The man most often credited as the original creator of European porcelain was a German by the name of Johann Friedrich Böttger. He was an alchemist—he said that he knew how to turn lead into gold. Porcelain was white gold, valued for both its durability and its delicacy, and also prized for its exotic origins. Marco Polo first brought it to Europe, from China, in the fourteenth century: a small gray-green jar amid his bounty of silk brocades, spices, and vials of musky scents. Polo called it porcellani. The word means “little pig” in Italian, but it’s also a nickname for the cowry shell, whose shiny, white surface porcelain resembles. Porcellani is also a slightly dirty word, what a certain kind of man might call out at a woman as she walks down the street. But then porcelain has always been part of a slightly dirty trade, one filled with piracy and pilfering.

It was only after the sixteenth century, when the Portuguese and the Dutch established their commercial trade routes to the Far East, that there emerged a robust market of export ware: porcelain exclusively made in China for Europe. Today, one can still marvel at the strange game of decorative, Orientalist telephone that this development created. A porcelain ewer has the seal of Portugal painted across its bulbous body in mild blue brushstrokes—except the seal is upside down. A Qing plate depicts Christ being baptized by John—with magnolia trees blossoming in the background. (Angels dance along the plate’s edge in a style more Fauvist than Biblical.) A wonky-eyed George Washington, whose jaw looks as if it has melted off in the kiln, stares at you...
from a gold-rimmed jug commissioned in the eighteen-twenties. Apparently, you put in your order and you hoped for the best.

Domestic manufacturing would have been cheaper, easier, and involved less breakage, fewer mistakes. But Europeans couldn’t figure out how to make porcelain at home. Marco Polo took a lazy guess, and for nearly five hundred years no one else had any better ideas. “The dishes are made of a crumbly earth or clay which is dug as though from a mine and stacked in huge mounds and then left for thirty or forty years exposed to wind, rain, and sun,” Polo wrote. “By this time the earth is so refined that dishes made of it are of an azure tint with a very brilliant sheen.” An account from 1550 suggested that “porcelain is likewise made of a certain juice which coalesces underground and is brought from the East.” In 1557, someone offered the more imaginative hypothesis that “eggshells and the shells of umbilical fish are pounded into dust which is then mingled with water and shaped into vases. These are then hidden underground. A hundred years later they are dug up, being considered finished, are put up for sale.”

None of this is completely accurate. Eggshells and fish shells would turn to ash. Porcelain is traditionally made from two essential ingredients: kaolin, also called china clay, a silicate mineral that gives porcelain its plasticity, its structure; and petunse, or pottery stone, which lends the ceramic its translucency and hardness. Kaolin is the more essential ingredient—a potter’s clay is meant to exist, like his glazes, in variations—and it takes its name from a mountain in Jingdezhen, China, where porcelain was first created, more than a thousand years ago, called Gaoling, which means “high ridge.” The name was recorded incorrectly by a Jesuit priest, Pere d’Entrecolles, in the early eighteenth century, in his letters home describing the Chinese technique. But in Europe, for centuries before d’Entrecolles’s observations, the arcanum of porcelain was considered impossible to unearth. The real story of how porcelain was invented—and then reinvented and reinvented again—is offered up in Edmund de Waal’s new book “The White Road: Journey into an Obsession,” a breathless pilgrimage to, and history of, three very famous white hills. The first is in Jingdezhen, still the porcelain capital of the world, where white vases will sit unpainted on planks of wood, the way they must have ages ago when orders were fulfilled for emperors. The second is in Meissen, Germany, where Böttger claimed his success and the first porcelain factory in Europe was established. (Queen Elizabeth II received a Meissen porcelain service as a wedding gift.) And the third is in Plymouth, England, where a thoughtful Quaker named William Cookworthy broke down the production ratio, and where the fine-china company Wedgwood was established. Your grandmother may have Wedgwood plates—if she does, they probably sit in the dining room, facing the covered table, painted with that signature soft periwinkle blue. They look a little like brightly frosted sugar cookies.

Waal is a British potter, artist, writer, and obsessive. His last book, the best-selling “The Hare with the Amber Eyes,” told the history of five generations of his family through a collection of netsuke, or Japanese carved objects, that de Waal inherited from an eccentric great-uncle. De Waal is a master of telling stories through material objects. He can see a vase and not only imagine the kind of room it once inhabited but the type of woman who might have brushed her fingertips across its lip. When he writes about porcelain, you immediately understand that this is material made for a perfectionist:

Pinch a walnut-sized piece between thumb and forefingers until it is as thin as paper until the whorls of your fingers emerge. Keep pinching. It feels endless. You feel it will get thinner and thinner until it is as thin as a gold leaf and lifts into the air. And it feels clean. Your hands feel cleaner after you have used it. It feels white.
Working in porcelain takes patience as well as skill. The smallest amount of water can change its texture. If a bowl’s walls are inconsistent in thickness, the bowl can crack as it cools, because the ceramic must be vitrified at extremely high temperatures (somewhere between twenty-two hundred and twenty-six hundred degrees Fahrenheit; other clays can be fired a good couple of hundred degrees lower). “You can get away with unevenness with other kinds of clay, but it is chancy with porcelain. Your errors, your slapdash decisions, are revealed,” de Waal writes. But this risk of failure is worth the outcome of success: if made correctly, there is nothing thinner, no other clay that possesses that luminosity, that unbelievable strength. Tap a finished bowl with your spoon, and it rings hollow, like a metal cup. Glass shatters, earthenware crumbles; porcelain is otherworldly in its beauty and strength. A poem from the Tang dynasty describes a service of teacups for the emperor as “bright moons cunningly carved and dyed with spring water.”

It’s de Waal’s own obsession—the man counts pots when he can’t sleep at night—that infuses the narrative with a true sense of the hunt. “I want poems that compare white porcelains to smoke coiling up from a chimney,” he writes, “or from incense on an altar, or mist from a valley, or, at the very least, an egret in a paddy field poised.” He roams through the history of porcelain, bringing to life the various vessels and dishes that now sit enthroned in museums, cathedrals, and the quiet corners of empty palaces. De Waal understands what drives a person to try to make porcelain for half his life, why emperors craved it, and why kings demanded it. This level of materialism, after all, is never about necessity. “There are the pleasures of being envied and the pleasures of being feared and the pleasures of looking down on a sea of new possessions but of all the pleasures,” he writes, “More is the only thing that works.”

Böttger was a fraud. His biographer noted that, among other qualities, he was “negligent, forgetful, loose with money, had poor health,” and possessed “a childish demeanor.” The man who, in all likelihood, actually cracked the porcelain code for the Germans (some slight evidence exists that the English got there first) was Ehrenfried Walther von Tschirnhaus, a gifted mathematician, physicist, physician, and philosopher. He was charged with supervising Böttger, who was being held captive by their king, Augustus the Strong. (Augustus thought it wise to keep an alchemist to himself, and the best way to do so was under lock and key.) Böttger had initially been resistant to the porcelain project, but he came around. The two worked together for a good five years, using two decades of Tschirnhaus’s own research. There is a hurried sense of discovery in Böttger’s existing notebook, as he records the ratios of white clay and alabaster. But just as the duo produced their first solid porcelain—a jar is described as being “half translucent and milk white, like narcissus”—Tschinhaus died. There was a robbery, papers went missing, and Böttinger kept the operation going, eventually refining the formula to a level that could be reproduced and porcelain thus manufactured. Augustus was a self-confessed shopaholic who had what he called die Porzellankrankheit, or “porcelain sickness.” “Are you not aware that the same is true for oranges as for porcelain,” he wrote in a letter, “that once one has the sickness of one or the other, one can never get enough of the things and wishes to have more and more.” In 1733, Augustus died at the honorable age of sixty-two, his kingdom a financial ruin, with nine children from six different women, and a collection of thirty-five thousand seven hundred and ninety-eight pieces of porcelain.

By then, the Meissen porcelain factory had been open for twenty-three years (Böttger died in 1719). Vienna had been manufacturing porcelain for more than a decade. By the middle of the eighteenth century, England got in the game, too. An industry was born, and porcelain became bourgeois, a status symbol for more than just the aristocrats. De Waal documents all of this—including the chilling history of a porcelain factory called Allach, which the Nazis erected in
Dachau to make small figurines and other objets d’art to enjoy for themselves and to give away as gifts. Porcelain, one begins to realize, is everywhere. In “The Decorative Art of Today,” Le Corbusier pictures Lenin sipping espresso from a white porcelain teacup, “wearing a bowler hat and a smooth white collar.” “This is the revolution,” de Waal writes. “It is perfect and smooth and white.” There is the porcelain sculpture of two swans, made in Trenton, New Jersey, that President Nixon brought to Chairman Mao Tse-tung in 1972. In de Waal’s hands, porcelain contains everything: power, beauty, greed, destiny. It also holds love, passion, and desire. Louis XIV built a porcelain pavilion for his mistress. In it, they made love “in a Chinese bed below a ceiling painted with Chinese birds.” Porcelain is an escape from reality.

But the most fraught symbolism of porcelain is its whiteness. “In many natural objects, whiteness refiningly enhances beauty, as if imparting some special virtue of its own, as in marbles, japonicas, and pearls,” Herman Melville wrote, in chapter forty-two of “Moby-Dick.” De Waal quotes “The Auroras of Autumn” by Wallace Stevens:

being visible is being white,
Is being of the solid white, the accomplishment
Of an extremist in an exercise….

They may be speaking of an aesthetic value, but to what extent does this fetishization of an object and its purity reflect an idea that these men had about themselves? Porcelain is for the refined, for the ruling class, with all of its power and privilege. This is an area left largely unexplored by de Waal. He is wonderfully manic in his research; by the book’s end, he’s visited his three white hills, and he’s journeyed much further. In “The White Road,” he allows himself to get lost for weeks, to travel someplace only to return empty-handed—which makes for a true adventure and a pleasure to read. But de Waal can also be a slippery writer, disinclined to build toward a larger argument. It’s as if he prefers to spin pottery out of his words, offering one self-contained scene after another.

In China, whiteness represents death, the passing of life. It’s on a muggy day in Jingdezhen, at the Ceramics Institute, that de Waal stumbles across an archive of porcelain orders from the last Chinese emperor, Pu Yi. The documentation is sloppy, mostly comprising reports of theft and the names of thieves. In 1909, someone writing on behalf of the boy emperor, then five years old, requests “one white porcelain vase, four white porcelain ju vessels, one white porcelain bowl, and twelve large white porcelain dishes. The vessels will be placed in front of the portrait of the late Empress Xiao Qin Xian for ritual purposes.” A response to another request arrives two years later, and it is the last imperial correspondence regarding porcelain—a staggering detail, when one realizes that such letters were exchanged for more than a millennium. Here, de Waal paraphrases: “It says that we received your letter, but we cannot fulfill a demand for one hundred seven-inch dishes glazed in sacrificial red. We no longer have the skills. So we are sending a hundred white dishes with red dragons on them.” De Waal pauses, and you can hear the silence. He is reading this on the top floor of the Ceramics Institute, where there is no air conditioner, and the windows are open to the thick, humid air. The librarian reading alongside him reaches for a smoke. “A thousand years of imperial porcelain ends on this,” De Waal writes. “For the first time in decades I feel like a cigarette.”