

FOUR

DEEDS, SHARES, AND PETTIFOGGERS

IN 1520, TAN JING SOLD HIS OWNERSHIP INTEREST IN A FOREST TO his uncle Tan Yongxian. This seemingly minor transaction is one of thousands documented in forest deeds preserved in Huizhou, the prefecture at the epicenter of the revolutionary changes in South China's forests. Individually, most of these deeds are too short and too formulaic to tell us much, but collectively the Huizhou archive paints a striking picture of how the forest economy worked and, more importantly, how it changed.¹ Just as significantly, these documents record the simple, repetitive acts that produced the forest landscape: property registration, subdivision of labor and capital investments, selection and planting of trees, negotiation of management responsibilities, and valuation of timber. With the exception of property registration, most of these processes were opaque to the state; Tan Jing's deed records nearly all of them. I therefore start by considering the terms of this single document before turning to the broader corpus of similar negotiations.

Tan Jing's deed begins by documenting the location and status of his forest. It notes that Tan Jing "previously contributed to the collective purchase of Hu Yuanqing's cadastral registration [*jingli mingmu*]."² As was general practice, it gives both the local name for the village containing the

forest—“east spring” (*dongyuan*)—and its location in the local administrative hierarchy—“*bao* 5.” This allowed officials to readily locate the plot in both the physical landscape and the county’s land registers. The purchase of the cadastral registration also meant that the sale was recorded at the county seat and the land title was secured against rival claims.

Next, the deed notes how rights to the land and the trees were subdivided into shares. Because Tan Jing contributed to the purchase of the plot, he owned a share in the land itself. In addition, he and his uncles Yongxian and Yongfang “bought a number of sections [on this plot] planted with fir by Tan Gong and his cousin Hongjing.” Tan Jing accrued other shares when he “collaborated with Tan Qi to plant another section with fir and worked with a group to plant another forest section with seedlings.”³ These clauses reveal that the forest was actually split into two types of shares—*capital shares* held by those who contributed to the purchase of the land and *labor shares* held by those who planted sections with fir. Any of these could be bought and sold. Tan Jing acquired capital shares from the original land purchase; he acquired labor shares through his own work planting seedlings and by buying them from Tan Gong and Tan Hongjing. When Tan Jing sold his ownership interest, the sale explicitly included “the above forest plot and the other items held under his name, including all shares of fir seedlings that he planted or purchased.”⁴ In other words, he sold his capital shares, shares acquired through his own labor, and all the labor shares that he had purchased.

These clauses also record the ways the Tans modified the forest on their new plot. For several years after purchase, various Tan men planted sections of the forest with fir, the preferred timber tree. The Tans also determined its age composition by cultivating the various sections (*kuai*) sequentially. Each section probably contained trees of uniform age that would mature simultaneously, allowing them to be clear-cut and replanted. By planting multiple sections at different times, the Tans could log and replant them on a rolling basis, to spread out the risks, profits, and labor over multiple years.

After detailing the shareholding arrangements, the deed previews the future arrangements for managing the forest. It specifies that all of Tan Jing’s holdings were “included with this deed and sold to be placed under his uncle Yongxian’s name,” noting that this would “consolidate [ownership] for easier management.”⁵ As the majority owner, Tan Yongxian could more easily determine when to cut and sell the timber. Over time, other mechanisms

developed to make this type of management decision possible even if ownership remained divided among a large number of shareholders.

Finally, the deed specifies a price, noting that “the parties met face-to-face and agreed on a current value of 1.7 taels of silver.”⁶ The value of the land itself was probably fairly low. This means that this price largely reflected payment for Tan Jing’s past labor, an approximation of the current value of the standing trees, or an estimate of the expected future value of the timber. In a theoretical, frictionless market, these three quantities would converge. In actuality, the price probably reflected elements of each of these valuations, as well as complicating factors like family obligations among the Tans.

The Tans registered their forest and paid annual taxes on that basis, but all other aspects of their management diverged from official norms. They separated claims to forest *ownership* from claims to forest *production*, and they further subdivided each of these claims into multiple shares. The state formally opposed this sort of unbundling of land rights, yet magistrates were generally willing to enforce claims as long as they were clearly documented and taxes were paid. Because official regulations made few provisions for forest management, the rules and procedures for planting, protecting, and harvesting timber developed as local norms. Deeds, contracts, and low-level litigation recorded the valuation and subdivision of forest land, labor, and products and the rules for preventing and responding to theft and fire. Here, too, officials were willing to enforce contracts, as long as they did not grossly violate the basic tenets of penal law. This chapter tells the history of these arrangements, negotiations that were critical to the forest economy but left outside the purview of state administration.

TAX AND TITLE

Chinese officials were basically agnostic to the specifics of land use as long as plots were registered and paid tax. But planters like the Tans were far from indifferent to the state. Prior to the twentieth century, China did not develop anything precisely resembling Western civil or contractual law. Indeed, the notions of “contract,” “property,” and “rights” are all imperfect fits to the Chinese legal context.⁷ Property rights cannot be traced to any specific legal precedent; instead, ownership claims were enforceable due to a general agreement between the state and landowners on the form and content of documentation.⁸ To the individual stakeholders, the documents

themselves were often less important than the acts they recorded, especially the face-to-face negotiations and the ritual act of signing the contract.⁹ This meant that regardless of other context, the first function of forest deeds was to provide evidence of a claim to ownership. For this reason, essentially every land deed opened with an abbreviated chain of title, noting the names of the sellers, the sources of their claims to the land, the property's location and boundaries, and generally its tax rates. Implicit in these first clauses was the *de facto* agreement that lay behind the functioning of the land system: state enforcement of landholder claims in return for registration and tax payment.

While many deeds survive without substantial context, one extensive set of materials allows us to follow the complete history of a wooded property in Quanzhou, Fujian. Above all else, these documents demonstrate the importance that registration held for landowners. The first set of documents records the process of selling this wooded estate in 1265, when Quanzhou was held by the Southern Song. First, the owners posted a notice (*zhangmu*) to invite potential buyers of a large property consisting of “a garden plot, a forest [*shan*], a pagoda, a one-room building, and all the flowers, fruit, and other trees [*huaguo deng mu*] contained within.”¹⁰ This notice reflected the practice of giving kin and neighbors the opportunity to buy the property before it was offered to outsiders, often known as first right of refusal. Second, following the sale, the sellers wrote a receipt to inform the government and update the registration (*gaoguan jimai zhan*). This provides the most detailed evidence of land title, recording the history of ownership, boundaries, and the tax assessment on the property. It also notes that village elders reviewed the sale, attesting to the veracity of the title and ensuring that there were no liens on the property (*bie wu wei'ai*). A final clause notes that the buyer would pay future taxes. The third document is a deed of sale, to be retained by the buyers. It contains similar clauses to the tax receipt.¹¹

A similar set of four documents records the process of selling this estate again, this time in 1366–67, when Quanzhou was controlled by the Yuan dynasty, but about to fall to the Ming. By this point, the original forest and fruit plantation had been split into two plots, the first planted principally with camphor trees (*zhangshu*) and the second with lychee (*lizhi*). Again, the sellers first posed a formal sale offer and checked for rival title claims. Once the sale was completed, they reported it to the state to update the tax registration and transferred the two plots to their respective buyers through deeds of sale.¹² This tantalizing set of records shows that sales under two

different dynasties and separated by a century followed essentially identical documents and procedures. The sale process required the input of kin, neighbors, and village elders and produced records for both the local government and the private owners.

Materials from Huizhou further demonstrate the lengths to which owners went to maintain title records, even when the state was absent. As Yuan rule disintegrated during the millenarian Red Turban Rebellion, Huizhou was controlled by Han Lin'er, the nominal head of the northern Red Turban movement after the death of his father, Han Shantong, in 1351. In 1355, Han Lin'er formally established a state, nominally a restoration of the Song dynasty, and built the outlines of a central government close to Huizhou.¹³ Soon thereafter, Huizhou landowners began to give formal recognition to Han's regime by using his official reign period on their deeds, presumably in the hope that Han's court would enforce their ownership claims.¹⁴ A hastily compiled land register from Qimen County also bears a reign date from Han's regime.¹⁵ Yet by 1363, the course of warfare turned against Han Lin'er. After living as a prisoner of Zhu Yuanzhang—the eventual Ming dynasty founder—Han was drowned in 1366.¹⁶ During the brief period between Han's demise and Zhu's victory, Huizhou was again plunged into statelessness. Landowners scrambled to find ways to ensure their transactions and back up their title claims. In 1367, at least one deed used Yuan reign periods despite the total lack of Yuan presence in the prefecture. In fact, the deed notes that the *baojia* self-defense organization—not the Yuan state—was responsible for recording the plot and resolving any disputes.¹⁷ Almost as soon as Zhu Yuanzhang declared victory in 1368, Huizhou deeds switched to his Hongwu reign period, and locals hastened to register their land with the Ming. Huizhou was one of the first prefectures to produce land registers.¹⁸ Like Quanzhou landowners in the transition from Song to Yuan rule, Huizhou landlords during the Yuan-Ming interregnum registered their deeds with any reasonable authority. In the absence of a functional state, they relied on other institutions like the *baojia* to keep records and enforce contracts. But once the Ming restored a centralized, hierarchical order, they quickly moved to register any new sales with capped officials.

The effective institutions of the early Ming did not last. The decennial surveys to update land and population registers became dysfunctional by the 1430s. This lack of state oversight was reflected on the ground where many forest deeds from the late 1420s through the 1440s left plot numbers, boundaries, and acreage blank, presumably because they lacked adequate

points of reference.¹⁹ Tax flight also left many orphaned properties, which the state awarded to village heads to apportion as they saw fit, as long as they continued to pay taxes.²⁰ Transactions from the 1430s reflected the cash-poor state of the post-Yongle economy: land sales were often transacted in cloth or grain rather than cash.²¹ When the economy recovered in the 1440s, the overwhelming majority were denominated in silver, not in copper coins or paper notes. Yet throughout the mid-century depression, Huizhou forest owners continued to record their land sales, even if the details were lacking. When the economy and bureaucracy began to recover in the 1450s and 1460s, locals helped restore the registers to the well-kept state of the early Ming. Deeds often left acreage figures blank, but they now noted that this information was no longer missing; it was omitted because it was available in the local land registers.²²

Nonetheless, new complications emerged during the commercial expansion of the late 1400s and the 1500s. According to Ming regulations, households were only allowed to own land in their home townships.²³ In spite of that, some families acquired plots across township boundaries and even in other counties. To manage this situation, the buyers of these properties paid taxes under the names of previous owners, who remained on the books as a sort of pass-through tax account. Deeds recorded this curious manipulation of the tax law to ensure that the plots paid taxes under the state's regulations, but also met the management needs of the new owners.²⁴ Other deeds specifically noted the buyers' responsibilities to transfer tax payments into their names during the next decennial land surveys.²⁵ Once again, owners took steps to ensure smooth transfer of title, even when official records failed to keep pace with the private land market. After the single whip reforms were implemented in Huizhou around 1570, deeds made explicit that their assessments included both the base tax and the *corvée*-replacement surcharge.²⁶ After Zhang Juzheng's surveys of 1581, many noted that they reflected the "clarified measurements in the new cadastres" (*qingzhang xince*).²⁷ Throughout multiple shifts in land oversight across more than three centuries, landowners took steps to ensure that they held a clear title claim.

SHAREHOLDING

After ensuring that their title was secured against rival claims, many forest owners proceeded to disaggregate ownership through shareholding and

partnerships. Shares enabled forest owners to subdivide the risks associated with the decades it took for timber to mature; they provided a mechanism for remunerating forest laborers for the work of transplanting seedlings in advance of the timber harvest; and they made it possible for both owners and planters to spread their investments between forests that matured at different times. Yet these features emerged not through design, but through experimentation and the recursive planting, inheritance, and sale of forests.

In the thirteenth and fourteenth centuries, most forests in Huizhou were large, single-owner properties. Partible inheritance, sale, and partnerships gradually led to the subdivision of forest rights. By the fifteenth century, the overwhelming majority of forests were jointly managed through shareholding arrangements.²⁸ This tendency toward subdivision peaked in the sixteenth century, when new processes emerged that promoted consolidation of ownership through the reaggregation of partible claims into portfolios of shares in multiple properties. Eventually, consolidation took another form, as lineage corporations emerged to combine forest management under a single institutional umbrella.²⁹ By the nineteenth and twentieth centuries, the overwhelming majority of forests were corporate properties endowed to lineage graves and shrines. But in the Ming, these corporate entities were still in their infancy.³⁰ In the fifteenth and sixteenth centuries, the overwhelming majority of forests in Huizhou were neither single-owner plots nor trust properties; they were partitioned through shareholding.

Shareholding emerged as a solution to the problem of dividing ownership of large, spatially irregular plots whose real value was in their living trees. Under partible inheritance, it was standard for land to be parceled out to each of the sons upon the death of their father, but forests were far harder to divide fairly than farmland, a fact noted by Yuan Cai as early as the twelfth century.³¹ By the Ming, it was rare for inheritance documents to specify physical partitions of forest land.³² It was also theoretically possible to divide plots by counting the trees and dividing them among the parties.³³ Sample forms for selling forests included clauses that allowed the seller to include or exclude specific trees from the sale.³⁴ But in practice, sellers principally used these clauses to enumerate high-value fruit or oilseed trees, not timber trees.³⁵ Like physical partition, tree counting was the exception rather than the rule. Far more often, each heir received an equal share in the entire plot.³⁶ These shares included partible rights to any standing timber, bamboo, and fuelwood and anything else on the plot, including annual

crops like chestnuts and even bond servant houses (and, by extension, bond servant labor).³⁷

Shareholding appeared through another dynamic as well—the advance sale of stakes in the timber harvest. Unlike farmland, which produced annual crops to meet the regular needs of their owners, forests only yielded a timber harvest once every two to three decades or longer. If owners needed cash in the meantime, they had to sell a portion of their shares. An active market allowed owners to cash out early on the expected future value of their holdings rather than waiting for the timber to mature.³⁸ Some sold out of immediate need, others for convenience of management.³⁹

In addition to partible inheritance and advance sale, there was also a third mechanism to divide forests into shares: partnerships. By the fifteenth century, it was common for forest owners to lease land to tenant planters, or to form partnerships to divide the expense and labor of sowing seedlings. Forest tenants contracted to manage forests for long-term periods, generally the twenty-five to thirty years from planting to logging; in exchange, they received rights to a fraction of the timber profits as well as to any annual crops interplanted with the young trees for the first few years. This bundle of rights and responsibilities was known as “forest skin” (*shanpi*). Under these rental contracts, forest owners retained the remaining portion of both timber profits and crop harvests; they also retained long-term ownership of the land and any accompanying tax responsibilities. Their bundle of rights and liabilities was known as “forest bones” (*shangu*).⁴⁰ Perhaps the clearest description of a forest partnership comes from a 1493 deed by which Fang Bangben and Fang Bo arranged to plant their large forest property. The Fangs had previously bought a forest plot of more than twenty-nine *mu* (about five acres) from two other urban landlords. They then contracted with Kang Xinzun and Wang Ningzong to plant the property with fir seedlings, agreeing to divide the future profits five ways: each of the two tenants received one share; Fang Bo, who owned one-third of the “forest bones,” received one share; and Fang Bangben, who owned two-thirds of the “bones,” received the remaining two shares.⁴¹

The designation of “landlord” and “tenant” shares mapped only imperfectly onto the social class of their owners. As seen in the Tan deed that opened this chapter, members of a single kin group frequently held both types of shares. In the fifteenth and early sixteenth centuries, most timber *merchants* were also planters, selling timber from both their own plots and those planted by others. In Chen Keyun’s study of the Li family timber

business, nine of the thirty-nine men named in the account books were both tenant planters and timber wholesalers.⁴² As Joseph McDermott argues, these arrangements were far more like long-term investment partnerships than agricultural tenancies.⁴³ Indeed, some contracts were even titled “forest partnership agreements” (*huoshan hetong*), although “forest rental contract” (*zushan qi*) remained the more common term.⁴⁴ By the mid-1500s, contracts even began to use terms that more closely tracked how forest rights actually functioned: ownership shares (*zhufen*) and labor shares (*lifen*).⁴⁵

Despite the effective transformation of timber production into shareholding partnerships, the relationship between owners and tenants remained unequal. While ownership and labor claimed roughly equal proportions of the timber harvest, owners were free to buy and sell their stakes, but laborers were generally not allowed to transfer their shares without the landlord’s consent.⁴⁶ Owners also retained the underlying rights to the forest plot, entitling them and their heirs to a proportion of timber yields in perpetuity, while laborers only received stakes in the trees they planted. Over time, the distinctions between these contractual positions led to a growing gulf between two classes: those who held *any* ownership shares and those who held *only* labor shares. The terminology of “owner” and “tenant” also mattered in court. Under laws that presumed property to be farmland, adherence to conservative forms of contract remained the best means of assuring that agreements would hold up under official scrutiny and that penalties for violations would be those specified in the penal code. In this context, tenants could be punished more harshly for cheating their landlords than landlords for cheating their tenants. Thus, ownership shares remained “land deeds” and labor shares remained “tenancy contracts.”

By the late fifteenth century, the processes of household division, advance sale, and partnership compounded on each other, leading to the recursive subdivision of forests. As each share came to represent a declining proportion of the timber yield, it became common for owners to parcel together shares in multiple forests. For example, a single deed from 1428 involved the sale of twenty forest plots, five of which were split into two shares and fifteen of which were split into twelve shares, suggesting that they were the results of two large partnerships.⁴⁷ In 1463, two brothers sold shares in six plots with at least four different shareholding agreements, including three different share divisions from their inheritance and two plots purchased from outside the family.⁴⁸ By 1500, parcellation had reached extremes, with

individual plots split into 240 shares, 696 shares, 348 shares, and 540 shares.⁴⁹ Many deeds simply specified that they sold “all the shares held by this household” without going into this kind of detail.⁵⁰ By grouping together shares in multiple properties, deeds came to function less as proof of landownership and more as investment portfolios. Yet even if the parceling of shares simplified financial record keeping, it led to new complications for the management of the shared plots. Once a plot had dozens of owners, it became unwieldy for them all to participate in its day-to-day management.

By the mid-1500s, forest managers created new forms of record keeping to address the complications of highly divided plot ownership. Some ownership groups compiled inventory lists (*qingdan*) of all the subdivisions of each section in a forest. They produced these central directories of shareholding in direct response to the increased prevalence of ownership disputes. As repeated subdivision rendered ownership unclear, inventory lists centralized shareholding information in a single location to review before sales.⁵¹ The compilation of these lists also reflected the fact that official records of land title were neither detailed enough nor updated with enough frequency to track changes in shareholding.

The emergence of portfolio deeds and inventory lists reflected increasing distance between the nominal responsibilities of a small number of “landlords” and the more abstract financial commitments of a larger shareholder group. Shares that began as commitments to actively managing forests started to function as freestanding investments, often purchased by urban investors who had little personal business in the management of their properties. Rather than owning large shares in a small number of forests, absentee shareholders often owned small stakes in many discrete plots in multiple forests and even multiple districts. This was more than incidental accrual of shares over time; it reflected intentional hedging against the risks of losing an entire plot of timber to fire, theft, or disease. Diversification also allowed owners to spread their investments between forests that matured at different times to provide a more regular stream of income.

Starting in the late 1570s and the 1580s, a final shift reflected the near-complete transformation of forest partnerships into abstract investments: the shift from fractional to decimal accounting. Decimals were initially created from fractional shares in order to ease the calculation of silver tax surcharges after the single whip reforms.⁵² A deed from 1578 shows this process from start to finish: it gives the acreage of the entire plot (2.3 *mu*), specifies the fractional share (one-seventh), and finally calculates the decimal

acreage equivalent to this share to use for tax assessment (0.33 *mu*).⁵³ Decimal accounting also made it easier to calculate the total value of shares of different sizes from different plots, as demonstrated by another deed from 1586. Rather than finding a common denominator for multiple different fractions, one owner converted each of the shares into a decimal, summed them to a 0.01995 stake in the plot, and carved off a 0.0015 share to sell.⁵⁴ While initially based in tax calculations, the shift to decimal notation also made the valuation of complex portfolios much easier. It may have also reflected the simplification of computation as the abacus became more prevalent in the sixteenth century.⁵⁵ Regardless of its origins, decimal notation completed the abstraction of forest shares as financial holdings rather than proportions of land and labor. While fractional division followed clear processes of household division and partnership, decimal notation eliminated any traces of this ownership history. We might conceive of a one-eighth role in planting trees, but a 0.0015 share is only sensible as an abstract financial stake, not as any concrete share of trees, time, or labor. Decimal shares completed the transformation of forest deeds from rights to physical land and trees into abstract securities fully removed the material realm they represented.

SHIFTS IN LAND AND LABOR RELATIONS

As deeds came to function as investment portfolios, new contractual forms emerged to fulfill their original functions: documenting ownership and labor responsibilities. As early as the 1430s, some ownership groups began drafting forest shareholding agreements (*fenshan hetong*) to specify how to manage the properties that underlay their increasingly abstract investments.⁵⁶ With ownership divided among dozens of stakeholders, it was no longer clear who was responsible for supervision, especially during the period between planting and felling. For five-year-old “mature stands” (*chenglin*) of fir to grow to marketable size took at least twenty years and sometimes as many as fifty. These were decades when the forest required little labor but presented growing risks of fire and theft. The most common solution was to make tenants or bond servants responsible for patrol and firefighting. Many agreements imposed fines of up to ten times the market value of timber to punish theft or negligence among forest workers.⁵⁷ Most villages resolved minor cases of wood theft internally, but in more brazen cases of timber poaching, the entire community was alerted to help apprehend the perpetrators, who were then turned over to state authorities.⁵⁸

Theft from within the ownership group was more complicated than policing outsiders. Given the large number of stakeholders, there was a substantial moral hazard that one “owner” would seek to claim more than his share of the timber harvest. Shareholders could also be tempted to harvest wood to meet their own immediate needs without consulting the rest of the ownership group. Self-policing was therefore a major concern. Many associations began to impose fines on their members for violations. McDermott notes one association that created a particularly clever system of mutual surveillance. The community of eight lineages distributed numbered carry poles. To cut timber or fuel, members had to approve their harvest with the head of their administrative village (*li*) and to verify their ownership stake in that specific property. Illicit loggers could easily be identified by their numbered carry poles, which would be obvious if they tried to sell the wood anywhere within the district.⁵⁹

As tenants became the main parties responsible for planting forests, labor practices also shifted. Most tenancy contracts were nominally established for the entire multi-decade maturation period, but labor was overwhelmingly concentrated in the first few years, when planters burned away weeds, planted seedlings, and intercropped grains and fiber crops. But after three to five years, when owners customarily inspected plots to ensure that trees were maturing, the labor needs dropped off precipitously, as did the sideline income from cover crops. If the planters were bond servants or restrained by strict contracts, they had little choice but to stay on the land. To deal with their limited income after the initial planting, most worked multiple plots; in theory, they could rotate between plots on short cycles until their first plot came to maturity. Yet few planters could afford to wait that long to receive a cash return on their labor. Therefore, many tenants sold their shares back to the landlord around the time of the initial inspection; others sold them illicitly or used them as collateral on loans.⁶⁰ Some contracts reflected the short-term nature of planting and were only written for three years.⁶¹ More often the landlord retained the prerogative to call on tenants for the entire thirty years, or to buy back their shares, presumably at a rather steep discount.

For most of the fifteenth and sixteenth centuries, the groups of “tenants” and “owners” overlapped substantially. Yet the bifurcated markets in land and labor created a ratcheting effect, making it easy for landlords to acquire labor shares but difficult for laborers to acquire ownership. Many tenancy contracts specifically noted that land remained the exclusive property of the

owners and placed the onus of growing timber exclusively on the tenants. In the seventeenth century, new barriers were raised to forest laborers who wished to use their labor to acquire long-term stakes in future timber profits. As of 1611, some landlords required laborers looking to acquire long-term shares in the timber harvest to pay an extra fee.⁶² While some forests were still worked by communities of owner-planters acting in concert, many were now owned by a class of absentee shareholders and planted by an itinerant rural proletariat.

With planters no longer on-site for the duration of trees' maturation, other aspects of the forestry labor market were also transformed. Following the initial three-year planting stage, forests entered a decadelong period of maturation with few labor requirements. Aside from occasional thinning and patrols to prevent theft and fires, forests could largely be left alone. The second major period of forest labor came at the end of the maturation period, when the trees were felled. In the seventeenth century, it became increasingly common to draw up clearance contracts (*pinyue*), often arranged through an urban merchant who acted as a middleman between forest owners and logging teams.⁶³ Loggers were typically paid by the pole and were responsible for all their own expenses, including sacrifices to the local spirits. They could also be fined for cutting trees aside from those they were hired to clear.⁶⁴ Gradually the specific labor needs of forestry—heavy during planting, light during maturation, and heavy again during clearance—led to the emergence of a tripartite division between planters, guards, and loggers. Instead of members of a self-contained and overlapping community of foresters, forest guards were reduced to servile status, dependent on the benefice of their landlords, while planters and loggers were generally itinerant laborers, often Hakka migrants from the Wuyi Mountains.

WOOD LAW

Unlike in early modern Europe, Korea, or Japan, there was little specialized wood law in China, leaving forest owners, tenants, and laborers to work out their own terms. Formal oversight of forests was minimal, amounting to little more than basic land surveys and tax collection. While official land surveys demarcated forests as discrete properties, the state specified next to nothing about their management. Even basic ownership rights remained a legal gray area for more than two hundred years after the first forest surveys were conducted in 1149. It was only in 1397 that the *Great Ming Code*

formally granted forest owners exclusive, heritable, alienable rights by classifying forests as real estate (*tianzhai*), opening forests to a wide range of general-purpose property law. By this point, the few laws specific to wood rights were largely dead letters. Aside from the laws governing imperial parks, none of the *Ming Code*'s laws on forests generated any substantial precedent for the next two and a half centuries.⁶⁵ Without productive wood laws, legal innovation to account for the complexities of forest management came almost exclusively from below, through contract and litigation.

While its wood laws produced very little jurisprudence, the *Great Ming Code* nonetheless reflected a major change in wood regulation, formalizing the long-standing de facto status of forests as exclusive property. The *Ming Code* nominally used the *Tang Code* as a model.⁶⁶ In theory, this should have returned to the centuries-old principle that kept woodlands as open-access commons; in practice, the centuries of intervening precedent were more significant. The *Ming Code* did include provisions against monopolizing woodland, but it changed the tenor of the law markedly. Instead of giving wildland regulations their own statute as in the *Tang Code*, the *Ming Code* downgraded them to a subsection of the law "Fraudulently Selling Fields and Houses" (*Daomai tianzhai*). While the Tang and Song penal codes stated that "mountains, wilderness, ponds, and embankments" (*shanye hupo*) were "held in common with the public" (*yu zhong gong*), the Ming law referred to forest workshops (*shanchang*) and other non-agrarian sites as "state or private" (*guan min*) property.⁶⁷ This turned on its head the clause that had previously defended wildlands against the very principle of ownership, now used as a defense of exclusive state or private landholdings against unlawful occupation.

Ming compilers copied other regulations on wood use from the *Tang Code*, and likewise downgraded them in importance. The provision against stealing timber, a statute in its own right in the *Tang Code*, became a subsection of the *Ming Code*'s "Stealing Wheat and Rice from Fields" (*Dao tianye gumai*).⁶⁸ The Ming article "Discarding or Destroying Things Such as Utensils and Crops" also includes provisions against destroying timber copied almost directly from the *Tang Code*.⁶⁹ In a productive historical contrast, Chosŏn administrators used the Ming law as precedent for a substantial forest administration in Korea.⁷⁰ But in China, these laws generated essentially no further jurisprudence on wood rights. With little fanfare, these few articles in the *Ming Code* completed the legal process begun in the Song,

transforming forests into a subcategory of landholding little different from farmland in the eyes of the law.

Yet forests were not farms; their management was complicated by partnerships and securitization, multi-decade growth periods, and substantial risks of fire and theft. As much as possible, forest owners hashed out these complexities in the types of contracts seen above. But when contracts were violated or unclear, they turned to litigation. It is in this genre of lawsuit, principally preserved in private litigators' manuals (*songshu*), that we can find the best evidence of the hazards particular to forest management and of the legal innovations that helped diminish or overcome these risks.

Litigation by third parties was technically illegal under Chinese dynastic law. Nonetheless, private litigation masters (*songshi*) were noted as early as the eleventh century and proliferated in the Southern Song. These pettifoggers were colloquially known as “brush-pen hatpins” (*erbi*) in reference to the manner in which they advertised their trade. From the Song through the Ming, Jiangxi and Huizhou were particularly notorious hotbeds of litigation, with manuals and even private schools that offered legal training.⁷¹ Despite attempts to stamp out litigators and to destroy these manuals, they continued to circulate, primarily in manuscript form. The earliest extant litigators' manual is from the Ming, *A Brush-Pen Hatpin's Critical Points* (*Erbi kenqing*; c. 1500–1569), written under the colorful pseudonym “the falsehood-revealing hermit of a small utopia” (*xiao taoyuan juefei shanren*).⁷²

Where dynastic law left forest as a generic placeholder, the “falsehood-revealing hermit” is rather specific on the finer points of forest ownership. His text focuses principally on the petty yet complicated matters (*xishi*) related to property and household affairs.⁷³ The section on households (*hu*) contains a subsection specifically on “mountain plots and grave land” (*shan-tian mudi*), a guide to forest law not found in official texts. *Critical Points* avoids including multiple versions of similar suits.⁷⁴ Instead, each case is presented to demonstrate how to argue a particular type of dispute, including several specific genres of forest conflict. It reveals that landholders and pettifoggers developed their own standards for how to litigate forest ownership, shareholding, and illicit logging, transforming an official category that specified little more than a tax grade into the locus of substantial grassroots legal innovation.

The first clear example of the standards for litigating wood disputes comes from a simple case of contested ownership. In the comments on the

case, *Critical Points* notes the importance of maintaining forest registration to prevent timber theft: “There are only two methods for contesting forests. Forests that have been purchased require clear deeds and satisfactory [evidence of] transferring tax responsibilities. Inherited, shared forests without deeds [as evidence] require consulting the *bao* registers and large and small contracts [between owners and tenants]. The forest’s neighbors can verify management of the property.”⁷⁵

Statutory law does not mention a clear difference between purchased and inherited property, yet land deeds are careful to note this distinction. This commentary tells us why: the two situations produced different types of evidence. If a deed existed, it provided the most up-to-date information about ownership. But without a recent deed, inherited property required consulting the cadastres, which would identify the claimant (or his ancestor) as the owner of the property.

A second sample case in *Critical Points* demonstrates another complexity in forest litigation: demonstrating the ownership of both land and trees. In this suit, the plaintiff was careful to present deeds and tax receipts to prove that he had purchased the property. But because the plot had been abandoned, he also had to demonstrate that the timber was the product of his own labor. To do so, the anonymous plaintiff specifically claims that he “went to the forest to set up boundaries and plant seedlings,” prior to fleeing during a period of banditry.⁷⁶ Through the evidence of purchase and planting, the plaintiff thus established claims to own both the plot and the timber that had grown on it.

Forest title could also be contested through false evidence, often through duplicate deeds, which are specifically addressed in *Critical Points*. In one sample suit, the plaintiff had purchased a property, registered it to his household, and planted it with trees. To contest his claim to the timber, another party bribed the original seller to create a second, fake deed with an earlier sale date. This type of falsified evidence was common in all types of land transactions, but forest owners were especially susceptible to title contests just before the timber matured. The commentary notes that in cases like this, both the seller and the rival claimant could be accused of the crime of falsifying claims to the forest.⁷⁷ In cases like these, tax registration was the best way for owners to prove their claims and recoup their losses.

The complexities of shareholding, and the increased divisions between owners, planters, guards, and loggers, provided another avenue for theft and disputes to emerge. One sample case in *Critical Points* presents the example

of a neighbor who bought a half share to a forest and used it as a pretext to log the entire property.⁷⁸ Another suit involves a buyer accused of forcing a shareholder to sell shares he did not own.⁷⁹ In another sample case, parties with no shares simply fabricated them in order to claim a portion of the profits.⁸⁰ Like simpler cases of timber theft, all three conflicts emerged at or near the time of the timber harvest. As in simpler forms of land title dispute, *Critical Points* shows that shareholding conflicts were best resolved by having third-party documentation of ownership, especially by writing shareholding arrangements into the tax registration documents. Despite its complexities, shareholding did not upset the basic framework of forest litigation. Partial owners were able to use deeds as evidence, and clever litigators fit shareholding situations into the basic laws on real estate, in part by referring to these cases as generic thefts of “property” (*ye*). To teach others how to resolve these increasingly complex disputes, litigation masters circulated notes in specialized manuals like *Critical Points*.

Shareholding was not the only legal wrinkle posed by commercial forests. With the removal of ownership groups from day-to-day management, they increasingly relied on forest wardens (*shoushan*), generally bond servants who were given houses and fields to till in exchange for this thankless and dangerous job. Yet Ming law lacked provisions specific to the contracts between workers and their employers, especially when the workers were not easily classified as “tenants.” *Critical Points* simply lists cases involving wardens under the more general heading of “theft and robbery” (*daozei*). In some cases, wardens were injured or killed in defense of their employers’ property. In *Critical Points*, the author’s commentary provides the specific statutory punishments to demand in court in such a case, noting that the use of an ax in committing a robbery aggravated the penalty for assault on the warden by one degree.⁸¹ But in other cases, wardens and owners found themselves on opposite sides of a dispute. Generally poor and isolated, wardens had substantial opportunities to steal the timber they were tasked with guarding. In one such case, tenants recruited to guard a forest took advantage of their isolation to steal from the forest that the owners had “expended considerable labor and capital to plant with fir, pine, bamboo, and other timber.” While litigated under the more general statute on theft, the sample plaint argues that “harming one’s master is worse than robbing outsiders” (*shang zhu shen yu wai ze*), which would have aggravated the punishment by one or more degrees.⁸² Once again, clever litigators were able to repurpose general precepts of Ming law to fill a vacuum in formal jurisprudence—in

this case arguing for a specific legal standard for wardens stealing from the forests they were hired to protect.

PLANTING AND THE FOREST BIOME

By the fifteenth century, Huizhou's forests had been planted and replanted for hundreds of years, yet tenancy contracts are almost the only records of the process. These scattered documents show hints of the acts that went in to cultivating timber. Planters dug out the weeds (*chumao*), burned away the grasses (*shaohuang*), and planted seedlings or slips (*miao*, *cha*). According to figures given in forest deeds, one *mu* generally held between two hundred and six hundred trees (approximately twelve hundred to three thousand trees per acre), with the bottom end of the range being more typical.⁸³ During the first several years, tenants also planted millet, hemp, or other dry-field crops, which served both to protect the young seedlings and to provide for the tenants subsistence.⁸⁴ While many plots were clear-cut prior to planting, others retained mature trees, sometimes multiple kinds of trees.⁸⁵ Despite some variety in specific circumstances, these contracts clearly describe cyclical planting and clearing of uniform-age plantations, not the lumbering of old-growth or mature secondary woodland nor the selective felling of trees in a mixed-age forest.

The processes described in these contracts were essentially the same planting methods reaching back to the twelfth century, and perhaps as early as the ninth.⁸⁶ Transplanting of fir slips and pine seedlings; interplanting with dry-field crops; periodic thinning to encourage tall, straight trunks; and twenty-four- to thirty-year harvest cycles for timber are also described in Xu Guangqi's seminal work, *Complete Book of Agricultural Administration* (Nongzheng quanshu; c. 1630), where he considers this forestry as typical of western Jiangnan, including Huizhou as well as neighboring Xuancheng, Chizhou, and Raozhou.⁸⁷ Essentially the same methods were reported in the 1960s by the Oxford-trained forester S. D. Richardson, and again by a team of Chinese and American foresters in the 1990s.⁸⁸ While individual partnerships rose and fell, many of the same forests were planted and replanted with the same species and the same methods for nearly eight hundred years.

While it remained densely wooded, the southern landscape was overwhelmingly the product of human intervention; the majority of its forest areas were plantations of fir, pine, and bamboo. Based on Chen Keyun's

figures, we can estimate that approximately two-thirds of registered forest land in Huizhou was under timber, with about 3 percent set aside specifically for growing seedlings (*miaomu*); the remaining third was split between graves, fruit orchards, and bamboo and tea farms.⁸⁹ Anecdotally, these approximate proportions probably held in other heavily forested parts of the south.⁹⁰ While the topic is complex, it is clear that community compacts and official restrictions protected other wooded areas from development, especially near graves, lineage temples, and critical watersheds. But by 1600, the majority of Huizhou's woodlands were monocultural stands of timber trees, reflecting a landscape transformation that was largely completed in the twelfth and thirteenth centuries. While Huizhou was at the far end of the continuum of silvicultural practices, similar conditions probably prevailed in much of Zhejiang, Jiangxi, and the Southern Metropolitan Region and in northern and coastal Fujian.

The transformation of South China's diverse woodlands into patchy monocultures brought substantial new hazards. By simplifying the forest ecosystem, planters increased the risk posed by fires, livestock, and soil depletion. Pine and fir are both substantially more susceptible to forest fire than most subtropical broad-leaved trees, and young trees pose greater fire risks than more established stands.⁹¹ Once forest fires grow large, often in their preferred environment of young conifers, they become far less selective of fuel and can easily spread to more mature trees, field crops, and broad-leaved or mixed forest.⁹² In other words, uniform plantations of young conifers provided a nearly ideal fuel environment for wildfire ignition. Grazing animals also presented a greater hazard to a uniform plantation of young trees than to a mixed forest. Even if they did not graze on the trees themselves, livestock could trample an entire plot of seedlings in a matter of hours.⁹³ Pure stands of fast-growing conifers also have a pronounced tendency to deplete the soil, with effects often visible as early as the second round of planting.⁹⁴ Without the intrinsic risk-reducing diversity of mixed-age, mixed-species communities, plantation forests were particularly susceptible to these hazards. By parceling each plot among multiple owners, and by giving owners stakes in multiple plots, shareholding represented a financial mechanism for mitigating these risks, but did little to stem the ecological damage.

In addition to greater environmental hazards, forest plantations created greater moral hazards than the mixed forests they replaced. Woodlands had long been used as common reserves of fuel, food, and other goods by the

entire community. Woods were a particularly important resource to the poor, an eco-social buffer enabling those with limited resources to maintain subsistence by gathering wood and wild foods. When forests were enclosed, nonowners lost their access rights, abrogating this informal safety net. In most cases, community members did retain some rights to gather fuel, even on private property, and some woodlands were specifically protected as commons.⁹⁵ Nonetheless, when individuals enclosed forests, they did so at the expense of the rest of the community. This left the landless poor with few options but to steal wood from their wealthier neighbors. Here, too, shareholding provided a mechanism for reducing the impact of losing common-access land. By allowing forest laborers to acquire stakes in the timber they planted, shareholding encouraged the entire community to buy into collective management. But despite the incorporation of wealth-sharing mechanisms, private timber plantations brought a major loss of security for large swaths of the community. For wealthy landlords, plantations offered regular, predictable profits. For poor laborers, the ability to acquire shares in a distant timber harvest did little to mitigate the loss of the woodland safety net.

The emergence of contractual forms of risk management and profit sharing marked the twilight of the eco-social support system. Mixed forests persisted at the margins of settlements and continued to provide fuel, fodder, and famine foods to the broader community, especially its poorest members. These natural woodlands were also less prone to fire, flood, and erosion and provided richer habitats for a more diverse array of flora and fauna. But by the sixteenth century, the landscape was dominated by uniform stands of fir and other commercial species. Even the remaining old-growth woodlands existed only on inaccessible slopes or through another human intervention—designating woodlands around graves, temples, and sensitive watersheds as sacred *fengshui* forests.⁹⁶ Woodland, like farmland, was now almost entirely the product of human action.