

The Cargo of Coins Aboard *Nuestra Señora de Atocha*, or “The Treasure Chest Defined”

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A Chest of Coins in situ at the shipwreck site of the 1622 Galleon *Nuestra Señora de Atocha*. Photo by Andy Matroci/MFMHS Archives.

On July 20, 1985, with the discovery of the lower hull complex of the wrecked galleon *Nuestra Señora de Atocha*, one of the most important treasures ever lost was brought to light. Sunk on September 6, 1622, the *Atocha*, *almirante* of the 1622 *Tierra Firme flota*, was carrying a variety of New World goods to Spain - chief among them, twenty-four tons of silver. Much of this precious metal was shipped as coins. The first of these were recovered from the wreck in 1971, and over the next fourteen years scattered deposits were found, but never in any quantity or fashion to suggest they represented the bulk of the shipment. The discovery of a significant portion of the ship's storage hold changed all that (the area was quickly dubbed “the motherlode”). Found in association with a

mound of stone ballast, wooden hull remains, silver bars and copper ingots, were 52 chests of silver coins. These chests offer a unique opportunity to examine how coins were shipped aboard galleons, and how the popular idea of a “treasure chest” compares to reality.

The excavation of the lower hull structure of the *Atocha* yielded considerable detail into how the galleon was loaded, and organized. From this fieldwork, it was found that the heavy cargoes of silver and copper were carried low in the ship, to act as ballast. The orientation of the wreck, with its bow to the south, showed that the 1,038 silver ingots were stowed forward of the mainmast, and the 582 copper ingots, weighing nearly 15 tons, were carried abaft of it. The chests of coins were packed to the starboard side, bridging the

two larger parcels. There was no other discernable arrangement or pattern to their stowage.

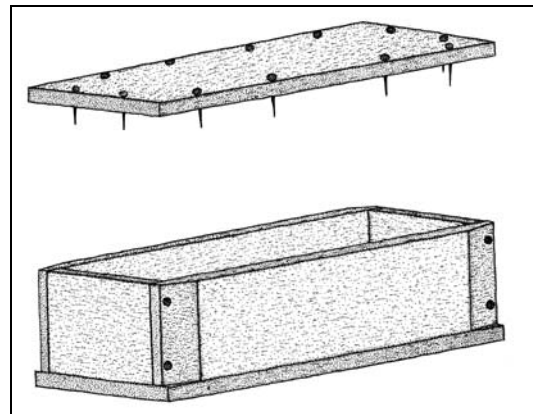
The *Atocha* took on silver coins from a variety of ports in her travels throughout the Caribbean. At Puerto Belo 70,177 ½ *pesos* of coins (a *peso* being one ounce, and valued at eight *reales*), in 48 separate accounts, was put onboard. At Cartagena, 57,916 ½ *pesos* in 24 accounts were loaded, and at Havana, 26,556 ¼ *pesos* in 25 accounts. This is a total of 154,650 ¼ *pesos* of silver coin. This does not reflect the number of individual coins but rather their aggregate value. Many of the pieces would have been of smaller denominations, and this was certainly the situation found on the site. Of 113,863 coins recovered from the *Atocha* in 1985, 0.001% (110) were 1 *reale* pieces, 15.0% (17,088) 2 *reales*, 21.8% (24,853) four *reales*, and 63.1% (71,808) eight *reales*. Using this sample, converting it to *pesos*, and then applying its denomination ratios to the full, registered cargo, it can be figured that somewhere around 198,850 individual coins originally shipped on the *Atocha*.

As stated earlier, the coins were sent as 97 separate accounts, taking care of a variety of personal and business transactions. The largest single shipment (21,323 *pesos*) was put aboard in Panama, and was being sent to the Duke of Veragua. He was a successor to Christopher Columbus, and beneficiary of the legacy of New World wealth accorded to the famed discoverer's estate. The smallest was listed as four "*patacones*," or eight-*real* coins. These shipments were recorded carefully in the manifest (AGI *Contratación* 2211), but, according to the archaeological evidence, they were not maintained separately in the shipment. Fifty-three chests have been recovered from the wreckage of the *Atocha*, and none was compartmentalized into individual lots. Rather, there was a system of packing and crating the coins into fairly uniform parcels.

The chests on the site were found in various states of preservation - as sealed wooden boxes containing corroded coins, fused clumps of corroded coins whose containers had been rotted away, and an isolated deposit of loose coins. They were found primarily at the site of the ship's lower hull structure, but one was found approximately seven miles to the northwest, in a secondary scatter trail created as the sunken galleon broke up in a later storm. This later recovery was near an area where over 7,800

scattered coins were recovered by Treasure Salvors in the 1970's, and known as the "Bank of Spain."

The chests themselves were simple crates of two sides, two ends, and undifferentiated tops and bottoms. They were all made of rosewood (*Dalbergia* sp, a tropical hardwood) in planks 2 - 3 cm thick. The top/bottoms averaged 57.2 cm long, and 22.3 cm wide. The sides were 57.1 cm long by 16.9 cm wide, and the ends 18.7 cm by 16.8 cm. These dimensions mean each crate occupied an average of 0.028 cubic meters (0.98 cu/ft) of the hold, and had an interior storage capacity of 0.016 cubic meters (0.58 cu/ft). They had no hinges, locks or latching mechanisms, and were simply fastened tight with an average of 32 nails. Shortly after recovery, all faces of the planks were examined visually under natural, infrared, and ultraviolet light, and no sort of paint or other exterior decoration was seen. The one unusual feature of these crates was the beveling of the side-pieces. These bevels start at about 5.5 cm from the end at a 1:5 slope. The function of the bevel is not obvious, and it has been theorized that it was there to facilitate opening the chest, provided a grip for easier handling, or was merely stylistic.



An Idealized Coin Chest from *Nuestra Señora de Atocha*, 1622.

The fused blocks of coins that resulted from the effects of the seawater contained a wealth of information on the organization of the chests' contents. The average weight of the corroded parcels was 60.625 kg (133 lbs. 6 oz). The per-chest coin-counts ranged from a low of 1,192, to a high of 4,533 in a chest composed almost entirely of two *reales* pieces. The average number recovered from a chest was 1,982, but this figure was originally a bit higher. In all the chests some coins were completely corroded,

especially those on the exterior of the clumps, and they could not be recovered to figure into the final tally. From impressions seen on both the coin masses and the interiors of the chests, the coins were put into cloth bags before being boxed. The fabric appears to have been a plain-weave of fairly large, crude thread, yielding a cloth quite similar to burlap. Unfortunately, none of the actual material survived.

Other examples of shipwrecked coin chests are rare - in fact, only one other has been found. An example from the 1715 *Nueva España* fleet was recovered in 1965 off Florida's east coast. This crate was also of a simple design, and had dimensions comparable to those from the *Atocha*. A length of 54.0 cm, a width of 28.5 cm, a height of 27.8 cm, and a plank thickness of 2.5 cm yielded a chest with a storage capacity of 0.026 cubic meters (0.91 cu. ft.) - approximately 60% greater than the 1622 examples. It had no apparent decoration, hinges, or lock. Somewhat differently, its sides were not beveled, but flat. No data is available for the coins carried inside. All in all though, there appears to have been little evolution in the manner of shipping coins for the 93 years between 1622 and 1715.

For all the popular lore, the treasure chest was a rather mundane shipping crate. The notion of unlatching a domed lid to reveal a wealth of shiny baubles is put to rest by the discovery of over fifty examples from the wreck of the galleon *Nuestra Señora de Atocha*. On that ship some 200,000 coins were packed into approximately 100 chests yielding a shipment weighing 3,000 kg (6, 600 lbs.), and occupying nearly 2.8 cubic meters, or 100 cubic feet, of the

hold. The weight of the coins was taken advantage of by utilizing them as ballast, alongside other heavy cargoes. Though they were not locked, the unadorned wooden crates were made fairly tamper-proof by being nailed tightly shut; the only way to open them was to pry them. Inside the boxes, the coins were bagged in burlap. With all this, it would have required a noticeable effort to get to the valuable contents.

The coins were being carried to satisfy a myriad of transactions, both great and small, but there is no indication they were divided into specific accounts during transport. The physical evidence from the wreck shows they were carried in a number matching the total amount registered, which was packaged into equal-sized lots. These were of a size that could be reasonably handled and stowed by two crewmen. It appears they were to be divided into the registered lots upon arrival in Spain. This reflects a confidence in the worth of the coins - people were not concerned about specific coins being theirs, as long as the proper value was credited to them.

The loss of the *Atocha*'s valuable cargo was a tremendous blow to Spain's economic system, but in many ways, this has been our gain. It has allowed us to look at not only the "treasure" aspects of the coins, focusing on monetary, aesthetic, or numismatic values, but to the basic facts of their purpose. They were the wealth of one continent being transferred to another, and as such, the silver coins on the *Atocha* had to be dealt with as a cargo - objects to be tallied, packed, and stowed.

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Thanks to James Levy of the Florida Bureau of Archaeological Research for information on the 1715 chest.

Special Thanks to Taffi Abt for maintaining the *Atocha* coin database, and making it readily available.

Table 1: A Typical *Atocha* Coin Chest?

The Number and Types of Coins recovered from Chest A85-2313

Mint	Assayer	Denomination (Reales)	Number
Potosí	B	2	2
		4	28
		8	38
	M	4	34
		8	134
	Q	4	58
		8	162
	R	2	1
		4	16
		8	74
	T	4	174
		8	519
	NV	2	9
		4	351
		8	527
			2225 Total

Note: Before cleaning, chest #A85-2313 weighed 130 lbs 7oz.