

# The Spanish Treasure Fleets of 1715 and 1733: Disasters Strike at Sea

Use your archaeological skill to investigate the shipwrecks of the *Urca de Lima* and the *San Pedro*, which sank off of the Florida coast in the eighteenth century. This project contains FOUR sections with questions at the end of each. After reading each section, think about responses to the section's questions. You do NOT have to write up responses to hand in.

## Web Resources:

The materials listed below either can be used directly on the computer or can be printed out. The maps and images appear twice: in a smaller, low-resolution version with associated questions and alone in a larger version. To access these maps, press control and click on the links below.

- 1) [two maps](#) showing the routes of the treasure fleets and the locations of the 1715 and 1733 shipwrecks;
- 2) [four readings](#) on the Spanish treasure fleet system and the wreck of the 1715 and 1733 fleets;
- 3) [two conjectural paintings](#) of the *Urca de Lima* and the *San Pedro*;
- 4) [two diagrams](#) of the wreck sites;
- 5) [two photographs](#) of the wreck sites today.

For more information visit Florida's Office of Cultural and Historical Programs' web page on the [Urca de Lima](#).

For more information, visit Florida's Office of Cultural and Historical Programs' web page on the [San Pedro](#).

You are not required to include outside research (though are welcome to do so). You may find it useful to consult resources found on the web, especially those of the National Parks Service, who manages the site today.

## HISTORICAL BACKGROUND

*The sun disappeared and the wind increased in velocity coming from the east and east northeast. The seas became very giant in size, the wind continued blowing us toward shore, pushing us into shallow water. It soon happened that we were unable to use any sail at all...and we were at the mercy of the wind and water, always driven closer to shore. Having then lost all of our masts, all of the ships were wrecked on the shore, and with the exception of mine, broke to pieces."<sup>1</sup>*

This violent storm off the coast of Florida in July 1715 ravaged 11 Spanish ships as they attempted to return to Spain. From the mid 16th to the mid 18th century, heavily-armed fleets such as this plied the waters between Spain and the Americas transporting massive amounts of New World treasure. Through this treasure fleet system, Spain created a mighty New World empire and became the most powerful nation in Europe. The fleets' return voyage—when the ships were laden with silver, gold, gemstones, tobacco, exotic spices, and indigo—was the most dangerous. Pirates and privateers from rival European countries threatened to seize the precious cargoes and jeopardize Spain's dominance of the Americas. The greatest danger, however, came not from enemy countries, but from unexpected and deadly hurricanes.

In 1715 and again in 1733, Spain's treasure fleets were devastated by hurricanes off the coast of Florida. Although the Spanish managed to recover some treasure, much more remained on the ocean floor. The sunken ships lay forgotten for more than 200 years until modern treasure hunters discovered several of them. Today, the remains of two of the ships—the *Urca de Lima* from the 1715 fleet and the *San Pedro* from the 1733 fleet—are protected as Florida Underwater Archaeological Preserves. These ships are time capsules from a bygone era and can reveal much about the history of the mighty maritime system that helped shape the Americas.

<sup>1</sup> *Miguel de Lima, owner of the Urca de Lima. As quoted in Della Scott-Ireton and Barbara Mattick, "Urca de Lima" (St. Lucie County, Florida) National Register of Historic Places Registration Form, Washington, D.C.: U.S. Department of the Interior, National Park Service, 2001, Section 8, page 2*

Spanish conquest and colonization of the Americas began with the arrival of Christopher Columbus in 1492. In the process of searching for a new route to the Indies (South and Southeast Asia), Columbus discovered a region of the world Europeans did not know existed. This region, including the Caribbean and North and South America, came to be referred to by Europeans as the New World, the West Indies, or the Americas. Although new to Europeans, these lands were home to millions of indigenous peoples including the Arawak, Aztec, Maya, and Inca civilizations and hundreds of Native American tribes. From early on, much of the New World's value was based on its potential to provide wealth in the form of the precious metals gold and silver. As a result of the European quest for land and riches, the native populations endured violent attacks, forced labor, and the spread of European diseases.

As Spanish explorations continued in the 16th century, Spain's New World empire expanded. In 1521, Spanish *conquistador* (conqueror) Hernan Cortes conquered the Aztecs (who occupied present day Mexico) and renamed their lands "New Spain." Word spread as Cortes began sending to Spain amazing gold and silver objects belonging to the native population. The Spanish soon discovered gold and silver mines in both New Spain and South America. They mined the precious metals and brought them to Spain aboard merchant ships.

The wealth generated by these precious metals allowed Spain to become the most powerful nation in Europe.

Ships from rival countries such as England, France, and the Netherlands began trying to seize these Spanish ships as they made their way towards Spanish ports filled with treasure. Spain responded by requiring the merchant ships to sail in fleets or convoys escorted by armed warships for protection. This fleet system began in the 1530s and was in use for more than 200 years. Although traveling in armed convoys provided some protection from enemy ships, this system could not save convoys from unpredictable storms or dangerous shoals and reefs. As a result, some ships and their cargoes inevitably were lost. Two of the worst disasters in the history of the treasure fleet system occurred in 1715 and 1733 when violent hurricanes off the coast of Florida decimated the treasure-laden fleets as they struggled to return to Spain.

## **Underwater Wreck Sites – Background Information**

The *Urca de Lima* wreck site, a Florida Underwater Archaeological Preserve, is located in St. Lucie County, Florida. Follow Highway A1A north from the Ft. Pierce Inlet to Pepper Beach Park. Walk northward along the beach approximately 1,000 yards from the park boundary. The wreck site lies on the first offshore reef in 10-15 feet of water, about 200 yards from shore. The site includes a 100 ft x 50 ft ballast mound, hull timbers, five replica cement cannons, an iron anchor from one of the 1715 ships, one marker buoy, three mooring buoys, and a plaque. The site is open to the public year round, free of charge.

The *San Pedro* wreck site, a Florida State Park and Underwater Archaeological Preserve, lies in 18-20 feet of water south of Indian Key near Islamorada in Monroe County, Florida. The site includes a ballast mound about 90 feet long by 30 feet wide, hull timbers, seven replica cement cannons, an iron anchor from one of the 1733 wrecks, one marker buoy, five mooring buoys, and a plaque. The site is open to the public year round, free of charge.

## **SECTION 1**

### **Locating the Site**

**Map 1: Trade routes of the Spanish treasure fleets.**



The convoys left Spain carrying clothing, food, and European household goods and luxuries to trade with Spanish colonists in the New World. The ships departed from Seville (later from Cadiz) and sailed down the coast of Africa to the Canary Islands, where they stopped for supplies. They then turned west to take advantage of the trade winds and, after sailing about a month or more, entered the Caribbean southeast of Puerto Rico. Here the convoy split into two fleets: the *Tierra Firme* (Spanish name for the South American mainland) and the New Spain.

The New Spain fleet sailed on to the port of Veracruz in New Spain (present day Mexico). Here the Spanish merchants conducted trade fairs with Spanish colonists where they exchanged manufactured goods for silver and other New World products such as emeralds, animal hides, sugar, and indigo. Then the ships sailed along the northern part of the Gulf of Mexico, down the west coast of Florida, and arrived in Havana (in present day Cuba) after about one month. The *Tierra Firme* fleet went to Cartagena (in present day Colombia) to pick up South American goods including precious metals, gemstones, pearls, and spices. Goods also were picked up in the ports of Nombre de Dios and Portobelo in Panama. The fleet then sailed through the Yucatan Channel and around the western tip of Cuba to Havana.

The two fleets met up in Havana and made preparations for the return trip to Spain. When they left Havana, the combined fleet sailed along the east coast of

Florida and rode the Gulf Stream—a strong, warm ocean current that originates in the Gulf of Mexico and flows north along the east coast of the United States—north as far as Cape Canaveral before heading east towards Spain.

### **Questions for Map 1**

1. Using a world map or globe, follow the route of the convoys from Spain to the Caribbean and from Havana, Cuba back to Spain.
2. On Map 1, use two different colors to trace and label the approximate route of the New Spain and *Tierra Firme* fleets from the Caribbean to Havana. Why did they split into two fleets?
3. What goods did the ships bring to the colonial ports? What was the purpose in bringing goods to trade? What goods did the fleets pick up on their routes?
4. Why do you think the two fleets met up in Havana? What might have been some advantages to traveling back to Spain in one large convoy? What might have been some disadvantages?

**Map 2: The *Urca de Lima* and the *San Pedro* wreck sites**



Because of the Gulf Stream and the limitations of primitive navigation techniques, the treasure fleets followed the Straits of Florida—the channel between the Florida Keys, Cuba, and the Bahamas connecting the Gulf of Mexico with the Atlantic—on their way back to Spain. Treacherous reefs and shoals made this the most dangerous part of the journey. Although general weather conditions were better during the summer, the warm waters of the Atlantic could help produce strong storms called hurricanes.

In July 1715 and again in July 1733, Spain suffered financial setbacks when the treasure fleets were destroyed by hurricanes. The 1715 fleet wrecked along the Atlantic coast of southern Florida. The 1733 fleet sank along the Florida Keys. In both cases, the wreckage was spread over many miles of shoreline. Spain managed to recover much of the treasure and other goods following the disasters, but the sunken ships and remaining treasure lay forgotten until the 20th century when many were rediscovered. Two of these shipwrecks—the *Urca de Lima* from the 1715 disaster and the *San Pedro* from 1733—are protected today as Florida Underwater Archaeological Preserves.

### Questions for Map 2

1. Trace the approximate route of the treasure fleets from Havana to Cape Canaveral. Why did the fleets follow this course? What dangers did they face in this area?
2. Why was the summer a potentially dangerous time to sail in this area?
3. Why do you think the wreckage would have been spread over many miles? How do you think this would have impacted attempts to rescue crews and recover treasure?
4. Locate the *Urca de Lima* and the *San Pedro* wrecks and describe their location.

## **SECTION 2 (there are 4 readings in section 2) - Reading 1: The Spanish Treasure Fleet System**

Much of Spain's exploration of the Americas centered on the desire to find gold and silver. These precious metals were valuable because they were used to make coins, which were the basis of most of Europe's monetary systems. The basic Spanish silver coin was the 8-reales piece or "piece of eight", which came to be called a peso. Because of its high silver content, pesos were widely accepted in Europe. This was important because Spain had virtually no industry of its own and had to buy manufactured goods from other European nations. In this way, the silver and gold Spain mined in the Americas made its way throughout Europe and impacted the global economy. The colonies that Spain founded in the New World became the world's largest sources of precious metals. Spain quickly established a policy whereby colonists in the Americas could only trade with Spanish merchant ships. Since early colonists depended on Spanish merchants for basic necessities including food, tools, domestic animals, and weapons, Spain's trading monopoly was very profitable.

Spain's New World monopoly became a source of tension with other European countries. The French viewed the treasure as an irresistible target and began attacking Spain's ships as they made their way into Spanish ports. These attacks were conducted by privateers, private ships that were licensed by the French government to try to seize Spanish ships. If successful, the privateer kept a portion of the seized treasure, and the French government took the rest. Using this system, France (and eventually England) was able to covertly claim some of the New World treasure without openly attacking Spain. To minimize these threats, Spain organized a defense for its merchant ships. In 1522, the government sent a fleet of warships into the Atlantic Ocean to escort the returning merchant ships into port. The government paid for the escort by requiring merchants to pay a tax on the goods being protected.

In the 1530s, Spain conquered the Inca Empire in present day Peru and added huge amounts of gold and silver to its coffers. Not surprisingly, France expanded efforts to seize Spanish treasure by licensing privateers to operate far into the Atlantic Ocean instead of concentrating on waters near Spain. In 1537, a year when French privateers captured nine treasure ships, Spain sent several royal warships all the way to the Caribbean to escort the treasure ships home. This convoy of merchant ships and warships is considered the first true treasure fleet. This system of merchant ships sailing in groups protected by warships helped the Spanish bring home large amounts of treasure. In 1545 the Spanish found the richest silver deposits yet discovered in the Americas on a mountainside in Peru. This find ensured the growth of the Spanish empire and made silver the most important precious metal coming from the Americas.

As New World trade continued to increase in the early 1550s, Spain struggled to find ships that not only could carry large quantities of cargo and sail well, but also could defend against attacks. The galleon, perfected during this period, soon became the standard ship used in the treasure fleets. An average galleon was about 100 feet long and 30 feet wide. It had three or four masts, two or three decks, and two to three dozen cannon. While galleons could carry large amounts of cargo and weapons, they were top-heavy and hard to maneuver. Merchant ships called *naos*, which were basically unarmed galleons, made up the bulk of the fleet and carried cargo, treasure, and passengers. Other ships traveling in the fleets included *pataches*, which were smaller vessels used to communicate between ships, and *resfuerzos* or supply ships that carried food and regular cargo.

By the 1560s, the treasure fleet system was well established and centered on two fleets—the *Tierra Firme* and the New Spain—sailing to the New World each year. Some years the two fleets left Spain as one large convoy and others they left separately. They followed the same course to the Caribbean, but while the *Tierra Firme* fleet proceeded to South America, the New Spain fleet went on to Mexico. After rejoining in Havana, the combined convoy sailed back to Spain.

Each fleet consisted of at least two heavily-armed galleons and two *pataches* as well as between 10 and 90 merchant *naos*. The largest galleon, the *Capitana*, carried the captain-general who was first in command of the fleet. The smaller galleon, the *Almiranta*, carried the admiral who was second in command. Because these ships were the most heavily armed, they carried all of the Crown's treasure. During the second half of the 16th century, at least 60 ships traveled in a convoy. Six or more galleons often traveled with the *Tierra Firme* fleet because it carried the most treasure (from Peru). Because it was more heavily armed, this convoy became known as the *galeones* (galleons). The New Spain fleet came to be called the *flota* (fleet).

In the mid 1560s, a third fleet, called the Manila Galleons, began sailing between the Spanish colony of the Philippines and Acapulco on the west coast of New



Spain. In the Philippines, exotic Far East products such as spices, porcelains, silks, and ivory were loaded onto ships and taken to Acapulco. Here the goods were transported by pack animals to Veracruz where they would join the New Spain *flota's* treasure. Although the journey from Manila to Acapulco took from four to eight months and was considered the most difficult navigation in the world, the financial gain outweighed the risks.

By the 1570s, about five million pesos' worth of precious metals made the trip to Spain each year. Silver accounted for at least 95% of the total by weight.<sup>1</sup> By the end of the 16th century, colonists were demanding more manufactured goods such as textiles, weapons, glass, and paper. Since Spain did not produce these goods in large quantities, merchants had to buy more and more foreign products to send to the Spanish colonies. This, in turn, made Spain more dependent on treasure from the Americas.

The treasure fleet system reached its height between 1590 and 1600. During this period, about 16 million pesos' worth of precious metals came from the New World mines each year. Then, over the next century the system began to slowly decline. Disputes over religion, territory, and trade caused Spain to fight various wars against the English, Dutch, and French for much of the 17th century. The treasure fleets were always a major target for Spain's enemies. The huge financial strain of wars and shortages of goods and ships made it hard to maintain the annual schedule. As Spain's debts increased, colonial mines began producing less silver and gold, attacks on ships increased, and other European nations began to colonize the Caribbean. At home, Spain's economy was declining, as was its shipbuilding industry. By the mid 17th century, more than two thirds of its ships were built in foreign countries. Also by this time, the average number of ships in a fleet had fallen to 25.

After 1700 there was little improvement in the treasure fleet system. A major reason for this was that Spanish colonists began buying goods from English, Dutch, and French merchants at cheaper prices. Accordingly, the demand for goods from the Spanish treasure ships decreased, and Spain's trading monopoly weakened. War with the Dutch and English in the early 18th century created a huge strain as did another war with the English in the 1730s. During these periods, small fleets sailed sporadically at best and sometimes not at all. The loss of the 1715 and 1733 fleets to hurricanes took a toll as well. In the 1760s and 70s only six *flotas* sailed to Veracruz. The treasure fleet system finally ended completely in 1778 when the Spanish Crown declared free trade all over her American colonies. After that, individual ships traveled back and forth to the Americas, but regulated convoys ceased to exist.

Although Spain's dominance of the Americas ultimately came to an end, it left a lasting legacy. From the 16th to the 18th century, Spanish mines in Mexico and South America produced more than 4 billion pesos' worth of precious metals. This equaled roughly 80 percent of the world's silver production and 70 percent

of gold at a time when these precious metals were the most widely accepted international currency.<sup>3</sup> The wealth generated by New World trade spread throughout Europe, ultimately shaping the world economy and fostering the European settlement of the Americas.

### Questions for Reading 1

1. Why were precious metals considered so valuable?
2. When and why did Spain organize a defense for ships sailing to and from the New World?
3. Describe the basic elements of the treasure fleet system.
4. Why was Spain so dependent on treasure from New World trade?
5. What was the role of each ship that traveled in the Spanish convoys?
6. When did the treasure fleet system reach its peak? What contributed to its gradual decline?
7. What are some of the ways in which Spain's treasure fleet system impacted the rest of the world?

*Reading 1 was compiled from Robert F. Marx, The Search for Sunken Treasure: Exploring the World's Great Shipwrecks (Toronto: Key Porter Books, 1993); Robert F. Marx, Shipwrecks in the Americas (New York: Dover Publications, Inc., 1987); Della Scott-Ireton and Barbara Mattick, "San Pedro" (Monroe County, Florida) National Register of Historic Places Registration Form, Washington, D.C.: U.S. Department of the Interior, National Park Service, 2001; Della Scott-Ireton and Barbara Mattick, "Urca de Lima" (St. Lucie County, Florida) National Register of Historic Places Registration Form, Washington, D.C.: U.S. Department of the Interior, National Park Service, 2001; Roger C. Smith, "Treasure Ships of the Spanish Main: The Iberian-American Maritime Empires," In Ships and Shipwrecks of the Americas, edited by George F. Bass; and Timothy R. Walton, The Spanish Treasure Fleets (Sarasota, Florida: Pineapple Press, Inc., 1994).*

<sup>1</sup> Timothy R. Walton, *The Spanish Treasure Fleets* (Sarasota, Florida: Pineapple Press, Inc., 1994), 44.

<sup>2</sup> *Ibid.*, 111.

<sup>3</sup> *Ibid.*, 189.

## Determining the Facts

### SECTION 2 - Reading 2: The *Urca de Lima* and the Shipwreck Disaster of 1715

In 1700, Charles II of Spain died childless and named Philip—the grand nephew of his first wife, Marie Louise of Orleans, and the grandson of Louis XIV of France—as his heir. The Dutch and the English saw this combining of power as threatening and launched the War of the Spanish Succession. The routes between Spain and the Americas were not safe, and the flow of treasure virtually stopped. As the war neared its end in 1713, Spain was on the verge of bankruptcy. King Philip V already had ordered a fleet to sail to the Americas decreeing that as much treasure as possible must be brought back.

On September 16, 1712 the New Spain fleet sailed from Spain under the command of Captain-General Don Juan Esteban de Ubilla. The eight ships reached Veracruz on December 3. The plan was to winter there, conduct the trade fair in the spring, and load up goods for the return trip to Spain via Havana. However, a series of events including damage to ships from storms and problems receiving and loading cargo prevented the fleet from leaving Veracruz for more than two years. On May 4, 1715, the fleet finally sailed for Havana. By this time, however, the fleet consisted of only four ships because the others were destroyed during a storm while at port. The four ships included the *Capitana*, the *Almiranta*, the *Urca de Lima* (a *resfuerzo*), and the *Nuestra Senora de las Nieves* (a *patache*). The total amount of registered treasure aboard the ships was more than six million pesos. General cargo included indigo, vanilla, chocolate, copper, Chinese porcelain, and brazilwood.

The *Tierra Firme* fleet, commanded by Captain-General Don Antonio de Echeverz y Zubiza, had left Spain on July 9, 1713, for Cartagena, Colombia. Cargo included hundreds of tons of English manufactured goods. In November, the fleet of six ships headed for Portobelo to pick up more goods before returning to Cartagena for the spring and summer. The fleet sailed for Havana on September 7, 1714 carrying gold, silver, tobacco, brazilwood, hides, and chocolate. After reaching Cuba a few weeks later, the crew spent the winter and spring waiting for the *flota* to arrive from Veracruz.

The two fleets finally came together in Havana in the summer of 1715. By this time, the Spanish Crown was in desperate need of money, and merchants were impatient to sell their New World goods on the European market. Despite the fact that hurricane season was underway, the combined convoy left Havana on July 24 carrying 14 million pesos' worth of treasure and cargo. The convoy included five ships of the New Spain *flota* (Ubilla had added one small ship in Havana), six of the *Tierra Firme*, and one French merchant ship named *Grifon*. Spain had detained the *Grifon* in Havana so it could not reveal the convoy's departure date to privateers.

After leaving Havana, the convoy enjoyed calm weather as it made its way up the Bahama Channel. On the night of July 30, however, a violent hurricane struck the ships off the east coast of Florida and drove them onto the shallow reefs and hard rock bottom. In a matter of hours, the storm destroyed 11 of the ships. The *Grifon* was the only ship to escape. Miguel de Lima, owner of the *Urca de Lima*, described the wreck of his ship:

The sun disappeared and the wind increased in velocity coming from the east and east northeast. The seas became very giant in size, the wind continued blowing us toward shore, pushing us into shallow water. It soon happened that we were unable to use any sail at all...and we were at the mercy of the wind and water, always driven closer to shore. Having then lost all of our masts, all of the ships were wrecked on the shore, and with the exception of mine, broke to pieces.<sup>1</sup>

More than 1,000 people died in the storm, including Ubilla. About 1500 people survived and made it to shore by swimming or floating on pieces of wreckage. Upon reaching land, however, many died from exposure, thirst, and hunger. Further complicating matters, wreckage and people were scattered for almost 30 miles along the uninhabited coast. Fortunately, the *Urca de Lima* had grounded in shallow water and remained somewhat intact. Supplies and food were recovered from her hold and helped sustain many survivors.

A few launches (small boats carried onboard the warships) survived the disaster, and survivors managed to send one to Havana for aid. One month later, relief boats from Havana and St. Augustine, Florida, arrived with supplies and salvage equipment to recover sunken chests of coins and goods. The *Urca de Lima* was the first of the wrecked ships to be salvaged by the Spanish. All the cargo that could be recovered was removed from the hull, and the wreck was burned to the waterline to hide it from English pirates.

By the end of the year officials claimed to have recovered all of the Crown's treasure and much of the treasure belonging to individuals (totaling 5 million pesos). The Spanish completed salvage efforts by July 1716. It was not until the end of August—four years after the original fleet left Spain—that the recovered treasure finally arrived in Spain. More than half of the total treasure was still missing and would remain so for the next two hundred years.

## Questions for Reading 2

1. Why was Spain anxious for the 1715 fleet to return?
2. Create a timeline for the 1715 fleet from the time it originally left Spain until the fleet wrecked off the coast of Florida. Why did the fleet's journey take so long?
3. How much treasure did the convoy carry?

4. Why do you think the fleet set sail during hurricane season? What happened to the combined fleet as they sailed for Spain?

5. How much treasure was salvaged by the Spanish?

*Reading 2 was compiled from Robert F. Burgess and Carl J. Clausen, Florida's Golden Galleons: The Search for the 1715 Spanish Treasure Fleet (Port Salerno, Florida: Florida Classics Library, 1982); Robert F. Marx, The Search for Sunken Treasure: Exploring the World's Great Shipwrecks (Toronto: Key Porter Books, 1993); Robert F. Marx, Shipwrecks in the Americas (New York: Dover Publications, Inc., 1987); Della Scott-Ireton and Barbara Mattick, "Urca de Lima" (St. Lucie County, Florida) National Register of Historic Places Registration Form, Washington, D.C.: U.S. Department of the Interior, National Park Service, 2001; Roger C. Smith, "Treasure Ships of the Spanish Main: The Iberian-American Maritime Empires," In Ships and Shipwrecks of the Americas, edited by George F. Bass; and Timothy R. Walton, The Spanish Treasure Fleets (Sarasota, Florida: Pineapple Press, Inc., 1994).*

<sup>1</sup> As quoted in Della Scott-Ireton and Barbara Mattick, "Urca de Lima" (St. Lucie County, Florida) National Register of Historic Places Registration Form, Washington, D.C.: U.S. Department of the Interior, National Park Service, 2001, Section 8, page 2.

## Determining the Facts

### SECTION 3 -Reading 3: The *San Pedro* and the Shipwreck Disaster of 1733

By the early 1730s, some aspects of the treasure fleet system had changed. The galleons themselves were larger, sleeker, and not as heavily armed as in earlier days. The English, French, and Dutch were successfully selling their own goods in the American colonies. As the threat of attacks on Spanish vessels decreased, Spain focused on trying to maintain its share of trade.<sup>1</sup> Treasure fleets tended to sail every two to three years during this period.

On August 2, 1732, a New Spain fleet left Spain under the command of Don Rodrigo de Torres. The fleet reached Veracruz in early October and remained there until after the trade fair. Delays in receiving and loading cargo prevented the fleet from leaving for Havana until the end of May. By mid June the fleet had arrived in Havana and was being refitted and loaded with more cargo and passengers. Although hurricane season had already begun, General Torres knew that the Crown was in dire need of its share of the 12 million pesos of registered treasure aboard the convoy.

The fleet finally sailed for Spain on July 13, 1733, carrying gold, silver, tanned hides, rare spices, tobacco, porcelain, and precious jewels. By this time, the convoy was made up of four armed galleons and 17 or 18 merchant vessels, including the *San Pedro*. The return journey should have taken six to eight weeks.

After sighting the Florida Keys on the second day, General Torres ordered the ships to turn back to Havana because the winds indicated an approaching hurricane. The effort was unsuccessful, and by nightfall most of the ships had been wrecked and scattered 80 miles up and down the Florida Keys. Only one ship returned safely to Havana. Spanish Naval Commissioner Don Alonso de Herrera wrote of the experience:

On the 14th of July we discovered the islands of the Florida Keys. By 9:00 that night the wind began to rise out of the north. It continued to freshen to the point where we all knew a hurricane was imminent. We found ourselves close to the expressed Keys, with the wind and sea so strong we were unable to properly govern ourselves, and each new gust came upon us with renewed major force.

On the 15th, signs were made among the ships of the fleet to try and arrive back to La Havana But we were unable to do so for the wind went around to the south without slacking in force or lessening the height of the seas. By 10:30 that night we had all grounded on the expressed keys at a distance of 28 leagues in length.

This Capitana grounded off the one called Cayo Largo, two and one half leagues from shore. I make assurance to Your Lordship that it was fortunate we grounded for if the contrary had occurred we would have all drowned because the hold was full of water and we were unable to pump it out faster than it was coming in....<sup>2</sup>

Fortunately, the storm did not totally destroy all the ships and most grounded in shallow water. Survivors quickly established camps wherever they came ashore and began salvaging food and supplies from the shipwrecks. Ships soon arrived from Havana to rescue survivors and recover as much lost treasure and goods as possible. The locations of the wrecks were charted on maps and salvage operations began.

The *San Pedro*, whose cargo included 16,000 pesos in Mexican silver and several crates of Chinese porcelain, grounded in shallow water and remained relatively intact. Almost all the cargo was recovered and taken to the closest salvage camp. Some of the other ships were refloated, and the rest (including the *San Pedro*) were burned to the waterline so divers could get to the holds to recover any possible cargo, and so pirates would not discover them. Within three months, royal officials in Havana told the Crown that all of the registered treasure as well as quite a bit of unregistered treasure had been recovered. The fact that more treasure was found than had been listed on official manifests was proof that merchants and others often smuggled extra gold and silver onto ships to avoid paying taxes.

### **Questions for Reading 3**

1. How had the treasure fleet system changed by the time the 1733 fleet sailed?

2. Create a timeline for the 1733 fleet from the date it left Spain until it wrecked in the Florida Keys.
3. What happened to the *San Pedro* during and after the hurricane?
4. How was it possible that the Spanish recovered more treasure than had been registered in the first place?

*Reading 3 was compiled from Robert F. Marx, The Search for Sunken Treasure: Exploring the World's Great Shipwrecks (Toronto: Key Porter Books, 1993); Della Scott-Ireton and Barbara Mattick, "San Pedro" (Monroe County, Florida) National Register of Historic Places Registration Form, Washington, D.C.: U.S. Department of the Interior, National Park Service, 2001; Roger C. Smith, "Treasure Ships of the Spanish Main: The Iberian-American Maritime Empires," In Ships and Shipwrecks of the Americas, edited by George F. Bass; Timothy R. Walton, The Spanish Treasure Fleets (Sarasota, Florida: Pineapple Press, Inc., 1994); and Robert M. Weller, Galleon Alley: The 1733 Spanish Treasure Fleet (Lake Worth, Florida: Crossed Anchors Salvage, 2001).*

<sup>1</sup>Robert M. Weller, *Galleon Alley: The 1733 Spanish Treasure Fleet (Lake Worth, Florida: Crossed Anchors Salvage, 2001)*, 17.

<sup>2</sup> *Letter to the President of the Council of Trade in Cadiz, Spain. As quoted in Weller, 281.*

## **SECTION 2 - Reading 4: Rediscovering the Treasure Fleets of 1715 and 1733**

### **The *Urca de Lima***

In 1928, the *Urca de Lima* became the first of the 1715 fleet to be discovered in modern times when William Beach located the wreck off of Fort Pierce, Florida. More than a dozen cannons and four anchors were raised from the wreck. In 1932 the State of Florida issued the first salvage permit, which allowed the permit holders to search for and recover materials from the Spanish wreck sites.

In the late 1940s, a building contractor named Kip Wagner began finding Spanish coins along the beach near Fort Pierce. Noting that none of the coins was dated later than 1715, he wrote to the director of the Archives of the Indies in Spain and learned that the coins must have been from the 1715 disaster, one of the worst losses of shipping in the history of Spain's maritime empire.

Kip Wagner was granted a search-salvage lease in 1959. The standard policy at the time was that the governor of Florida could grant leases for search or salvage (retrieve artifacts) operations. The cost for an annual lease was \$100. The agreement required quarterly reports describing operations and listing everything that was found. In return, the state would receive 25 % of whatever was recovered. Wagner assembled a group and started investigating the known wreck site off of Fort Pierce. The most prevalent feature of the wreck was scattered rock called ballast. Ballast rocks, usually taken from river beds in

Europe, were carefully stacked below the cargo holds to stabilize the galleons. The rocks in this ballast site ranged in size from less than one pound to about 50 pounds. In order to uncover any possible treasure, the group decided they would need to move the ballast rock.

In the process of moving ballast rock one by one and clearing sand away with makeshift equipment, the divers uncovered hundreds of pieces of Mexican and Chinese pottery, cannonballs, and other artifacts. They also discovered several wedge-shaped silver bars that fit together to form a pie shape. These probably represented treasure smuggled in the bottoms of barrels to avoid paying taxes. Based on their finds, the group named the site the Wedge Wreck. They did not know at the time that this wreck was actually the remains of the *Urca de Lima*. At the end of each diving season, the group met with archaeologists from the State who selected 25% of the find for Florida's collection. The State took primarily artifacts while the salvagers kept most of the coins. By the end of 1960, the group had excavated the Wedge Wreck and went on to discover and salvage other 1715 wreck sites.

### **The *San Pedro***

The shipwreck sites of the 1733 disaster also lay forgotten until the 20th century. In the 1930s, professional diver Art McKee began diving in the Florida Keys using a large metal helmet, diving suit, and a hose connected to an air source at the surface. In 1937, a local fisherman showed McKee a large ballast mound, which turned out to be the remains of the 1733 fleet's *Capitana*. He began researching the site and acquired a copy of a map from Spanish archives showing the locations of the 1733 fleet. McKee took artifacts from the site for years and recovered several cannons, more than 1,000 silver coins, statues, religious medals, jewelry, and other items. In 1949, McKee decided to build a shipwreck museum to display the artifacts from this site. McKee's activities led to the discovery of several other 1733 wreck sites.

The site of the *San Pedro* remained hidden until the 1960s when treasure hunters discovered its ballast mound and cannons under 18 feet of water in Hawk Channel off Indian Key. Some of the ship's rigging, hardware, and pieces of porcelain were found along with silver coins. The ballast mound was picked over and cannons and anchors were removed. Compared to the 1715 Spanish fleet, little treasure was discovered on the 1733 wrecks. This is not surprising since the Spanish salvage efforts had been so successful two centuries before. However, this did not stop modern treasure hunters from thoroughly searching the wrecks with little regard for documenting or preserving the sites.

As commercial salvage excavations continued on various Florida shipwreck sites throughout the 1960s, the State of Florida decided to send marine archaeologists along to officially record and document each wreck site. The marine archaeologists found that because the "treasure hunters" did not use proper



archaeological techniques, much evidence that could have provided important information about the treasure fleets had been carelessly destroyed. Ultimately, the State became convinced that commercial treasure hunting and underwater archeology are not compatible and that an important and irreplaceable part of Florida history was being damaged or destroyed. After 1984 the State stopped issuing salvage permits and began enacting laws that prohibit the unauthorized disturbance, excavation, or removal of artifacts on shipwrecks.

No longer worked by commercial treasure hunters, the *Urca de Lima's* surviving hull structure and ballast mound were carefully studied and recorded. The site's popularity with snorkelers and divers led to its designation as Florida's first Underwater Archaeological Preserve in 1987. Similarly, the *San Pedro* wreck was mapped and recorded to create a site plan. In 1988, the *San Pedro* was chosen as the best candidate for a second State Preserve based on its picturesque location, abundant marine life, and the condition of the site relative to other 1733 wreck sites. The *San Pedro* became Florida's second Underwater Archaeological Preserve and was officially dedicated on April 1, 1989. Today the site is a popular recreational diving spot for tourists and locals.

#### Questions for Reading 4

1. What role did Kip Wagner play in salvaging the *Urca de Lima* and other 1715 shipwrecks? What techniques did he and his team use?
2. Why was so little treasure recovered during modern salvage operations of the 1733 shipwrecks? (Refer to Reading 3 if necessary.) What were some of the artifacts found at the wreck site?
3. Why did the State of Florida stop issuing salvage permits? Based on what you have learned, what is the difference between commercial treasure hunting and underwater archeology? Do you agree that they are not compatible? Explain your answer.

*Reading 4 was compiled from Robert F. Burgess and Carl J. Clausen, Florida's Golden Galleons: The Search for the 1715 Spanish Treasure Fleet (Port Salerno, Florida: Florida Classics Library, 1982); Robert F. Marx, The Search for Sunken Treasure: Exploring the World's Great Shipwrecks (Toronto: Key Porter Books, 1993); Robert F. Marx, Shipwrecks in the Americas (New York: Dover Publications, Inc., 1987); Della Scott-Ireton and Barbara Mattick, "San Pedro" (Monroe County, Florida) National Register of Historic Places Registration Form, Washington, D.C.: U.S. Department of the Interior, National Park Service, 2001; Della Scott-Ireton and Barbara Mattick, "Urca de Lima" (St. Lucie County, Florida) National Register of Historic Places Registration Form, Washington, D.C.: U.S. Department of the Interior, National Park Service, 2001; Timothy R. Walton, The Spanish Treasure Fleets (Sarasota, Florida: Pineapple Press, Inc., 1994); and Robert M. Weller, Galleon Alley: The 1733 Spanish Treasure Fleet (Lake Worth, Florida: Crossed Anchors Salvage, 2001).*

## SECTION 3: Visual Evidence

**Painting 1: The *Urca de Lima*. Painted by William Trotter.**



(Painting courtesy William Trotter)

*Urcas* were flat-bottomed, round-bellied supply ships originally designed for use in the shallow, rough waters off the coast of Flanders (a region including parts of modern Belgium, France, and the Netherlands). They were adopted for use in the Spanish treasure fleets because of their strength and cargo carrying capacity.

Although the *Urca de Lima* (named for its owner Miguel de Lima) did not have any royal treasure onboard, it did carry 81 chests and some loose sacks of private silver as well as general cargo consisting of hundreds of uncured cowhides, packets of chocolate, vanilla, saffron, and incense.

### Questions for Painting 1

1. What moment is the painting depicting? Why do you think the artist chose this?
2. Why were *urcas* useful for the Spanish treasure fleet system?
3. What cargo did the ship carry? Why do you think it did not carry any royal treasure? (Refer to Reading 1 if necessary.)
4. Based on Readings 1 and 2, what role did the ship play in assisting survivors?

## Visual Evidence

### SECTION 3 -Painting 2: The *San Pedro*. Painted by William Trotter.



(Painting courtesy William Trotter)

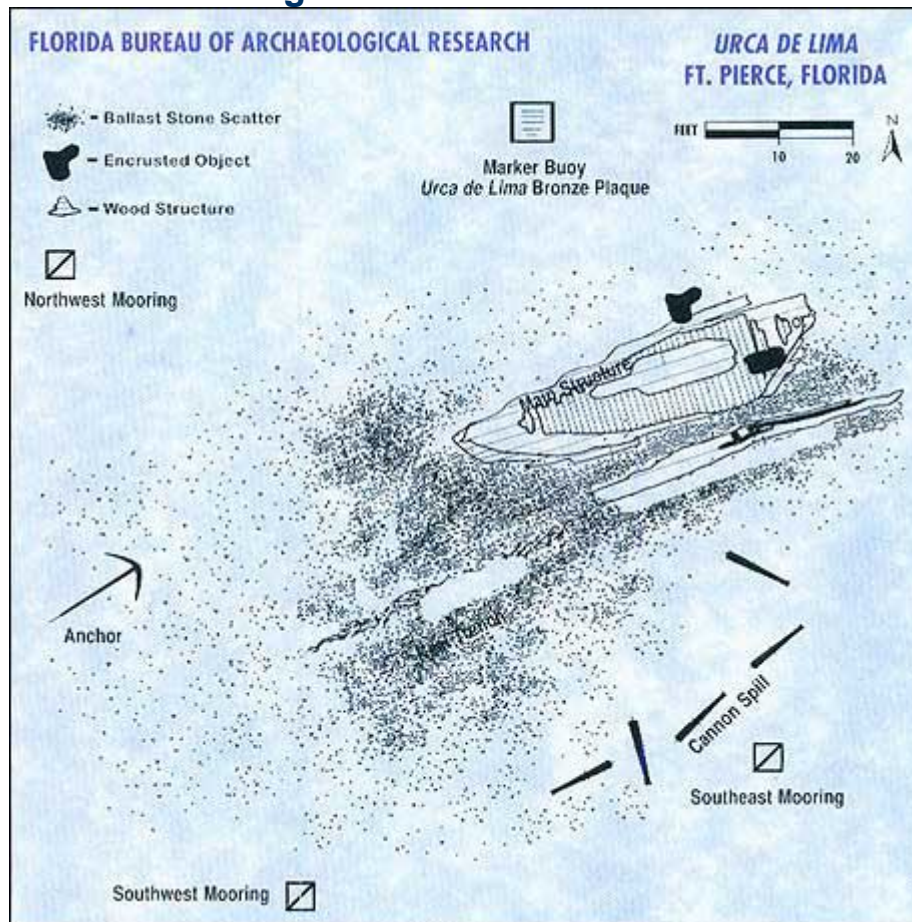
The *San Pedro* was a 287-ton galleon built in Holland. It is representative of a typical treasure fleet ship used in the 18th century. The *San Pedro* carried 1,600 pesos in Mexican silver and several crates of Chinese porcelain as well as general cargo.

#### Questions for Painting 2

1. How would you describe the *San Pedro*? What details of its construction are depicted in the painting? Can you note any similarities and differences between the *San Pedro* and the *Urca de Lima*? If so, what are they?
2. Where was the *San Pedro* built? Why do you think it was not built in Spain? (Refer to Reading 1 if necessary.)
3. What cargo did the *San Pedro* carry?

## Visual Evidence

## SECTION 3 - Diagram 1: The *Urca de Lima* wreck site.



(Florida Bureau of Archaeological Research)

The *Urca de Lima* is the only known surviving example of an *urca*. Although most of a sunken ship's wood is carried away by waves or eaten by shipworms over time, some important elements survive. The *Urca's* remains include frames, planking, and a ballast pile 100 ft. long and 50 ft. wide. The layer of ballast stones, sand, and sediment cover up and help protect other ship timbers. Five replica concrete cannons replaced the originals that had been removed by treasure hunters, and an iron anchor from another 1715 wreck has been added. An underwater plaque identifies the site and its status as an Underwater Archaeological Preserve.

### Questions for Diagram 1

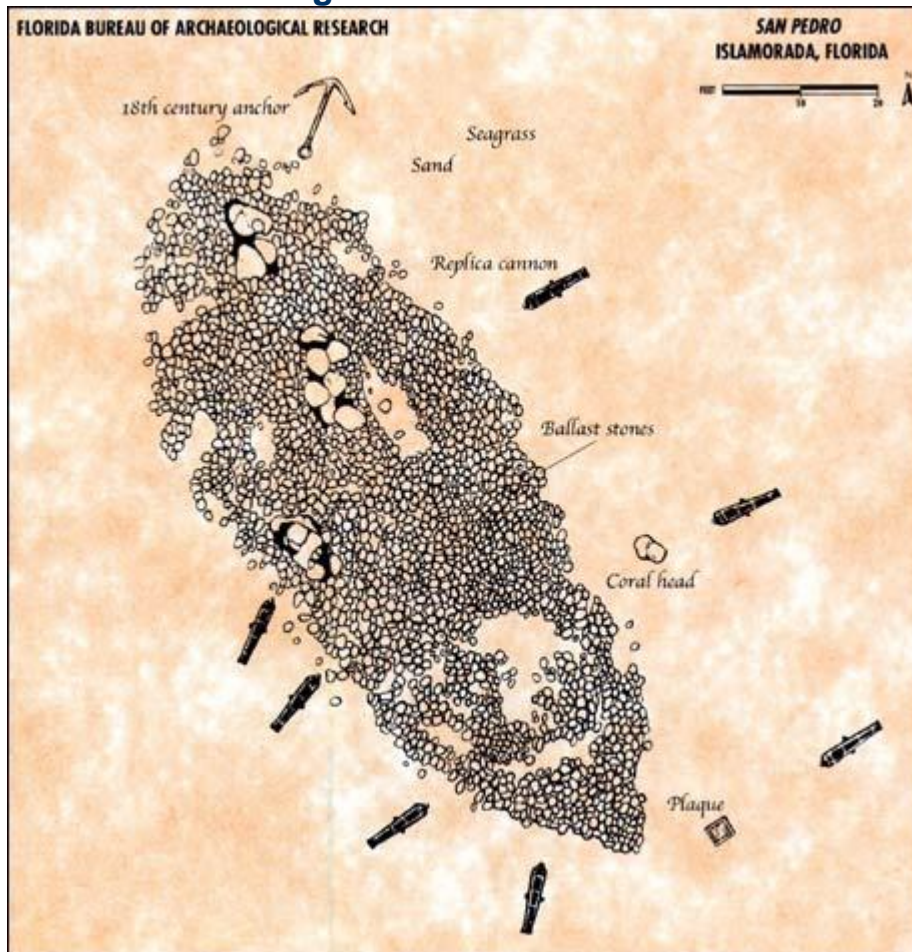
1. What is ballast? (Refer to Reading 4 if necessary.) Why do you think ballast piles are so prevalent on Spanish wreck sites today?
2. What happens to most of a sunken ship's wood over time? What can help protect the wood?



3. Study the diagram carefully and then list and describe the components of the wreck site.
4. What information might archaeologists learn from recording, documenting, and studying the remains of the *Urca de Lima*?

### Visual Evidence

#### SECTION 3 - Diagram 2: The *San Pedro* wreck site.



(Florida Bureau of Archaeological Research and Indiana University)

The *San Pedro* is one of the few positively identified examples of the classic galleon ship type used in New World trade. The remains of the *San Pedro* include a 90 ft. long by 30 ft. wide ballast mound and hull timbers that are covered by sand and marine vegetation. Seven replica concrete cannons and an iron anchor from another 1733 wreck have replaced the originals which were removed by treasure hunters in the 1960s. An underwater plaque identifies the site and its status as an Underwater Archaeological Preserve.

#### Questions for Diagram 2

1. Why do you think the replica cannons were added to the site? What happened to the originals?
2. What differences do you see between the ballast piles of the *Urca de Lima* and the *San Pedro*? Based on what you learned in Readings 2, 3, and 4 why might this be the case?
3. Why might marking the site with an underwater plaque be important?

### Visual Evidence

#### SECTION 3 - Photo 1: The *Urca de Lima* Underwater Archaeological Preserve today.



(Photo by John Loupinot)

The *Urca de Lima* wreck site lies approximately 200 yards from shore in 10-15 feet of water. The ship remains on a natural reef composed of coral, sponges, and marine vegetation.

### SECTION 3 - Photo 2: The *San Pedro* Underwater Archaeological Preserve today.



(Florida Bureau of Archaeological Research)

The *San Pedro* wreck site lies in 18 feet of water south of Indian Key. The ballast mound provided the foundation for an artificial reef, and the shipwreck is home to a variety of marine life.

#### Questions for Photos 1 and 2

1. What shipwreck features do you think are shown in Photo 1 and Photo 2?
2. Why might divers and snorkelers want to visit these shipwreck sites today? Would visiting an underwater shipwreck be something you might enjoy while on vacation? Why or why not?

### SECTION 4 – Conclusions: Putting It All Together

Taking into consideration all of your answers to the previous sections, answer the following:

1. Reflect on what you knew about the two shipwrecks from **just** the Historical Background section at the beginning of this exercise.
2. Discuss how what you learned from the archaeological evidence compares to what you knew from just the Historical Background section. Include in your discussion a summary of what types of archaeological evidence you used throughout this exercise. What types of evidence did you find most useful and convincing?