

The Porcelain City

Jingdezhen in the Eighteenth Century

In the opening years of the eighteenth century, François-Xavier Dentrecolles established a church in Jingdezhen, the great porcelain center on the Chang River in the province of Jiangxi, southeastern China. A recruit for the French mission of the Jesuits, he was thirty-five years old when he arrived in Canton in 1698 on board the *Amphitrite*, a ship purchased by the Compagnie des Indes orientales (French East India Company), a state-sponsored syndicate, from Louis XIV (r. 1643–1715).¹

Dentrecolles was not the most eminent or controversial of the approximately fifty Jesuits who served with him over the next four decades, but he had a passion for the curious and unusual, along with a gift for sifting and marshaling information. After working in Jingdezhen for more than two decades, he presided over the French missionary residence in Beijing until 1732, during which he translated and commented on Chinese accounts of medicine, currency, and government administration. He also sent reports home on the raising of silkworms, the crafting of artificial flowers in silk and paper, the manufacture of synthetic pearls, methods of smallpox inoculation, and the cultivation of tea, ginseng, and bamboo. This represented the sort of engagement with indigenous culture that the Society of Jesus expected of its learned priests. A fellow Jesuit declared in a funeral eulogy for Dentrecolles in Beijing in 1741 that everyone had “a high opinion of his wisdom.”² His assignment to Jingdezhen suggests that Dentrecolles’s superiors recognized his talent for inquiry and analysis from the start. Significant information was expected from the man posted there.

In 1712 and 1722 Dentrecolles wrote lengthy letters on the manufacture of porcelain to Louis-François Orry, treasurer of Jesuit missions to China and India. They

soon appeared in the *Lettres édifiantes et curieuses de Chine par des missionnaires jésuites* (1702–76), a production in thirty-four volumes that provided the first wide-ranging source for European knowledge about China. The material resurfaced in the influential *Description de l'Empire de la Chine* (1735) by Jean-Baptiste du Halde (1674–43), who once served as chaplain to Louis XIV. Du Halde's work shaped the admiring view of China promoted by Voltaire (1694–1778) and other philosophes. In the epitome of Enlightenment thought, the *Encyclopedia* (1751–72), Denis Diderot (1713–84) introduces the article on porcelain by confessing that he can do no better than provide Dentrecolles's account. Du Halde's work was translated into English in 1738, and some years later the young Josiah Wedgwood, already dreaming of transforming the world of pottery, copied parts of Dentrecolles's text into his *Commonplace Book*. In his widely consulted *Universal Dictionary of Trade and Commerce* (1757–74), Malachy Postelthwayt (ca. 1707–67) reproduces the Jesuit's observations, albeit without crediting his source.

Dentrecolles won a measure of reputation and influence because his letters on Jingdezhen comprised the first accurate and comprehensive account of the manufacture of Chinese porcelain ever sent to the West. They promised to reveal secrets Europeans had been seeking for centuries.

“THE TOWN OF YEAR-ROUND
THUNDER AND LIGHTNING”

Readers learned more from the letters of Dentrecolles than technical detail about clay, glazes, and kilns. He evoked the bustling life of the porcelain city, presenting a view of provincial China and its urban workers that is unique in Jesuit relations. He estimates that Jingdezhen held 18,000 families or 100,000 persons, a figure roughly equal to that in government records. Visitors, however, commonly believed that as many as a million souls lived in the city, no doubt because hectic activity and crowded shops conveyed the impression of teeming multitudes.

In Jingdezhen, Dentrecolles records, “one seems to be in the midst of a carnival.” Porters trying to make passage in the streets raised cries on all sides. Merchants from every quarter of the empire thronged the alleys and warehouses, mingling with a handful of traders from Japan, Southwest Asia, and Europe. An inscription on a temple boasted that “the town is producing imperial porcelain for the entire country, couriers are coming and going day and night, officials are arriving from everywhere, merchants doing their business incessantly.”³ A generation before Dentrecolles arrived, a Dutch visitor described the scene:

Upon the 25 of April, we came to a Village famous for Shipping, called Vcienjen, where lay great store of vessels of several sorts and sizes, which were come thither from all

parts of China, to lade with China Earthenware, whereof great store is sold in this Village. Quite through the middle of this rich Village runs a broad Street, full of shops on both sides, where all manner of Commodities are sold; but the chiefest Trade is in Purceline, or China dishes, which is to be had there in great abundance.⁴

The shopkeepers on Porcelain Street (as Dentrecolles calls it) paid rents and had to purchase government licenses, but a flea market on a small island in the river welcomed anyone who had odds and ends to sell. Some dealers, known as “island basket carriers,” collected wares with blotches and hairline cracks from the kilns and sold them piecemeal at the market, concealing defects with plaster, wheat gluten, and mulberry juice. Customers euphemistically called these sorry items “goods that have crossed the river.”⁵

Dentrecolles marvels at men striding through the narrow streets carrying planks topped with porcelains on their shoulders, never losing their balance amid swarming crowds. In fact, pedestrians gave them a wide berth as anyone who bumped into them and shattered the porcelains had to pay for the damage—a costly lesson that profits came first in Jingdezhen. Dentrecolles describes chains of workers hauling clay to “vast storehouses surrounded by walls, where one sees, in row upon row, a great number of jars of earth.” He expresses astonishment that laborers unloading the sweltering kilns “put salt in their tea in order to drink a lot without becoming ill.” Artisans going to work made hasty sacrifice at shrines dedicated to Tung, tutelary god of fire and porcelain. Hucksters peddled adulterated clay and phony glaze to would-be potters, landless villagers hoping to make their fortunes in the booming city. Furnaces operated around the clock, and a large floating population anchored in boats along the riverbank, providing lodging, delivering foodstuffs, and loading porcelains. A visiting imperial magistrate complained, “The noise of tens of thousands of pestles thundering on the ground and the heavens alight with the glare from the fires kept me awake all night.”⁶ In his description of the approach to Jingdezhen at night, Dentrecolles evokes a moonlit vision of the city as swept by conflagration, silhouetted by billows of smoke and flame, the surrounding mountains forming the walls of a single gigantic furnace, its countless “fire-eyes” (vent holes) tended by shadowy laborers.

Jingdezhen is on the eastern bank of the Chang River, which flows from the mountains to the north that separate northeastern Jiangxi province from neighboring Anhui. The city stands at the point where the river exits rocky gorges and loses its swiftness, broadening into a shallow, curving basin five kilometers long. Dozens of streams flowing into the valley powered undershot waterwheels and iron trip-hammers that crushed rock to be used for making pottery. Hong Yanzu (1267–1329), an official stationed in Jiangxi province, portrayed the scene in a poem: “The bones of the mountain in the end turn to powder, / On the outskirts, many pestles

pound the earth, / On the river, half the boats transport mud.”⁷ Mills produced the best material in the drizzling spring, when the force of water on the pestles was robust and regular, making the pulverized earth fine and dense.

Dentrecolles explains that in official imperial nomenclature, Jingdezhen did not rank as a city because it had no encircling wall, “perhaps because one could not then enlarge and extend it as one wishes.” Its designation in the early Song period as a market town (*zhen*) meant that it relied on trade and therefore could expand as commercial needs dictated, perpetually rebuilding and enlarging after floods and blazes. According to Dentrecolles, a fire once wiped out eight hundred porcelain shops, yet the owners made such handsome profit from rents that they immediately employed scores of masons and carpenters for reconstruction.

Hemmed in by mountains, Jingdezhen looked across the river to tombs built by merchants and shopkeepers on low hills made up largely of porcelain shards dumped there over the centuries. Dentrecolles records that bodies of the poor were thrown into a place known as “the pit to infinity, the grave for all the world,” at the foot of a hill flaunting the sepulchers of the rich. It distressed him to contemplate the generations of unfortunates flung into that abyss, the flesh on their bodies consumed by quicklime. Every winter, Buddhist monks gathered and burned the bones to make room for yet more, an especially grueling task during frequent periods of plague. Streaming past the graveyard and town, the Chang leaves the valley toward the southwest, where it once more plunges into gorges on its journey to Lake Boyang, the gateway by which the porcelains of Jingdezhen reached the wider world.

Renowned in China as “the Town of Year-Round Thunder and Lightning,” Jingdezhen was the largest industrial complex in the world when Dentrecolles arrived.⁸ Its inhabitants depended for their livelihood on the three thousand kilns scattered through the city and cluttering the surrounding slopes; craftsmen also worked in numerous kilns nearby, especially in the village of Hutian, four kilometers southeast of Jingdezhen. As a Qing official remarked, “The soil can be poor and local customs unhealthy, and when the people did not have the means to provide for themselves, they molded the soil into vessels for eating and drinking to provide for themselves.”⁹ A sixteenth-century observer noted that in northern Jiangxi province, “the wealthy become merchants and the clever people become artisans, for there is not enough food to feed so many people where the mountains are dense and the fields cramped.”¹⁰ Tang Ying (1682–1756), an imperial scholar-official associated with Jingdezhen for almost three decades from his first appointment there in 1728, wrote that “the fire stands in the same relation to them as fine weather and rain to others, and they depend on porcelain as others do on millet and corn.” Or as a poet put it centuries earlier: “Ten thousand chimneys smoke to fill ten thousand mouths.”¹¹

Dentrecolles aspired both to win converts among the artisans and to discover their secrets of porcelain, a commodity desired and imitated everywhere, not least

in the France of Louis XIV. In the workshops of the potters, the Jesuit “preached Him who made the first man out of clay and from whose hands we depart to become vessels of splendor or of shame.” Despite the costly sea green antiques and gilded vases for sale on Porcelain Street, he most treasured a gift from a parishioner, a crude plate found in the rubbish of a shop and decorated with the Virgin and St. John flanking the Cross, a relic he valued “more highly than the finest porcelain made a thousand years ago.” One of his converts told him that similar ceramic souvenirs had been smuggled into Japan in cases of ordinary wares until the “enemies of religion” halted the traffic shortly before Christianity came to Jingdezhen.

“SENDING PORCELAIN TO ALL PARTS OF THE WORLD”

Dentrecolles notes that some of his parishioners kneaded clay for a living: “But this work is very grueling, and those Christians who are employed in it have difficulty attending church; they receive permission only if they can get a substitute, for when this labor is stopped, all the other workers are held up.” Kneading clay was just one of the many coordinated steps needed for the manufacture of porcelain. Jingdezhen used methods of mass production centuries before the advent of machine power and the assembly line.¹² Since, as Dentrecolles proclaims, “Jingdezhen alone has the honor of sending porcelain to all parts of the world,” such techniques were essential. The connection would not have surprised Adam Smith. Familiar with Chinese porcelain from massed displays in the drawing rooms of Edinburgh and Paris, he articulated the economic principle that governs the production of well-traveled commodities. In the famous third chapter of *The Wealth of Nations*, he explains that division of labor in production increases as the market for merchandise expands.¹³ Coordinated effort, specialized skills, and standardized replication of wares were the only way for Jingdezhen to fill short-term orders for huge amounts of porcelain from seagoing merchants in Canton and other ports.

Francesco Carletti (ca. 1573–1636), a Florentine merchant, expressed astonishment at the porcelain he saw in Macao around 1600: “The quantity of it is so great that whole fleets, let alone single ships, could be laden with it.”¹⁴ Even before the Portuguese arrived in China in the early sixteenth century, they routinely transported as many as 60,000 porcelains from India in a single carrack; cargoes of 200,000 became common after they established direct trade with China.¹⁵ Ships of the Vereenigte Oost-Indische Compagnie (United East India Company), or VOC, of the United Provinces of the Netherlands carried more than 600,000 ceramics from China every year between 1600 and 1700, 20 percent of which went to Europe. The Dutch also kept some 900,000 porcelains in stock at a transfer depot at Anping Gang on the coast of Taiwan (Formosa), just as the English East India Company (EIC) kept large stores in its London warehouse. A VOC vessel shipped 150,000 ceramics in 1700, and an English one took away forty tons (or some 500,000 pieces) ten

years later. In 1721 four ships of the EIC loaded 210,000 pieces each. The sales catalogue of a cargo reveals that a Swedish ship brought back precisely 499,061 porcelains in 1732. Another Swedish vessel, the *Göteborg*, transported 700,000 Chinese ceramics in 1745, as well as silk, tea, rattan, mother-of-pearl, and spices; but it famously sank within sight of its home port of Gothenburg after a round-trip journey of over two years and 40,000 kilometers. In the 1777–78 sailing season, the VOC, the EIC, and other European East Indies companies exported a total of 697 tons (more than 8,700,000 pieces) of porcelain from Canton on twenty-two vessels.

It all added up to at least 300 million pieces of chinaware arriving on European docks in the three centuries after the Portuguese reached China. Huge amounts also were shipped throughout East Asia and to Southwest Asia, bringing the export of porcelains during those centuries to an average of some three million pieces every year. Most came from Jingdezhen, although hundreds of kilns on the coast of the southern provinces of Guangdong and Fujian also produced substantial quantities of less highly regarded chinaware for Korea, Japan, and Southeast Asia. A late Ming writer belittled those kilns for making “porcelain buddhas and delicate figurines, things of no great practical value.”¹⁶ Dentrecolles points out that even foreigners did not mistake the ceramics for Jingdezhen porcelains, for coastal wares are “snow-white, without luster, and never decorated with colors.”

Even with millions of pieces being exported, however, porcelain was never the main Chinese export. In the early eighteenth century, it generally ran a distant third behind silk and tea destined for western Asia, with fans, lacquerware furniture, quicksilver, vermilion (or cinnabar), sugar, dye, crude zinc, camphor, dried rhubarb (a medicinal drug), copper, and gold as supplementary exports. In 1698 the EIC’s Court of Directors in London, headquartered in Leadenhall Street, instructed the captain of the *Fleet Frigate* to acquire “the very best sorts of China Goods,” including fabrics of silk, damask, and velvet (“as much differing as possible from English Patterns”), and tea of “the very best sort” and to fill all space otherwise available with chinaware of the “greatest variety of Colours and Paints.”¹⁷ Yielding steady profits of 80 to 100 percent, porcelain represented 5 percent of the value of all VOC shipments and 2 percent of the value of all Asian exports of the EIC. In 1752 the VOC’s *Geldermalsen* sank on its voyage from Canton to Batavia (Jakarta) carrying 162,000 porcelains, including 27,531 dinner utensils, 63,623 teacups and saucers, 578 teapots, 19,535 coffee cups and saucers, 821 beer tankards, and 606 vomit pots—all of which amounted to 5 percent of the cargo’s value. But along with 125 gold bars, it was the only part of the shipment eventually to reach market: excavated from the bottom of the South China Sea in the 1980s, the porcelains, still in excellent condition, were auctioned in London for £10 million.¹⁸

Mass production also was essential for large commissions from domestic entrepreneurs and from the imperial court in what is now Beijing. The latter sometimes called for table services and ritual vessels in a wide variety of hues and shapes.

A devotee of porcelain, the Xuande emperor (r. 1426–35), ordered more than 400,000 pieces in some years. The Wanli emperor (r. 1573–1620) called for only 100,000 per year, a burden still great enough to cause disgruntlement among the potters. In the early eighteenth century, on top of other orders, imperial officials annually sent a consignment of 50,000 bowls, dishes, and plates to the capital. In addition, the emperor often commissioned similar quantities as diplomatic gifts to kings and chiefs as part of the tributary trade with overseas polities that China regarded as clients. The founder of the Ming dynasty, the Hongwu emperor (r. 1368–98), sent an envoy in 1375 to the Ryukyu Kingdom (modern Okinawa), southwest of Japan, with 70,000 porcelains for local potentates.¹⁹

Some three hundred kilns won designation as suppliers for the emperor, with private producers also drafted into service when Beijing's demands outran the capacity of the imperial furnaces. Eunuch agents of the Son of Heaven (Tianzi) supervised the kiln complex, which comprised over 50 master craftsmen and some 350 workers serving two dozen departments. The people of northern Jiangxi paid high taxes to fund imperial costs for kiln construction, raw materials, labor, and shipping. Moreover, the standards for imperial (or "official") articles were lofty, even oppressive at times. Porcelains regarded by the eunuchs as unsuitable for the emperor supposedly were smashed and buried so that nonimperial hands would not sully them; but the overseers actually sold huge amounts clandestinely on the home market, despite severe penalties if found out. Some connoisseurs, however, preferred the output of private kilns because it generally displayed greater invention and imagination. A Qing authority explained that potters working on official wares are "unwilling to take risks," whereas those serving private kilns "scribble freely trusting to their hands. Experienced brushes are 'given their heads.' . . . [T]hey alone reach heights to which others cannot attain."²⁰

As Dentrecolles reports, some items demanded by the court were so fine and delicate that potters had "to place them on cotton wool since they could not be handled without breaking." Others proved too intricate or unwieldy to be molded and fired, such as thick-sided tanks, perhaps to be used as bathtubs, which certain potters labored on for three years without success. The imperial kilns, however, represented no more than a fraction of those in Jingdezhen, and they were the only ones subject entirely to government direction and, for all practical purposes, held captive to a single customer. While artisans in official and private kilns, along with all other handicraft workers, had to join guilds that supervised conditions of employment and living quarters, most potters working in private operations effectively escaped government supervision and control. Instead, they had to satisfy consumers by means of their own expertise and industry.

Far-flung and varied markets fostered an artisan mentality in Jingdezhen that was exceptionally open to innovation. Virtuosity and flexibility were as essential for the prosperity of the porcelain city as standardization and mass production. Such

adaptability was unusual, for in peasant societies potters are notoriously conservative craftsmen: they are close to their materials, committed to repetitive tasks, and constrained by local mores, and they service isolated markets. Unlike farmers, whose livelihood is at the mercy of the weather, potters depend on their skill, on techniques developed by trial and error. Because poor potting and a bad firing could wipe out months of labor and destroy a household, potters usually are devoted to turning out the same sort of wares by time-honored methods.²¹

In contrast, Jingdezhen's orientation to distant markets encouraged creative, resourceful enterprise. Change came from the outside world, forcing potters to look beyond their mountain fastness. The spread of Buddhism in China in the Sui and Tang periods meant new ceremonial paraphernalia were required; hence Jingdezhen and other pottery centers produced ceramic versions of reliquaries, alms bowls, oil lamps, and stem-cups. A popular form in China (and later in Southeast Asia) proved to be the *kendi*, a small Indian pouring jar (or jarlet) used for ritual ablution, with a bulbous body, no handle, and a spout set at an angle to the shoulder.²² Jingdezhen potters also produced a range of unique products for the studies of Chinese literati (*rujia*), such as inkstones, water droppers, brush pots, wrist rests, paperweights, and chess sets. At least one kiln specialized in musical instruments, turning out flutes, flageolets, and miniature carillons with nine chimes. According to Dentrecolles, artisans displayed notable skill in their crafting of idiosyncratic items (or "toys"), such as tortoises that float on water and a cat "whose head held a lamp, the light of which gleamed through its two eyes." "They assured me," Dentrecolles reports, "that in the night the rats were terrified by it." Obeying commands from a son of the emperor, potters made a massive lantern in a single piece that could light up a whole room; but they botched an attempt to produce a fourteen-pipe organ that he also demanded. (See figures 3 and 4.)

Beyond exotic articles for the court and common wares for the domestic market, Jingdezhen produced works catering to the tastes and needs of consumers around the world: Edo (Tokyo), Manila, Batavia, Delhi, Isfahan, Cairo, Venice, Amsterdam, and Paris. In fact, Dentrecolles arrived in the porcelain city shortly before the VOC and other Western joint-stock companies opened offices in Canton to facilitate relaying commissions to kiln owners. After 1700 European orders for wig stands, picture frames, close-stool pans, shaving basins, colanders, hyacinth vases, bulb pots, walking-stick handles, mustard jars, saltcellars, fork handles, sauceboats, chafing dishes, cheese cradles, and pudding molds stretched further the proficiency of the artisans. English traders ordered newly fashionable monteiths (glass chillers) in the late seventeenth century—bowls with semicircular cuts in the rim for propping wine glasses resting on ice in the center—providing wooden models alien to the Chinese. The Dutch sent glass cruets, vessels with double spouts and a vertical partition inside to separate oil and vinegar, to be copied. For less specialized items, potters substituted familiar objects: when Dutch merchants requested spittoons in

1700, the order was filled by adapting the shape of an octagonal vase used for displaying a single lotus flower.

Dentrecolles claims that in filling a European commission twenty years later, the workmen “made some designs which were supposed to be impossible”: urns fourteen centimeters tall, topped with pyramidal caps, each made in several pieces, yet molded together so adroitly that joinings could not be detected. “I was told,” he relates, “that eighty urns were made, but that only eight of them were successful, all the others being ruined.” The appearance of Westerners in China led to production of figurines of them, invariably unflattering caricatures rather than realistic portraits. According to Lan Pu’s *Potteries of Jingdezhen*, a late-eighteenth-century compilation of views on porcelain, traders in such eccentric pieces came mainly from Guangdong province, where Europeans tended to cluster: “They sell them to the foreign devils to fill their markets. The shapes are usually very strange.” An early-eighteenth-century, gnomelike figure of a Dutchman, commissioned by VOC merchants and christened “Mr. Nobody” (after a character in an English play), doubled as a drinking vessel. A porcelain cup from the same time bears a depiction of Dutch merchants, big-nosed and oddly garbed, shopping for such souvenirs at a Canton pottery stall.²³

Beyond serving a wide and diverse market, the artisans of Jingdezhen were impelled toward novelty by their production of skeuomorphs—objects that imitate the form or shape of one material in another.²⁴ As the apocryphal book the Wisdom of Solomon (15:9) declares, potters “must compete with workers in gold and silver and imitate workers in bronze.” Everywhere they worked, potters provided an attractive, down-market substitute for vessels of precious metal and semi-precious gemstone. Furthermore, the pliability of clay allowed an adept potter to mold it to mimic commonplace materials, such as wood, horn, and leather, as well as turn out fanciful sculptures in baked clay, such as crayfish, lotus flowers, and crab-apple blossoms. From the late Shang period (ca. 1000 B.C.E.), pottery imitated ritual bronze vessels used as ceremonial utensils and funerary goods. During the Tang, potters in Jingdezhen and elsewhere in China time and again developed new skills and designs by replicating vessels from models in jade and silver. From the Song, they also supplied the markets of Southwest Asia with ceramic versions of artifacts, such as brass hand warmers, rock-crystal (quartz) ewers, ivory chessmen, and rosewood prayer screens.

Not surprisingly, Jingdezhen also profited from making imitations of ancient ceramics, especially those of the Song period. A talented potter and antiquarian, Tang Ying learned the art of making “close copies of famous wares of the past,” elegant ceramics in a sea green hue that he would present to his patrons at the imperial court.²⁵ Without actually naming Tang, Dentrecolles describes how “the mandarin who has honored me with his friendship” would put porcelains into a fatty soup, after which they would be fired a second time and then stowed in a foul sewer for

at least a month. They emerged from this noxious treatment looking several centuries old, and because they were thickly potted, “they do not ring when struck and make no humming noise when held close to the ear.”

By the time Dentrecolles arrived in Jingdezhen, potters had broadened their repertoire to turn out porcelain facsimiles of Dutch pewter beer mugs, Venetian crystal vases, and French silver loving cups. Zhu Yan, a former governor of Jiangxi province and the author of *A Description of Pottery* (1774), the first thorough survey of Chinese ceramics, states that “among all the works of art in carved gold, embossed silver, chiseled stone, lacquer, mother-of-pearl, bamboo and wood, gourd and shell, there is not one that is not now produced in porcelain, a perfect copy of the original piece.” He also notes that potters decorated porcelains with gleaming enamel colors that mimicked dyes on fashionable brocaded silks, complete with designs of sporting fish, sacred storks, and sky-soaring dragons.²⁶

The very plasticity of clay, then, combined with a wide variety of consumers, demanded that Jingdezhen potters tirelessly expand their technical expertise. Yet, although they showed versatility in adapting alien shapes and decoration, their reliance on distant markets rendered them vulnerable to shifting fashions and foreign economies. Dentrecolles observes that “for one workman who becomes rich, there are a hundred others who are ruined but who don’t stop striving for their fortune because of their ambition to earn enough to open a merchant shop.” Hard luck inescapably arose from the bright possibilities held out by the porcelain city.

Jingdezhen functioned with ungainly efficiency: with predictable impoverishment of potters, with rivalry among kilns and entrepreneurs, with considerable waste and worker dissatisfaction, without direct contact with its most important customers, without central direction over several thousand furnaces—yet with effective and flexible division of labor as a whole. It achieved domination of the global market in ceramics not only by virtue of the superiority of its product but also by the scale and organization of its production. It represented the climax of handicraft industry, the grandest achievement of wholesale, concentrated manufacture before the age of steam-driven machines. More than a hallucinatory vision of the city at night, Dentrecolles’s evocation of Jingdezhen as a single gigantic furnace reflected the reality of its daily production.

“THESE VESSELS PASS THROUGH SO MANY HANDS”

To keep all the kilns of the city supplied, workers shoveled clay through a series of suspension ponds, then others skimmed off the creamy surface residue, from which organic impurities had been eliminated.²⁷ Dentrecolles notes that “one hair or one grain of sand could ruin all the work,” that is, cause the porcelain to crack or warp. After this laborious procedure, refining and kneading the material were broken down into additional stages, including beating the clay with wooden spatulas by

day and night. One-tenth of the vessels produced were “pressed ware,” made by packing the clay paste into clay molds. According to Tang, only a small number of “really clever hands” could make the molds, ensuring that the identical pattern and form of a vessel could be replicated by ordinary craftsmen thousands of times. Mold makers enjoyed some prestige among the potters and lodged in separate quarters. A ready supply of an assortment of molds, Dentrecolles reports, meant that a merchant increased his profit by supplying his customers “much quicker as well as cheaper than another who would have to make the molds.”

Twenty artisans worked in sequence on a single piece of porcelain before it was put into a kiln for the first time. Workers blew glaze through bamboo tubes and gauze onto some large vessels as many as seventeen times. By Dentrecolles’s count, at least seventy craftsmen worked on polishing, decorating, and glazing the fired porcelain before it was returned to the oven for a second firing. “It is surprising,” he remarks, “to see with what speed these vessels pass through so many hands.” A portrait of a chrysanthemum on a vase had its petals outlined by one decorator, its stalk by the next, and additional embellishments by others. As Dentrecolles explains, “One workman draws only the first color line on the rim of the porcelain; another traces flowers, which a third one paints; this man is painting water and mountains, that one either birds or other animals.” This anticipates nicely Adam Smith’s celebrated description of the division of labor in the production of pins:

One man draws out the wire, another straightens it, a third cuts it, a fourth points it, a fifth grinds it at the top for receiving the head; to make the head requires two or three distinct operations . . . and the important business of making a pin in this manner divided into about 18 distinct operations.²⁸

Tang claims that to maintain uniformity as well as excellence in painted decoration, pottery painters who sketched designs and those who filled in the colors were forbidden to develop other skills so that “their minds are not distracted.”

Zhu Yan provides an inventory from 1529 of over fifty designs on porcelain vessels—including dragons piercing scrolls of Indian lotus flowers, flying storks amid sprays of blossoms, and phoenixes rising into clouds of propitious omen—and he assures his readers that “in a short summary like this it is impossible to give a complete list of all the different designs.”²⁹ For generations, illiterate decorators had copied Chinese and Arabic calligraphy stroke by stroke, an experience that stood them in good stead in the eighteenth century when they began ornamenting table services with the equally incomprehensible heraldic crests of European nobility. In the eighteenth century, more than half the directors, captains, and supercargoes of the EIC purchased armorial dinner and tea services, part of the five thousand English armorial sets commissioned in Canton, including some for regiments and societies. In London, various craft and guild institutions—including the Companies of the Fishmongers, Butchers, Bakers, Poulterers, Bricklayers, and Merchant

Taylors—purchased porcelain tureens decorated with their coats of arms.³⁰ Jingdezhen produced a tea set decorated with the impaled arms of John Drummond and Lady Charlotte Beauclerk (granddaughter of Charles II and Nell Gwyn), a wedding gift for the highborn couple. (See figures 5 and 6.)

Working from written instructions and sketches, the Chinese decorators naturally made mistakes, such as superimposing one coat of arms on another, facing crests in the wrong direction, muddling the coloring, appending feathers to a wolf, mistaking dolphins for birds, and transforming fearsome bear claws into clumps of grass. An artisan copied a coat of arms from a bookplate sent as a model for a set of armorial porcelains by enclosing it in a neat rectangular border, precisely as it appeared on the handy bookplate. A tureen in a Swedish service had an odd grayish cloud painted next to the coat of arms, evidently the result of a water stain on the sketch during the voyage to Canton.

Armorial porcelains cost ten times as much as standard tableware. A complete service sent to England in the early eighteenth century, counting shipping and payment of customs duty, came to £100 (or roughly \$17,200 in today's terms). It therefore must have been distressing for a landed gentleman to commission a service, which took about three years from order to delivery, only to have it finally arrive with his directives inscribed next to the requisite decoration on every piece: *Our coat of arms* or *This color is red*. Persian potters compounded the confusion when they copied Chinese renditions of European armorial bearings onto their own earthenwares: Latin maxims descended into gibberish, and heraldic arms loomed over landscapes of gigantic lotus blossoms.³¹

Decoration from Louis XIV's court, such as festoons of tendrils and floral swags, began to appear on Jingdezhen pottery in the early 1700s. By the late eighteenth century, Jingdezhen potters treated motifs on plates and platters for the European market as interchangeable parts (peony, bird, willow tree, fence, jagged rock, pavilion) that they selected to depict a simple garden vignette on a teacup or a full-fledged panorama on a soup tureen. A dinner service commissioned by a French courtier achieved an elegant note, however: decorated with border cartouches of a carp in a stream, which in China symbolized a student struggling forward in the Confucian civil examination system, the motif was gracefully adapted as a punning homage to Mme de Pompadour (1721–64), née Jeanne-Antoinette Poisson, mistress of Louis XV (r. 1715–74). Around the same time, the Dutch used similar dishes to serve fish, surely thinking potters painted the motif with that in mind. A generation later, the same design performed additional pedestrian duty as the main decoration on a punch bowl made for the Schuylkill Fishing Company of Pennsylvania.³²

Porcelain painters fulfilling Western commissions had to decipher a host of baffling representations from Roman literature, the Bible, and European current events. These included Neptune with his trident, Venus rising from the sea, Adam and Eve in the Garden of Eden, the Ascension of Christ, sword-wielding Scots in

kilts, urban riots in Holland, and even a porcelain shop in Amsterdam. In the 1720s Dutch merchants, always delighted to needle the English, ordered plates embellished with satires on the financial scandal of the South Sea Bubble: harlequins frolicked around legends proclaiming “Away foolish shareholders!” and “By God, lost all my shares!”³³ On a porcelain cup depicting the Crucifixion, potters mistook the dice thrown by Roman soldiers at the foot of the Cross for tiny roses and put a garland of flowers on Jesus instead of a crown of thorns. Sometimes potters were required to copy illustrations of classical love stories ranging from the mildly erotic to the unreservedly pornographic. A Jesuit noted that Chinese artists and craftsmen expressed astonishment at European prints and engravings that served as models: “In China they laugh at figures that get lost under the frame, princes bareheaded and naked on a charger, princesses with their breasts uncovered and dressed in ermine in the face of a garden that clearly speaks of summer, or Christian virgins dressed up like actresses.”³⁴

As a result of the special care required, Western scenes on pottery were expensive. Dutch merchants in Canton advised the VOC directors that all “European painting or figures cost twice as much as Chinese.” According to Dentrecolles, porcelain decorators depicted human figures feebly, though he cautions that “certain landscapes and illuminated city prospects brought from Europe to China hardly allow us to ridicule the Chinese for the manner in which they portray themselves in their paintings.” Muslim religious strictures, however, strictly limited the range of depictions on porcelains. An official of the EIC instructed his porcelain buyer in Canton that “one General Rule must always be observed [regarding porcelains destined for Southwest Asia], and that is, never to pack a piece of Ware that hath the figure of Humane Species, or any Animal whatsoever.”³⁵

In general, Westerners emphasized the color and shape of wares more than the drawings on them. Dentrecolles scorned the Chinese portrayal of people and animals for the same reason that João Rodrigues (1561–1633), a Jesuit who served in both Japan and China, criticized the Japanese: “They can hardly be compared with our painters as regards the proportions of the body and in respect to the body itself. For they lack a true knowledge of shading figures, for it is this which makes them stand out and gives them strength and beauty.”³⁶ Giovanni Gheradini (1654–ca. 1704), a Modenese painter who came to China with Dentrecolles in 1698, dismissed Chinese art as soon as he arrived:

The Chinese have as little knowledge of architecture and painting as I of Greek or Hebrew. Yet they are charmed by fine drawing, by a lively and well-managed landscape, by a natural perspective, but as for knowing how to set about such things, that is not their affair. They understand far better how to weigh silver and to prepare rice.³⁷

Exotic allure, however, generally trumped supposedly inferior composition. In 1637 the directors of the VOC sent instructions to its agents in Batavia:

In the sale of the last received porcelains we found that the kinds painted with Dutch figures were not as much esteemed and in demand as the ones which are decorated in the Chinese manner and in the custom of their country, so that you should write to Tayouan [Taiwan] and command them that in the future they should always and until further express order send no other porcelains than those painted in the Chinese way.³⁸

Beyond decoration of porcelains, mass production also was evident in the operation of kilns. Manufacturers specialized in certain items, such as storage jars and fishbowls, wine cups and lanterns. Some kilns produced replicas of porcelains from the Song; others copied bronze vessels from the Shang period or jade cups from the Han. At the end of the Ming, two kilns produced only imitations of ancient pieces. Some concentrated on large “dragon jars,” painted with motifs of dragons surrounded by clouds, pearls, lotus petals, and flowers of Paradise. One kiln specialized in dishes for Japan, where fishnets were an auspicious symbol, bearing delicate designs of a blue net tied with a bow. Another operation concentrated on “toad ware,” bowls modeled as toads, a symbol of wealth and good fortune in business, squatting amid orchid clusters and bamboo leaves.³⁹

Crews worked in shifts around the clock, for the firing of a kiln required continual supervision. Experts directed the complicated loading of wares and the stoking of furnaces. Like many specialists, kiln fillers lived in separate housing and had a supervisor and regular hours of employment. By the early Qing period, a tradition existed tracing groups of kiln fillers to various outlying villages of Jingdezhen. Kiln stokers (or bakers) broke down into “the hot fire men, the slow fire men, and circulating fire men,” since a variety of wares called for a range of temperatures and baking times.⁴⁰ Furnace tenders sprinkled water to keep fire channels clear, peering in the “fire-eyes” of the kiln to direct the blaze where needed. A kiln burning pine faggots (for superior ware) called for different methods than a kiln using brushwood (for coarse ware). Constant firing of kilns naturally dictated constant repair. The Wei family monopolized that job since the Yuan period: they “handed the procedure down from teacher to pupil,” using an inimitable, secret mortar with the consistency of molasses.⁴¹

Dentrecolles thought it remarkable that everything in the kiln is “fluid and flowing”: a copper coin on top of a pile of porcelains would melt through all of them to the floor of the oven. As *Potteries of Jingdezhen* explains, firing the furnace called for an exquisite balance of considerations:

Unless the fire is hot and strong, the pieces will not get cooked evenly. Unless the fire is small and low, the moisture will not dry by degrees, with the result that the colour after baking will not be sleek and glossy. Unless the fire circulates freely, the middle and the rear, the left and the right, cannot get thoroughly baked, and raw patches are bound to occur.⁴²

The kiln master used various methods to determine when the firing reached perfection, such as looking in the vent holes to ascertain when the gravel on the bed of the furnace started to glitter or when an individual vessel could be seen emerging from the enveloping flame. In a 1637 treatise on technology, Song Yingxing writes that in a red-hot kiln “the porcelain pieces are soft like cotton wool,” and the kiln master would take one out with a pair of iron tongs to determine if it was time to smother the fire.⁴³ The largest kilns held 100,000 pieces, and firing could take as long as a week. Fireclay cases, or saggars, made in a village five kilometers downriver from Jingdezhen, protected each piece. Using saggars meant that wares could be stacked on top of one another in the kiln, thereby increasing the number that could be fired at a time. Good saggars could be used for up to ten firings, but poorly made ones disintegrated after only a few. According to Dentrecolles, employing saggars ensured that “the complexion of the porcelain is not breathed on by the ardor of the fire.”

With or without saggars, the force of fire could result in beautiful, bizarre, or repugnant effects. Citing a Jingdezhen chronicle, Dentrecolles claims that some fine porcelains in ages past were “so much sought after that the furnace was hardly opened before the merchants squabbled over the first pick.” Vessels came from the kilns with marks on the glaze in the shape of butterflies, unicorns, and leopards, unforeseen forms and colors that were “most lovely spontaneous creations of the fire, the causes of which it was impossible to explain.” A seventeenth-century treatise on pottery observed that fired vessels sometimes changed color from yellow to purple “due to some magic in the fire which is beyond our understanding.”⁴⁴ Some ancient wares were considered so dazzling that broken ones would be mended with a diamond-tipped needle and brass wire, the sutures too faint to be seen. Sometimes a fragment would be framed and mounted “like a precious stone, it was so rare and highly prized.” Zhu quotes a Song connoisseur as exclaiming, “How lucky it would be even for a rich man to get a single bowl in color like a solid jewel, with its rays flashing light on every side!”⁴⁵

Such marvels were always in peril, however. Pieces shattered in the flames of every kiln, and many warped or fractured. In the eighteenth century, potters routinely doubled the quantity ordered in a large commission because half the raw-clay pieces would turn out “knock-kneed, flattened, or otherwise injured and spoilt.”⁴⁶ Colors frequently went awry, and repellent shades—variously called “pig liver,” “camel lung,” “rat skin,” “nose mucus,” and “dribbling spittle”—made the firing a waste of time and money.⁴⁷ When tens of thousands of vessels bloated and collapsed into a rock-solid heap, the kiln owner faced ruin from losing months of labor and his capital investment.

As Dentrecolles points out, colossal amounts of ceramic debris piled up around Jingdezhen from more than a thousand years of production; but since “in China, everything is put to use,” the city built on its mundane misfortune. Kiln rubbish

served as filler for the brick walls of buildings and, mixed with stone and gravel, as masonry material. Dumped on the banks of the river below the town and pounded on by traffic for years, it eventually became the foundation for new markets and streets. Swept away in floods, porcelain shards paved the riverbed with a chromatic shimmer, affording the Jesuit “a delightful sight” as he strolled along the Chang on a sunlit day.

Clearly, Dentrecolles had an eye for the splendors of smoky, polluted Jingdezhen. He expresses wonder at the magic worked by blazing kilns on clay and pigment: “The fire makes [the murky shade of the painting under the glaze] appear in all its beauty, almost in the same way as the natural warmth of the sun makes the most beautiful butterflies, with all their tints, come out of their eggs.” A potter showed him a vessel that seemed akin to milky quartz, the only one of hundreds that miraculously survived the firing. Some porcelains displayed vivid portraits of Chinese and Tatar ladies: “The drapery, the complexion, and the features were all exquisite, so that from a distance one might have thought they were pieces of enamel.” An ivory-white ware bore designs traced so deftly “it appears as if a thin vapor spread over its surface.” A glowing porcelain had a glaze so threaded with veins “one might think it was shattered into a thousand fragments without falling to pieces, so that it resembles a piece of mosaic work.”

Similar enthusiasm for the wares of Jingdezhen is expressed by Tang, praised by contemporaries because “His Excellency’s heart was in his pottery.”⁴⁸ To some extent, the same could be said of Dentrecolles: intent on discovering the secrets of porcelain manufacture, he became enchanted by the artifact itself. Yet he also highlighted the excellence of porcelain as a way to win support for his all-important pastoral vocation: “Perhaps some pious individual, who admires the beautiful works that Jingdezhen furnishes to all Europe, would be zealous enough to consecrate a small portion of his wealth to the conversion of the workers who make them.” He emphasizes that he has a sizable flock, increasing every year. In 1722, he tells the reader, he baptized nearly fifty adults, so his congregation is in urgent need of additional catechists and a larger temple.

“CHINESE WORKERS WHO MAKE PORCELAIN”

Many kinds of laborers and craftsmen provided materials and skills for pottery production, and besides kneaders of clay, the Christian converts perhaps included clay miners, stone crushers, wood choppers, basket weavers, rope makers, carpenters, ironmongers, barrel makers, brick molders, kiln builders and repairers, saggars makers, clay throwers and stampers, mold makers, wheel spinners, glaze mixers and appliers, kiln loaders, fire stokers, brokers, packers (“mat-men”), porters, and boatmen. “Pile assessors” made bids on odd lots of porcelains with blotches and cracks, goods they smartened up and sold at the flea market on the island in the Chang.

One-armed men stomped clay with their feet, and debtors swathed in sodden rags repaid loans by unloading the blistering kilns.

In workshops thatched with rice-straw, the elderly and blind sat on low stools grinding pigments with unglazed porcelain pestles. Youngsters rubbed decorative gilding on wares with garlic bulbs to fasten the material during firing; they crouched at the feet of potters, spinning their wheels by means of two bamboo sticks. Novice painters brushed fired pots, still warm from the oven, with the boiled juice of old tea leaves to produce dappled patterns in imitation of antique porcelains. Painters and enamellers, groups that included many women, worked in clean surroundings and received relatively good pay; hence they regarded themselves as superior to drudges such as clay humpers and kneaders.

Still, few pottery workers earned more than a pittance, in part because an abundance of laborers kept wages low. As Dentrecolles observes, “Jingdezhen is the refuge for innumerable poor families who can’t support themselves in nearby villages.” Workers received payment in *jiazhi*, circular copper coins pierced by a square hole. The shape derives from Chinese cosmology—an allusion to the sphere of Heaven encompassing the four-sided Earth—and goes back to the Zhou period. *Jiazhi* ultimately stems from *karshāpana*, the Tamil (Indian) word for a small base-metal coin. Malays in Sumatra called their tin coin *kasha*, which the Portuguese rendered as *caixa* and the Dutch as *casjes*, the source for the English *cash*. A string of 1,000 copper-cash was worth one tael (an ounce) of silver in the early eighteenth century.⁴⁹

A run-of-the-mill potter, making commonplace items such as bowls and saucers, received three cash for every twenty-six porcelain pieces (termed a “plank”), with the expectation by the workshop manager that he would turn out one hundred pieces every day. If a diligent potter produced six planks daily, he would earn 6.5 taels a year, roughly the same income as an agricultural laborer. Painters made 9 taels a year, and the most skilled potters received 12. In contrast, an ordinary bowl cost one-tenth of a tael (or 100 copper coins) and good-quality items cost 2 taels apiece (or 2,000 coins)—that is, one-third of a common potter’s annual income. With the assistance of Jesuits in Macao around 1600, Carletti purchased an assortment of 650 good plates and bowls for 20 taels (or 300 cash apiece) and five exceptionally fine blue-and-white vases, made from “that which they call the flower of the earth,” for 14 taels.⁵⁰

Harsh treatment and miserly pay sometimes drove workers to sabotage, strikes, and rebellion. In the early fifteenth century, four thousand craftsmen tried to flee Jingdezhen, but soldiers dragged them back to their work sheds. Following a devastating flood in 1540, hunger riots erupted in the city and brought work to a standstill. Revolts also took place in 1574, 1597, and 1602. In 1604 independent potters, ordered by an imperial magistrate to provide more wares for Beijing than usual, burned down kilns in protest. Squabbles between gangs of workers from different districts of Jingdezhen at times spiraled into attacks on kiln owners; demands for

payment on time escalated into work stoppages and uprisings.⁵¹ Dentrecolles relates that valuable antique porcelains buried for safekeeping during these violent outbreaks occasionally came to light in the ruins of buildings or when cleaning out old, disused wells.

Fighting in the Rebellion of the Three Feudatories (1673–81), a major challenge to the new Qing dynasty, swept through Jingdezhen and caused destruction of the furnaces. Half the kiln owners lost their property, and a Dutch merchant recorded that there was “great mortality among the porcelain makers.”⁵² In 1681, trying to provide a more secure place for porcelain manufacture, the Kangxi emperor (r. 1661–1722)—who, Dentrecolles says, “never misses a thing”—unsuccessfully tried to transplant some potters and their materials to Beijing. Around the same time, hoping to trade directly with European merchants, a number of craftsmen moved their production south to the coast of Fujian province; but, as Dentrecolles reports, “they were not successful in their manufacture” so far from home.

The Qianlong emperor (r. 1736–95) condemned exploitation by kiln owners, instructing them to abstain from harsh behavior that provoked incidents. Imperial overseers, however, who had less concern for the welfare of their charges than for their own standing with distant superiors, often compounded the tribulations of workers. Qianlong concluded once, “The porcelains Tang Ying sent to the court this time are still of the old fashion. Why did he not follow the new models dispatched to him and produce new wares? All the costs and expenses of their production and transportation shall not be reimbursed from the court; instead they shall be borne by Tang himself.”⁵³ If the superintendent followed common practice, however, he would have passed on his losses to the potters under his command.

According to Dentrecolles, whatever the range of wages in Jingdezhen, all “Chinese workers who make porcelain,” including painters and enamellers, endured poor and wretched lives, subject to beatings by their masters if they made mistakes or failed to complete assignments. As expressed by a Song poet, hardship and inequality were the perennial fate of potters:

Pots cover every inch of space before the door
 But there's not a single tile on the roof.
 Whereas the mansions of those who wouldn't soil their fingers with clay
 Bear tiles overlapping tightly like the scales of a fish.⁵⁴

When wealthy entrepreneurs bought up shops and homes in the center of Jingdezhen in 1730, a local official complained, “Most merchants rent out dwellings in the pursuit of their despicable profession. They invariably throw out the old and the sick who are unable to work.”⁵⁵ When there was a cutback in production, workers went back to their home villages to eke out an existence or stayed in the city and sold freshwater snails and fish in the streets.

Inspired by Western commissions, imperial agents entreated Dentrecolles to ob-

tain novel designs from his compatriots that might gratify the emperor. Instead, the pastor responded to the pleas of his flock:

The Christians implore me strongly not to furnish such models, for the mandarins are not so understanding as our merchants when the workers tell them that something is impractical. And the bastinado is often applied liberally before the mandarin gives up on a design which promises great advantages.

Although the faith preached by Dentrecolles no doubt provided a measure of consolation to his converts, for some it replicated the misery of their labor. He laments that in their worship they adopt “holy castigations, which they inflict upon their flesh: I have sometimes been obliged to send them away from the church to make them take a little rest.”⁵⁶ They had an agitated longing for relics and rosaries; they put the holy water their pastor gave them into sealed porcelain jars to preserve its miraculous properties. Still, however zealous his converts, Dentrecolles probably was chagrined that they did not pay exclusive worship to their Christian savior. Indeed, he found himself sermonizing amid a Babylon of strange gods.

“MIRACLE-FANCIERS”: FAITH AND FURNACE TRANSFORMATION

European missionaries in China discovered that both the common people and Confucian literati casually assimilated diverse religious notions and spurned the dogmatism of salvation religion. Religious cults in China did not emphasize doctrinaire belief, theological rigor, or transcendent truth. Rather, they focused on sanctioned tradition, ritual performance, and civic morality.⁵⁷ As a consequence, Chinese listeners displayed incredulity or indignation when Christian missionaries preached their one, true religion. According to Matteo Ricci:

The number of idols in evidence throughout the kingdom of China is simply incredible. Not only are they on exhibition in the temples, where a single temple might contain thousands of them, but in nearly every private dwelling. . . . In public squares, in villages, on boats, and through the public buildings, this common abomination is the first thing to strike the attention of a spectator. Yet it is quite certain that comparatively few of these people have any faith in this unnatural and hideous fiction of idol worship. The only thing they are persuaded of in this respect is, that if their external devotion to idols brings them no good, at least it can do them no harm.⁵⁸

Ricci detected the same spiritual insouciance among the Confucian elite, for they made “the very distracting error of believing that the more different ways there are of talking about religious questions, the more beneficial it will be for the common good.”⁵⁹ He had to acknowledge, however, that “the great confusion of religious sects” in China had fostered tolerance of spirituality that worked to the advantage of the Jesuit mission.⁶⁰ It was just such forbearance that impelled a scholar-official

to pay courteous reverence to the Christian god in a shrine erected by Dentrecolles near Jingdezhen. Chinese open-mindedness about religion sometimes meant that even the missionaries themselves were conscripted into folk worship. After his death in 1657, the Jesuit Etienne Faber became revered as a local deity in Shanxi province, with effigies of him placed in village pagodas. Shanghai clockmakers made Ricci their patron idol because of his construction of chiming timepieces, called “self-sounding bells” (*zimingzhong*), for the imperial court.⁶¹

In fact, Jesuit missionaries left themselves open to such misunderstandings as a consequence of their policy of accommodation to Chinese practices and beliefs. They permitted Chinese Christians to use the crucifix in rituals at ancestral shrines for the dead, and, following Ricci, they maintained that Shangdi (Lord-on-High), the ancient Chinese term for immanent and universal order, was indistinguishable from Tianzhu (Lord of Heaven), their own coinage for Christ Crucified. In striving to reconcile Chinese culture with Christianity, Ricci ignited the Rites Controversy, a long, acrimonious debate over Jesuit incorporation of homage to Confucius (ca. 551–479 B.C.E.) and the Chinese sages of antiquity in Christian ritual.⁶² Ricci believed that Christianity had been brought to China in the first century of the common era, around the same time as Buddhism, as a consequence of the supposed preaching of St. Thomas the Apostle in India. The Jesuit quotes a breviary of the Indian church: “Through St. Thomas the splendor of a life-giving faith flourished through all of India. Through St. Thomas the Kingdom of Heaven took wings and sped its flight to the Chinese.”⁶³ Unfortunately, he goes on, in the course of time the Christian message became corrupted through error or the malice of opponents of the gospel. He believed that the Jesuit Mission was destined to restore the purity of Christianity in China, in part by demonstrating its compatibility with the original teachings of Confucius. These were highly contentious claims, and European critics accused the China Jesuits of discounting Christian saints and instead reciting *Sancti Confuci ora pro nobis* in their devotions.⁶⁴

With confusion and ambiguity typical of Chinese conversion to Christianity at all levels of society, it is likely that Jingdezhen’s “fresh faithful” (as Dentrecolles called his parishioners) treasured their jars of holy water while continuing to pay tribute to Tung in one of his many shrines. Dentrecolles explains that “as each profession has its own particular idol, and as divinity is bestowed as easily here as the rank of count or marquis is given in certain European countries, it is hardly surprising that there is a god of porcelain.” Christians told him that veneration of Tung originated from the failure of potters to complete a commission from the emperor in the late Ming period for enormous fishbowls decorated with the five-clawed imperial dragon:

It is said that once an emperor wanted them to make him porcelain from a model he provided. They told him many times that it was impossible, but all these remonstrances only served to excite his desire. During their lives, these emperors are regarded as divinities to be feared throughout China, and they think nothing should oppose their

wishes. His officers therefore redoubled their demands, and applied all kinds of harshness to the workers. These wretches spent all their money and tried their hardest, but they received only beatings in return. In a moment of despair, one threw himself into the burning furnace and was instantly consumed. The porcelains in that lot, so they say, came out perfectly beautiful and to the liking of the emperor, who then asked for nothing finer. From that time, the unfortunate man has been regarded as a hero, and he became in consequence the idol who watches over the workers in porcelain. I do not know whether his elevation has tempted other Chinese to take the same route in hope of a similar honor.

In his *Illustrated Explanation of the Miracles of the God of the Furnace* (1744), Tang Ying records a legend that one supervisor of the kilns occasionally saw Tung pointing out the finest pieces to him amid the flames. According to Song Yingxing, the porcelain idol once spoke to a potter in a dream, revealing the secret of firing a certain red-colored ware desired by the emperor: “News of this event immediately became widespread and [the extraordinary force that produced the vessel] was known as transmutation or chanciness in the kilns.”⁶⁵

Creation of the guardian spirit of the potters represents an instance of what Zhu calls “furnace transformations,” the miracles and magic that take place in the kiln. “Porcelain,” he writes, “is created out of the element *earth*, and combines in itself also the essential powers of the elements *water* and *fire*.”⁶⁶ According to a Ming connoisseur, “The potter’s clay moulds can be made by man’s hands; but the magic changes that take place after they are fired in the foundry cannot be predicted.” Another pottery expert explained, “The expression *kiln change* means magical transformations effected by fire. It is not merely a matter of the glaze changing colour. There are genuine cases of vessels taking on strange and wonderful shapes.”⁶⁷

“Miracle-fanciers,” as Song calls them, identified two sorts of kiln transmutation: the rarest took place when “the magical nature of fire” altered the shape of the molded clay or produced an object with supernatural properties; more frequent wonders came to light when the porcelain turned a surprising color during firing or revealed the likenesses of animals not painted on it. Zhu reports the belief that clay vessels sometimes turned into jade in the kiln, an uncanny event that caused terror among officials and impelled them secretly to shatter the pieces with a hammer. Supervisors also destroyed pots when they unpredictably emerged as red as vermilion from the furnace, a perceived result of supernatural forces being stirred up by the planet Mars.⁶⁸

As a consequence of magical change affecting the vessel in the kiln, cut flowers in a waterless vase “blossomed and bore fruit just as though they had coiling roots in the ground.” A porcelain jar outside an official’s residence resounded with melodies of organs and flutes; another exhaled wind and clouds throughout the day. A jar to which water and pebbles were added every day for years always remained not quite full. An ordinary porcelain bowl, purchased casually on the street, pro-

duced a kaleidoscope of images in its basin when water froze in it—a spray of peach blossoms, a peony branch crowned with flowers, wild geese soaring over a winter landscape. In the late Ming, the court ordered potters to make a sizable windscreen; but during the firing, one slab of clay supposedly turned into a bed and another metamorphosed into a ship three meters long, complete with porcelain sails and porcelain rigging. Terrified by the monstrous mutation, local officials “hammered it to pieces, not daring to forward it to the palace.”⁶⁹

Such eerie phenomena sprang from furnace transformation. Zhu suggests they “could not be produced by mortal hands” but must result from the oven having tapped into and disrupted supernatural forces.⁷⁰ A stele set up at a pottery center in the Song period declared, “Looking into the kiln, with its strong fire, one often sees insects, which must be gods in disguise, moving in shimmering water.”⁷¹ The perception was that the potter’s kiln works magic, turning mundane material, the clay of the earth, into a substance that partakes of the sacred. Reproducing cosmic and alchemic processes, the kiln possesses the power to transubstantiate matter through employment of fire while the gods themselves act as celestial potters in shaping life from common clay.

Such notions were universal, flourishing wherever pottery was made. Around 26,000 years ago, in the Late Paleolithic (or Old Stone Age), mammoth hunters in the then-tundra region of Moravia (in the present-day Czech Republic) learned how to fire clay in bonfires, thereby creating the first ceramic (from Greek *keramos*, “potter’s clay”).⁷² Decoration on some of the earliest ceramics resembles the crisscross and spiral patterns typical of basket weave, suggesting that clay-smearred textile containers used for cooking over open fires inspired creation of the first pots. Pottery was central to ritual feasting in the Late Paleolithic, and rows of marks inscribed on clay tokens suggest they were used for keeping track of animals and debts. The move toward large-scale herding of sheep, goats, and cattle stimulated further development of pottery inasmuch as people needed containers to store milk, cheese, and yogurt. As revealed by chemical analysis of shards from 6000 B.C.E., the earliest pottery made in England contained those dairy products. By 8000 B.C.E. fired pottery was widespread in western Asia and had been discovered independently in Japan. The oldest known pottery in China, dating to around 12,000 B.C.E., comes from several locations, including the Yangzi River delta, where it preceded the adoption of formal rice agriculture. In the Americas, the first pottery appeared around 6000 B.C.E. among hunter-gatherers in the tropical rainforest of the lower Amazon basin. It did not appear in areas such as Georgia and South Carolina until 2500 B.C.E. and in the midwestern United States until about two thousand years later.

Wherever it emerged, pottery technology most likely derived from making bread and porridge, which also involved grinding, adding water, kneading, shaping, and baking. Fired clay, one of the earliest synthetics, as well as the first material that hu-

mans entirely created by employing heat, represented a milestone in human development, a basis for the Neolithic revolution (from ca. 10,000 B.C.E.). Using ceramic vessels for cooking proved significant for processing and preserving foods, for brewing and distilling liquors, for rendering harmless some natural toxins in plant products, and for enhancing the nutritive value of plant and animal food. Knowledge gained from producing baked clay proved crucial in the development of metalworking, a hallmark of civilization, and taxation records kept by Mesopotamian temples on baked-clay cuneiform tablets represent the first step within settled communities toward systems of enumeration, writing, and formal education.

Long before domestication of plants and animals, artisans created ceramic figurines of deities and animal spirits, testimony to the primordial link between baked clay and faith in the supernatural. Two clay sculptures of bison were placed in a cave in southern France 15,000 years ago, and human figurines were molded in the same region 8,000 years later. Strange decoration on burial pottery from Neolithic Greece and Minoan Crete hints that potters made specialized wares for religious ceremonies. In northern China during the Neolithic, funerary artifacts included ceramic statues of humans with eyes of inlaid turquoise. Early rice-growing cultures along the Yangzi River produced earthenwares with incised designs that suggest shamans used the pottery for magical and occult practices.

Furthermore, the ability of clay to mimic metals, minerals, and other costly substances associated with holy beings gave ceramics a central role in spiritual life, as when turquoise, the semiprecious stone identified with Hathor, the Egyptian mother-goddess and bovine deity, was replicated in blue-green pottery as a votive offering. Ceramic decoration even may have originated in many societies as apotropaic protection, talismanic defense against the terrifying, awe-inspiring powers unleashed in furnace transformation.⁷³

“GOD HAD KNEADED SOME CLAY”:
THE DIVINITIES OF POTTERY

Ancient Chinese myths portray demiurges molding human beings from loess, the yellow earth of the northern highlands.⁷⁴ Tang Ying records the belief that the five basic elements identified by Confucian and Daoist scholars—earth, fire, water, wood, and metal—obey enigmatic decrees established by “the Great Potter.” In Japanese legend, the earliest emperor, the first human ruler descended from the gods, works as a potter in a realm set between Heaven and Earth. In the seventeenth century, Japanese Christians translated this conception into an oral tradition that envisions the Creator God (Deus) fusing clay with his own rib to fashion the first man. Egyptian myths speak of a divine potter who takes the guise of Ptah of Memphis, creator of the gods, or Khnemu, the ram-headed god of fertility. In ancient Meso-

potamia, Enkil, the Sumerian god of creation, molded deities and sacred kings from a wad of clay, and “to return to one’s clay” signified death for human beings.⁷⁵ In *The Epic of Gilgamesh* (ca. 2500 B.C.E.), Aruru, the mother of creation, labors as a potter to form Endiku, Gilgamesh’s double, his alter ego:

She moistened her hands,
she pinched off some clay,
she threw it into the wilderness,
kneaded it, shaped it to her idea.⁷⁶

Across West Africa, from Mali to Cameroon, potters (usually female) make vessels that are seen to govern supernatural interactions, including protection against disease, witchcraft, and psychological affliction.⁷⁷ “Spirit pots” made in northeastern Nigeria by the Ga’anda are representations of a community guardian who promotes healing and rich harvests. Iya Mapo, a spirit-goddess of the Yoruba of southern Nigeria, “the mother of mothers, quiet old mother of silent earth,” shapes human beings from river mud. At death, they divide once more into water and earth, with the virtuous ascending to the heavens while the wicked fall into the “world of broken pots.”⁷⁸ Among the Akan of southern Ghana, the deity Ayesu will appear for ritual performances only if an earthenware water pot is intact, for a cracked one signifies that the god has lost all spiritual power. In the same region, pots made by the Aja and Fon embody Legba, a deity associated with danger and deception.

Kane, the primary deity of ancient Hawaiian islanders, the god of procreation and ancestor of all kings, breathes life into an effigy formed from clay, naming the man created *Keli’ikuhonua*, “Red Earth.” The Dayaks of Borneo believe that Kad-janka, the moon god, taught humans to mold jars from clay, the same substance from which other deities fashioned the sun and planets. In Hindu rituals of coronation in Khmer kingdoms of seventh-century Cambodia, vessels of clay (and metal) were seen as carriers of divine power, used for pouring consecrated water over pottery sculptures of gods. The Hindu Mother Goddess is associated with clay, the primordial plastic material, amorphous and undifferentiated, that forms the template of all created things. Potters in India pay special devotion to her manifestation as the smallpox goddess (*shitala mata*) and to Ganesha, the playful and propitious elephant-headed deity, son of Siva and Parvati.

Indian potters traditionally are looked upon in their communities as given power by the gods to transmute polluted earth into vessels for ritual and everyday use. The one million potters in contemporary India trace their descent from Prajapati, Lord of Creativity, and regardless of their low social status, they wear the sacred thread, a privilege otherwise granted only to the priestly caste of Brahmins. Viswakarma, another manifestation of Prajapati, represents divine energy, and as architect of the universe, he created Vishnu, the protector and preserver of worlds, from the disc of the sun, a celestial body with which the potter’s wheel is identified.⁷⁹

Notions of hallowed potters and potting divinities also are found in the myths and legends of the Kelabit of Borneo, Vietnamese of the Hong (Red) River Valley, Konso of Ethiopia, Fang of Gabon, Bakongo of the Congo, Zapotec of Mexico, Jívaro of the Andes, and Serrano Indians of California.⁸⁰ Pueblo Indians of the American Southwest regarded pots as having souls, and when a vessel cracked during firing, the sound signaled the release of a living being. In the Popol Vuh (Book of the Community), a mythological narrative and genealogy of the rulers of the Quiché Maya of the highlands of Guatemala, the names of creation gods are the same as those of potters who fashion life from clay.⁸¹ The Incas of Peru believed that their supreme deity, Viracocha the Maker, shaped the world and mankind from the clay of Lake Titicaca, their sacred water. In the eighteenth century, Natchez Indians of Louisiana told a French traveler that “God had kneaded some clay, such as that which potters use, and had made it into a little man; and . . . finding it well formed, he blew up his work, and forthwith that little man had life, grew, acted, walked, and found himself a man perfectly well shaped.”⁸² This creation story probably derived from the preaching of Jesuit missionaries about how Yahweh, the Lord God of the Hebrew Scriptures, “formed man [Heb. *‘adam*] from the clay of the earth [Heb. *adamah*]” (Gen. 2:7).

A version of this passage made its way into the Qur’an (15:26): “Behold, We have created man from potter’s clay, moulded out of slime.” Five other like statements ensured that the notion of a divine potter became a standard theme in Islam. In a baroque elaboration of the Qur’anic texts, Ibn-Jarir al-Tabari (ca. 838–923), a prominent Muslim historian, devotes pages of commentary to the creation of Adam, describing how the angel Gabriel brought clays of various colors to the deity, who shaped them with his own hands into an effigy of the first human until it was ready for the divine inspiration of spirit, “like potter’s clay untouched by fire.”⁸³ Farid al-Din {Attar (d. 1221), the Persian mystic poet, wrote that inasmuch as God creates humans, he also holds them to strict account: “He’s a potter who first makes pots with great skill and then smashes them Himself.”⁸⁴

Yahweh warned the prophet Jeremiah that “just like clay in the hands of the potter, so are you in My hands, O House of Israel!” (Jer. 18:8), a text on which Origen of Alexandria (ca. 185–ca. 254), a Christian theologian, based the homily that “God, the potter of our bodies, the Creator of our constitution,” directs all human affairs. Origen also expounded on St. Paul’s assertion that God created man by wielding the sort of sovereign command that a potter has over clay (Rom. 19:21).⁸⁵ The apostle to the Gentiles declared that while the light of Christ shines in the hearts of his creation, “we have this treasure in clay vessels, to show that the transcendent power belongs to God, not to us” (Cor. 4:7). Italian potters of the sixteenth century acknowledged the same dependence on divinity. Making the sign of the cross before firing their kilns “in the name of Christ Jesus,” they regarded their work as resonant with spiritual forces. Their beliefs about the latter, however, also seem to de-

rive from a context that has little to do with the Christian religion: the potters held that “if the firing happens to take place at the waning of the moon, the fire lacks brightness in the same manner as the moon its splendor.”⁸⁶

When Dentrecolles “preached Him who made the first man out of clay,” he drew on the rich tradition of ceramic metaphors in his own culture that had much in common with the daily experience and spiritual perceptions of the potters of Jingdezhen. He clearly believed that if his Chinese converts did not exclusively worship the Christian god, then the new religion eventually would triumph over their pagan superstition by a measure of salutary association with the idols and spirits to whom they still rendered devotion.

In fact, Dentrecolles knew about one such accommodation, an instance in which the image of a Chinese deity entered the Christian communion of saints. Guanyin, the Buddhist goddess of compassion, helped those in need.⁸⁷ Among many other kinds of supplicants, prostitutes regarded her as their patron. One of the deity’s thirty-three forms was Baiyi (“white garment”), and representations of her seated on a white lotus were common on family altars. As part of the cult of “the water moon,” she protected seafarers, who built shrines to her on the shorelines of East Asia. A maternal figure promising salvation and fertility—one of her titles was “sender of sons” (*songzi Guanyin*)—by the sixteenth century, she had become identified in southern China with the Virgin Mary. Potters portrayed both figures with a rosary, and Christians, whether converts or Westerners, referred to porcelains of Guanyin as Sancta Maria. When a Dominican friar visited a Canton temple in 1556 and saw a statuette of Guanyin holding a baby boy, he paid reverence to it as “the image of Our Lady, made by the ancient Christians,” believers who came to China (he assumed) with St. Thomas, the legendary missionary.⁸⁸

Artisans carved statues of Guanyin/Mary in elephant ivory in China and the Philippines, with some making their way to Mexico City by the early seventeenth century. Decades later, a porcelain representation from Fujian, probably copied from ivory, sold for £1 in London, a sum equivalent to a skilled artisan’s weekly income (or to three taels of silver in China). Mary II of England (r. 1689–94) purchased one of the Fujian pieces for her celebrated porcelain collection, and the Meissen manufactory began producing its own copies of Guanyin as soon as it created a recipe for porcelain.

Partisans of Guanyin in Beijing venerated a porcelain statue of her because it purportedly bore an exact likeness, a miraculous result of the presence of the goddess in the furnace during the firing of the piece. In the Ming period, potters decorated a platter with an image of Guanyin surrounded by supernatural figures and worshippers, a rare motif that a wealthy patron probably commissioned. Dentrecolles notes that figurines of Guanyin with a baby on her lap were made in Jingdezhen and sold in its shops. Some came into the hands of Japanese Christians, who referred to the figure as Maria-Kannon (Mary-Guanyin) and prayed before her effigy

in their clandestine worship. The statues may have comforted Dentrecolles's parishioners in their exotic faith by a fruitful confusion between the Chinese and Christian Madonnas. As the Jesuit confesses, "Ministers of the Gospel, especially in China, must join the discretion of the serpent to the simplicity of the dove."⁸⁹

When the town managers of Jingdezhen ordered construction of a new temple to the god of porcelain, Dentrecolles, by virtue of his friendship with an unnamed superintendent of the kilns, won exemption for his converts from forced labor on it. But he coveted the house of worship of the Queen of Heaven (Tianhou), "a palace which surpasses for magnificence all the other temples" in the porcelain city. He told his congregation that he looked forward to the day when "this temple in fact will become a basilica dedicated to the true Queen of Heaven," a figure who shared some attributes with the Chinese goddess. He records that a porcelain merchant who had amassed a fortune in silver from trade with the Philippines and Spanish America financed the Queen's temple to fulfill a vow he made when the goddess appeared at the height of a tempest and rescued him from shipwreck.

The Queen was the patron saint of fishermen and sailors—as was the Virgin Mary, who included among her titles *Stella Maris* (Star of the Sea). Like Guanyin, the Queen attracted homage from men engaged in saltwater commerce; under the cult name *Mazu*, worship of her was centered on Meizhou Island on the Fujian coast. Shrines and sanctuaries to her stood in Chinese ports, as well as along rivers and the Grand Canal; she was believed to dwell on Putuoshan Island on the Zhejiang littoral. A coastal official declared that "all those who welcome the morning tide and see the evening tide hold her in their hearts."⁹⁰ Dependent on remote markets for their livelihood and never setting eyes on the sea, the landlocked residents of the porcelain city shared that piety.

FROM JINGDEZHEN TO THE SEA

Worshippers of the Queen of Heaven in Jingdezhen prayed she would guide their porcelains to the sea. The grandeur of her temple testified to the significance of water transportation for the city's prosperity. Dentrecolles emphasizes that the inhabitants depended on the Chang River for their sustenance and livelihood "because everything that is consumed there has to come from somewhere else." He calculates that the city needed 10,000 loads of rice and 1,000 pigs every day, all of which arrived by boat and barge. Material for the kilns also came by water. An endless line of boats filled with clay came one hundred kilometers downriver from Qimen in Anhui province, north of Jiangxi, since deposits around Jingdezhen largely had been played out by the early eighteenth century. Fir and pine, light and resinous woods that produced the best flames in the kilns, also came from Anhui. An average kiln consumed 11,000 kilograms of wood in a firing, while a large one used some 64 tons a day. Centuries of pottery production had deforested the nearby hills, so potters relied

on timber floated down the Chang. Limestone and fern, materials used for making glaze, came by boat from south of the city.

Merchants from guilds in the commercial center of Huizhou (or Xin'an) in southern Anhui sold wood, rice, and cotton in Jingdezhen, some 180 kilometers away by river. According to a Ming chronicler, a few traders were worth a million strings of cash, and a number had fortunes of 250,000 taels. Pawnbrokers and store managers, the Huizhou entrepreneurs first came to prominence in national markets as licensed salt traders during the Song period. In the Ming, they invested heavily in porcelain production, in part by advancing loans to needy potters and taking repayment by purchasing their wares at reduced prices. As promoters of a thriving printing industry, they also provided ceramic decorators with woodblock prints as a source of new images and motifs that would appeal to scholars and their social equivalents among the educated, landowning gentry (*shidafu*).⁹¹

Naturally, Huizhou merchants used their commercial networks to distribute the wares of Jingdezhen. Almost all porcelain was sold before it left the city. Buyers belonging to traveling merchants' associations negotiated with one of the fifty-odd brokerage firms in Jingdezhen that controlled sales, packing, and transport. Taking advantage of such services dramatically reduced transaction costs and increased the efficiency of the market. According to an account of procedures from the Qing period, brokers bargained with sellers, checked supply lists, and prepared the tax-declaration certificates required by the government; they also took delivery of merchandise and arranged for its shipping.⁹²

Given the volume of Jingdezhen's output, as well as the weight and fragility of porcelain, water transportation was vital. As Adam Smith underscored, "By means of water-carriage a more extensive market is opened to every sort of industry than what land-carriage alone can afford it, so it is upon the sea-coast, and along the banks of navigable rivers, that industry of every kind naturally begins to subdivide and improve itself." The porcelain city employed techniques of mass production as a consequence of far-flung markets being reached (as Smith described it) by "an inland navigation much more extensive than that of the Nile or the Ganges, or perhaps than both of them put together." Travel by barge and boat, Ricci declared, stood out as one of China's wonders: "This country is so thoroughly covered by an intersecting network of rivers and canals that it is possible to travel almost anywhere by water."⁹³

Tang Ying describes how porcelains were shipped abroad. Workers tied up coarse wares in matting, making a bundle of thirty to sixty pieces wound with bamboo strips; they wrapped high-quality vessels in paper and rice straw, and then packed them in barrels holding six hundred pieces and weighing 225 kilograms. The bundles and barrels went onto long, lightly built boats anchored two and three deep at the riverbank. The craft traveled eighty kilometers southwest to the town of Raozhu,

close to where the Chang flows into Lake Boyang. During rainy periods, the passage was rough in the gorges near Jingdezhen: tons of porcelain shards made the river shallow, creating perilous rapids in places.

Dentrecolles knew the trip well inasmuch as he made his home in Raozhou and commuted upriver on a regular basis. There was no inn for travelers in Jingdezhen, and magistrates there required strangers to stay the night on a boat or in the home of a resident who would go surety for their conduct. Furthermore, Raozhou had lower living costs than did Jingdezhen. Porcelain buyers often stayed in Raozhou, sparing themselves a tiring trip upriver. Whatever the fame of Jingdezhen, its pottery commonly was called Rao ware in China and, according to Dentrecolles, it was characterized in the Song period as “jade from Rao” and as “precious jewels of Raozhou.” A VOC merchant visited the town in 1656 and recorded:

Of all the vessels sailing to the South as well as to the North [from Raozhou], some supply and some supplement their cargo-capacity with porcelain, and mostly copen [that is, cups and bowls] . . . and we found the mandarins accompanying us not sleepy in this, for they laid in as much of this pottery as their vessels could drag away or swallow up . . . to peddle to their profit at Nanchin [Nanjing] and elsewhere; we saw a fine occasion to contract for some rare porcelain, but we were lacking appropriate samples, in demand with us, which was a pity.⁹⁴

At Raozhou, stevedores transferred the porcelains into deep-draught junks for the voyage across Lake Boyang, the largest body of freshwater in China and the scene of innumerable shipwrecks. Mariners appointed to rescue ships endangered by storms had the reputation of being “most forward to work the Merchants Destruction, in order to enrich themselves with the Spoil, especially if they think they can do it without being discover’d.”⁹⁵ Escaping that hazard, many boats made the four-day sail to Jiujiang on the northern coast of the lake, a port that featured a large porcelain market. From there, cargoes of pottery were transshipped farther northeast on the Yangzi River to Nanjing. According to Fernão Mendes Pinto (ca. 1510–83), a Portuguese writer and traveler, rich men of that important city possessed “endless quantities of very fine porcelain pieces, which are like precious jewels to them.”⁹⁶ Finally, by way of barges on the Grand Canal, the ceramics made it to Beijing, over a thousand traveling kilometers from Jingdezhen.

Sailing southwest on Lake Boyang, other ships leaving Raozhou headed for Nanchang, capital of Jiangxi province, where they went up the Gan River for portage of their cargoes south over what was popularly known as the “Mountain Pass of the Plum Trees.”⁹⁷ Ricci describes it as “the most celebrated mountain pass in the whole kingdom,” the scene of a never-ending procession of porters, pack mules, and palanquins.⁹⁸ In the nine-hundred-kilometer journey from Jingdezhen to Canton, the day’s trek over the mountain was the only resort to land transportation. Countless

bundles and barrels of porcelain were trundled in wheelbarrows and carried by bearers on the twenty-kilometer route, a task eased by paved walkways and steps carved into the slopes during the early Tang period.

Silver passed in the other direction, for a substantial percentage of the white metal entering southern Chinese ports went north over the mountain to pay for porcelain and other consumer goods, such as silk textile and lacquerware. China adopted a silver standard in the 1430s, so silver fetched high prices there while regions possessing a lot of silver—Japan and Spain (from its Mexican and Peruvian mines)—had an insatiable demand for Chinese merchandise. In 1567 the customs office on the pass collected slightly over one million taels based on a levy of one-thirtieth of declared value of goods; the total climbed higher when silver from Spanish America began streaming in about ten years later.⁹⁹ A Portuguese merchant in the early seventeenth century remarked that “silver wanders throughout all the world in its peregrinations before flocking to China, where it remains, as if it were its natural center.”¹⁰⁰ With the entry of Westerners to Asian trade, silver became the principal medium of exchange linking the extremities of Eurasia as well as those of the global ecumene. As Montesquieu wrote, silver as a commodity is “the basis for the greatest commerce of the universe.”¹⁰¹ Along with silver ingots, merchants trudging north over the pass carried imports of tortoise shell, ivory, coral, black pepper, and incense woods. In the nineteenth century, crates of Indian opium, shipped to China by the British, went by the same route.

Near the pinnacle of the mountain, Ricci says, travelers passed through “a tremendous gate built into the precipitous rocks” that marked the border between the provinces of Jiangxi and Guangdong.¹⁰² After reaching the southern foot of the mountain, the porcelains went onto boats once again to be shipped south down the Gan to the docks of Canton. In good weather, the trip went quickly. In 1693 Joachim Bouvet (1656–1730), a Jesuit stationed at the court in Beijing, made it from Nanchang to Canton in only twenty days. He was starting a four-year journey to France, marked by long stays in Thailand and India. When he finally returned to China in 1698, he brought Dentrecolles with him.