

What Really Made the World go Around?:

Indio Contributions to the Acapulco-Manila Galleon Trade

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Introduction

The importance of the Manila-Acapulco trade to the development of the early-modern world economy is undeniable. Many historians, foremost Dennis O. Flynn and Arturo Giráldez, have convincingly argued that the arrival of the first Spanish settlers to the Philippines and the opening of the port of Manila in 1571 marked the inception of a globalized world economy.¹ The trans-Pacific trade route turned Manila into a center of global trade in a matter of years. As early as the 1580s the port city of Manila became a veritable clearing-house for goods from all over East and Southeast Asia. Spices, porcelains, gunpowder, rice, fruits, exotic birds, silk, and gold ornaments flowed through Manila Bay, as did Spanish, Malay, Japanese, and Chinese merchants.² However, during the seventeenth century, the bulk of trade centered around the exchange of Spanish silver for Chinese silks, with as many as thirty to forty Chinese ocean-going vessels arriving annually in Manila to trade.³ Though the exact figures are impossible to calculate, it is likely that Spaniards unloaded as much as 2,000,000 pesos (51.12 tons) of silver at Manila annually in the late sixteenth and



A Spanish Galleons in Southeast Asia

seventeenth centuries.⁴ Such numbers have led many world historians—Flynn and Giráldez especially—to view silver as a commodity of utmost importance to the early modern world economy. For Andre Gunder Frank, silver was the catalyst for the formation of a global economic network, and “silver money was the blood that flowed thorough its circulatory system and oiled the wheels of production and exchange.”⁵ In short, “Money went around [the world] and made the world go round.”⁶ The galleon trade was a vital link in this global silver exchange, connecting the rich mines at Potosí and Lima to the silver-hungry markets of East Asia.

However, academic works that focus on the broader picture of trade, silver, and the global economic significance of Manila in the early modern period leave many aspects of Spain’s presence in the Philippines unexamined. Histories of the galleon trade should not allow the “silk-for-silver” trade to command too much attention, important though it was to the development of the global economy.

By looking past the macroeconomics and global ramifications of the galleon trade this paper instead

asks, what made the galleon trade possible in the first place? How was Spain able to overcome the tremendous logistical obstacles to establish and maintain a foothold on the far side of the Pacific? One must address these questions by surveying the vital contributions the native *indios* of the Philippines made to the galleon trade.⁷ The *indios* served as the laborers, shipwrights, mariners, navigators, deckhands, and soldiers—often taking on duties the Spanish were either unwilling or unable to fulfill. By the sixteenth century, the *indios*' intimate involvement with the galleon trade extended across the Pacific, with diaspora communities of *indio* shipwrights, merchants, and runaway crewmen emerging along the coasts of México and California.

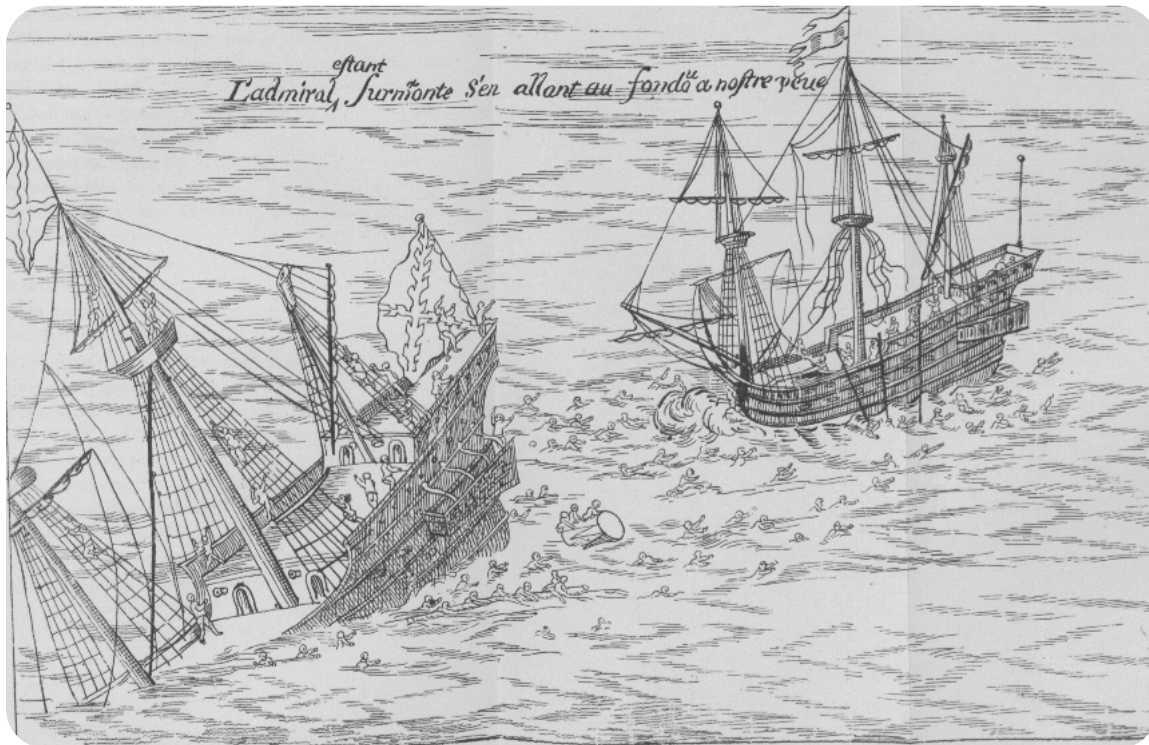
While there can be no mistaking the fact that the Spanish provided the impetus in inaugurating the trans-Pacific trade by setting out across the *Mar del Sur* and establishing a colonial presence at both ends of the route, one must resist viewing the Acapulco-Manila galleon trade as wholly a Spanish enterprise. Likewise, one must not allow the big picture, in this case the global trade in silver, to overwhelm history. While historians such as Frank, Flynn, and Giráldez have a right to draw our attention to the global dimensions of the Acapulco-Manila trade and its place in the early modern world economy, this paper serves as a reminder that Spain's presence in the Philippines and the success of the galleon trade was in many respects dependent upon the often overlooked *indios*. If silver made the world go around and the Spanish forged the last (Pacific) link in the emergent global network of trade, then the *indios*, who were instrumental in both these developments, deserve far greater attention than has typically been given by historians.

Indio Shipbuilders

Because of the immense distance and attrition involved in crossing the Pacific, Spaniards in the Philippines were constantly short of food, supplies, money, and manpower throughout much of the sixteenth and seventeenth centuries. In order to sustain their colony, the Spanish relied upon Chinese traders for imports of food and vital supplies, and upon the *indios* of the Philippines to fill an ever-widening labor gap. This labor gap was a result of the fact that there simply were never enough Spaniards in the Philippines to maintain the colony; some estimates put the total Spanish popula-

tion of Manila in the early seventeenth century at a mere 300, and prior to 1700 Spaniards never numbered more than 2,000.⁸ But to maintain a foothold in the East Indies required a strong navy, which required a large workforce. The need for ocean-going vessels was all the more great in the Philippines, an archipelago of hundreds of islands. To maintain a fleet as large as Spain needed in the Philippines required thousands of laborers. After the arduous crossing of the Pacific, a distance of roughly 9,000 miles, most galleons that survived to reach Manila Bay from New Spain were in no condition to attempt a return voyage, with their hulls split, swollen, and worm-eaten, and rotten rigging and sails. Galleons looking to make the return voyage to Acapulco either faced months of extensive renovations, or were scrapped, and any useful materials salvaged were put towards the construction of an entirely new vessel. The *indios*, organized through the *polo* labor system imposed by the Spanish, were the ones who felled and transported all the timber, manned the shipyards, conducted repairs, and built the majority of Spain's trans-Pacific galleons and inter-island craft.

The practice of utilizing local Southeast Asian labor and craftsmanship to repair Spanish vessels began from the start of Spain's presence in the East Indies and stemmed from a dire need for manpower. Alvaro de Saavedra Cerón led the first expedition to bridge the Pacific from New Spain, departing from the port of Zihuatanejo on 31 October 1527 with three ships and 115 men.⁹ The policy of sending ships to the East Indies from the Pacific coast of New Spain was introduced after decades of disastrous voyages that departed from the distant port of Seville. Prior to Saavedra's departure, there had been three expeditions, totaling eleven ships, dispatched from Seville with orders to make for the Moluccas (Magellan's expedition in 1519, Loaysa's in 1525, and Cabot's in 1526). Of these, only one ship with a surviving crew of nineteen men had met with success, making it to the East Indies and returning to Spain. This failure rate is not surprising; voyaging to the Moluccas from Spain entailed sailing halfway around the world *and back*, which was far too great a distance for a sixteenth century galleon and crew to endure. It was from these combined experiences that in 1527 Saavedra inaugurated the outbound leg of what was later to become the Acapulco-Manila galleon trade route.



Left:
A high seas
rescue.
Galleons
plying
Southeast
Asia at the
close of the
16th century.

Unfortunately, the infrastructure, materials, and skilled craftsmen required to manufacture quality vessels capable of enduring a Pacific crossing were not present in México in the 1520s (and would not be until well into the eighteenth century). As such, Saavedra's three small ships, the *Florida*, the *Santiago*, and *Espíritu Santo*, which were sloppily constructed in New Spain at the exorbitant cost of 60,000 pesos, were literally torn apart in the Pacific. A mere fourteen days into the voyage the flagship began taking on water to the extent that thirty *quinuales* of food rations had to be thrown overboard to keep the vessel afloat.¹⁰ Pushing on, it was less than a month later when a storm ran the *Santiago* and *Espíritu Santo* aground somewhere in the Marshall Islands, destroying both ships and leaving no survivors.¹¹ Once the leaky *Florida* reached the Moluccas, a complete overhaul was required if the vessel was to have any chance of making the return voyage. Saavedra's starved crew, now numbering only thirty, relied on the aid of the small Spanish garrison on Tidore, in addition to the labor and skilled craftsmanship of the natives. The *Florida* was beached, and during the course of ten weeks the rotted planking was replaced with local hardwood, the hull was re-caulked and sealed with a mixture of beeswax and coconut oil, and the ship's rigging was refitted with fresh cordage.¹² Thus began a 250-year long dependence upon local South-

east Asian labor and materials, which would ultimately prove decisive in maintaining Spain's Pacific operations and would carry over to Spain's colony in the Philippines.¹³

Following Saavedra, it would take two more trans-Pacific voyages before Miguel Lopez de Legazpi managed to establish a permanent Spanish settlement in 1565. Equally important, Legazpi successfully dispatched a ship to New Spain eastward across the Pacific. With this done, the eastbound trans-Pacific link was established, and Spain's newly founded colony in the Philippines could be resupplied by roundtrips into and out of the Pacific ports of México. But as a flourishing global trade opened at the port of Manila, almost every ship the Spanish sent to the Philippines, upon arrival in Manila, was unfit for a return voyage. How then were Spaniards in the Philippines able to overcome this problem? How did Spaniards manage to maintain a presence in the Philippines with the trans-Pacific voyage being so detrimental to ships and their crew? While trade at Manila boomed, and the port developed a reputation as the "Venice of the East" and "la maravilla y perla del Oriente," the Spaniards were still struggling to overcome the logistics of reaching the Philippines safely and regularly.¹⁴

Although his mission was ultimately a failure, Saavedra found the ultimate way forward in his reliance upon native labor, material and craftsmanship in the East Indies to repair and rebuild his vessel. The success of Spain's Philippine colony would become entirely dependent upon the *indio* population as a means of keeping their ships seaworthy and maintaining the Manila-Acapulco galleon trade. Until the mid eighteenth century New Spain would continually prove unable to produce durable trans-Pacific galleons for the Acapulco-Manila trade, which only increased the dependence upon native shipwrights in the Philippines. The *San Jeronimo* serves as a typical example of the damage a single Pacific crossing could inflict upon a New Spanish galleon. In 1566 the *San Jeronimo* arrived in the Philippines to support Legazpi's colonizing efforts, having departed México only a few months prior. Upon inspection of the *San Jeronimo* by Legazpi's men, it was decided that the ship was in such a poor condition that it would have to be dismantled, even though the Spanish were in desperate need of vessels. The official report of the inspection states that,

...the ship, *San Jeronimo* had come from Nueva España lately, leaking very badly and is maintained with great difficulty by the people. Through diverse means they have tried to plug the holes, drain the ship of water but have not succeeded [illegible] either from the inside or the outside. Instead, each day, it seems that the water increases.¹⁵

The *San Jeronimo's* problems were typical, and stemmed primarily from the rotting of the hull. The pilot of the *San Jeronimo* testified that the vessel was

...very worm eaten...it leaks very much and each day it grows worse...they had tried to drain the water from it but they had not succeeded because it had been destroyed by worms...If it was to sail, it was necessary that a new keel be made... And the seams of the planks are more than three-fingers apart which is very dangerous. Furthermore, even if it were still in good condition it was unrigged. It lacks anchors and cables and so it does not have what are needed to sail.¹⁶

The damage inflicted on Spain's trans-Pacific galleons came not just during the crossing, but from the harsh Southeast Asian climate. Frequent rains and high humidity quickly warped wood and frayed ropes and sails.¹⁷ Worst of all for Spain's vessels (as was clearly the case with the *San Jeronimo*) was the damage

wrought from shipworms. Shipworms (*broma*) were a common blight for wooden vessels operating in warm waters, particularly in the Caribbean and Southeast Asia. Unfortunately for the Spanish, the Pasig River at Manila Bay was a great source of shipworms.¹⁸ Those ships built in Europe destined for service in the Indies commonly had their hulls reinforced with layers of tarred cloth and lead sheathing for added protection against shipworms.¹⁹ Unfortunately, these materials were not readily available in the Philippines. And without a means to keep a fleet of seaworthy vessels on hand for trade, transport, and defense, Spain's colony would not have long survived. The bustling galleon trade would never have developed.

The lowland *indio* population of the Philippine archipelago proved to be the solution to Spain's problems, as did the indigenous timber of the archipelago, which was ideal for ship construction. The lowland *indios* of the Philippines were a people intimately linked to the water that surrounded them. Nearly every native coastal settlement was dependent upon fishing and maritime trade. The smallest native watercrafts were simple large canoes, some with keels and plank benches.²⁰ However, the largest of their ships were double-decked vessels with oarsmen and sails, capable of entering the open sea. Antonio de Morga observed the variety of native ships in the Philippines at the close of the sixteenth century:

...*vireyes* and *barangayes* which are slender, light, low-lying boats held together with small wooden bolts and as narrow at the stern as at the prow. These carry a large number of oarsmen on either side who row the vessel with paddles...Above the oarsmen is a platform, or gangway, made of cane upon which the fighting-men stand...There too they hoist the sail, which is square and made from linen, upon a support made from two thick bamboos which serve as a mast...These ships have been used throughout the islands from earliest times; they have others, larger ones called *caracoas*, *lapis* and *tapaques* for carrying merchandise, which are very suitable indeed since they are roomy and draw little water...All the natives know how to row and manage these boats. Some are big enough to carry one hundred rowers each side and thirty soldiers besides. The most usual sort of boats are *barangayes* and *vireyes* which carry smaller crews and fewer people. Many of them are put together with iron nails instead of wooden bolts and splices in the planks.²¹

It was this knowledge and skill in ship design, combined with the superior timber of the Philippines, that enabled the Spanish to begin constructing vessels capable of withstanding the grueling trans-Pacific voyage as well as the oppressive Southeast Asian climate.²²

For ship construction, the timber on hand in the Philippines proved to be far superior to anything available in Europe or the Americas. Where teak was used as the frame of the galleons, “the ribs and knees, the keel and rudder, and inside work” was fabricated from Philippine *molave*. The planking outside the ribs were made of *lanang*, “a wood of great toughness, but of such peculiar nature that small cannon balls remained embedded in it, while larger shot rebounded from the hull made of this timber.”²³ There was *maria*, which the *indios* introduced to the Spaniards. *Maria* was reportedly so strong that “once a nail is hammered into it, it is impossible to withdraw it without breaking it.”²⁴ Antonio de Morga was impressed with the woods of the Philippines as well.

This wood is suitable for houses and buildings as well as for constructing large or small boats. There are in addition many stout, straight trees which are also light and pliant and can be used for making mats for ships or galleons. Thus any sort of vessel may be fitted with a mast made from a single trunk from one of these trees, without there being any need for splicing or fishing; to make them up from different pieces. For the hulls of ships, for keels, futtock- and top-timbers, and any other kinds of futtocks, breasthooks, *puercas*, transoms, *llaves*, and rudders, all sorts of good timber can be found easily. There is also good planking of quite suitable timber for the sides, decks, and upper works.²⁵

These excellent hardwoods combined with the skilled craftsmanship of the natives yielded galleons of unparalleled strength and durability. Spanish ships constructed in Europe were made largely of oak and pine, woods well suited for maritime applications, but not as durable as *molave* or *lanang*.²⁶ Another Philippine timber, known to the *indios* as *laguan*, proved decisive in the battle against shipworm infestation. *Laguan* was far more resistant to shipworms than anything available in Europe and was used in the construction of nearly every galleon produced in the Philippines.²⁷

No doubt, the greatest advantage the forests of the Philippines offered was the abundant supply of masts. The masts of a sail ship were the most crucial unit, having to be of a single piece of timber of great

strength. By the seventeenth century, the Iberian Peninsula was already running short on trees suitable for masts, forcing Spain and Portugal to import costly Prussian pine.²⁸ But in the Philippines the Spanish had a fresh supply of mast timber, which grew straight and tall enough to form the mainmasts of up to seventy-two *codos* long.²⁹ And in addition to the fine woods of the archipelago, the Philippines also had *abacá*, a hemp-like material that was ideal for making rope. The need for rope, which deteriorated rather easily during the course of a Pacific voyage, was prevalent from the outset of Spain’s presence in the Philippines. One of the first official requests for men and materials to be sent to the Philippines from New Spain in 1568 lists first—above food and craftsmen—“30 quintales of cordage.”³⁰ *Abacá* would prove vitally important as cordage imported into the Philippines from Europe via New Spain was heavily worn and had often rotted beyond any usefulness by the time it arrived.³¹

Because of its proximity to the city of Manila, the safety of its harbor, and the abundance of timber and local labor, the majority of shipbuilding was conducted at Cavite in Manila Bay. However, many other locations throughout the archipelago met these basic criteria, and by the mid seventeenth century, smaller shipyards could be found on the islands of Panay, Albay, Marinduque, and along the Pangasinan coast north of Manila.³² These shipyards produced many smaller inter-island craft like the *vireyes* and *barangays* described by de Morga in addition to the famous trans-Pacific galleons.³³ During the brief tenure of governor Juan de Silva (1609-1616), Captain Sebastian de Pineda recorded the completion of the galleons *Espiritu Santo* and *San Miguel* at Cavite, the *San Felipe* and the *Santiago* on the island of Albay, the *San Marcos* on Marinduque, the *San Carlos* and the *San Jose* in Pangasinan, the *Salvador* in Masbate, and the *San Juan Bautista* in Mindoro.³⁴ Such output required a tremendous amount of labor.

The labor at Cavite, as in the other shipyards, was organized under the *polo* system, which was modeled off the *repartimiento* system in México.³⁵ Every *indio* of working age, except the chieftain of each *barangay*, was obliged under Spanish rule to contribute labor in any number of capacities for a fixed amount of time each year. *Indios* were often recruited through the *polo* system as crewmen on galleons, as domestic servants, or laborers and craftsmen in the shipyards. By far the

most grueling and demanding of the labor assignments was working in a woodcutting gang (*cagayan*), where *indios* were made to gather timber for the construction of galleons. Each gang of woodcutters typically numbered well into the thousands, sometimes reaching 8,000.³⁶ Conscripted from the lowlands, the *indio* woodcutters were forced to march far into the interior where the timber was located, meaning workers spent many months away from home, laboring in an unfamiliar climate. The poor working conditions were aggravated by the meager ration of four pesos worth of rice each month.³⁷ Conscripted into a woodcutting gang was a death sentence for many *indios*. The 1782 report of Ciriaco Gonzalez Carvajal is particularly illustrative of the appalling conditions typically experienced by *indios* in woodcutting gangs.

The cutting of wood is the most difficult and arduous of labors because they work from four in the morning to eight at night. They are not given time to eat and rest, are poorly fed, exposed to the sun and wind in unpleasant, harsh and mountainous areas without any comforts, defenses or shelter for the few hours they are allowed to sleep. They must pay for the threshing of their rice and for the water buffalo which bring it to them, and, then, if they do not fall ill and are fortunate enough to complete the thirty days of work which is required of them, they end up with a salary of only thirteen reals, and for the water buffalo some of them must provide to haul the wood, they are only paid seven reals, which is only a *quartilla* a day, despite the regulation that they are to receive one-half a real a day.³⁸

Underpaying and overworking the *indios* yielded tremendous benefits for the Spanish who could now construct ships in the Philippines at a fraction of the cost in Europe or the Americas. Alonso Sanchez's 1589 report to King Philip II revealed that *indio* woodcutters and shipyard laborers received only four *reals* a month, when "at least forty *reals* a month were needed to keep body and soul together."³⁹ And in 1619, Sebastain de Pineda reported that the common *indio* woodcutters still only received seven to eight *reals* a month while those *indios* of greater skill who took part in the design and construction of vessels earned a meager twelve *reals* per month.⁴⁰ In contrast, Spanish carpenters working in shipyards on Spain's northern coast in the early seventeenth century earned around 135 *reals* per month. In Seville the price for a single carpenter ran to eight *reals* per day.⁴¹ And in New Spain, the cost of

labor, including carpentry and shipbuilding, was roughly double that in Spain.⁴² Thus, while *indios* suffered greatly under the *polo* system, their skill and hard labor made the Philippines the cheapest place within Spain's vast empire to build vessels.

In 1586 a 600-ton ship was built for "little over four thousand pesos."⁴³ Compare this figure with a report of the same year that claimed two ships, the *San Martin* and the *Santa Ana*, were built in New Spain for "more than 140 thousand ducats," which is roughly equivalent to 70,000 pesos.⁴⁴ If it were not for the supply of cheap yet highly skilled *indio* laborers, supplying the distant Philippines with enough vessels to defend and run the trans-Pacific trade would have meant securing vessels from New Spain, which would have cost the crown dearly, and would have more than likely made the venture financially unfeasible.

Spain's exploitation of *indio* workers reached its height during war time. From 1609 to 1649 the Philippine archipelago was under frequent attack by the Dutch, who were hoping to gain control over the lucrative trade at Manila. On many occasions the Dutch blockaded Manila and attacked key settlements and shipping throughout the Philippines. During this period Spain needed ships in the Philippines more than ever, both to protect the treasure-laden galleons—which some years did not sail at all due to the Dutch threat—and for the defense of the colony itself. As such, *indio* labor was exploited to the fullest under the harsh rule of Governor Don Juan de Silva, who took office just as the Dutch conflict began. De Silva oversaw the construction of several new shipyards to meet the growing wartime demand. Complaining of Governor de Silva's harsh policies of excessive taxation, forced labor, and seizure of native foodstuffs, Fray Pedro de San Pablo of the San Gregorio province wrote in 1620 that "in the space of ten years, did the country become in great measure ruined. Some natives took to the woods; others were made slaves; many others were killed; and the rest were exhausted and ruined."⁴⁵ Governor de Silva reported in 1619 that the *indio* population of the Philippines was in decline as a result of the high mortality rates in both the shipyards and woodcutting gangs.⁴⁶ A pre-war census recorded a growing *indio* population of 590,820 in the year 1606.⁴⁷ In 1655, immediately following the Dutch conflict, the population had dropped markedly to 505,250.⁴⁸ Work in the shipyards and woodcutting

gangs became so oppressive that it was not uncommon for those *indios* with enough money to hire replacements, or, as was more often the case, desert; still others sold themselves into slavery to pay their way out of cutting timber.⁴⁹ The cost to buy one's way out of woodcutting was too great for most *indios* to afford. In 1782 it was estimated that "each tribute [*indio*] who does not want to go to the mountains must pay five pesos and three *reals*, as well as the ration and salary, in order to have someone else take his place."⁵⁰ The province hardest hit during the early seventeenth century was no doubt Pampanga. Adjacent to Manila, Pampanga was not only readily accessible to the Spanish but possessed expansive rice fields and superior stocks of timber as well. These factors made it a prime target for Spanish exploitation. Akin to the forced labor of the *polo* system, the *vandala* was implemented to force *indios* to relinquish a portion of their food and trade goods to the Spanish in exchange for IOUs. The *vandala* became a critical means of supporting the Spanish colony in the face of Dutch blockades, when food was scarce and/or too expensive. By 1616 the Spanish government owed the natives of Pampanga 70,000 pesos in payments for goods forcibly repossessed. By 1660, Pampanga was owed 220,000 pesos. *Indio* rebellions protesting both the *polo* and *vandala* were common during much of the seventeenth century.⁵¹ Nevertheless, both these systems of oppression were instrumental in making the Philippines a sustainable venture for the Spanish.

Suffering and abuses aside, the native labor and high-quality raw materials that went into Spain's shipyards in the Philippines yielded ships of remarkable durability and strength. In the mid sixteenth century most ships were only capable of sailing one trans-Pacific voyage before deteriorating, as was the case with the *San Jeronimo*. By the mid seventeenth century, the galleons produced at Cavite were routinely making multiple round-trip voyages between Manila and Acapulco. More remarkable still, when pitted against Dutch and English attack, the Manila galleons proved to be nothing short of floating fortresses. Woodes Rogers' 1709 attack on the 900-ton galleon *Begoña* serves as a prime example. Ambushing the galleon off the coast of New Spain, and with the superior firepower of his ships the *Duke* and *Dutchess*, Rogers was unable to inflict any significant damage upon the *Begoña*, which had just completed the long voyage from

Manila. And although Rogers had managed to capture the *Nuestra Señora de la Encarnación y Desengaño* days earlier, that galleon too was unscathed—indeed it was sailed by her captors all the way to England as a prize. Rogers came away from the encounter with great respect for the strength and craftsmanship of the Manila galleons: "These large ships are built with excellent timber, that will not splinter...they have very thick sides, much stronger than we build in Europe."⁵²

The history of the galleons *Nuestra Señora del Rosario* and *Nuestra Señora de la Encarnación* is similarly compelling and exemplary. While there is no historical record extant definitively stating where these two galleons were built, I argue that given their strength and durability, the *Encarnación* and *Rosario* were most likely built in the Philippines. These vessels, constructed sometime prior to 1643, were in continuous operation on the Manila-Acapulco line for an unprecedented length of time. The first recorded voyage of the *Encarnación* and *Rosario* was made from Acapulco to Manila in 1643. The pair was dispatched back to Acapulco in 1644, arriving February 1645. Following another voyage to Manila the same year the ships were fitted with cannons and used to successfully fend off five separate Dutch attacks on Manila and Cavite in 1646. Following this, the *Rosario* was decommissioned, but the *Encarnación* continued trans-Pacific service until 1649 when the ship ended its career running aground off Leyte. The long and proud history of these two ships is a testament to the marked increase in the quality of craftsmanship in galleon construction during this period.⁵³

As we have seen, a number of factors combined to make the Philippines a center for shipbuilding. Firstly, the Philippine archipelago possessed a ready and abundant supply of some of the best timber in the world for the construction of ships. But it was the *indio* labor organized through the *polo* system that proved the key factor. The *indios* of the Philippines had centuries of experience in navigation and shipbuilding from which the Spaniards were able to draw from and exploit. The result was not only an abundant labor force, but a skilled labor force as well. Thus Spaniards were able to harness local knowledge and labor to produce durable vessels at a relatively low cost. And it was the Philippines' effectiveness as a center of shipbuilding, which enabled Spain to maintain its hold on the archipelago and keep the galleon trade running.

Indios at Sea

Indio participation in the galleon trade was not confined to the Philippines. Natives of the archipelago, particularly in the early years of the Acapulco-Manila trade, were forced into service as crewmen on the galleons. Mortality rates were particularly high in the early galleon trade with starvation and scurvy comprising the leading causes of death for sailors on the open Pacific. Therefore, Spain needed a ready and abundant source of skilled crewmen to fill the ranks aboard the trans-Pacific galleons. Vessels departing New Spain in the late sixteenth and early seventeenth century would often arrive in the Philippines with only a portion of their crews still alive. Thus Spaniards in the Philippines found it increasingly difficult to man galleons making the return voyage to Acapulco. And it was not just the galleon trade that forced *indios* to the sea; many thousands of natives were drawn into service aboard Spanish warships defending the Philippine archipelago and the port of Manila from Dutch, English, Portuguese, and Chinese enemies. Serving as soldiers aboard these warships, the *indios* made possible not only the functioning of the colony, but its defense as well.

The attrition experienced by both men and their ships in crossing the Pacific was apparent to the very first Spanish expedition to bridge the expansive ocean. Magellan entered the *Mar del Sur* with three ships on 28 November 1520. By the time he reached the Philippines on 16 March 1521 his small fleet was on the verge of complete collapse. In the course of the 106-day crossing, scurvy and hunger took their toll, reducing Magellan's crew by nineteen. And the damage that the sea inflicted upon the *Trinidad*, *Victoria*, and *Concepción* was only added to by the starving crewmen who devoured the leather sail covers and shaved slices of wood off the masts, to be boiled and eaten. The chronicler of the voyage, Antonio de Pigafetta, professed, "I do not think that anyone in the future will dare to undertake such a voyage."⁵⁴ With not enough crewmen to man her, the *Concepción* was destroyed. All told, only one ship and nineteen men made it back to Seville. But what most histories do not record is that in addition to the nineteen Spanish survivors were several Southeast Asian sailors, taken onboard the *Victoria* as navigators, pilots, and crewmen at various points during the voyage. These local navigators aided in piloting the *Victoria* along the trade routes familiar to them, between



Map of the Galleons trade between South America and Southeast Asia in the 16th century.

Buru and Ceram, passing just north of Timor. While it was the commander del Cano who received the credit for getting the *Victoria* and her precious cargo of spices back to Spain, history has largely failed to recognize the vital contributions of the Southeast Asian crewmen. Without the native crewmen, Magellan's expedition would have never found the Moluccas, would have found navigating their way to the Indian Ocean quite difficult, and would surely have had too few men to reach Spain. Indeed, when the *Victoria* at long last reached Seville on 8 September 1522, nearly 20% of the total surviving crew of 22 was of Southeast Asian origin.

Once Spain's colonial foothold was established in the Philippines, the *indios* became the natural choice to fill out the crews of the trans-Pacific galleons. In the early years of the galleon traffic, natives were taken aboard not so much for their labor and service as crewmen—as would be the case later—but for their intimate knowledge of the region and their skills as navigators. Indeed, the first ship to successfully make the voyage from the Philippines back to New Spain had aboard two *indios* from the island of Cebu and one native of Guam.⁵⁵ Departing Cebu in June of 1565, the officers of the *San Pedro* were charged with the most difficult task of finding a route eastward across the Pacific. The natives aboard the *San Pedro* furnished the vital information needed to find the Pacific return route, directing the Spaniards through the San Juanico Strait between Leyte and Samar and into the Pacific via the San Bernardino Strait. Once out of the Visayas the *San Pedro* was able to sail north and capture the steady westerly winds above 30° N.⁵⁶ While credit for the discovery of the eastbound leg across the Pacific typically goes to the Spaniard Andrés de Urdaneta, we must not discount the strong possibility that the founding of what was soon to become the eastward leg of the Acapulco-Manila galleon trade route owes more to the *indios* than it does to the Spanish.

As the galleon trade evolved and became ever more focused on the ports of Manila and Acapulco, native navigators and pilots were no longer in great demand. Instead, as the galleon traffic expanded to accommodate the flourishing trade at Manila, Spain's need for cheap and readily available crews increased tremendously. By the early 1580s, anywhere from fifty to eighty percent of the crews of Spain's trans-Pacific galleons were *indios*. Oftentimes, only the key admin-

istrative positions onboard the galleons were filled by Spaniards.⁵⁷ By the end of the seventeenth century, *indio* mariners were highly appreciated for their service. Writing in 1765, Francisco Leandro de Viana wrote,

There is not an Indian in these islands [The Philippines] who has not a remarkable inclination for the sea; nor is there at present in all the world a people more agile in maneuvers on shipboard, or who learn so quickly nautical terms and whatever in the presence of a Spaniard, and they show him great respect; but than can teach many of the Spanish mariners who sail in these seas...these are a people most situated for the sea; and that if the ships are manned with crews one-third Spaniards and the other two-thirds Indians, the best mariners of these islands can be obtained, and many of them can be employed in our warships. There is hardly an Indian who has sailed the seas who does not understand the mariner's compass, and therefore on this [Acapulco] trade route there are some very skillful and dexterous helmsmen.⁵⁸

The reliance upon *indios* to man the trans-Pacific galleons did not abate over time. The crew manifest of the *La Santissima Trinidad*, sailing from Manila in 1755, listed 310 Philippine-born crewmen out of a total of 370 (84%). More remarkable still, 250 (68%) of these sailors came from the port of Cavite.⁵⁹

For the *indios*, working aboard an Acapulco-bound galleon was akin to working on a woodcutting gang. Life aboard a Pacific galleon was brutal for all those aboard, but most of all for the *indios*, who were treated as expendable resources. Wages for *indios* were below subsistence levels, conditions were harsh, and mortality rates were high. Where a skilled Spanish sailor received 350 pesos for a round-trip voyage in 1697, an *indio* was paid as little as 48 pesos.⁶⁰ Wages were often withheld to ensure that the crew, once at Acapulco, would not flee, leaving the vessel without a crew for the return voyage. Hernando de los Rios Coronel, in his call for better treatment of *indio* sailors, recounted the many abuses he witnessed during his Pacific crossing in the mid seventeenth century. According to Coronel, the daily ration of an *indio* aboard a galleon was less than half that of a Spaniard. Towards the end of the voyage, when food was running short, the rations for the *indios* were the first to be cut. Furthermore, Coronel observed a particularly high mortality rate amongst those *indios* unaccustomed to colder climates.⁶¹ Without the proper clothing, Coronel writes, “when each

new dawn comes...there are three or four dead men."⁶² A galleon crossing from Manila to Acapulco could reach as high as 41° N latitude, where the temperature at night was low enough to freeze many crewmen to death. Because of these harsh conditions, desertion was common. After three or more months at sea many *indios* jumped ship as soon as the shores of North America were near enough. Others waited until making landfall at Acapulco to flee.

Perhaps the most widely known example of *indio* desertion in the New World occurred in 1618 when all but five of the seventy-five *indio* crewmen of the *Espiritu Sancto* jumped overboard en masse.⁶³ This was only one occurrence among many, and soon thousands of *indios* had settled in New Spain. Sizable diaspora communities formed not just in Acapulco, but also in the key port towns of Navidad, Zihuatenejo, Puerto Vallarta, San Blas, and Texpan. Others fled into the interior and intermixed with the natives of México. But it must be noted that to Spaniards in México, natives of the Philippine archipelago were not distinguishable from other Asian ethnicities. Thus *indios*, along with Chinese, Japanese, and Malay immigrants, were incorporated into the *casta* system collectively as "*chinos*."⁶⁴ This ambiguity transferred into official government documents, making it difficult to trace the history of *indios* amidst other Asian immigrants. Likely, many *chinos* in New Spain were *indios* from the Cavite region.

Once in New Spain, many *indios* remained along the coast and took up professions that supported the galleon trade. The port of San Blas became a center for trade and galleon repair once *indios* skilled in sail making and carpentry settled in the region.⁶⁵ Skilled shipwrights were also employed along the Pacific coast of New Spain, designing and overseeing the construction of vessels starting in the early 1700s. Gaspar Molina, an *indio* immigrant to México, built two ships for the viceroy of New Spain. Under Molina's supervision the *Nuestra Señora de Loreto* was completed in 1760. It was built for Jesuit missionaries traveling along the coast of Baja California.⁶⁶ Molina completed his second vessel, *Nuestra Señora de la Concepcion*, in 1764.⁶⁷

With English and Dutch threats increasing, *chino* immigrants (namely *indios* and Chinese) were used in the construction of defensive structures, namely Fort San Diego, which was completed in 1617. *Chinos* also

served as militiamen for the fort.⁶⁸ Perhaps the most audacious use for *indios*—though the plan was never implemented—was proposed by Pedro Enriquez Calderon. Calderon drafted a scheme in the mid eighteenth century whereby the Spanish government could protect Northern California from foreign encroachment by establishing *indio* communities, or bases, along the coastline. Calderon wrote that "from the Philippines 300 men of all trades can be conveyed on a frigate which can be built there...with all the nails, locks, tools and everything necessary to found a town at once, and with 25 Indians [*Indios*] from the shipyard at Cavite to build brigantines such as those they build there for commerce with the islands and voyages to China and Java." Once established on the Pacific coast of America, "with the suitable rigging, cables, sails, pitch, and everything else necessary for their provisions...a great spiritual and temporal conquest can be effected." Continuing, "from the port [Monterey] it will be easy, with two brigantines, to take possession of the coast up to 52 degrees and thus prevent the Russians from moving further south. Besides, the port would serve as a resupply base for the galleons arriving from the Philippines."⁶⁹ While such a plan never materialized, *indio* communities were well established in Mexico and California by the close of the seventeenth century.

Estimating the total number of *indios* displaced to the New World as a result of the 250-year long galleon trade is difficult. For the broad classification of "*chinos*," Ed Slack Jr. proposes the minimum figure of 40,000 – 60,000, "while a figure double that amount (100,000) would be within the bounds of probability."⁷⁰ Floro Mercene, dealing specifically with *indio* migration, claims 60,000 native Filipinos made their way to the New World by 1815.⁷¹ Jonathan Israel estimates that during the course of the seventeenth century, the height of the galleon trade, 6,000 Asians arrived in New Spain every decade.⁷² Jose Maria S. Luengo has proposed the extreme and unfounded number of 4,000,000 total *indios* enslaved and brought to the New World by Spaniards via the galleon trade. Luengo is adamant that the galleon trade should be viewed as a slave trade parallel to that in the Atlantic, and that Manila functioned first and foremost as a slave port akin to Goree Island, Senegal.⁷³ While Luengo's use of the term slavery may be appropriate, we can dismiss his proposed figure of 4,000,000. Such a

number is unsupportable and impossible given the logistics of the galleon trade and the relatively low *indio* population in the Philippines.

While *Indios* were an ever-present fixture on Spanish vessels from the start of the galleon trade, the King of Spain limited the Acapulco-Manila traffic to a mere two vessels a year for a majority of the trade's history. While there was no doubt substantial (and unrecorded) private trade across the Pacific, we cannot safely claim that more than an average of two to four vessels made the round trip each year from 1565 to 1815. Indeed, two galleons per year is likely a more accurate estimate on account of the many years when ship traffic was limited due to war with the English and Dutch, or the many instances when galleons were either captured or lost at sea. An average of two roundtrips per year over the span of 250 years would mean 500 total roundtrips over the entire history of the Acapulco-Manila trade. As was discussed above, the crews of these galleons were primarily *indio* with very few Spaniards. The size of a galleon crew ranged depending upon the size of the vessel; while some ships were large enough for a crew of 400, most ships did not carry more than 200-250 persons. Thomas Cavendish captured the 700-ton *Santa Ana* in 1587 and discovered a total of 190 Filipino natives aboard.⁷⁴ As recounted above, the *Espíritu Santo* sailing in 1618 had a complement of 75 *indios* aboard—70 of which jumped ship once insight of the New Spanish coast. And Woodes Rogers captured the *Nuestra Señora de la Concepción* in 1709 and took 193 prisoners, most all of Asian dissent.⁷⁵ Assuming that these numbers represent the normal range of crew-size and ethnic makeup, it seems reasonable to estimate that between 80 and 200 *indios* accompanied most galleons from Manila to Acapulco. We are left then with a range of anywhere between 40,000 – 100,000 *indios* making the voyage to Acapulco between 1565 and 1815. Slack's estimate of 60,000 *chinos* therefore seems very reasonable, as does Mercene's estimate. Jonathan Israel's proposal of 6,000 Asians per decade in the seventeenth century may be too high, but not out of the realm of possibility. And Luengo's proposed 4,000,000 *indio* "slaves" is in every way impossible. (In 1606 there were only 590,820 recorded tribute-paying *indios* under Spanish rule in the Philippines.)⁷⁶

The trans-Pacific galleons were not the only vessels that *indios* served aboard;—many more were pressed into service aboard vessels operating closer to home,

patrolling Luzon and the Visayas, managing inter-island trade, and defending the colony against foreign attack. Native Filipinos, on account of the dearth of Spaniards in the archipelago, manned most every Spanish vessel plying the waters of the Philippines. The need for maritime defense of the colony during the Hispano-Dutch wars in the seventeenth century led to the greatest period of *indio* sailor recruitment by the Spaniards, drawing thousands into service aboard warships. This dependence upon *indios* once again stemmed from a lack of Spanish forces on hand in the Philippines. In December of 1618, in the midst of Spain's war with the Dutch, Joan de Ribera wrote from Manila to the King of Spain begging for troops to be sent. "Your most illustrious Lordship may rest assured that if his Majesty does not actually send a great reinforcement [sic] of military aid to these islands, they must be lost... For twenty years we have been hoping for the coming of a fleet and galleons, and none have come save a few small caravels..."⁷⁷ The presence of Dutch ships in and around the Philippines ensured that very few Spanish vessels or reinforcements were able to reach Manila. Recruiting *indios* therefore became the only viable option in warding off the numerous Dutch attacks and blockades.

In 1616 governor de Silva, hoping to seize the initiative against the Dutch, amassed a fleet of twenty-three vessels ranging from 600 to 2,000 tons in size. The crew for the armada—the largest Spain would ever assemble in Asian waters—was 66% *indio*, numbering 2,000 Spaniards and 3,000 *indios*.⁷⁸ Indeed, without the *indio* crewmen there would have never been enough Spaniards on hand to man such a fleet. Though the armada was an impressive concentration of forces, following the sudden death of Governor de Silva later that year the fleet suffered greatly from mismanagement and ultimately accomplished little. Nevertheless, *indios* were a vital asset in making such a concentration of forces possible and in warding off future Dutch onslaughts in 1619, 1620, and 1621. The Dutch threat was at its peak when in 1643-1647 Dutch warships blockaded the Philippines, attacked the galleon *San Diego*, engaged the *Rosario* and *Encarnación* in battle, and launched an attack on the shipyards at Cavite. Spaniards successfully resisted such military pressure only through the aid of the numerically superior *indios* and the products of their labor.

Conclusion

From the sixteenth century well into the nineteenth century all the major European maritime powers, not just the Spanish, drew upon local labor to maintain their fleets in the remote waters of East, Southeast, and South Asia. To be sure, the problem of how to maintain a colonial foothold and strong military presence in the distant East Indies was not Spain's problem alone. The British, for example, relied upon the shipyards at Bombay, Surat, and along the Masulapatam coast to maintain their maritime presence in South Asia starting in the eighteenth century. Indian shipyards were producing 600-ton vessels for Europeans as early as 1600.⁷⁹ Like the Philippines, India had a large pool of skilled labor with a long heritage of seafaring and ship construction. Just as was the case with *indio* vessels, Indian-made ships of the subcontinent proved to be more durable and far cheaper than their European-made counterparts.⁸⁰ However, the experience of the Spanish in the Philippines was unique from that of the Dutch, Portuguese, British, and French elsewhere in the East Indies and deserves special attention. While all European colonial powers exploited indigenous populations, the Spaniards' need for native labor was the greatest. There was a dearth of supply bases and outposts in the Pacific. With no way to segment the 9,000-mile crossing to and from México (a round-trip distance of over 18,000 miles), Manila and Acapulco became the only points for resupply, putting a tremendous burden on the Philippines. Additionally, because Spain had no other major territorial holding in the East Indies aside from the Philippines, the archipelago became the de facto center of Spain's entire East Indies enterprise. Other European powers were able to spread themselves between dozens of ports along the coasts of Africa, India, Southeast Asia and China. Therefore, at every stage of Spain's Pacific operations *indios* were intimately involved: they were vital in the construction and maintenance of Spain's Pacific fleet, in navigating the treacherous trans-Pacific trade route, in defending Spain's interests from Dutch attack, and in manning the many hundreds of voyages made between Manila and Acapulco.

This paper addressed only one group of many that contributed to the trans-Pacific trade between 1565 and 1815. Chinese, Japanese, Portuguese, Spanish, Muslim, and other Southeast Asian peoples, all participated in the galleon trade and kept the port of Manila bustling

and profitable. However, not since William L. Schurz's *The Manila Galleon*, published in 1939, has there been any comprehensive effort made to examine the totality of the Manila-Acapulco trade, its economy, its long history, and the many actors involved, *indios* included. Presently, research on the trans-Pacific trade of the early-modern era tends towards objective, quantitative, economic analysis, such as the focus on global flows of silver. The benefit of such a focus is that a great many connections can be made between the trade in the Pacific and the development of the larger world economy, particularly in the late sixteenth and seventeenth centuries. But such an approach has also led to distortion and misrepresentation. This paper has attempted to offer an alternative view of the Manila-Acapulco trade—one in which the indigenous actors are given their due recognition.

Bibliography

- Bjork, Catherine. "The Link that Kept the Philippines Spanish: Mexican Merchant Interests and the Manila Trade, 1571-1815." *Journal of World History* 9 no. 1 (March 1998): 25-50.
- Blair, Emma Helen and James Alexander Robertson. *The Philippine Islands, 1943-1898*. 55 volumes. Cleveland: Arthur H. Clark Company, 1903-1909.
- Boxer, C. R. *The Portuguese Seaborne Empire, 1415-1825*. New York: A. A. Knopf, 1969.
- Brand, Donald D. "The Development of Pacific Coast Ports During the Spanish Colonial Period in Mexico." *Estudios Antropológicos: Publicados en Homenaje al Doctor Manuel Gamio*, edited by Juan Comas, 577-591. Mexico City: Universidad Nacional de México: Sociedad Mexicana de Antropología, 1956.
- Ching-Ho, Ch'en. *The Chinese Community in the Sixteenth Century Philippines*. Tokyo: The Centre for East Asian Cultural Studies, 1968.
- Choeng, W. E. "The Decline of Manila as the Spanish Entrepôt in the Far East, 1785-1826: Its Impact on the Pattern of Southeast Asian Trade." *Journal of Southeast Asian Studies* 2 no. 2 (September 1971): 142-158.
- Crouchett, Lorraine. *Filipinos in California: From the days of the Galleons to the Present*. El Cerrito, CA: Downey Place Publishing House, 1982.
- Cushner, Nicholas P. *Spain in the Philippines: From Conquest to Revolution*. Quezon City, Philippines: Ateneo de Manila University, 1971.
- Dodge, Ernest S. *Islands and Empires: Western Impact on the Pacific and East Asia*. Minneapolis: University of Minnesota Press, 1976.
- Doeppers, Daniel F. "The Development of Philippine Cities Before 1900." *Journal of Asian Studies* 31 no. 4 (1972): 769-792.
- . "Hispanic Influences on Demographic Patterns in the Central Plain of Luzon, 1565-1780." *The University of Manila, Journal of East Asiatic Studies* 12 (September 1968): 17-36.
- Felix, Alfonso Jr., ed. *The Chinese in the Philippines*. Manila: Solidaridad Publishing House, 1966.
- Filipiniana Book Guild. *The Colonization and Conquest of the Philippines by Spain: Some Contemporary Source Documents, 1559-1577*. Manila: Filipiniana Book Guild, 1965.
- Flynn, Dennis O. "Fiscal Crisis and the Decline of Spain (Castile)." *The Journal of Economic History* 42 no. 1 (March 1982): 139-147.
- Flynn, Dennis O. and Arturo Giráldez. "Born Again: Globalization's Sixteenth Century Origins (Asian/Global Versus European Dynamics)." *Pacific Economic Review* 13 no. 3 (2008): 359-387.
- . "Born with a 'Silver Spoon': The Origin of World Trade in 1571." *Journal of World History* 6 no. 2 (1995): 201-221.
- . "Cycles of Silver: Global Economic Unity through the Mid-Eighteenth Century." *Journal of World History* 13 no. 2 (2002): 391-427.
- . "Globalization began in 1571." In *Globalization and Global History*, edited by Barry K. Gills and William R. Thompson, 232-247. New York: Routledge, 2006.
- Frank, Andre Gunder. *ReOrient: Global Economy in the Asian Age*. Berkeley: University of California Press, 1998.
- Headley, John M. "Spain's Asian Presence, 1565-1590: Structures and Aspirations." *The Hispanic American Historical Review* 75 no. 4 (November 1995): 623-646.
- Israel, Jonathan. *Race, Class, and Politics in Colonial Mexico, 1610-1670*. Oxford: Oxford University Press, 1975.
- Lach, Donald F and Edwin J. Van Kley. *Asia in the Making of Europe*. 3 volumes. Chicago: University of Chicago Press, 1993-1998.
- Licuanan, Virginia Benitez and José Llavador Mira. *The Philippines Under Spain: A Compilation and Translation of Original Documents*. Manila: National Trust for the Historical and Cultural Preservation of the Philippines, 1990.
- López, Carmen Yuste. *El Comercio de la Nueva España con Filipinas, 1590-1785*. México, D.F.: Instituto Nacional de Antropología e Historia, 1984.
- Luengo, Jose Maria. *A History of the Manila-Acapulco Salve Trade, 1565-1815*. The Philippines: Mater Dei, 1996.
- . *Lorenzo Ruiz: The Filipino Protomartyr in Nagasaki*. Indianapolis: Philippine Heritage Endowment Publications, 1984.
- Mercene, Floro L. *Manila Men in the New World: Filipino Migration to Mexico and the Americas from the Sixteenth Century*. Manila: University of the Philippines Press, 2007.

- Morga, Antonio de. *Sucesos de las Islas Filipinas*. Trans. J. S. Cummins. Cambridge: Cambridge University Press, 1971.
- Navarrete, Martín Fernández. *Colección de los Viajes y descubrimientos que hicieron por mar los españoles desde fines del siglo XV*. 5 Volumes. Madrid: 1825-1837.
- Noone, Martin J. *The Islands Saw It: The Discovery and Conquest of the Philippines, 1521-1581*. Dublin: Helicon, 1980.
- Omhundro, John T. *Chinese Merchant Families in Iloilo: Commerce and Kin in a Central Philippine City*. Quezon City, Philippines: Ateneo de Manila University, 1981.
- Pacey, Arnold. *Technology in World History: A Thousand Year History*. Cambridge, MA: MIT Press, 1990.
- Pearson, M. N. "The Spanish 'Impact' on the Philippines, 1565-1770." *Journal of Economic and Social History of the Orient* 12 no. 2 (April 1969): 165-186.
- Phelan, John. *The Hispanization of the Philippines: Spanish Aims and Filipino Responses, 1565-1700*. Madison: University of Wisconsin Press, 1959.
- . "Free Versus Compulsory Labor: Mexico and the Philippines 1540-1648." *Comparative Studies in Society and History* 1 no 2 (January 1959): 189-201.
- Rafael, Vicente L. *Contracting Colonialism: Translation and Christian Conversion in Tagalog Society under Early Spanish Rule*. Ithica, NY: Cornell University Press, 1988.
- Reed, Robert. "Hispanic Urbanism in the Philippines." *The University of Manila, Journal of East Asiatic Studies* 11 (March 1967): 18-28.
- Roth, Dennis. "The Casas de Reservas in the Philippines." *Journal of Southeast Asian Studies* 5 no. 1 (March 1974): 115-124.
- Slack, Edward R. Jr. "The *Chinos* in New Spain: A Corrective Lens for a Distorted Image." *Journal of World History* 20 no. 1 (March 2009): 35-67.
- Spate, O. H. K. *The Spanish Lake*. Minneapolis: University of Minnesota Press, 1979.
- TePaske, J. J. "New World Silver, Castile, and the Philippines, 1590-1800." In *Precious Metals in the Late Medieval and Early Modern Worlds*, edited by J. F. Richards. Durham, NC: Carolina Academic Press, 1983.
- Wickberg, E. "The Chinese Mestizo in Philippine History." *Journal of Southeast Asian History* 5 (1964): 62-100.
- Wills, John E. Jr. "Relations with Maritime Europeans, 1514-1662." In *The Cambridge History of China*. Vol. 8. Edited by Denis Twitchett and Fredrick W. Mote, 333-375. New York: Cambridge University Press, 1988.
- Wolf, Eric R. *Europe and the People Without History*. Berkeley: University of California Press, 1982.
- Zaide, Gregorio. *Philippine Political and Cultural History*. 2 volumes. Manila: McCaullough Printing Compnay, 1949.
- . *Documentary Sources of Philippine History*. 12 volumes. Manila: National Book Store, 1990.

End Notes

¹ Dennis O. Flynn and Arturo Giraldez both argue strongly that 1571 and the opening of Manila mark globalization's inception. So too has J. J. TePaske, C. R. Boxer, and many others. See "Born with a 'Silver Spoon': The Origin of World Trade in 1571," *Journal of World History* 6 no. 2 (1995): 201-221; Flynn and Giraldez, "Cycles of Silver: Global Economic Unity through the Mid-Eighteenth Century," *Journal of World History* 13 no. 2 (2002): 391-427; Flynn and Giraldez, "Born Again: Globalizations Sixteenth Century Origins (Asian/Global Versus European Dynamics)," *Pacific Economic Review* 13 no. 3 (2008): 395-387; Flynn and Giraldez, "Globalization Began in 1571," in *Globalization and Global History*, ed. Barry K. Gills and William R. Thompson (New York: Routledge, 2006), 232-247; J. J. TePaske, "New World Silver, Castile, and the Philippines, 1590-1800," in *Precious Metals in the Late Medieval and Early Modern Worlds*, ed. J. F. Richards (Durham, NC: Carolina Academic Press, 1983); C. R. Boxer, *The Portuguese Seaborne Empire, 1415-1825* (New York: A. A. Knopf, 1969) 17.

² Antonio de Morga, *Sucesos de las Islas Filipinas*, trans. J. S. Cummins (Cambridge: Cambridge University Press, 1971) 305-306.

³ De Morga, *Sucesos*, 305.

⁴ Dennis O. Flynn and Arturo Giraldez, "Arbitrage, China, and World Trade in the Early Modern Period," *Journal of the Economic and Social History of the Orient* 38 no. 4 (1995): 429-448. Flynn and Giraldez cite Han-sheng Ch'üan's estimates for the period 1598-1699. See Han-sheng Ch'üan "The Inflow of American Silver into China from the Late Ming to the Mid-Ch'ing Period," *The Journal of the Institute of Chinese Studies of the Chinese University of Hong Kong*, vol. 2, 79. Some documents from the period indicate years of much higher silver traffic. For example, the *Cabildo* of Mexico City reported an outflow of 5,000,000 pesos (127.8 tons) of silver to Manila in the year 1602 alone. In 1597, a unique year, the shipments of silver over the Pacific spiked to 12 million pesos. Eric R. Wolf, *Europe and the People Without History* (Berkeley: University of California Press, 1982), 154.

⁵ Andre Gunder Frank, *ReOrient: Global Economy in the Asian Age* (Berkeley: University of California Press, 1998), 132.

⁶ Frank, *ReOrient*, 131.

- ⁷ The Spanish referred to the natives of the Philippine archipelago as *indios*, while the term *Filipino* denoted a Philippine-born Spaniard. It was not until the nineteenth century that "*Filipino*" came to denote a native of the archipelago. Therefore, this paper will use the term *indios* as a general reference to the native inhabitants of the Philippines. Additionally, natives of the Philippines who made their way to New Spain were often labeled as *Chinos*. *Chino* was used as a collective term for all persons of Southeast and East Asian descent in New Spain.
- ⁸ John E. Wills Jr., "Relations with Maritime Europeans, 1514-1662," in *The Cambridge History of China*, vol. 8, ed. Denis Twitchett and Fredrick W. Mote (New York: Cambridge University Press, 1988): 554. Wills states that in 1586 only 2,000 Spaniards were living in the Philippines, compared to the roughly 10,000 Chinese merchants. The recorded tribute-paying *indio* population of the Philippines in the early seventeenth century exceeded 500,000.
- ⁹ Ione Stuessy Wright, *Voyages of Alvaro de Saavedra Cerón, 1527-1529* (Coral Gables, FL: University of Miami Press, 1951), 14.
- ¹⁰ Account of Álvaro de Saavedra Cerón, in Wright, *Voyages*, 99; Martín Fernández Navarrete, *Colección de los Viajes y descubrimientos que hicieron por mar los españoles desde fines del siglo XV*, vol. 5 (Madrid: 1825-1837), 465.
- ¹¹ Wright, *Voyages*, 21. Wright fixes on Gaspar Rico as the likely final resting place of the *Santiago* and *Espiritu Santo*.
- ¹² Account of Vincente de Nápoles, in Wright, *Voyages*, 120; Martin J. Noone, *The Islands Saw It: The Discovery and Conquest of the Philippines, 1521-1581* (Manila: R. P. Garcia Publishing Co., 1986), 89, 180.
- ¹³ Ultimately the effort of Saavedra's men was all for naught. They twice attempted a return voyage across the Pacific, with the *Florida* loaded down with seventy *quintales* of spices, but failing both times in the face of steady contrary winds. Following Saavedra's death on the second attempt, the handful of surviving Spaniards were left to surrender to the Portuguese on the neighboring island of Ternate.
- ¹⁴ Fr. Juan Delgado, *Historia sacro-profana, politica y natural de las Islas del Poniente llamadas Filipinas* (Manila: 1892), 51-52; original publication 1751.
- ¹⁵ Testimony given by the officials of His Majesty on why the galleon San Jeronimo had to be dismantled, in *The Philippines Under Spain: A Compilation and Translation of Original Documents*, vol. II, ed. Virginia Benitez Licuanan and Jose Llavadro Mira (Philippines: National Trust for Historical and Cultural Preservation of the Philippines, 1993), 227.
- ¹⁶ Testimony given by the officials of His Majesty, Licuanan and Llavadro, vol. 2, 223-224.
- ¹⁷ William L. Schurz, *The Manila Galleon* (New York: E. P. Dutton & Company, 1939), 198.
- ¹⁸ An incomplete and unsigned letter of a religious to the Viceroy of Nueva España, 1572 or 1573, in Licuanan and Llavadro, vol. 2, 370. "The river that traverses this city empties into the sea. The said river is heavily infested with Shipworms (*broma*) [illegible] in the port for the ship, it would be [illegible] if this is the be [illegible] to seek a more healthful place with a better port in the future."
- ¹⁹ Carla Rahn Phillips, *Six Galleons for the King of Spain: Imperial Defense in the Early Seventeenth Century* (Baltimore: Johns Hopkins University Press, 1986), 24, 57.
- ²⁰ Donald F. Lach and Edwin J. Van Kley, *Asia in the Making of Europe*, vol. 3 (Chicago: University of Chicago Press, 1993), 1497; De Morga, *Sucesos*, 252.
- ²¹ De Morga, *Sucesos*, 252-253.

- ²² The Spanish were not the only colonizers to exploit an indigenous population for their skill in ship design and maritime knowledge. As Arnold Pacey notes in *Technology in World Civilization*, the British, experiencing similar shortages in manpower and a harsh tropical climate turned to the local population of India to work shipyards and produce their own East Indies fleet. And like the shipyard at Cavite, Bombay earned a reputation for producing ships of great durability. See Arnold Pacey, *Technology in World Civilization: A Thousand Year History* (Cambridge, MA: MIT Press, 1990), 125-128.
- ²³ Schurz, *The Manila Galleon*, 196.
- ²⁴ Report of Sebastian de Pineda, 1619, in Emma Helen Blair and James Alexander Robertson, *The Philippine Islands*, vol. 18 (Cleveland: The Arthur H. Clark Company, 1903-1909), vol. 18, 172.
- ²⁵ Morga, *Sucesos*, 253-254.
- ²⁶ Phillips, *Six Galleons*, 79-80.
- ²⁷ Report of Sebastian de Pineda, 1619, in Blair and Robertson, vol. 18, 171.
- ²⁸ Phillips, *Six Galleons*, 80.
- ²⁹ Report of Sebastian de Pineda, 1619, in Blair and Robertson, vol. 18, 171. A *codo* is a cubit, roughly measured as the length from the elbow to the tip of the middle finger.
- ³⁰ A list of what should be sent from Nueva España to Las Islas Filipinas thru Juan de las Ysla, in Licuanan and Llavadro, vol. 2, 295.
- ³¹ Miguel Lopez de Legazpi, after receiving a shipment of rope from Vera Cruz, complained of its inferior quality. Letter of Miguel Lopez de Legazpi, 11 August 1572, in Licuanan and Llavadro, vol. 2, 365-366.
- ³² Nicholas P. Cushner, *Spain in the Philippines: From Conquest to Revolution* (Quezon City, Philippines: Ateneo de Manila University, 1971), 117; Schurz, *The Manila Galleon*, 195-196.
- ³³ The first case of *indios* building ships for the Spanish occurred on the Island of Panay. Miguel Lopez de Legazpi had a galliot constructed by the *indios* in 1570-1 for the purpose of sailing to Manila Bay. Once completed, the ship was manned by "twenty-three pairs of *Indio* rowers..." From a copy of a letter of Miguel Lopez de Legazpi to the Viceroy of Nueva España, about Panay, Manila, etc., in Licuanan and Llavadro, vol. 2, 358.
- ³⁴ Report of Sebastian de Pineda, 1619, in Blair and Robertson, vol. 18 173-174.
- ³⁵ John Leddy Phelan, *The Hispanization of the Philippines: Spanish Aims and Filipino Responses, 1565-1700* (Madison: University of Wisconsin Press, 1967), 99.
- ³⁶ Floro L. Mercene, *Manila Men in the New World: Filipino Migration to Mexico and the Americas from the Sixteenth Century* (Quezon City, Philippines: The University of the Philippines Press, 2007), 2.
- ³⁷ Phelan, *Hispanization*, 99.
- ³⁸ Dennis Roth, "The Casas de Reservas in the Philippines," *Journal of Southeast Asian Studies* 5 no. 1 (March 1974), 116. Roth takes this quotation from A report on the general condition of the Islas Filipinas, 20 April 1586, in Licuanan and Llavadro, vol. 4, 360; Letter of Doctor Santiago de Vera, 26 June 1586, in Licuanan and Llavadro, vol. 4, 391.
- ³⁹ Cushner, *Spain in the Philippines*, 120.
- ⁴⁰ Letter of Sebastian de Pineda, 1619, in B & R, vol. 18, 174.
- ⁴¹ Phillips, *Six Galleons*, 78.
- ⁴² Phillips, *Six Galleons*, 79.
- ⁴³ An account of what is known about the Islas Filipinas, 1586, in Licuanan and Llavadro, vol. 4, 410.
- ⁴⁴ An account of what is known about the Islas Filipinas, 1586, in Licuanan and Llavadro, vol. 4, 410.
- ⁴⁵ Opinion Addressed to His Majesty by Fray Pedro de San Pablo, August 7, 1620, in Blair and Robertson, vol. 19, 71-72.
- ⁴⁶ Cushner, *Spain in the Philippines*, 119.

- ⁴⁷ Treasury Report of 1606, in Blair and Robertson, vol. 14, 247-248; John Leddy Phelan, "Free Versus Compulsory Labor: Mexico and the Philippines 1540-1648," *Comparative Studies in Society and History* 1 no. 2 (January 1959): 193-194.
- ⁴⁸ Phelan, "Free Versus Compulsory Labor," 193-194.
- ⁴⁹ Blair and Robertson, vol. 19, 71-72; Phelan, *Hispanization*, 99. Phelan draws attention to the high fatality amongst indios in the *polo* system. During the Hispano-Dutch wars, from 1609-1648, with demand for timber at its greatest, the overall population of indios actually declined. An estimated 610,000 indios in 1621 dropped sharply to 505,250 by 1655. Phelan argues much, but not all, of the decline can be attributed to the poor working conditions and lack of food.
- ⁵⁰ Roth, "Casas de Reservas," 116.
- ⁵¹ Gregorio F. Zaide, *Philippine Political and Cultural History: The Philippines Since Pre-Spanish Times*, vol. 1 (Manila: Philippine Education Company, 1949), 343. Zaide cites the following indio revolts having occurred in protest of forced labor and tribute: "Magalat's Revolt in 1596, the Gaddang Revolt in 1621, the Caraga Revolt in 1630, the Cagayan Revolt in 1639, Sumoroy's Revolt in 1649-50, Malong's Revolt in 1660-61, Dagohoy's Revolt in 1744-1829, Silang's Revolt in 1762-63, and Palari's Revolt in 1762-64."
- ⁵² Schurz, *The Manila Galleon*, 196.
- ⁵³ For a history of the *Encarnación* and *Rosario*, see Thomas Peterson, *Secrets of the Manila Galleons* (Corvallis, OR: 2005), chapter 11.
- ⁵⁴ Cushner, *Spain in the Philippines*, 16.
- ⁵⁵ Noone, *The Islands Saw It*, 330; see also Lorraine Crouchett, *Filipinos in California: From the days of the Galleons to the Present* (El Cerrito, CA: Downey Place Publishing House, 1982). Crouchett claims 8 *indios* were aboard the *San Pablo*.
- ⁵⁶ Noone, *The Islands Saw It*, 330-331.
- ⁵⁷ Schurz, *The Manila Galleon*, 210; Mercene, *Manila Men in the New World*, 3.
- ⁵⁸ Francisco Leandro de Viana, Memorial, February 10, 1765, in Blair and Robertson, vol. 48, 301.
- ⁵⁹ Ed Slack Jr., "The *Chinos* in New Spain: A Corrective Lens for a Distorted Image," *Journal of World History* 20 no. 1 (March 2009), 39.
- ⁶⁰ Schurz, *The Manila Galleon*, 211.
- ⁶¹ Schurz, *The Manila Galleon*, 212.
- ⁶² Schurz, *The Manila Galleon*, 212.
- ⁶³ Zaide, *Philippine Political and Cultural History*, 335.
- ⁶⁴ For a thorough examination of *Chinos* in New Spain during the galleon era, see Slack Jr., "The *Chinos* in New Spain," 35-67.
- ⁶⁵ Mercene, *Manila Men in the New World*, 9.
- ⁶⁶ Mercene, *Manila Men in the New World*, 9.
- ⁶⁷ Mercene, *Manila Men in the New World*, 9.
- ⁶⁸ Slack, "The *Chinos* in New Spain," 40.
- ⁶⁹ Mercene, *Manila Men in the New World*, 17-18. Quoted from Memorial of Pedro Calderón y Henríquez, *California Historical Society Quarterly* 23 (1944): 219-225.
- ⁷⁰ Slack, "The *Chinos* in New Spain," 37.
- ⁷¹ Mercene, *Manila Men in the New World*.
- ⁷² Jonathan Israel, *Race, Class, and Politics in Colonial Mexico, 1610-1670* (Oxford: Oxford University Press, 1975), 75-76.
- ⁷³ Jose Maria S. Luengo, *A History of the Manila-Acapulco Slave Trade, 1565-1815* (Tubigon, Philippines: Mater Dei Publications, 1996), 7; Jose Maria S. Luengo, *Lorenzo Ruiz: The Filipino Protomartyr in Nagasaki* (Tubigon, Philippines: Luengo Foundation Incorporated, 1984), 20-34. As if his proposed figure of four million were not enough, in *Lorenzo Ruiz* Luengo uses the term holocaust when discussing the depopulation of the Philippines as a result of the galleon trade and Spanish occupation.
- ⁷⁴ Mercene, *Manila Men in the New World*, 30-31.
- ⁷⁵ Woodes Rogers, *A Cruising Voyage Round the World* (London: 1712).
- ⁷⁶ Treasury Report of 1606, in Blair and Robertson, vol. 14, 247-248; Phelan, "Free Versus Compulsory Labor," 193-194.
- ⁷⁷ Letter of Joan de Ribera, S.J., December 20, 1618, in Blair and Robertson, vol. 18, 161-165.
- ⁷⁸ Schurz, *The Manila Galleon*, 346.
- ⁷⁹ Pacey, *Technology in World civilization*, 67, 127. After 1790, ships built in India for European customers could exceed 1,000 tons.
- ⁸⁰ Pacey, *Technology in World Civilization*, 67-68.