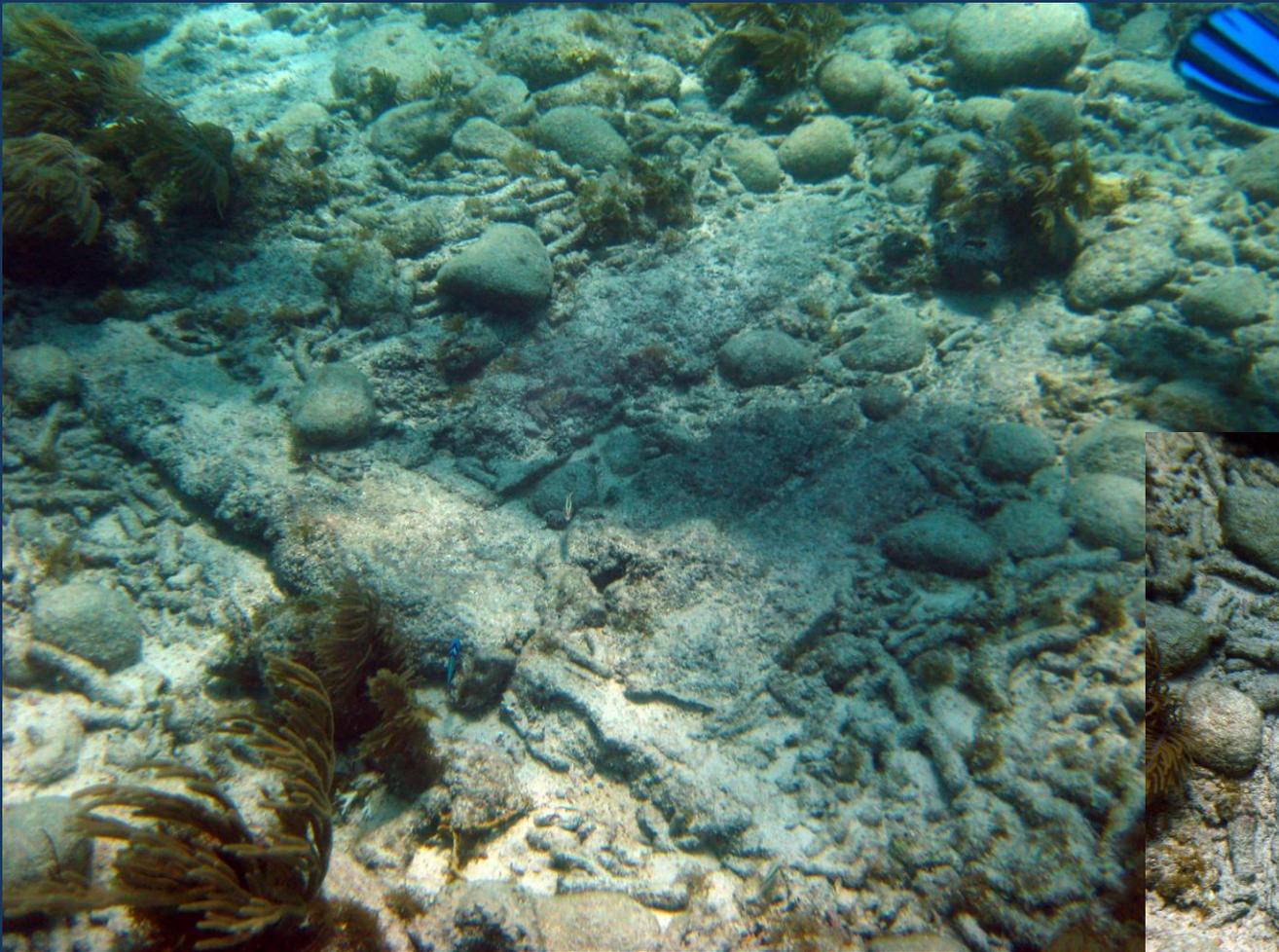
Detailed feature drawings can be added to the site map using trilateration data.



On the way back to Key Largo on the last afternoon, we made a short dive on *El Infante*, an 18th-century Spanish ship, part of the Plate Fleet of 1733 that was wrecked in a hurricane. It's a popular, shallow dive for recreational divers. Most of what remains today is ballast stone.



Beneath some of the stone are ship timbers.



A surprising number of timbers survive, given the shallow depth, warm water, and modern diver traffic.

The organizations involved in the project this season included:



**MAHS – Maritime Archaeological
and Historical Society,
Washington, D.C.**



**NOAA / Florida Keys
National Marine
Sanctuary**



**Florida Bureau of
Archaeological Research**



Jim Smailes, Gary Kessler, and Dennis Knepper contributed photos for this presentation.



Special thanks again to Brenda Altmeier (Florida Keys NMS) and Matthew Lawrence (Stellwagen Bank NMS).