

## CURRENT RESEARCH:

# PHYSICAL EVIDENCE OF SHIPWRECKS ON THE OREGON COAST IN PREHISTORY

ALISON T. STENGER

Institute for Archaeological Studies, Portland, Oregon

Three prehistoric site areas on the Oregon coast have yielded Chinese porcelains. Two are located on the south side of the sand spit at Nehalem Bay (35-TI-4; 35-TI-4b), and the third site is located within the sand spit at Netarts (35-TI-1). While Spanish galleons are often suggested as the sole source of these materials, the archaeological and historical evidence suggests otherwise. In all, the remains of at least two and probably four ships have been reported. The timber from one ship and a ship's pulley have been radiocarbon dated, and much of the porcelain has been analyzed. Dates for the prehistoric sites, the ships' wood, and the porcelains are comparable. Stylistically, however, the two porcelain assemblages represent separate origins.

The porcelains excavated from the Netarts site were examined at the Ceramics Analysis Laboratory, part of the Department of Anthropology at Portland State University. At that time, two specialists in Asian porcelains separately inspected the material. Based upon stylistic and technical characteristics, the assemblage of available porcelains was identified as late Ming dynasty, thus dating from A.D. 1550-1650.<sup>1</sup>

The porcelains excavated from Nehalem were inspected even more thoroughly. The Ceramics Analysis Laboratory and two independent chemists were consulted, in an effort to employ all available criteria in the dating of the porcelains.<sup>2</sup> The qualitative and quantitative assessments of the assemblage suggested Ming period manufacture. Some of the porcelains were excavated from house floors, while others were collected from the lag zone along the spit's interior, yet all of the ceramics were of the same approximate age.

Many of the porcelains from both sites exhibited secondary modification, although there may have been a difference in the utilization of the decorated fragments.<sup>3</sup> Porcelains from both sites were flaked into projectile points, drills, and scrapers, with some of the heavily decorated fragments made into pendants (Cummings 1986). It is important to note that the unmodified fragments are still sharp and unstained, as this addresses the depositional environment. The edge rounding and glaze abrading that would have occurred on wares exposed to the surf are not evidenced by any of these sherds.

There is one important difference between the porcelain assemblages from Nehalem and Netarts, however. One group of Chinese porcelains was made for export to the West, while the other group is of the type manufactured for use by other Asians. Despite the commonality in date, the two assemblages represented two very different cargoes.<sup>4</sup>

The Netarts site was identified first. It was excavated by Tom Newman of Portland State University. When the porcelains were first excavated, site manager Daniel Scheans immediately identified them as Ming period.<sup>5</sup> Unfortunately, the

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<sup>1</sup> Laboratory notes, "Analysis at 4B", Scheans and Stenger (1984), Ceramics Analysis Laboratory. Methods described in "Dating Chinese Ceramics by Visual Glaze Analysis" (Stenger 1980) utilized, in conjunction with art historical criteria.

<sup>2</sup> Tektronix, Intel and U.S. Customs Laboratory chemists, Charles Dwire, Geoffrey Hodson and Fred Davis, independently analyzed the the ceramic bodies and glazes. The elemental profiles were obtained by OES, XRF and EDX.

<sup>3</sup> Scheans (1984) suggested that the Netarts fragments were separated into heavily decorated and undecorated groups, with the sherds having substantial decoration used for trade. Similar statements are made by Beals (1983) and Hajda (1989).

<sup>4</sup> Refer to "Ceramics: 1989 Testing at 35-TI-4B" (Stenger 1990), in *Summary Report on the 1989 Excavations at the Cronin Point Site [35-TI-4B] Nehalem State Park, Oregon*.

<sup>5</sup> Scheans was recently back from S.E. Asia, where he had been working with Ming and other period sites.

porcelains were taken to a visiting lecturer at the Portland Art Museum, who dated the porcelains as 18<sup>th</sup> C. A well circulated publication (Beals and Steele 1981) focused upon the later date. Despite the scholarly treatment of the material in that publication, only the more recent date remained in subsequent literature. Recent correspondence with one of the authors has revealed a change in their interpretation of the dates of the porcelains (Steele 2005):

There is much data...to suggest that we have several source lots on the coast, resulting from (1) several wrecks, and (2) possible trade networks distribution of blue decorated sherds. Although I originally thought the Netarts items to be Transitional Period (1620-1680) -- based on a San Francisco conference I attended...I now agree that many, perhaps all, could be earlier, i.e. Wan Li (1579-1619). It is important to communicate to the CAHO archaeologists that the universe of discourse for studying this subject has changed and expanded greatly from the universe confronting Tom Newman, when he excavated and reported on Netarts and the later universe that we confronted in the late 1970s and early 1980s...."<sup>6</sup>

Shipwreck remains have also been documented. Two wrecks have positively been located with two additional ship locations suggested by informants and remote sensing. Radiocarbon dates from both the prehistoric sites and the ships' material validate the older dates suggested for the porcelains.<sup>7</sup> SHPO records reveal the following:

#### Shipwreck

report 8082	beeswax 280 +/- 110	Shell News: 1961
report 8082	beeswax 300 +/- 30	LJ 5646
report 11199	ship pulley 319 +/- 2	
report 11100	teak cane 312 +/- 21	
report 9492	beeswax 390 +/- 80	BETA 27520

#### 35-TI-1

report 652	house plank 150 +/- 150	M 805
	charcoal 280 +/- 150	M 806
	charcoal 550 +/- 150	M 904
	shell 550 +/- 150	no #

#### 35-TI-4

report 17249	plant material modern	BETA 134157
report 8082	whale bone 170 +/- 0	BETA 7849
report 8082	basketry 380 +/- 60	LJ 5276

#### Near 35-TI-4B

	hearth 660 +/- 60	BETA 38463
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The two known vessels are in several sections, and distributed over a broad area. The wreck that is assumed to be of Spanish origin is well described both historically and in local lore. This ship is located near the large blue spruce tree, known locally as the "Witness Tree". The tree is located on a knoll that is north of the Nehalem Bay sand spit, facing the road that skirts the ocean as it connects Manzanita with the N.W. corner of the Nehalem spit. This vessel was exposed after several different storms, and partially excavated by a group of individuals from Astoria. The cane that was radiocarbon dated (SHPO report 11100) is made of wood removed from that wreck (Jensen 1989). An additional ship's section, assumed to be from this same ship, was located during a magnetometer survey, conducted by Woodward and Jensen.<sup>8</sup> Part of what is thought to be a

<sup>6</sup> An email from Harvey Steele to the author (2/14/05) conveyed the history of the misattribution of the porcelain assemblage.

<sup>7</sup> Retired SHPO, Leland Gilson, provided uncorrected and corrected dates for many of the samples (Gilson 2005). The current SHPO provided, via email, additional information (Griffin 2005).

<sup>8</sup> The methods of investigation and the location of this wreck were verified during multiple conversations over two decades (1983-2003), in conversations between the author and Wayne Jensen, Jr., then Director of the Tillamook Pioneer Museum.

ship's hull was found during a very low tide, within the area that is typically the active surf zone. This large feature is in a nearly direct line westward from the Witness Tree.

Two questions arise from this second siting. First, the newspaper accounts provided by the group from Astoria suggest that the Witness Tree wreck was nearly intact. The feature causing the positive magnetometer results, therefore, may be the remains of something other than this wreck. The second issue is the transport source of the wax, which came out of Asia (Jensen 1989). Is the wax associated with an Asian wreck or a European wreck? Was the Witness Tree wreck the source, or was the tidal zone feature? The ship that wrecked on the Nehalem spit is another possible source.

The vessel that wrecked at the tip of the Nehalem spit was last positively exposed in 1901, between a series of particularly severe storms, some of record strength (Bryson 2005). The "Chinaman Wreck" was described in a journal page dating January 10, 1901. The journal describes in great detail the specific location of the ship, the best way to get to it, and some of the cargo from that wreck.<sup>9</sup> With the journal is a map, plus drawings of some of the porcelain fragments that littered the beach around the wreck.

Included in the journal page is a discussion of one of the landowners, who took the sherds and placed them around his rose garden. In 1989, archaeologists for the Institute for Archaeological Studies excavated that garden, and documented the porcelains illustrated in the 1901 letter (Stenger 1990).

It appears that the location identified as the Chinaman Wreck no longer exists. The tip of the spit has been modified in two ways. First, work at the entry of the bay has caused the ocean to enter the bay from a different angle and area. Thus, some of the tip has been eroded away by the ocean. Second, and more problematic, was an extensive excavation initiated by DEQ. A large section near the tip of the current spit, which appears to have included the wreck area, was removed. When that excavation occurred, ship's timbers were reportedly observed.<sup>10</sup> At that time, Portland State University was contacted, but no interest was expressed in the timbers by the institution.

Timbers were also reportedly contacted during construction of the runway (Jensen 1989). The airport runway is located slightly north and west of 35-TI-4B. The timbers observed during runway construction may be from the Chinaman Wreck, or another ship entirely.<sup>11</sup>

Two additional wreck sites has been reported, but not verified archaeologically. During archaeological work at Nehalem, a homeowner from Wheeler stated that in excavating his home, a partial ship's hull was contacted. The landowner left the wreck in place, and built his house over it. He declined to give his name. The other wreck, reported as a Chinese Junk by local inhabitants, was discussed in 1848 by the founder of Hobsonville. His informant reported a wreck on Nehalem spit, and several pieces of a Junk between Clatsop and Nehalem (Hajda 1989).

There is little doubt that the porcelains, timbers, and beeswax initiated the protohistoric period for this part of the Coast. The utilization of these foreign materials by the recipient population, and the depositional environment, argue for a fully prehistoric context prior to the arrival of the wrecks.

The two questions that remain are which countries are represented by these wrecks, and were there any survivors? There are ethnographic differences between the late prehistoric populations of Nehalem and other coastal areas, including house types (Woodward 1987) and physical features of the population (Gibbs 1877) that suggest direct contact, at least with an Asian population (Quimby 1986).<sup>12</sup> Oral histories of European contact also exist. There are specific references to a red haired

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<sup>9</sup> A letter was received by the author from a member of the Nehalem Bay Historical Society. Included was the actual 1901 diary page, the map, and drawings of some of the porcelains. A copy was sent to SHPO.

<sup>10</sup> Geologist, Dr. Leonard Palmer, conveyed to Dr. Daniel Scheans that timbers were found during excavations, and that the Department of Geology had referred DEQ to the Department of Anthropology. Neither the date nor the name of the caller was recorded.

<sup>11</sup> This may be the location of a shipwreck with two remaining masts, least exposed in the 1930's (Hajda 1989b).

<sup>12</sup> "Chinese coins were called 'Konapee's money' by Indians." (Hajda 1990).

individual, and stories of sailing ships, described as whales with trees (Thwaites 1904-1905, Cous 1897, Hajda 1989). The porcelain assemblage from Nehalem is predominately from the lower deposits (Woodward 1987). The metal and wax were recovered from areas of housepits that also reflect the earlier period of occupation.

The metals should also be noted. Based upon descriptions of some of the materials, and upon technical studies, some of the metal is undoubtedly from European sources. The spikes, fragments of iron, and fragments of copper can all potentially be attributed to Europe. However, bronze items including three chest handles have been firmly identified by the Smithsonian as being Chinese in origin (Hajda 1990).

One enticing fact remains. In southwest Washington, inland from the coast and just north of Vancouver Lake, are five closely located prehistoric sites. The inhabitants of these sites, for a brief period of time, had a cultural need for ceramics. They made and used several types of fired clay objects. Excavations at two of these sites have yielded several fragments of Chinese porcelain, which are of the same period of manufacture as the porcelains documented at the two coastal sites (Scheans and Stenger 1991). One of these inland sites was identified to Lewis and Clark as the Soto village (Hajda 1990).

Early historic records and the ethnographers who study them discuss the probability of European *and* Asian sources for the Nehalem and Netarts materials. "In the regional distribution system, each group tended to specialize in locally distinctive products: beargrass...came from the mountains, obsidian from central Oregon... The lower Chinooks near Ft. Astoria tried to monopolize the flow of foreign trade goods brought in by the whites.... Shipwrecked foreign goods may well have become local specialties, distributed throughout the region directly, by Tillamooks on trips inland or to the Columbia, or indirectly, from coastal group to interior group...with Tillamooks at places like Nehalem specializing in shipwrecked goods...." (Hajda 1990).

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