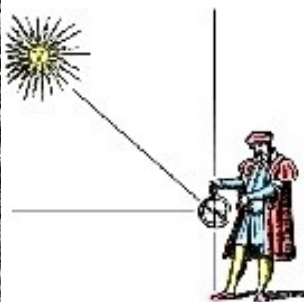


Deciphering the “Treasure Rock” of Neahkahnie Mountain

- The navigational instruments available to Francis Drake at the time of his circumnavigation were the astrolabe, magnetic compass, quadrant, cross staff and various measurement ropes. With these simple instruments he became the first known captain to sail 40,000 miles in circumnavigating the world (Dec. 13, 1577 – September 26, 1580).

One of the incised rocks found on Neahkahnie Mountain, Oregon is the so-called W Treasure Rock. An early pioneer discovered the so-called W rock in 1895. Because the Indians had no written language, the rock was believed to be a map of pirate treasure due to the beeswax cargo strewn along the Nehalem spit from an earlier shipwreck. The beeswax is now known to be from a Spanish galleon wrecked in about 1700. The W rock was first theorized to be from a survey make by Francis Drake in the early 70's by local historians. In 2008 *Francis Drake in Nehalem Bay 1579, Setting the Historical Record Straight* by Garry Gitzen documented a massive amount of evidence indicating Francis Drake indeed had made the survey and Nehalem Bay is the long “lost harbor” of Drake’s anchorage during 5 weeks while he repaired his ship and take land based readings. By his actions of inscribing a survey of rocks on the Neahkahnie Mountain, Francis Drake performed a Symbolic Sovereign Act, legalizing the land claim he named Nova Albion (New England).

The W Rock is to inform - all who pass this place, be aware that an English navigator sailed here and took measurements to determine his latitude. The 16th century instruments used to determine the zenith or altitude of the sun was an astrolabe and a magnetic compass. The English navigator who marked the “W” Rock was Francis Drake in 1579.

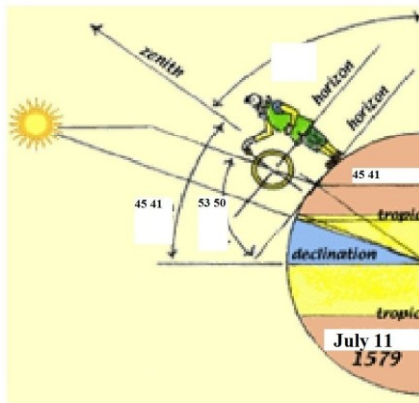


“An Experiment in the Determination of Latitude” by Bob Graham gives the following example to find the latitude with an astrolabe:

The index on the alhidada (metal blade with peep holes at each end to align sun) was found to be indicating 59 1/2 degrees, the *observed altitude* of the

sun, which I called $59^{\circ} 30'$. By referencing *solar declinations*, I found the *declination* for noon at Greenwich for the day to be $8^{\circ} 09'$. This subtracted from the *observed altitude* gives $51^{\circ} 21'$ for the *true altitude* of the sun. Since Sacramento is about 8 hours (1/3 of the way around the earth) behind Greenwich, the difference in declination between September 2nd and September 3rd is about 18', so 1/3 of that was added to the *true altitude*, so that it became $51^{\circ} 27'$. Subtracting $51^{\circ} 27'$ from the 90° , the result was *latitude* $38^{\circ} 33'$ north. The actual latitude of my back yard in Sacramento is in fact $38^{\circ} 33' 06''$. (<http://www.longcamp.com/drake.html>)

The only thing different from the above example is the zenith observed by Drake for Neahkahnie Mountain, Oregon in mid-summer of 1579 was $53^{\circ} 30'$ minus the "DE" (declination of degrees) incised as 9 dots on the rock, equals $44^{\circ} 30'$ minus 90 degrees is $45^{\circ} 70'$ Drake determined as his northern latitude. Modern instruments record Neahkahnie Mountain at $45^{\circ} 74'$ north latitude.



The angles between the arms on the W Rock represent the astrolabe measuring the height of the sun at $53^{\circ} 30'$ and the crosses (-/-) are indicating the measurements were taken at ground level to the horizon, as seen in the July 11, 1579 drawing above.

The arrow with fins incised on the W Rock points to the north meridian and each fin represents the multiple measurement places Drake marked a rocked at rope's length and by using the magnetic compass would extend each point along the meridian, terminating at the north mound, a 2 ft. high by 10 ft. circumference of stacked rocks, atop stood the 36" Measurement Rock identified by the incised line measuring an English yard.



The north meridian measuring 4,835 feet * was then used as the base line to form a land survey of additional incised markers, not discussed here.

*An English mile measured 5,000 feet in 1579.

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Measurement Rock with a 3-sided incised groove measuring an English yard.



North Mound reconstructed after Spruce root (seen below left) also seen here after root was cut away. ©M. Wayne Jensen, Jr. Collection



Excavating the Measurement Rock (1971) lying on its side under a Spruce root. Only the top of the rock can be seen in photo.

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