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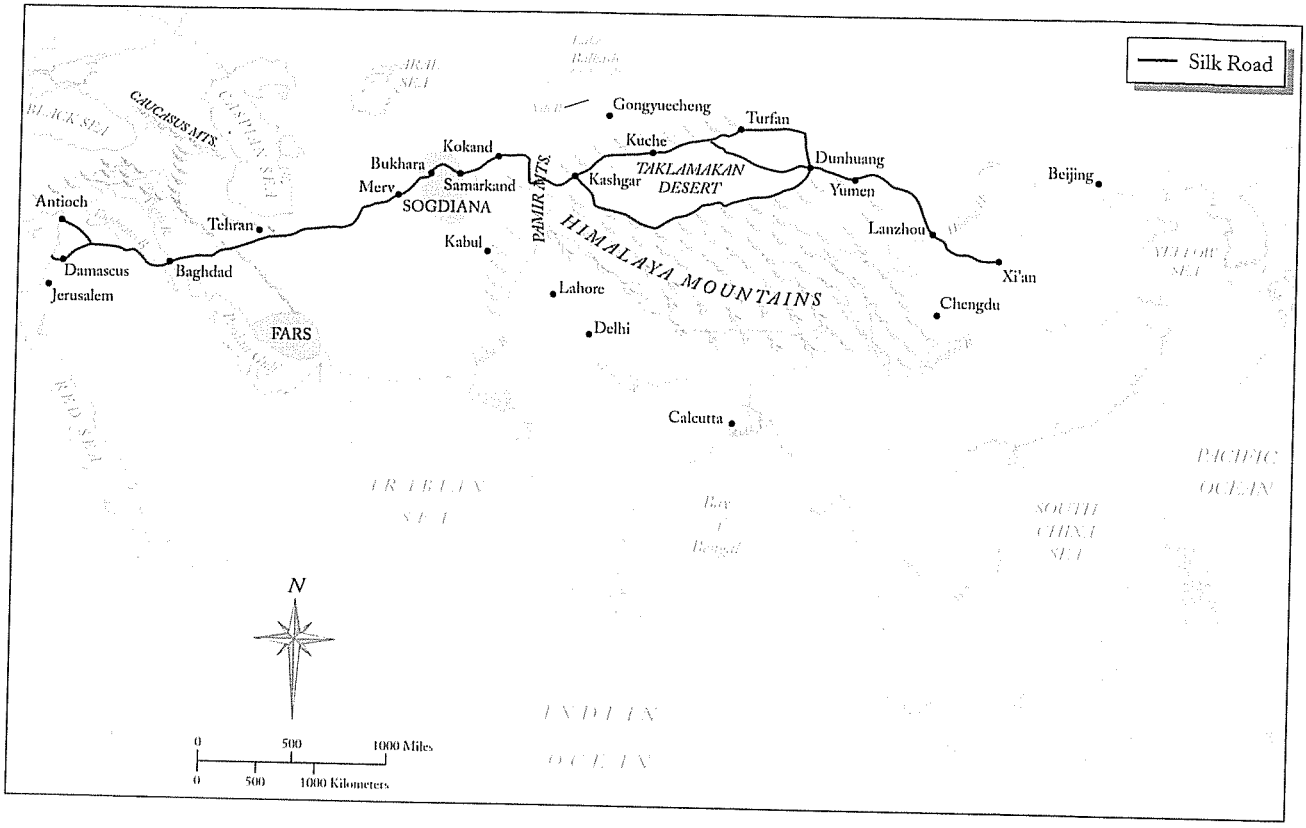
How Business Was Conducted on the Chinese Silk Road During the Tang Dynasty, 618–907

PART I: THE RESOLUTION OF AN INTERNATIONAL DISPUTE ON THE SILK ROAD, CA. 670

VALERIE HANSEN

In 1966, the first year of the Cultural Revolution, Chinese archeologists discovered a group of affidavits in a tomb in the Astana graveyard, some ten miles east of Turfan. Offering a needle-sharp close-up of the Silk Road trade, these documents highlight the legal system officials of the Tang dynasty (618–907) devised to handle commercial disputes between their subjects and peoples from other lands with equally complex legal systems. These innovations facilitated the commercial exchanges of the Silk Road and indeed may have contributed to the surge in trade in the seventh and eighth centuries, when the Tang state poured resources into Central Asia to support its officials and armies posted there. At the time Turfan was probably the largest oasis on the Silk Road with a population of forty thousand; today it lies in the Xinjiang Autonomous Region of northwest China.

Since 500, Turfan had been the capital of the independent oasis kingdom of Gaochang. Soon after the founding of the Tang dynasty in 618, the emperor tried to persuade the rulers of the oasis states ringing the Taklamakan Desert to accept his overlordship. He signed treaties with those who agreed and sent armies to con-



The Silk Road trading route

quer those, like the king of Gaochang, who did not. In 640 Tang armies invaded the kingdom, and Turfan became one of more than three hundred prefectures in Tang China, fully subject to all the provisions of Chinese law.

Turfan was on the overland trade route skirting the northern edge of the Taklamakan Desert, now usually referred to as the northern Silk Road. Going through Dunhuang and Kashgar, the northern route connected the Tang capital of Chang'an (modern Xian in Shaanxi province), a thriving metropolis of 500,000, with its major trading partners, the city states of Sogdiana, a region straddling modern-day Uzbekistan and Tajikistan. As on the Chinese side of the Pamir Mountains, trade routes connected the oases where people naturally settled.

The residents of Sogdiana spoke Sogdian, an Iranian language distinct from, but related to, Middle Persian, and were called Sogdians. They inhabited the easternmost edge of the Iranian world, whose center lay far to the west in the Fars region of Iran. The Sasanian empire (224–651) ruled the region of modern-day Iran and Iraq, but its control did not extend all the way to the city states of Sogdiana, which were ruled by independent kings. Samarkand and Bukhara were among the most important city states in Sogdiana at the time.

Many Sogdians were true international merchants, who knew the cities and cultures of both the Iranian and Chinese worlds. Sogdian traders were active in China in at least the fourth century, if not before, and their pace of emigration increased dramatically after the mid-seventh century, as refugees fled before the advancing Islamic armies.

Sogdians brought with them their own law, which drew on the ancient texts of Zoroaster,[1] who may have lived sometime around 1000 B.C. Zoroastrian teachings held

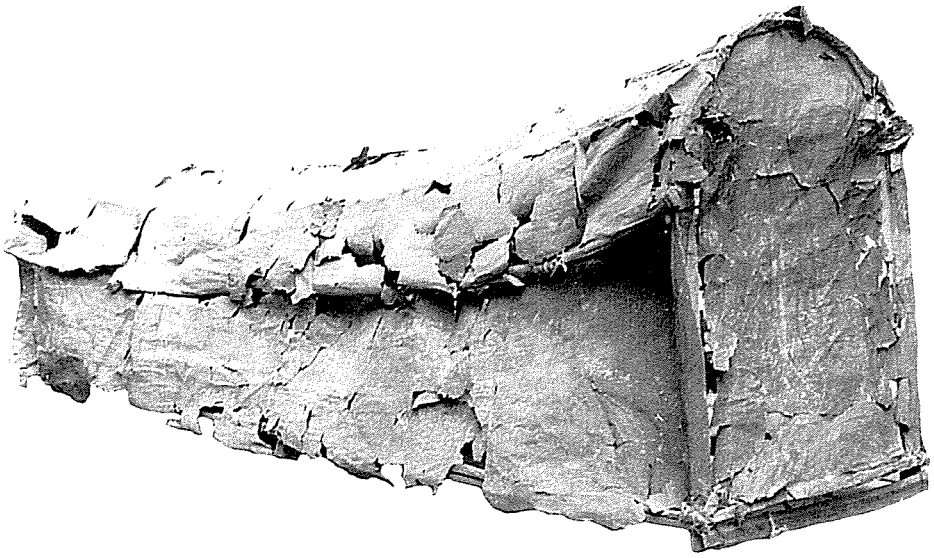
that truth-telling was the highest good of all,[2] and rulers were obliged to implement justice in their realms in the hope that they could increase the forces of good in the world. Little is known about Sogdian law because the Sogdian legal code is not extant and only a few contracts in the Sogdian language survive.[3]

Sogdian law probably overlapped considerably with that of the Sasanian empire. The Sasanian law code is not extant, but the basic principles of Sasanian law are preserved in the seventh-century casebook *The Book of a Thousand Judgments*,[4] and a ninth-century encyclopedia.[5] *The Book of a Thousand Judgments* presents short judgments on different topics: the maintenance of religious shrines, inheritance, marriage, and various types of contracts. Although Sasanian law recognized oral agreements, in most cases the parties to a contract drew up written agreements, which were signed in front of witnesses and placed for safekeeping in the Office of Registry.[6]

The Astana Documents

Almost all the documents found at Turfan were buried in the Astana graveyard. With the exception of a single Sogdian-language contract,[7] the documents are written in Chinese, the language of administration of the Tang dynasty and also the local scribal language even before the Tang conquest. The Astana graveyard contains over three thousand tombs dating from the third to the eighth centuries. In 1915, Aurel Stein reported that all the graves had been disturbed, both by grave robbers and earlier explorers.[8]

Even so the region's dry climate has preserved a startling array of items—desiccated corpses, elaborate silks, painted wood figurines, and over two thousand documents written mainly in Chinese—making it one of the most important archeological sites on the Silk Road. Of the 465 tombs excavated between 1959 and 1975, 202 produced documents. The presence of documents testifies to the unique practice of the Turfan people who buried their dead in shoes, hats, and belts made from recycled paper, which often had writing on one or both sides.[9]



Recycled paper coffin. 769 A.D. This papier mâché coffin made from recycled documents was placed over the body of a dead official who could not afford a more elaborate funeral. When dismantled, the coffin produced 55 documents, all dating to 769, the year the official died. All came from the government office that oversaw the provisioning of long-distance horses used by government officials.

By the third century A.D. Silk Road craftsmen had learned how to make paper, invented five hundred years earlier in China.[10] The paper used in government documents and private materials was not discarded but recycled in various forms. Sometimes it found its way into funerary garments. The side with writing was often painted black to obscure the writing, but fortunately for historians, the characters sometimes remained visible. By laboriously piecing together the fragments of paper in these garments, archeologists have managed to reconstruct a wide variety of sources. Yet much from Astana was lost, as well, as this type of painstaking archeology was the exception in China during the Cultural Revolution.

Nine pieces of paper relate to the Silk Road dispute about an unpaid loan from a central Asian merchant to his Chinese partner. They range in size, with the largest measuring over fourteen inches long and eleven inches wide. Too large to have been soles for shoes, the most common type of funeral good at Turfan, they are clearly from a sewn paper garment. Needlemarks are visible in some of the photographs (see page 48, where two rows of needlemarks run along the bottom edge of the document). Could they have been part of a paper shirt? We will never be certain because none of the publications about the site either describes the paper artifacts found in tomb 61 or explains from which objects the documents were recovered.[11]

Seven of the nine documents concerning the dispute have writing on the reverse, including name lists for corvée duty and affidavits from other cases. The remaining eleven documents in the tomb (those having nothing to do with the loan dispute) are also either name lists or affidavits, an indication that the tomb's contents were all made from paper discarded by a government office, quite likely a single court. Some of these documents are dated 665, and the tomb includes an epitaph dated 673, so we know that the dispute occurred sometime between 665 and 673, when the tomb was sealed.

The Documents' Improbable Survival

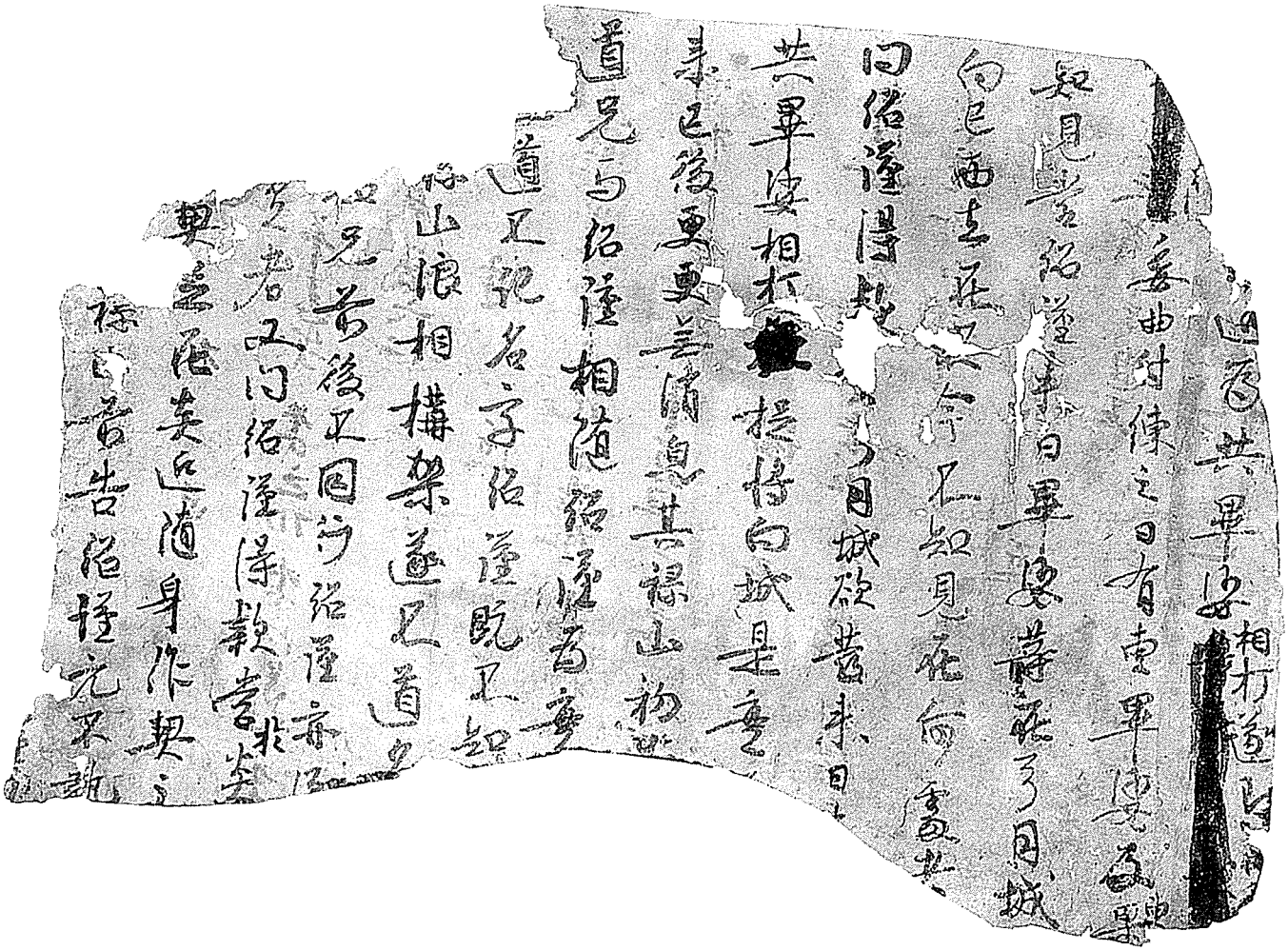
In 665, government clerks used fresh sheets of paper to draw up name lists and to record affidavits for the Silk Road dispute. Scribes writing rapidly used a modified cursive—meaning different strokes in a single character are connected, but no strokes connect one character to another. These drafts must have been discarded since the reverse was subsequently used to record the testimony of the parties to the dispute.

With writing on both faces, the paper could no longer be used by clerks and was probably sold as refuse. It then came into the hands of someone making funerary garments, who cut it into pieces (for a shirt?) and sewed them together. Placed in the tomb of the deceased in 673, the recycled documents remained underground in the Astana graveyard for more than one thousand years, until archeologists discovered them. They have since been dismantled and transcribed. This complicated sequence of events has resulted in unique documents; their large chunks of continuous text make them unusually informative, but also frustrating because of the many gaps at the places where they were cut.

The Facts of the Case

In 670 a Sogdian merchant brought a suit in Turfan against a Chinese merchant, Li Shaojin.[12] The merchant's Chinese name, Cao Lushan, provides important clues about his identity. The Chinese assigned Cao as a family name to those Sogdians from Kabudhan, or Gubdan, the region north of the Zerafshan River (which runs through Samarkand).

One page of a Silk Road document recording an international trade dispute. Ink on paper. ca. 665–763 A.D. The first page of a recycled paper document recording the legal proceedings involving the family of a deceased Central Asian merchant and his former Chinese partner. The dispute concerns a camel load of silk jointly claimed by the two parties. The document was likely a discarded draft recording testimony at a trial.



The seventh page of a Silk Road document recording an international trade dispute. Ink on paper. ca. 665–763 A.D. The last large section of the draft of the trial proceedings is part of an affadavit about the final meeting of the Sogdian merchant who was later killed with his Chinese partner in Gongyuecheng.Two rows of needlemarks at the bottom edge of the sheet suggest that it was later sewn into the lining of a garment, perhaps a shirt.

Lushan was the Chinese transliteration of the common Sogdian first name, Rokhshan, which means "bright" and is the masculine equivalent of the English name "Roxanne." In addition to Rokhshan and Merchant Li, the case involved two other Sogdian merchants, Cao Guoyi and Cao Bisuo. Their common surname of Cao indicates that their home region was the same as Rokhshan's, but not necessarily that they were related.

The three Sogdians and the single Chinese merchant were all residents of Changan. According to Tang law, each subject of the empire had to be listed on a household register where he or she lived.[13] These men, who traveled frequently to the different trading oases of the Taklamakan Desert, probably did not spend much time in the Tang capital, but their wives and children lived there year-round. Sogdians resided in certain districts in the capital, often near a fire altar, where they could attend Zoroastrian rites.

Rokhshan brought the suit on behalf of his deceased elder brother, Yam-yān, transcribed in Chinese as Yanyan, meaning "favor of the god Yama."[14] Yama was the Indian god of the dead who presided over the underworld. Rokhshan accused Merchant Li of borrowing 275 bolts of silk from his elder brother Yam-yān, but failing to repay him. Merchant Li denied the charges, and to make matters even more difficult Yam-yān had died several years earlier. None of the parties to the case lived in Turfan, but Rokhshan may have brought the suit there because between 670 and 679 it was the seat of the Anxi Protectorate, an administrative district including Kuche, where Yam-yān had disappeared.[15]

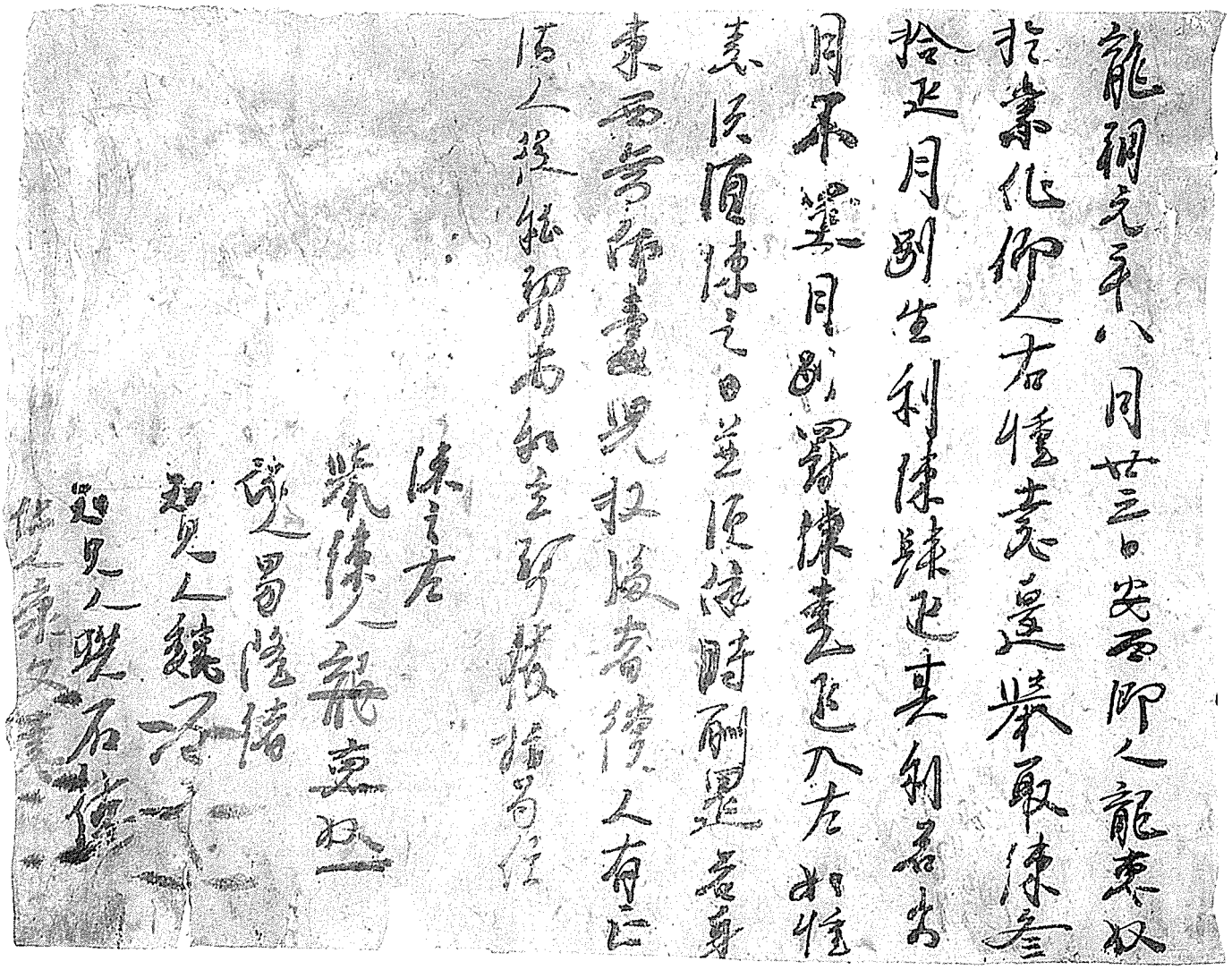
According to Rokhshan's affidavit, Li Shaojin and Yam-yān had formed a partnership in Gongyuecheng (modern-day Almaligh), which lies in the Yili River basin close to modern China's border with Kazakstan. Having no common language, the two men must have communicated through interpreters. Merchant Li then proceeded to borrow 275 bolts of silk from Yam-yān.

At the time of their parting, the two merchants agreed to meet in Kuche, some 200 miles to the south. Accompanied by his nephew, Yam-yān was leading two camels, four cattle, and one donkey that carried his wares: various goods worth 200 bolts of silk in addition to saddles, clothing, bows, and arrows. He never arrived at his destination. One witness speculated that he died at the hands of bandits who wanted his cargo of weapons and saddles.

Not surprisingly, the Chinese merchant never paid back the 275 bolts of silk he had borrowed from the dead man. In his initial affidavit, when asked whether he had received the loan, he testified, "At Gongyuecheng I never obtained the bleached silk from the Sogdian. Nor did I expect to go to [gap in text] with the Sogdian and then return to Kuche. Inasmuch as I was not in partnership with him, I genuinely don't know." His speech of denial has a curiously modern ring. Court officials asked him again and again whether he had received the loan, yet he steadfastly maintained that he had traveled alone.

Then the court officials confronted him with the testimony of two Sogdian merchants who had witnessed the original loan of the 275 bolts of silk at Gongyuecheng. Although the copy of the contract belonging to the deceased Sogdian partner had disappeared, and although the Chinese merchant must have destroyed his copy, the two Sogdian witnesses vouched that Merchant Li had indeed borrowed the silk. According to Tang law, their testimony had the same legal standing as a copy of the contract.[16]

Ruling in Rokhshan's favor, the court ordered Merchant Li to pay back 275 bolts of silk in addition to interest. We have no way of knowing whether the Chinese partner ever paid Rokhshan back, because the documents come to an abrupt stop.



Contract for loan of silk. Ink on paper. 661 A.D. This contract records the loan from a moneylender of thirty bolts of silk to a borrower who agrees to pay four bolts, or 13.33 percent interest, each month until the time of repayment. This rate was higher both than prevailing rate in Turfan, usually 10 percent each month, and the government-stipulated rate of 6 percent per month. The text of the contract appears on the right, the names of the signatories on the lower left. Nothing appears below the first name, that of the moneylender, but the borrower, the guarantor, and the witnesses all draw their fingerjoints below their names to indicate their acceptance of the terms.

Typical Contract Terms

Only the affidavits and the judge's decision have survived, not the original contract. But we can reconstruct what typical contracts might have looked like on the basis of other contracts excavated from the Astana graveyard. Of the 250 contracts excavated from Turfan, more than 40 are loan agreements.[17] Most loans were for small sums, such as a few pecks of grain, several bolts of silk, or between 2 and 40 silver coins. One agreement dated 661 covers a loan of 30 bolts of silk from a money lender named Zuo Chongxi to a man named Long Huinu. After giving the date, this contract reads

> Long Huinu, resident of Anxi canton, receives thirty bolts of bleached silk from Zuo Chongxi, resident of Chonghua canton. The monthly interest will be four bolts of bleached silk. If the interest is not paid monthly, a fine of one bolt of bleached silk will be paid to Zuo each month. If Zuo needs the silk on a given day, then it must be returned to him promptly. If the borrower absconds, then it is up to his wife and children and those whose names follow below to redeem his debt.
>
> Officials have government law, and common people follow private contracts. The two sides agree to make this contract, and they draw their finger joints as a sign of good faith.
>
> Zuo, the owner of the silk, Zuo [no finger joint marks]
> Long, the person who receives the silk [finger joint marks]
> Guarantor Long Xu [finger joint marks]
> Witness Wei Zuo [finger joint marks]
> Witness Fan Shide [finger joint marks]
> Guarantor Kang Wenxi [finger joint marks][18]

All parties to the agreement drew their finger joints, except for the lender Zuo. They drew lines next to each joint of their index finger, an act equivalent to signing with an X in the West.

Many Turfan contracts follow the same format and include the same phrases. The identity of the guarantors is unknown, but two of the witnesses, both Sogdian merchants resident in Changan, later testified on Rokhshan's behalf, so the agreement had at least four participants: the borrower, the lender, and two witnesses.

The monthly interest of 13.33 percent, or four bolts on a loan of thirty bolts, stands out as unusually high. In the Silk Road case, we can assume that Yam-yān would have charged Merchant Li a lower rate of interest since Li was borrowing a larger amount of silk, but otherwise the missing contract would have followed this format.

A monthy interest rate on private loans of 6 percent (raised to 7 percent in 742) was stipulated by the Tang statutes, as reconstructed by Niida Noboru.[19] This was less than the prevailing rate in the surviving Turfan contracts, which usually call for 10 percent each month and sometimes more, as we saw in the contract above.[20] The state did not require registration of contracts for loans, but it did require contracts for the sale of livestock and slaves to be registered with market officials. The government's penal code, the *Tang Code*, also contains a few provisions about contracts. One limits the total interest charged to the value of the principal.[21] The terms of the Turfan contracts, except for interest rates, are fully consonant with prevailing Tang legal regulations.

Had the Silk Road case been governed by Iranian law, Merchant Li should have given

something, whether property, slaves, or goods, as security when he borrowed 275 bolts from Rokhshan. Iranian judges emphasized the lender's obligation to maintain the property or goods provided by the borrower as security on a loan. When Merchant Li and Rokhshan drew up their contract in 670, Turfan had already been under Tang rule for thirty years, so it seems unlikely that the contracting parties would also have drawn up a Sogdian-language version of the contract.

Other extant documents from Turfan are in Chinese but have Sogdian signatories. Some Sogdians, particularly those born in Turfan, must have spoken good Chinese and been able to read it. For those who, like Yam-yān, did not, the Chinese courts provided interpreters.[22]

The Value of Silk

The dispute between Cao and Li reveals much about silk prices. Most of the silk traded along the Silk Road during the Tang dynasty was not multicolored luxury silk but plain white silk, a common medium of exchange. Silk, bronze coins, and silver specie were the three main types of currency in circulation in the Tang.

Silk circulated mainly in the form of bolts, woven to a standard length of forty feet and a width of one foot eight inches.[23] Silk's value fluctuated less than that of the bronze coins, whose weight also made them inconvenient. One string, or one thousand coins, weighed as much as four kilograms.[24] In the seventh century silver coins, minted by the Sasanian empire and, after 651, by their Islamic successors, circulated widely throughout western China. For reasons not yet understood, the people of Turfan stopped using Iranian coins after the year 700 and began to use Tang bronze coins instead.[25]

The Tang government collected taxes in kind, requiring households to pay in labor, cloth (often silk), and grain, according to each household's assessed annual obligation. In the mid-eighth century, the government's annual tax receipts included 27 million bolts of cloth, 250 million pecks of grain, and only two million strings of coins, a clear indication of silk's importance as a medium of exchange.[26]

What was the value in 670 of 275 bolts of silk? No reliable price tables exist, but contemporary contracts from Turfan provide a rough sense of silk's purchasing power. In 673 a camel cost forty bolts of silk, and in 731 an eleven-year-old female slave commanded the same price. The loan of 275 bolts probably sufficed for Merchant Li to buy a load of goods and maybe some animals to carry it, but it was a small transaction in contrast to the government's regular expenditures. A single garrison in Dunhuang in 745 cost the central government an annual subsidy of 15,000 bolts of silk.[27] Most of this was for salaries for soldiers and officials, who then spent their money in local markets, purchasing goods from merchants like Li and Yam-yān.

Conclusion

The dispute between Cao and Li over 275 bolts of silk is but a single example that survives because of extraordinary circumstances. Even so, it reveals much about the conditions facilitating Silk Road trade. Scholars of European history, Avner Greif among them,[28] have devoted much energy to reconstructing the various institutions in Europe during the eleventh, twelfth, and thirteenth centuries that facilitated long-distance trade. Coalitions among merchants, courts at annual fairs, and an unwritten merchants' law all played an important role in creating an environment that encouraged merchants to invest money in long-distance ventures with other merchants they did not know personally.

Most people, whether in China or the West, do not think of traditional China as having an active legal system. Yet the dispute between Merchant Li and Rokhshan demonstrates the willingness of the traditional Chinese courts to intervene in a private dispute, a willingness well-documented by a series of secondary studies published in recent years.[29]

This judge accepted a case in which there was no written contract, and in which three of the four parties involved were not Chinese, suggesting that Tang judges were willing to adjudicate almost any dispute. Like their counterparts in Europe, merchants in China required some reassurance before they would do business with or extend credit to someone they did not know personally. At the time of their partnership, Merchant Li and Yam-yān did not even share a common tongue. The readiness of the Turfan judge to hear Rokhshan's case on behalf of his deceased brother illustrates the extent to which the Tang legal system supported the enforceability of contracts, even of private oral agreements. No wonder so many merchants chose to engage in long-distance trade on the Silk Road.

PART II:
RECORDS FROM A SEVENTH-CENTURY PAWNSHOP IN CHINA

VALERIE HANSEN AND ANA MATA-FINK

Hardly any business records from China survive from before the nineteenth century. Imagine, then, the amazement of the Chinese archeologists who found pages from a seventh-century account book of a pawnshop. Written in Changan, the capital of the Tang dynasty (618–907), the pages from the account book made the twelve-hundred-mile journey to Turfan in the arms of a tomb figurine, which was buried in the Astana graveyard in northwest China.[30] The fifteen sheets of paper, which record some fifty-four transactions (the last sixteen are in fragments), are the earliest recorded examples of pawnshop loans yet found in China.[31] Although sparse, the information they provide permits us both to reconstruct the workings of a single pawnshop and to sketch some broader conclusions about credit and interest rates in traditional China.

The Account Book

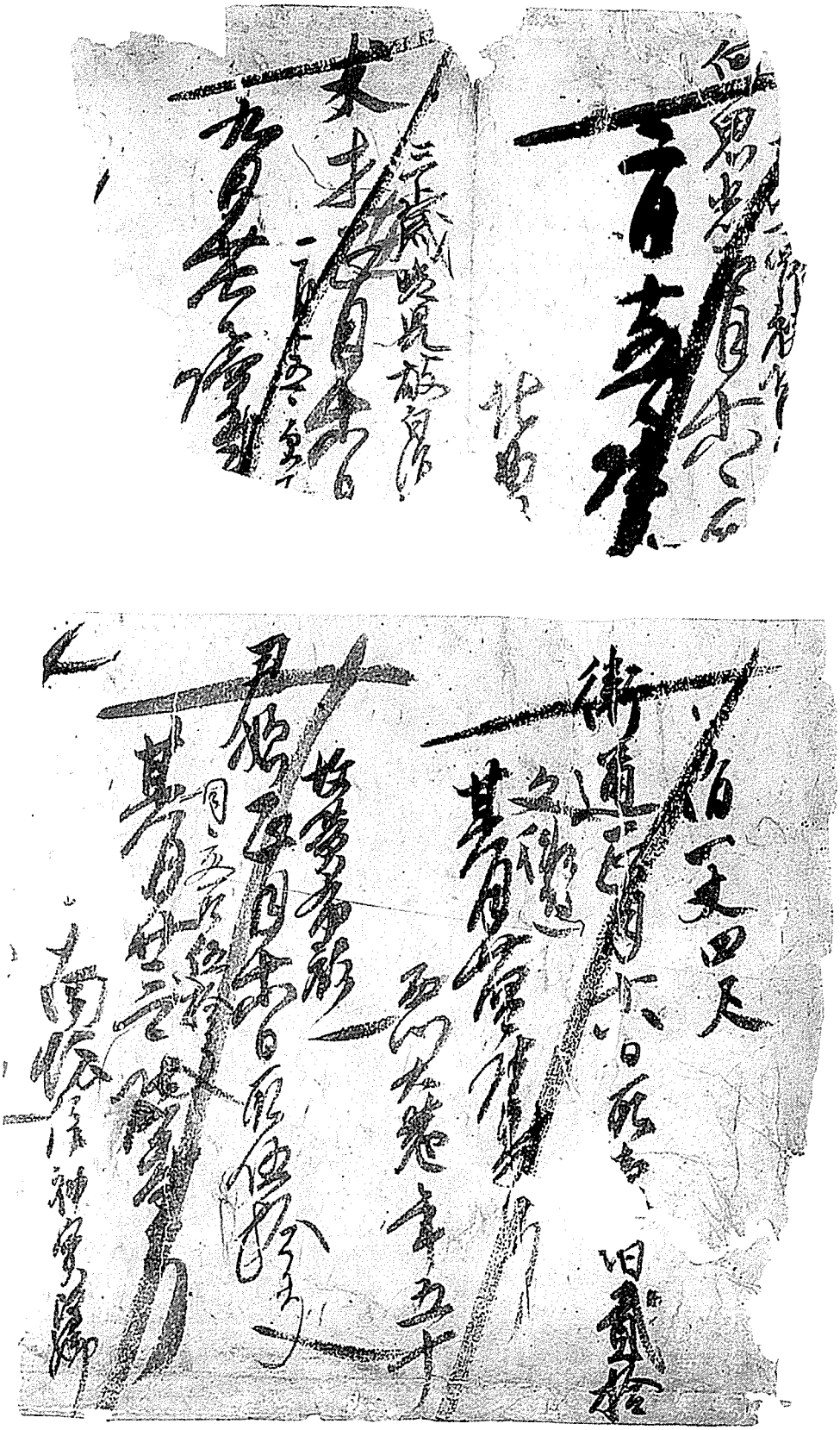
Each entry is devoted to a single transaction and follows a fixed format: item pawned, name of borrower, date, amount of money loaned, date the money was returned, address of borrower, and occasionally his or her age. The staff of the pawnshop recorded the loans on pieces of paper ranging between ten and twelve inches high and six or seven inches wide. Once the pawned item was returned, the staff crossed out the returned item with a bold mark in the shape of a seven. They then discarded the paper (unusually, with writing on just one face), probably by selling it to a used paper vendor, who must then have sold it to the workshop that made the tomb figurines.

Pawned items were usually clothing or pieces of cloth (see appendix for translation of the tickets). The account book names the specific article of clothing and gives its condition, color, and fabric. Almost all the items of clothing are called "old," sometimes even "tattered," but we should view these designations with skepticism: pawnshop clerks labeled almost everything pejoratively in order to assign the lowest possible value.[32] Only two transactions involved other goods: Borrower 26 received 150 coins against four strings of pearls, and Borrower 12 collected 70 coins for a bronze mirror.

There is no obvious correlation between the items pawned and the money received: Borrowers 2, 6, and 28 received between 40 and 100 coins for a single shirt. The single largest transaction was for 1,800 coins: Borrower 19 put up five items (two skirts, an overgarment, a scarf, and one other garment) to obtain this large loan, but none of the other borrowers received more than 200 coins for any individual article of clothing. The amount of the loans ranges from 20 to 1,800 coins, with an average of 172.5 coins. If we leave the largest loan of 1,800 coins out of our calculation, the amount loaned is approximately 116 coins per transaction.

Price data from this period is scarce, but the official histories record that in 665, a year with a good harvest, one could buy a peck, or approximately 5.5 quarts, of rice for five coins. (A very rough estimate in today's prices would put the cost for the same amount of rice at $10.) Most records of government expenditures use one thousand coins, or a string, as the unit of reckoning, with but a single recorded loan exceeding a single string.

Only two of the entries mention interest. Most entries simply note that the loan was repaid, without recording the amount of interest paid. In the two exceptions, the borrowers made initial payments toward their debt, which required the bookkeeper to distinguish



Sample entries from the Changan pawnshop records, ca. 662–689 A.D. Four sample pawnshop loan records. The horizontal and diagonal strokes indicate that the loans were paid off and the pawned items retrieved. The red character on the bottom of the far left line reads "here," an indication that the torn white silk garment of a child was placed in the shop—and not in another storage-place—when pawned.

between repayment of principal and interest payment. For example, in Transaction 25, Cui Ji borrowed 100 coins on the nineteenth day of the first month; four and one-half months later he made a partial payment of 49 coins, of which 40 went toward the principle. The 9 coins toward interest works out to an interest rate of 5 percent a month. Borrower 28 paid the same interest rate on the money he borrowed, so it seems likely that the other borrowers paid an equal rate. During the Tang dynasty (618–907), government offices were permitted to make loans at 5 percent a month.[33]

The age of the borrowers ranges from fifteen to sixty, with the average twenty-eight years old.[34] Interestingly, borrowers under thirty tended to borrow more money (averaging 365 coins each—or 160 if the loan of 1,800 coins is excluded) than those over thirty (averaging 92 coins each). The small amount of the loans suggests that the borrowers were ordinary city dwellers, an impression confirmed by the two borrowers whose occupation is given. Borrower 24 belonged to a dyer's household; Borrower 29 was a hairpin master.

Of the twenty-nine borrowers whose names are recorded, nineteen had distinctly male names and ten female names. Men are called by their surname and given name. With two exceptions, the family names are those used by Chinese; Cao and He were among the surnames assigned to Sogdians from the region of Samarkand, and the two men might have been Sogdian.

The women have surnames but no given names. Instead they are referred to by their position within the family: "woman" (*niang*), "old woman" (*po*), or "younger sister" (*mei*). Evidence from central Asia in this period reveals that women often borrowed money, sometimes against pledges; Professor Deng Xiaonan of Peking University suggests that husbands may have sent their wives, and sometimes their children, to pawnshops and moneylenders to spare themselves embarrassment.[35]

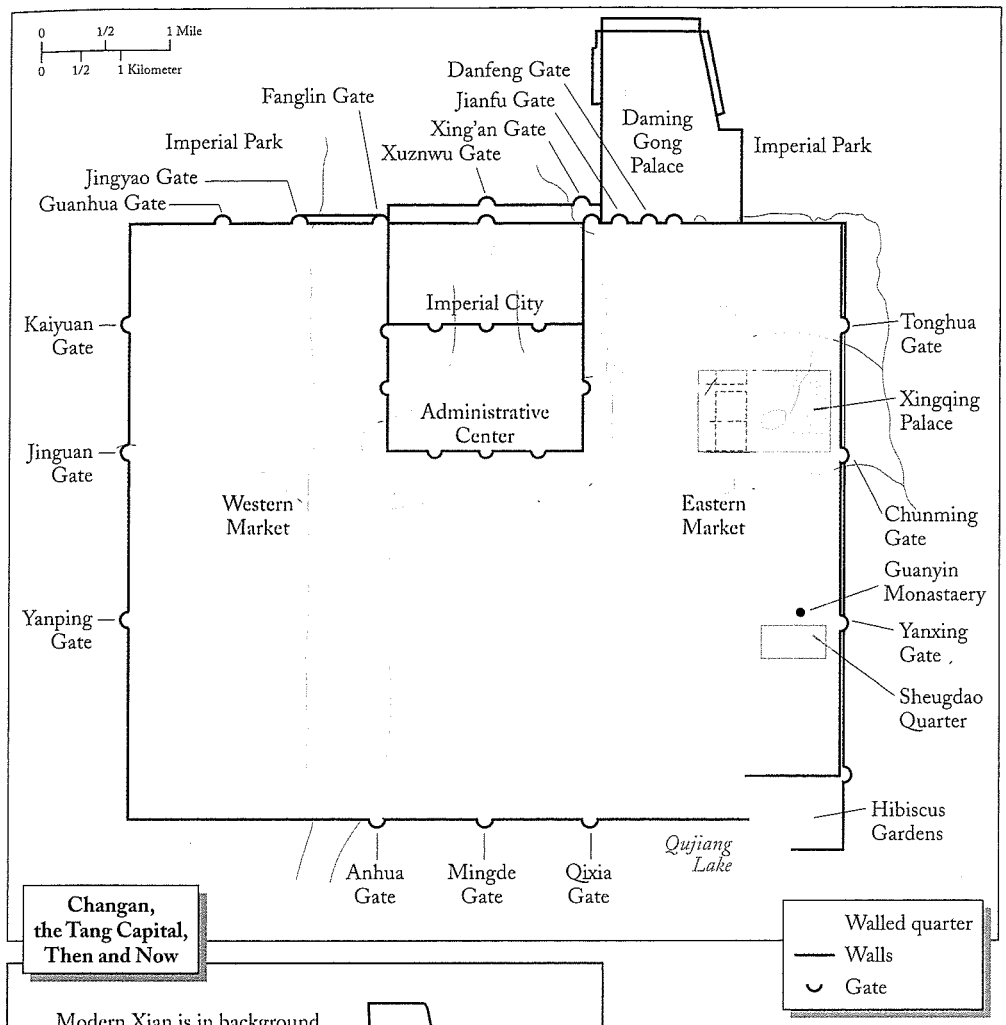
Slight variations occur among the entries. A few have a character or two written in red. These say "here" or "in the outer storage area" or "in the light storage area," indicating where items were stored in the shop.[36] Most of the entries carry no mark indicating the consent of the borrower, but the ledgers of Borrowers 23 and 33 have finger joint marks. (As was the custom in Tang-dynasty China, the borrower usually drew three lines next to the joints in the right index finger, a sign that he or she accepted the terms of the loan.) Five other transactions carry the signatures of Borrowers 1, 9, 13, 19, and 25. All but one of these transactions was for more than 100 coins, so the pawnshop employees may have required borrowers to sign before giving out larger loans.

The Date and Provenance of the Materials

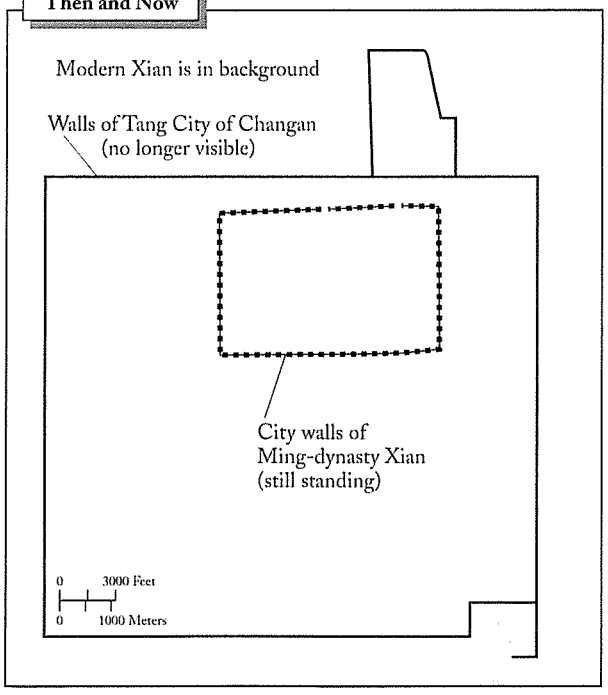
The pawnshop accounts bear no date and no address, but the information from the other documents and artifacts in tomb 206 makes it possible to date them to the late seventh century and to identify their city of origin as Changan.

When, in 1973, the archeologists first excavated the tomb that produced the figurines, they immediately noticed that some figurines were crudely manufactured while others were of very high quality. They suspected that the unpainted figurines were made locally in Turfan, while those with painted faces came from a metropolitan center. The tomb had been opened twice: once, in 633, when the husband Zhang Xiong had died, and a second time, in 689, when his wife Lady Qu was buried next to him.

Both husband and wife had dated epitaphs. A prominent statesman from a powerful family, Zhang advocated that the Gaochang king cooperate with the Tang dynasty and accept tributary status. The king refused his counsel, and, at the time of his death, Zhang



Changan, the Tang Capital, Then and Now



had a simple funeral. In 640 Tang troops conquered Gaochang. By 689, the year of Lady Qu's death, Zhang Xiong's stature had risen considerably. His wife was given a lavish burial suitable for the spouse of a prescient statesman.

While the rougher wooden items dated to 633, Turfan archeologists surmised, most of the high-quality artifacts in the tomb date to Lady Qu's burial in 689. These figurines have painted faces typical of manufacture in the capital. In addition, the dancer's dress is made from an extremely high-quality silk that skillfully incorporates the Iranian pearl roundel motif. The sophistication of the figurines suggests that they were manufactured in Changan and then shipped to Turfan for Lady Qu's burial.[37]

The pawnshop account book confirms the view of the archeologists that the higher quality items buried in 689 were manufactured in Changan. Several of the entries give the addresses of the borrowers: Yanxing gate, Guanyin monastery, and possibly Shengdao quarter.[38] Places with these names did not exist in Turfan, but these three places were located close to each other in Tang-dynasty Changan. Yanxing gate was the southernmost gate on the east wall. When one entered the city through that gate, Shengdao quarter lay to the south, and the Guanyin monastery, named for Guanyin, the Buddhist deity of compassion, immediately to the north. Changan had a monastery by that name only between 662 and 711, so the earliest possible date for the account book is 662.[39]

The tomb was closed for the second time when Lady Qu was buried, so we can conclude that the account book was composed in Changan between 662 and 689.

Tomb figurine from Lady Qu's burial. Astana Graveyard, Turfan, China. Pottery, silk and paper. Seventh century, A.D.
Manufactured in Changan, the capital of Tang Dynasty China, and shipped to Northwest China for use as a funerary offering. The arms of this figurine were made from reused scraps of paper pawnshop tickets.

The Origins of Chinese Pawnshops

The Turfan account book dates to the late seventh century, while the earliest literary evidence of pawnshops, whether in the official histories or in contemporary fiction, dates to the fifth century, when a prince pawned a fur cushion, and an ordinary man pawned a bolt of cloth. Pawnshops appear to be have been relatively common by the seventh century, when a princess supplemented her income by running a pawnshop in addition to owning farms.[40]

The rise and spread of pawnshops coincides with the introduction of Buddhism to China, and indeed the first pawnshops were located in Chinese monasteries.[41] The concept of a loan against a pledge may have originated in India.[42] As L. S. Yang, the author of the classic study about pawnshops, has noted, the monasteries did not charge interest, because the loans were a form of charity that produced merit both for the monastery and its donors. The monasteries probably did not even write out tickets, because borrowers always paid them back "for fear of divine retribution."[43]

The direct ancestor of modern banks, the monte di pietà (literally "mount of piety") of Italy, provides an interesting parallel. In 1462, the Franciscans founded these pawnshops in Italy with the explicit goal of giving ordinary people an alternative to usurers, many of whom were Jewish moneylenders. Members of the Franciscan order solicited contributions from the wealthy by arguing that a single contribution to the monte di pietà did as much good as seven separate contributions for the different needs of the poor. Like Chinese monasteries, they initially did not charge interest.[44]

Since nonmonastic pawnshops did not have the same advantages as monastic pawnshops in China, historians have always assumed they must have charged interest. For this reason it seems likely that the pawnshop of the extant account book was privately run, though located in the vicinity of the Guanyin monastery.

Conclusion

The significance of Chinese pawnshops should be obvious. During the Tang dynasty they provided credit to all levels of society from the poorest to the richest, and they continued to do so in later centuries. As in Europe, pawnshops were a forerunner to banks, and borrowers could, through repeated transactions, obtain large loans against relatively small amounts of collateral. "In the middle of the eighteenth century," L. S. Yang remarks, "pawnshops almost functioned as commercial banks because they made loans on commodities like grain, silk, and cotton."[45] The origins of Chinese pawnshops lay in Buddhist monasteries, and they remind us that the innovation of making a loan against a pledge was not unique to the Western world.

Appendix: A Record Book of Accounts from a Tang Dynasty Pawnshop

1. One zhang four chi [approximately 4.25m] of plain silk
   Wei Tong on the eighteenth day of the first month of the lunar year received 120 coins *Wei Tong's signature*
   Redeemed, the twenty-fourth day of the same month
   West gate, big lane fifty years old
2. One old yellow cloth shirt
   Woman Yin on the eighteenth day of the first month of the lunar year received 50 coins
   On the same day received another 50 coins
   Redeemed, the twenty-third day of the same month
   South ward Wife of Hou Shenbao
3. [gap in text] One lined silk jacket [gap in text]
   He Sizhong on the eighteenth day of the first month of the lunar year received [gap in text]
   Redeemed, the fifteenth day of the second month of the lunar year
   North alley [gap in text]
4. A three-year-old child's damaged white plain silk [gap in text]
   Here [in red ink]
   Zhi Cai on the eighteenth day of the first month of the lunar year [gap in text]
   Redeemed, the twenty-seventh day of the ninth month of the lunar year
   [gap in text]
5. One old white silk scarf with pattern of small damasked diamonds
   Yang Erniang [second daughter?] on the eighteenth day of the first month of the lunar year received 20 coins
   Redeemed, the seventh day of the second month of the lunar year
   Lives in North alley thirty-six years old
6. One old white cloth shirt
   Zhang Yuanshuang on the eighteenth day of the first month of the lunar year received 100 coins
   South ward, Hairpin [gap in text]
7. One old white cloth kerchief
   [gap in text]
8. One [gap in text] small shirt with pattern of damasked diamonds
   [missing surname] Asi on the eighteenth day of the first month of the lunar year received 50 coins
   Redeemed, the nineteenth day of the same month
   Hanzi [crossed out character] Ye
9. One small purple woman's cape with pattern of damasked diamonds
   Li Siqing on the eighteenth day of the first month received 120 coins
   Redeemed, the tenth day of the second month of the lunar year, given to the younger brother Sitai
10. [gap in text]
    He Qiniang [seventh daughter?] on the eighteenth day of the first month of the lunar year received 120 coins
    Redeemed, on the first day of the second month of the lunar year, given to the mother Mi, who took it away
    Alley behind Guanyin Monastery [gap in text] years old

11. [gap in text]
    Lives at the top of Bo mountain eight[teen] years old
12. One small old thin shirt with pattern of damasked diamonds One bronze mirror
    Here [in red ink]
    Ma Siniang [fourth daughter?] on the nineteenth day of the first month of the lunar year received 45 coins
    On the twenty-eighth day of the tenth month of the lunar year presented a modern mirror in exchange for another 70 coins
    Redeemed, the seventeenth day of the eleventh month of the lunar year and the mirror was taken away
13. [gap in text] Jiashu on the nineteenth day of the first month of the lunar year received 50 coins *Shu's signature*
    Redeemed, the sixth day of the third month of the lunar year
    Lives in East head eighteen years old
14. Four liang [approximately 150 grams] of green thread Damaged yellow coarse silk lining
    Woman Liu on the nineteenth day of the first month of the lunar year received 100 coins
    Redeemed, the twenty-seventh day of the second month of the lunar year
    Lives above the shop outside Yanxing gate forty-two years old
15. One small old lined purple-red skirt tie-dyed with small patterns [probably polka-dot like circles]
    Wang Xuanjing on the nineteenth day of the first month of the lunar year received 150 coins
    Redeemed, the twenty-second day of the second month of the lunar year
    Lives in Wang Xie Village fifteen years old
16. One old white cloth shirt
    One [gap in text] shirt
    He Shangang on the nineteenth day of the first month of the lunar year received 100 coins
    Redeemed, the twenty-fifth day of the same month
    Lives at the head [gap in text] twenty years old
17. [gap in text]
    Zhang Yuanshuang on the nineteenth day of the first month of the lunar year received 30 [coins]
    The same day received another 10 coins
    Redeemed, the sixteenth day of the eighth month of the lunar year. The items were paid to Cang Taoren, who took them away
    South ward, Hairpin
18. One old white cloth skirt One white felt rug replaced the skirt, which was taken away
    Cao Ajin on the nineteenth day of the first month of the lunar year received 100 [coins]
    The ninth day of the second month of the lunar year received another 150 coins paid to his mother
    Redeemed, the tenth day of the second month of the lunar year
    Lives on North alley one [missing digit] years old
19. One small old emerald lined overgarment with pattern of damasked diamonds
    Small old blue lined skirt with pattern of damasked diamonds

One small old red lined skirt with pattern of damasked diamonds Old plain green [gap in text]
One frayed lining of a man's black headdress [probably worn by a Chinese official]
Song Shoutian on the nineteenth day of the first month of the lunar year received one thousand eight [hundred] coins *Tian's signature*
Redeemed, the fourth day of the second month, given to [gap in text]
South ward, West market nineteen years old

20. Shengdao [ward]
21. One pair of old ragged sandals
In the outer storage area [in red ink]
Woman Yang on the nineteenth day of the first month of the lunar year received 100 [gap in text]
Redeemed, the seventh day of the twelfth month of the lunar year
Woman Yang Lao lives in [gap in text]
22. One small old white lined trousers with pattern of damasked diamonds
[rest of record is missing]
23. One tattered white cloth shirt
Liu Yuanhuo on the nineteenth day of the first month of the lunar year received 30 coins
Redeemed, the twentieth day of the same month by Liu's younger brother received the shirt who took the shirt away
Lives in South ward 23 years old [joint marks]
24. Seven feet five inches [approximately 2.5 meters] of white bleached silk
Yang Jin'gang on the nineteenth day of the first month of the lunar year received 80 coins
Redeemed, the twenty-sixth day of the fourth month of the lunar calendar
Dyer's family, East head
25. One old red silk gauze scarf 2 feet [approximately 60 centimeters] of old white bleached silk
Cui Jin on the nineteenth day of the first month of the lunar year received 100 coins
The seventh day of the sixth month of the lunar year paid 40 coins toward the principal and 9 coins in interest. The silk was given to Cui who took it away
Redeemed, the eighteenth day of the seventh month of the lunar year
Lives in East head twenty years old
26. Four strings of delicate pearls with approximately 400 pearls
Li Yuanfeng on the nineteenth day of the first month of the lunar year received 150 coins *Yuan's signature*
The twelfth day of the third month paid 120 [coins] toward the principal
[gap in text]
27. [gap in text]
Old Woman Niu on the twentieth day of the first month of the lunar year received 60 coins
Redeemed, the eighth day of the third month of the lunar year
Lives in East head sixty years old
28. One old damaged white plain silk shirt Damaged plain unlined green skirt replaced the shirt, which was taken away
Wang Shuai on the twentieth day of the first month of the lunar year received 40 coins

The tenth day of the fourth month of the lunar year paid 15 coins toward the principal and 2 coins in interest and [gap in text] was taken away
Redeemed, the eleventh day of the fourth month of the lunar year
Lives in North alley [gap in text] years old

29. [gap in text]
Zhang Yuanliang on the twentieth day of the first month of the lunar year received 220 coins
Redeemed, the twenty-fifth day of the same month
South ward, hairpin master

30. [gap in text] twenty-first day [gap in text]

31. In the light storage area [in red ink]
One white bleached silk undershirt One old red coarse silk quilt cover replaced the undershirt, which was taken away
[gap in text] younger sister on the twenty-first day of the first month of the lunar year received 200 coins
The fifth day of [gap in text] month of the lunar year received another 20 coins The eleventh day of third month of the lunar year received another 130 coins
Redeemed, the sixth day [gap in text]
Top of Bo mountain, north of the western wall

32. [gap in text] 14[0 coins]
Redeemed, the twenty-sixth day of the [gap in text] month of the lunar year
Lives in North alley 20 years old

33. One old green coarse silk unlined skirt
Wang Yuanren on the twenty-fourth day of the first month of the lunar year received 160 coins
Redeemed, the fourth day of the sixth month of the lunar year [joint marks]
Xun Family Mouth, Xiao Wang Village 40 years old

34. Two pair of hemp sandals
Dong Yuan on the thirtieth day of the first month of the lunar year received 60 coins
Redeemed, the second day of the second month of the lunar year
[Lives in North alley]

35. [gap in text] alley Ge family
[gap in text] one shirt replaces one old green plain silk skirt, which was taken away
[gap in text] on the nineteenth day of the [gap in text] month of the lunar year received 100 coins
Redeemed [gap in text] fourth day
[gap in text] Changzi West ward [missing digit]7 [years old]

36. Redeemed [gap in text]
South ward, Hairpin
One [gap in text] silk skirt
[gap in text] day received 15[0 coins]

37. Lives in [Sheng]dao ward

38. [gap in text]
[gap in text] 300 coins
principal
Lives in [gap in text] twenty-four years old

39. [gap in text] child who buys [sells?] small cakes

40. Plain silk green lined skirt
41. Cheng [a family name]
42. One old [gap in text] cloth shirt
43. One small old purple lined skirt with pattern of damasked diamonds Old yellow cloth shirt
44. Deng Shanren
    Redeemed, the twenty-sixth day of the same month
45. The twenty-first day of the fourth month [gap in text]
46. On eighteenth day of the [gap in text] month of the lunar year received 30 coins
47. The same day promptly received another 100 coins
48. Redeemed, the fourth day of the same month
49. Redeemed, the twentieth day of the same month
50. Redeemed, the twenty-second day of the same month
51. Redeemed, the twenty-fifth day of the same month
    Lives in West head [gap in text] years old
52. Eighteenth day
    Lu
53. 20
    coins
    Received 5 coins
54. Damaged
    additional
    north

4
The Origins of Paper Money in China

RICHARD VON GLAHN

China's heritage of coining money is as venerable as that of the Mediterranean world. By the time the first unified empire was founded in late third century B.C., use of money had become fundamental to Chinese economic life. Yet from ancient times the monetary system of China diverged substantially from the traditions of the Mediterranean region and west Asia. In the West, monetary standards were based on precious metals. Silver coin predominated within domestic trade, but gold coin prevailed as the monetary standard of international trade. The high and stable value of gold across time and space endowed it with enormous symbolic power as a measure of value invulnerable to manipulation by any state or ruler. Even today the notion of a "gold standard" connotes a stability of real value that transcends dollars, euros, yen, or any state-issued currency. In China, the monetary system of the imperial era was based not on precious metals but on bronze coin. In Western thought, money made from base metals like copper (or even silver) was seen as readily susceptible to fiscal chicanery at the hands of administrators who constantly sought to debase their coins, trying to circulate them at a nominal value greater than their substantive worth. Bronze coin was regarded as a primitive form of money and its low unit value testified to the lack of commercial development within the economy. Yet despite an enduring allegiance to a bronze coin monetary standard,

China also developed the world's first viable paper currencies. In the eyes of Western economists, both the durability of a base metal currency and the precocious development of paper money attest to the overriding dominance of the state in the Chinese economy. Both bronze coin and paper money served as fiat currencies whose value was determined by a state that exercised extraordinary control over its national economy.

For those who imagine the evolution of monetary systems as a linear progression from primitive commodity monies to gold and silver coinage and finally to purely nominal currencies like paper money, the early appearance of paper money in China in the eleventh century appears to be a glaring anomaly. Yet classical Chinese monetary theory gave ample endorsement to the use of fiat currencies like paper money. In contrast to Western monetary thought, which addressed the problem of determining a just price for commodities exchanged in market transactions, Chinese monetary thought and policy was predicated on enabling the ruler to overcome the vicissitudes of dearth and plenty and to provide for the material needs of his subjects. The ruler could accomplish this goal by tightly controlling the supply of money to ensure stable prices and ample supplies of goods. The Aristotelian tradition, which dominated Western economic thought down to early modern times, believed that the value of the substances used as money derived from their exchange values as commodities. Thus gold and silver currencies had values directly proportional to the intrinsic values of these metals as commodities. Such a conception of money had little tolerance for fiat currencies.

Chinese philosophers and statesmen, in contrast, have universally asserted that money is an artifact of the supreme ruling authority. It is the ruler's stamp, not the intrinsic value of the monetary medium, that confers value. The origin of money was attributed to ancient sage-kings who used it to facilitate exchange for the purpose of relieving famine. In order for the ruler to fulfill this role, however, it is essential that the ruler alone control the supply of money. Although gold currency was used in ancient China, from the inception of the imperial era successive Chinese dynasties utilized not precious metals but rather much cheaper bronze or brass alloys to mint coin. The rarity of gold and silver inhibited the ruler's ability to create money as needed. Copper, a far more abundant metal, was more directly amenable to the ruler's control, enabling the state to increase the quantity of money in proportion to the needs of its subjects. At least that was the theory. In reality, successive dynasties throughout the imperial era were plagued by shortages of bronze coin.

Bronze coin thus served as the monetary standard of imperial China, and units of bronze currency were used to express values and prices. Coins were counted by tale rather than issued in different denominations, and the basic monetary unit was the single coin (*wen* or "cash"). Larger units were created by stringing coins together in units of 100 (*mo*) and 1,000 (*guan*) coins. The *guan* (or "string of cash") became the standard unit of account in state finance. But the *guan* did not always contain 1,000 coins. During the Tang (618–907) and Song (960–1276) dynasties, which suffered from severe shortages of coin, the *guan* often contained far fewer coins but was still rated as equivalent to a full string of 1,000 coins. The Song government established an official "short-string" standard of 770 coins per *guan*, though a variety of different standards were used in private exchange. When paper money was introduced during the Song dynasty, it was denominated according to the "short-string" standard of 770 coins per *guan*. Later, during the Mongol-ruled Yuan dynasty (1272–1368), weights of silver were also used to denominate paper money.

The story of paper money in China begins with the reunification of the empire by the Song dynasty in the late tenth century. Following the fall of the Tang dynasty in the early

years of the tenth century, China was divided into nearly a dozen regional kingdoms. Despite this political fragmentation, the states in the south and west enjoyed buoyant prosperity, in part fueled by the flood of immigrants from the war-torn north who swelled the labor force and tax base. Interregional trade flourished, but as during the Tang dynasty shortages of hard currency hindered commercial growth. Fearing that foreign trade threatened to deprive them of already scarce currency reserves, rulers resorted to debasing their coin to render it less attractive to speculators. Moreover, most states lacked copper mines and were unable to generate significant amounts of new bronze coin. Instead, they minted coins using cheaper metals like iron and lead. These cheap coins had the added advantage of being virtually worthless beyond the state's own frontiers, and therefore ensured a secure money supply for the domestic market.

The western region of Sichuan, under the rule of the kingdom of Shu during these years, typified the pattern of monetary autarky. Sichuan's geography reinforced its economic isolation. The heart of Sichuan was a large basin, once an ancient inland sea, encircled by mountain ranges that walled off the region from the rest of the empire. Thus insulated from the civil wars and political strife that beset the Tang empire after the mid-eighth century, Sichuan underwent an economic boom during the ninth and tenth centuries, boosted by the region's fine silk cloth and burgeoning tea industries. The Shu kingdom inherited this prosperity and also enjoyed relative monetary stability compared to its rivals, until the mid-950s when rising defense costs forced its ruler to mint iron currency to supplement its limited supply of bronze coin, creating a dual currency system using both iron and bronze coins.

The Song dynasty, founded in North China in 960, gradually conquered and absorbed the southern and western kingdoms (including Shu, in 965) into its empire over the next two decades. The Song originally intended to reestablish throughout its empire a single monetary system based on full-bodied bronze coin. As a temporary expedient, though, the court preserved the existing iron currency system in Sichuan, where iron coins had driven bronze coins out of the marketplace. In 979, the Song launched a plan to restore bronze currency to Sichuan by requiring that 10 percent of taxes be paid in bronze coin, an amount that was to increase an additional 10 percent each year over the following ten years, at which time iron coin would be discarded. Because of the scarcity of bronze coin in the region, however, the new policy sparked a panic among taxpayers desperate to obtain bronze coins for tax payments. Within a year the value of iron coins plunged by 40 percent. Three years later the government conceded that the plan was failing and abandoned it. Instead, fiscal policymakers resigned themselves to the practical necessity of maintaining a separate iron currency zone in Sichuan. Merchants engaged in interregional commerce had to surrender iron coins and exchange them for bronze currency upon departing Sichuan. Sichuan's mints exclusively manufactured iron coins based on the old Shu kingdom standard.

Sichuan's iron currency suffered from serious deficiencies. The low intrinsic value of iron coins, worth no more than a tenth of the equivalent amount of bronze coin, imposed a great burden on merchants who needed to convey their purchasing capital from one place to another, and on ordinary consumers as well. A housewife would have to bring a pound and a half of iron coin to the marketplace to buy a pound of salt, and a merchant from the capital would receive ninety-one and a quarter pounds of iron coin in exchange for an ounce of silver. Of course, the inconvenience of transporting low-value coin afflicted bronze currency as well. In the early ninth century, the Tang government created depositories at its capital of Chang'an where merchants could deposit bronze coin in re-

turn for promissory notes (known as *feiqian*, or "flying cash") that could be redeemed in provincial capitals. "Flying cash" was especially popular among tea merchants who wished to return their profits from the sale of tea in the capital to the distant tea-growing areas of southeastern China. The Song dynasty continued this practice under the rubric of "convenient cash" (*bianqian*), accepting payments of gold, silver, coin, or silk in return for notes denominated in bronze coin.

In the mid-990s, Sichuan's iron currency system suffered a severe crisis. An insurrection against Song rule broke out in Sichuan in 993, fueled in part by the relentless depreciation of iron currency. The rebels succeeded in capturing Chengdu, the capital of Sichuan, and held the city until June of 994. The rebellion forced the closure of Sichuan's mints, which remained shut even after the imperial government regained control of the region. The ensuing shortage of coin, in combination with the inconvenience of transporting bulky iron coin, prompted some merchants to begin issuing their own paper bills, which people began to use as currency in private trade. The few documents concerning these private bills at our disposal do not reveal their exact nature, but it seems likely that they were issued in exchange for deposits of cash or other exchange media (gold, silver, and silk), much like the government-issued "convenient cash" notes.

Over the next ten years these privately issued "exchange bills" (*jiaozi*) gained a significant place in Sichuan's intraregional trade. Yet the proliferation of numerous sundry private bills, many issued by unscrupulous entrepreneurs, also resulted in widespread abuse and a surge of lawsuits. In 1005, the prefect of Chengdu, Zhang Yong, undertook a series of reforms aimed at stabilizing Sichuan's chaotic monetary situation. First, Zhang Yong secured the court's permission to reopen Sichuan's mints and at the same time introduce a large iron coin rated as equivalent to ten small iron coins or two small bronze coins. Second, Zhang subjected the *jiaozi* paper notes to government regulation. The right to issue *jiaozi* was restricted to a consortium of sixteen merchant houses in Chengdu deemed to have sufficient financial resources. Zhang mandated that the merchants issue *jiaozi* in standardized size, color, and format, though merchants also marked their notes with their own seals and "hidden" insignia (perhaps something like a watermark). The actual printing of the notes was done using labor and materials supplied by the prefectural government. As before, the *jiaozi* had no standard denomination. The issuer inscribed the value of the bill in ink on the note itself. The bills circulated freely as exchange media, and when a bearer wished to cash a note he was required to pay a commission fee of 3 percent. The government imposed no limits on the amount of *jiaozi* the designated merchants could issue. The quantity of bills in circulation followed the rhythms of seasonal demand, as issuers typically doubled their output of bills in early summer, when the new silk reached the market, and at the time of the rice harvest in the autumn.

Though greatly celebrated by his contemporaries, Zhang Yong's initiatives failed to resolve Sichuan's monetary troubles. The large iron coins, undervalued by the official tariff, quickly disappeared from circulation. Consequently, in 1014 the weight of the iron coins was reduced by half to bring their intrinsic value in line with their nominal value. The new, lighter iron coins quickly gained favor, and not surprisingly the small iron coins soon vanished. Henceforth the mints exclusively issued large iron coins, which became the new monetary standard in Sichuan. The 1014 readjustment of iron currency ushered in a period of monetary and price stability in Sichuan that lasted until the 1070s.

Zhang Yong's effort to regulate paper currency also encountered problems. The merchant houses authorized to issue *jiaozi* invested their cash deposits in commercial real estate, arable lands, and luxury commodities, leaving many of them without sufficient

liquidity to redeem the notes they issued. Counterfeiting also mushroomed, resulting in incessant legal squabbles, and some of the issuers shut their doors. In 1016, the fiscal intendant stationed in Chengdu, Xue Tian, proposed a government takeover of paper currency in Sichuan, but his recommendation went unheeded. Three years later, in 1019, *jiaozi* were being discounted by 20 or 30 percent, and the new prefect of Chengdu, Kou Qian, ordered a halt to the issue of new *jiaozi*, although current notes remained in circulation. After Kou Qian completed his tenure as prefect in 1023, however, he was succeeded by Xue Tian, who once again pushed for the government to assume administration of paper currency. This time Xue's proposal was accepted. A state-run *Jiaozi* Currency Bureau was established in Chengdu and given exclusive authority to issue *jiaozi*. The format of the new bills was modeled on the earlier private issues, but restricted to two fixed denominations (one and ten *guan*). The government also established terms of expiry for the new notes, which could circulate for two years before they had to be redeemed (at the cost of the 3 percent commission fee). The idea of limiting the time during which a bill could circulate served several purposes. It ensured that bills would be removed from circulation and destroyed before they became worn and tattered, and thus reduced the possibility of tampering or counterfeiting. In addition, the terms of expiry allowed the state to maintain firm control over the amount of paper money in circulation. The first issue of official *jiaozi* in 1024 amounted to 1,880,000 *guan*, but subsequently the biennial quota for each issue was fixed at 1,256,340 *guan*.[1] The *jiaozi* currency proved highly popular, especially with Sichuan tea merchants engaged in interregional and international commerce, and often traded at a premium over its nominal value.

The invention of paper money was propelled not only by these economic conditions and fiscal initiatives, but also by technological innovations in paper-making and printing. Hemp fiber had been the chief raw material for paper-making in China until the Tang dynasty, but the invention of printing sometime in the early Tang imposed new technical requirements. By the early Song period tree bark, most notably mulberry bark, displaced hemp fiber as the preeminent raw material for paper used in printing both books and ephemera like calendars and almanacs. Mulberry paper was prized for its superior durability and whiteness, and also because it was relatively inexpensive to produce. Already by the ninth century Sichuan had emerged as a center of printing and mulberry-paper manufacture (mulberry leaves are the favorite food of silkworms, and Sichuan, famous for the high quality of its silk goods, had abundant supplies of mulberry bark). Thus, by the beginning of the Song period the technology and raw materials for bookprinting were readily available in Sichuan for adaptation to use in currency printing. The major innovations in printing currency were the use of metal printing plates (in contrast to carved woodblocks used for printing books down to the nineteenth century) and the overlapping impressions in multiple colors. The large quantities involved in printing currency undoubtedly mandated the substitution of metal printing plates for woodblocks, which wore out relatively quickly. After the government took over the issue of *jiaozi* in 1024 both the manufacture of paper stock and the printing of the bills were entrusted to the *Jiaozi* Currency Bureau in Chengdu, though in the 1070s the paper manufacturing was delegated to a separate government workshop in the city's suburbs.

In addition to providing a convenient currency for merchants, *jiaozi* also played a role in the Song state's fiscal administration. Like most premodern states, the Song government devoted the vast majority of its resources to frontier defense and war. From the beginning the Song empire had to contend with two formidable rivals along its northern

frontier, the Khitan kingdom (which styled itself, in Chinese fashion, the Liao dynasty) in what is now Manchuria and northeastern China, and the Tangut kingdom of Xixia in the northwest. Although the Song forged a truce with the Khitan in 1005 at the cost of a humiliating peace treaty, the Tangut frontier remained tense. The Song stationed large garrisons along its northwestern frontier, mobilizing over a million soldiers during the 1040s when war broke out between the Song and the Xixia. Supplying the northwestern frontier—a rugged, mountainous region remote from the Song capital at Kaifeng, with little arable land and poor transport routes—became the chief priority of the Song fiscal administration. To encourage merchants to deliver vital supplies like grain, fodder, and textiles to the frontier garrisons, officials in charge of military logistics repaid them with promissory notes (known as *xianqian jiaoyin*, or "ready cash exchange drafts"), which spared the merchants the expense of transporting coin back to the capital. The *xianqian jiaoyin* notes could be redeemed for bronze coin in Kaifeng at the Monopoly Trade Bureau (*Juehuowu*), the agency that administered the state monopolies on valuable commodities like salt, tea, liquor, alum, and various imported exotic goods. Since the Monopoly Trade Bureau received its revenues in cash, it provided a ready source of funds for national defense, and also supplied the cash reserves to back government-issued notes. In addition to redeeming the *xianqian jiaoyin* notes issued by frontier officials, the Monopoly Trade Bureau early on also gained the authority to issue the "convenient cash" promissory notes (*bianqian*) and vouchers (known as *jiaoyin*, or "exchange drafts") for various government-regulated commodities. Under the commodity voucher system, merchants who delivered supplies to the frontier garrisons had the option of receiving payment in vouchers entitling them to purchase certain quantities of monopoly goods (chiefly salt and tea) and sell them within designated marketing regions. These commodity vouchers became the linchpin of the Song government's fiscal administration in the eleventh century.

In 1026, the government began using *xianqian jiaoyin* to compensate merchants who supplied the northwestern garrisons; the notes were redeemable in Sichuan for iron coin or *jiaozi* bills. Military expenditures soared following the outbreak of war with the Xixia in the 1040s, prompting the government to increase the amount of *jiaozi* it issued to defray some of these additional costs. In 1048, after the cessation of hostilities, the government opted for a new system of military procurement that relied on payment in commodity vouchers instead of Sichuan currencies. Merchants supplying the frontier armies could now receive payment in salt vouchers (*yanchao*) that enabled them to buy salt from the huge state-operated saltworks at Xiezhou in Shaanxi, which they could then sell in designated regions. The state monopsony on salt guaranteed lucrative profits, and salt vouchers themselves became negotiable instruments that merchants traded among each other. The salt vouchers largely displaced the use of Sichuan *jiaozi* in the northwestern frontier region, and not until the 1070s did the *jiaozi* again play a significant role in fiscal administration. At the same time the bills issued by the Monopoly Trade Bureau, particularly the coin-denominated *xianqian jiaoyin* but also the salt and other commodity vouchers, became negotiable instruments. The state officially sanctioned a secondary market in these bills by allowing licensed merchants at Kaifeng (numbering about a hundred in the 1040s) to buy and sell *jiaoyin*, which often traded at a premium. Originally the *xianqian jiaoyin* had no fixed denominations; instead, the issuing official inscribed the value on the note and affixed his seal. But over time (probably beginning in 1029, when the issue of *jiaoyin* was centralized in the hands of the capital's Monopoly Trade Bureau) the government issued *jiaoyin* in standard denominations, which facilitated their circulation in private exchange.

In 1069, the political evolution of the Song dynasty took a wrenching turn. A pair of visionaries, the newly enthroned Emperor Shenzong (r. 1068–1085) and his prime minister Wang Anshi (1021–1086), launched a bold series of institutional, economic, and educational reforms aimed at nothing less than a total transformation of both state and society. In their view, resolving the intractable evils of invasion from abroad and worsening inequality at home required a renaissance, a rejuvenation of society in the robust image of hallowed antiquity, when the ruler's benevolent touch reached every corner of the realm. In the economic sphere Wang Anshi was determined to bring vital economic resources, including tea, salt, grain, and international trade, under the direct control of the central state. The fiscal innovations of Wang's "New Policies," such as cash loans to farmers and monetization of in-kind tax payments and labor services, were intended to free up productive energies and liberate peasants from the thrall of rentiers, usurers, and unscrupulous merchants. At the same time the New Policies drastically increased the demand for money. Wang sought to alleviate the pressure on the money supply by sharply escalating the output of bronze coin, which quadrupled to an average of more than five million strings per year in 1073–1084. In Sichuan, rather than minting more iron coin the government increased the money supply by simultaneously releasing two issues of *jiaozi*, in effect doubling the amount of paper currency in circulation. Although *jiaozi* in principle remained convertible with hard currency, in practice when old bills expired they were redeemed with new ones rather than repaid in coin. In concert with the increase in the quantity of *jiaozi* in circulation and growing concerns about their convertibility, the creation of a state monopsony on Sichuan tea caused their value to depreciate. Tea merchants had been the primary users of *jiaozi*, but this source of demand evaporated after Wang's administration created the Sichuan Tea Market Agency in 1076 and in effect nationalized the production and sale of Sichuan tea. A report of 1086 observed that whereas before 1076 *jiaozi* had circulated at a 10 percent premium, they now were being discounted 10 percent. In the first years of the twelfth century, with defense costs spiraling out of control, the state drastically raised the emission of *jiaozi* to more than 24 million *guan*, a twenty-fold increase over the original quota. The surfeit of paper money, exacerbated by a growing problem with counterfeiting, incited a steep depreciation of *jiaozi*, which by 1107 sank to less than 10 percent of their face value.

With Sichuan's *jiaozi* currency now virtually worthless, the Song government decided to replace it with a new paper money called *qianyin* ("cash draft"). The name of the new bill can be read as a contraction of *xianqian jiaoyin*, the promissory notes issued by the Monopoly Trade Bureau, and indeed there is a genealogical connection between them. A few years earlier, in 1100, government finances suffered an enormous setback when floods ruined the Xiezhou salt ponds and deprived the government of one of its major sources of revenue. With the Xiezhou salt vouchers temporarily obsolete, in the summer of 1105 the state resorted to issuing large quantities of new coin-denominated notes called *qianyin* as a substitute. The *qianyin* initially gained acceptance in the northern parts of the empire, where coin was usually in short supply, but after the salt ponds renewed production later the same year and salt vouchers once again were tendered to the public the new currency quickly lost its foothold in the marketplace. In 1106, less than a year after it was issued, the new currency was discontinued. However, a year later, when the court decided to replace Sichuan's *jiaozi* notes with a new paper currency, it borrowed the name *qianyin*.

In an effort to raise the value of paper money by reducing the quantity in circulation, the Sichuan *qianyin* introduced in 1107 were exchanged on a 1:4 basis with the old *jiaozi*. A year later, though, the Sichuan *qianyin* had fallen to a mere 10 percent of their

face value. Faced with this unanticipated depreciation, the government opted for radical surgery. The new prime minister, Zhang Shangying, a Sichuan native and staunch fiscal conservative, declared that current issues (nos. 41–43) would not be redeemed, in effect rendering them worthless. Zhang also put an end to the practice of releasing two issues simultaneously, while reestablishing the former quota of 1.25 million *guan* for the new issue (no. 44) scheduled to be released in 1111. In addition, the term of expiry of the new bills was lengthened from two to three years. Zhang's demonetization of current *jiaozi* and *qianyin* bills no doubt provoked turmoil and distress, yet the disruption was short-lived. More positively, the sharp contraction in the quantity of paper money helped to reverse the severe depreciation that had bedeviled Sichuan's economy for more than a decade.

Yet the respite was only temporary. In 1127, the armies of the Jurchen Jin kingdom, originally based in northern Manchuria, overran Song defenses and seized the capital at Kaifeng, forcing the imperial government to flee to southeastern China. The Song house reestablished itself at a temporary capital at Hangzhou, but throughout the Southern Song (1127–1276) period the northern half of the empire, the original Chinese heartland, was ruled by first the Jin conquerors and then the Mongols, who overthrew the Jin in 1234. The Song-Jin frontier extended from the Huai River valley and the sea in the east to the northern perimeter of Sichuan in the west. Sichuan, even more isolated from the new capital in the southeast than the former capital at Kaifeng, shouldered a heavy burden of maintaining the empire's defenses along its lengthy border with the Jin. Recurrent military crises of the Southern Song period forced Sichuan's fiscal intendants, who now operated with considerable independence from the central government, to resort to printing more and more *qianyin* to cope with spiraling military costs. In 1128, Sichuan halted the minting of iron coin and began to increase the issue of *qianyin* notes. By 1136 some 25 million *guan* of *qianyin* were in circulation, prompting the Hangzhou government to issue orders forbidding any further increase. The threat of renewed hostilities (and the outbreak of war in 1161) compelled Sichuan officials to print more and more money, however, and the amount of *qianyin* in circulation steadily swelled, reaching a total of 80 million *guan* by the first decade of the thirteenth century. From the 1130s to the 1190s *qianyin* circulated at roughly 30–40 percent of their face value, yet this stable ratio indicates that the bills still enjoyed some measure of public confidence. *Qianyin* became the region's monetary standard, as shown by the increasingly common practice of expressing prices and debts in *qianyin* units (*dao*). Unlike *jiaozi*, *qianyin* were not redeemable in hard currency. In any case, the quantity of iron coin in circulation in Sichuan remained low (only 1–2 percent of the total regional money supply), and iron coin was used exclusively as a petty fractional currency. Consequently, the regional government in Sichuan adopted the *qianyin* as its monetary standard for tax payments as well as expenditures. This guarantee of acceptance in state payments helped to stabilize the value of *qianyin* in private exchange.

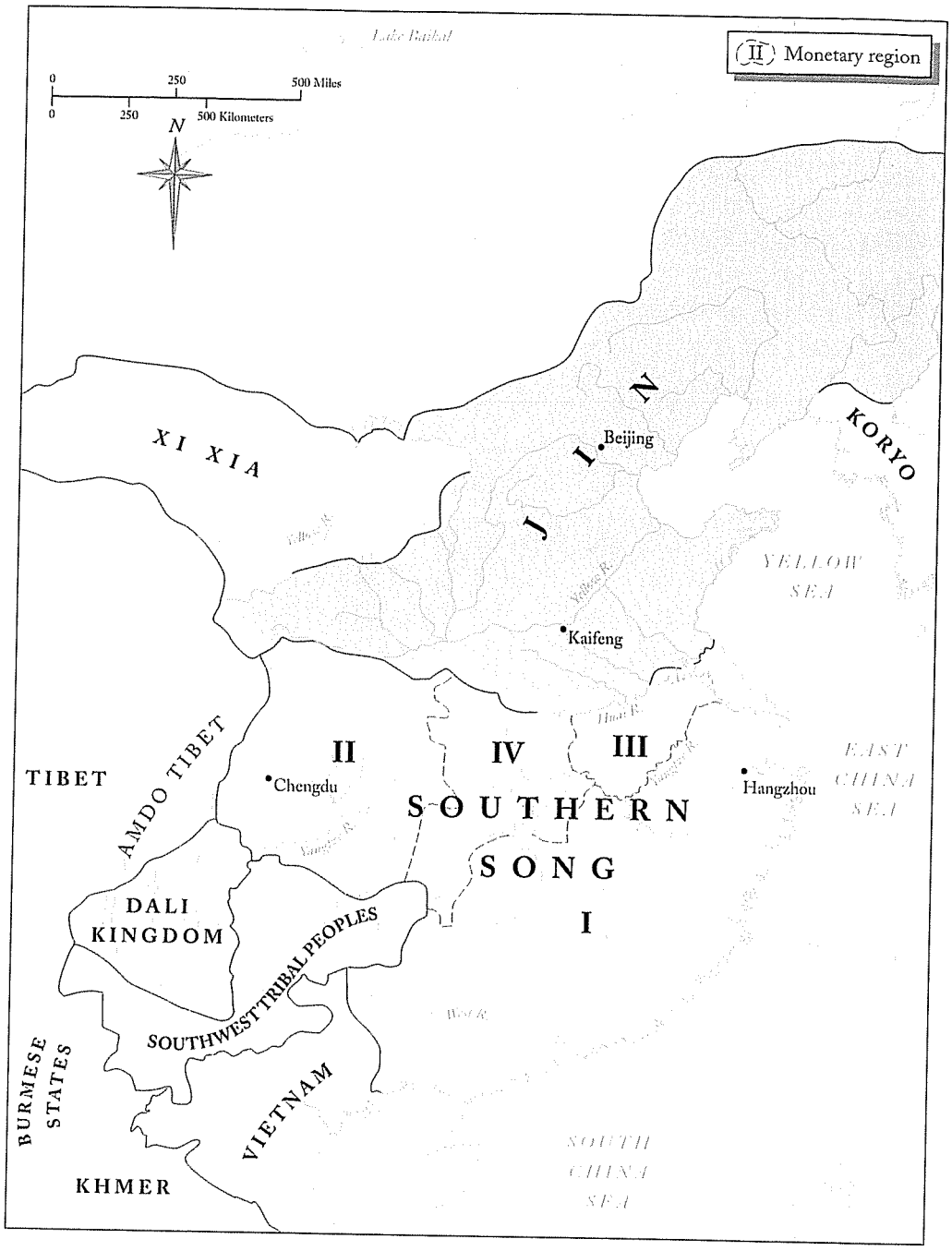
The fall of North China to the Jin in 1127 radically reshaped the empire and its resource base, necessitating a wholesale reordering of the Song fiscal administration and its monetary policies. Shorn of its hard currency reserves (as many as 100 million strings of bronze coin may have been left behind when the court fled Kaifeng), the government used a variety of promissory notes to procure military supplies in the provinces, and especially in the new frontier zone along the southern bank of the Huai River (Huainan). Though these promissory notes nominally were redeemable in cash at the Monopoly

No actual specimens of Song or Jin paper money are known to exist. The oldest surviving examples of Chinese paper money date from the Yuan period. Thanks to the wide distribution of Yuan paper money across a swath of arid central Asia, hundreds of Yuan notes have been excavated by archaeologists in recent decades. A number of engraved brass printing plates from the Song and Jin periods allow us to remedy some of the omissions in the artifactual evidence, though the Song-era printing plates in particular have been subject to persistent doubts about their identity and authenticity. Descriptive accounts of paper money by contemporary Chinese authors also offer valuable testimony that sheds light on the manufacture and use of the earliest forms of Chinese paper money.

An encyclopedia of Northern Song political institutions dating from the first or second decade of the Southern Song period provides some information about the privately issued *jiaozi* that circulated in Sichuan in the early eleventh century. According to this account, the consortium of merchants granted the privilege of issuing *jiaozi* in 1005 used paper of uniform size and color and printed designs with illustrations of people and buildings. Merchant also affixed their own unique trademarks or seals in red and black ink on the bills in order to verify who bore responsibility for redeeming the note. These notes did not have fixed denominations; instead the issuing merchant would inscribe the value of the bill by hand at the time it was tendered. After the government took over the issue of *jiaozi* in 1024 it modified the form of the bills by including fixed denominations and terms of expiry, but we have no evidence for the design of the state-issued *jiaozi* notes. We do know that when the *jiaozi* bills were replaced by the new *qianyin* currency in the early twelfth century their format was substantially altered in order to distinguish the new currency from the old, which the government had abruptly voided. The new-style *qianyin* introduced in 1111 were printed using a set of six printing plates. Four of the plates—one including some portion of the text of the authorizing edict, two specifying the denomination and term of expiry, respectively, and a fourth plate simply identified as the reverse face—were printed in black, while the other two plates, printed in blue and red, illustrated narrative scenes. All six of the plates also included figural designs of an unspecified nature. More fulsome descriptions of the design of *qianyin* have been preserved for issue nos. 70–79, issued between 1161 and 1179 (for one example, see table). These issues appear to conform to the model established in 1111 of using six printing plates to produce three-color bills with a variety of figural and narrative designs on both sides. The figural and narrative designs changed with each issue of *qianyin*, and the reverse illustrations varied among the different denominations of each issue.

DESIGN OF SICHUAN QIANYIN ISSUE NO. 70

Design Element	*Description/Text*
Issue number	Issue no. 70
Date of issue	Thirty-first year of Shaoxing reign, *xinsi* year (1161)
Serial number and denomination (five rows, affixed to top of bill)	Inscription: "Attaining wealth also enriches the realm"
Blue-inked face figural illustration	Golden cock holding an edict
Red-inked oval figural illustration	Long-life wisteria
Term of expiry figural illustration	Dragon and tortoise bearing charts and documents
One-*guan* bill reverse face narrative illustration	Three-handled jug and dragon design
500-*wen* bill reverse face narrative illustration	"Wang Xiangxiao is moved by the leaping carp and flying sparrow"



Song China ca. 1200, with monetary regions. I: Capital and Southeast; II: Sichuan; III: Huainan; IV: Hubei.

Trade Bureau in the new capital of Hangzhou, the public had little confidence in them and prices skyrocketed. To make matters worse, the output of the state's mints plummeted to a mere one-tenth of the annual average in the Northern Song. The government was forced to debase its bronze coin, which in turn invited widespread counterfeiting. Northern Song issues of full-bodied bronze coin vanished from circulation, compounding the monetary crisis. In response to this turmoil in the money market, moneychangers in Hangzhou began to issue their own negotiable bills, known as "convenient cash bills" (*bianqian huizi*; also known as *jifu huizi* or "consignment bills").[2] Government officials evidently considered these private *huizi* bills unwelcome competition for their own promissory notes. In 1135, the state banned the circulation of private *huizi* beyond the

walls of Hangzhou, but the resulting hue and cry forced officials to rescind the ban the next day. Privately issued *huizi* also circulated in other parts of southeastern China, but the range and quantity of these notes cannot be determined.

By the late 1150s, the shortage of currency (which contemporaries referred to as "coin famines") had begun to cause acute distress. Scarcity of coin throttled trade, grain prices fell, and peasants found themselves trapped between deflation and mounting burdens of taxes and debts. In 1159, fiscal officials seized upon reports that private individuals were hoarding as much as a million strings of bronze coin to persuade the court to impose severe restrictions on savings of coin. Henceforth, private citizens were allowed to hold a maximum of 10,000 strings of coin (families of officials were allowed 20,000 strings). Any excess stocks of coin beyond these limits had to be surrendered to the government in exchange for commodity vouchers. The 1159 antihoarding law, though it probably had little effect on hoarding of coin, may have dealt a sharp blow to the private *huizi* by seriously compromising the liquidity of moneychangers who issued such notes. Six months later, in early 1160, the Hangzhou prefect Qian Duanli began to issue *huizi* bills in the name of the prefectural government as a way of augmenting its scarce cash reserves. The bills issued by the prefectural government were deemed legal tender within the capital, but private bills continued to circulate without restriction. Later in 1160 Qian was promoted to a major post in the Ministry of Revenue, where he began to campaign for a government takeover of *huizi*, emphasizing their utility as a means of financing the military. The court agreed, and assigned responsibility for printing and issuing the new notes to the Monopoly Trade Bureau. When introduced early in 1161 the state-issued *huizi* bills were warmly greeted by the public, and soon drove the private bills out of circulation.

The initial issues of *huizi* were restricted to Liangzhe Circuit, the region around Hangzhou. In the first year the Monopoly Trade Bureau issued 4 million *guan* of *huizi* in denominations of 1, 2, and 3 *guan*. (Smaller denomination of 200, 300, and 500 *wen* were issued beginning in 1164.) After six years, however, the total amount of *huizi* in circulation had grown to 28 million *guan*. Although the notes nominally were convertible with coin, the state had set aside only meager reserves to back them; moreover, many local officials refused to accept them for tax payments. In practice, then, the notes could not be redeemed for hard currency, and by 1166 their market value had seriously eroded. Emperor Xiaozong (r. 1162–1189), a man of scrupulous caution in fiscal affairs, was skeptical about the new paper currency, and when its value began to falter he resolved to withdraw the *huizi* from circulation. In 1166–1167 his government disbursed 3 million *liang* (112,500 kilograms) of silver to redeem and retire *huizi* notes. This redemption still left nearly 6 million *guan* in circulation, but the removal of excess notes from circulation caused the value of the remainder to rebound, which in turn persuaded the emperor to persevere with the new currency. In 1168, the government established a new set of procedures for managing the *huizi* notes. In imitation of the Sichuan *qianyin* paper money, *huizi* henceforth would be issued with a three-year term of expiry, with each issue limited to a total of 10 million guan. At the same time, the state formally declared that the *huizi* paper money was not convertible to hard currency. The relative success of the inconvertible Sichuan *qianyin* paper currency since its inception in 1107 had prompted an important shift in monetary thought among Song statesmen. Previously, it was an article of faith that specie convertibility was essential to maintaining popular confidence in the value of paper money. The same thinking underlay the use of commodity vouchers as financial instruments. Yet in Sichuan the *qianyin* notes, though

discounted relative to their nominal value in coin, maintained a stable value throughout the twelfth century. Consequently, Song fiscal officials began to emphasize acceptance of paper money in state payments rather than specie convertibility as the key to maintaining the value of fiat currencies. In keeping with this principle, in 1170 the government adopted a formula requiring that state expenditures and receipts be paid half in bronze coin and half in *huizi* notes.

Already in the second year of the operation of the new *huizi* system (1169) the government decided to release a second issue of *huizi* and allow two issues—a total of 20 million *guan*—to circulate simultaneously, as had already become the practice with Sichuan *qianyin*. Subsequent issues would coincide with the retirement of previous ones (i.e., issue no. 3 would be used to retire issue no. 1, issue no. 4 would retire issue no. 2, and so forth). The term of expiry was lengthened to six years or more (no. 4 circulated for ten years), but the principle of having two issues of *huizi* circulate simultaneously was maintained until the early thirteenth century. The Song also kept a tight rein on the amount of *huizi* in circulation until 1183, after which the volume of *huizi* steadily increased (see table 4.1). For the first twenty years after the monetary and fiscal reforms of 1168–1170 the *huizi* bills retained popular favor and circulated in the marketplace at close to their nominal value.

In the early 1190s, however, the surfeit of notes in circulation caused a sharp depreciation in their value. In 1206, the Song launched an ill-fated offensive against the Jin that ended two years later in humiliating defeat. At the same time the regional commandant

We lack details for the design of the Southern Song *huizi* bills, but the deposition of a forger arrested in 1182 for carving woodblocks for counterfeit *huizi* offers some important clues. The forger reported that he and his accomplice had cut six pear wood printing blocks, forged official signatures, and prepared designs with human figures and other scenes. The forger mentions an illustration of a particular narrative tale, but the caption is too vague to be positively identified. He made several hundred copies of one-*guan* notes, using red ink for the official seals, blue ink for the serial number, and black ink for the remainder of the design. Thus the design of the *huizi* bills seems to have corresponded to that of the *qianyin* used in Sichuan, most notably in the use of six separate impressions and three colors.

Although the *huizi* forger used wooden printing blocks, genuine Song bills were printed using brass plates. A printing plate now in the collection of the Museum of Chinese History in Beijing is believed to have been used in the manufacture of *huizi*. At the center of the plate is an inscription that reads "*Huizi* Treasury of the Provisional Capital" (i.e., Hangzhou). In the center of the top portion of the plate is an inscription in seven vertical columns that exactly replicates the language of an edict of 1162 stipulating the criminal penalty for counterfeiting paper money (execution by beheading) and offering monetary rewards to informers. This text is flanked by two cartouches that state the denomination (one *guan*, short-string) and serial number of the bill. At the bottom is an illustration of what appears to be a landscape scene. There is some dispute about whether this specimen was an official printing plate; its provenance is unknown, and the lack of a date of issue, term of expiry, and any official seals or signatures suggest that it is certainly incomplete. However, since a total of six printing plates were used in the manufacture of *huizi*, it is plausible that this plate represents one piece from a set.

TABLE 4.1.
VOLUME OF **HUIZI IN CIRCULATION IN SOUTHERN SONG CHINA**

Issue number	Term of Circulation	Quantity of Notes (millions of *guan*)	Total Volume of Notes in Circulation at Time of Issue (millions of *guan*)
1	1168–1171	10	10
2	1170–1173	10	20
3	1171–1180	10	20
4	1173–1183	10	20
5	1180–1186	10	20
6	1183–1189	18	28
7	1186–1195	23.23	[41.2]*
8	1189–1198	?	[46.5]
9	1195–1204	30	[53.2]
10	1198–1204	?	[60.0]
11	1204–1211	36.33	83.9
12	1204–1211	47.58	83.9
13	1207–1211	55.48	139.4
14	1211–1234	112.63	232.4**
15	1211–1234	119.80	232.4**
16	1231–1240	133.55	365.9
17	1234–1264	139.86	273.4
18	1240–1276	?	?

* Numbers in brackets are estimates based on the assumption that the quantities for issues nos. 8 and 10 were the same as the previous issue nos. 7 and 9, respectively.

** Beginning with issue no. 14 the Song government abandoned the principle of fixed terms of expiry and instead repeatedly issued the same notes over an extended period of time. Thus the figures in this column for issue nos. 14–15 indicate the total volume of these notes issued over their lifetime (1211–1234), not when they were first issued.

in Sichuan seized the opportunity to declare independence from Song rule. Although the Song succeeded in recovering Sichuan, the costs of these civil and foreign wars overwhelmed the capacities of its fiscal system. In 1207, the government for the first time allowed three issues of *huizi*, a total of nearly 140 million *guan*, to circulate simultaneously. This resort to wanton printing of paper money led to steep discounting, and the actual market value of the notes fell to half of their face value. In 1209, with peace restored, the Song tried to revive the value of *huizi* by disbursing coin, land grants, monopoly goods, and official titles to repurchase about two-thirds of issue no. 11 bills. Two years later, in 1211, the government retired issue nos. 11–13 with the issue of nos. 14 and 15. With the intent of reducing the quantity of notes in circulation, the government stipulated that the old notes could be redeemed for new ones only at a 2:1 ratio. This official discounting of issue nos. 11–13 proved unwise, however. The market value of the discredited bills collapsed, and the creditworthiness of the new bills remained dubious. The new issues circulated at only about 60 percent of their nominal value.

The reformed *huizi* paper money system inaugurated in 1168 was confined to the southeastern circuits of the empire (and thus contemporaries frequently referred to this currency as "southeastern *huizi*"). Even during interludes of truce with the Jin, the Song government found itself caught in an endemic monetary war. The Jin had inherited an enormous windfall of bronze coin and gold and silver bullion upon capturing the Song capital of Kaifeng in 1127. Moreover, the peace treaty signed in 1141 obligated the Song to pay large annual indemnities of silver and silk to the Jin. Nonetheless the Jin suffered from endemic shortages of coin, and the purchasing power of bronze coin in the Jin territories was much higher than in the Song domain. Consequently the stock of bronze coin in the Song realm tended to drain—through clandestine trade, since export of coin was strictly forbidden—to the Jin territories (and abroad to Korea, Japan, and Southeast Asia as well). The Jin sought to ensure that the coin in its possession would not return to the Song by creating a coin-free buffer zone along its border with the Song. In 1154, the Jin issued its own paper currency, known as *jiaochao* or "exchange vouchers," to substitute for bronze coin in the frontier provinces south of the Yellow River, at the same time prohibiting the use of bronze coin in the same regions.

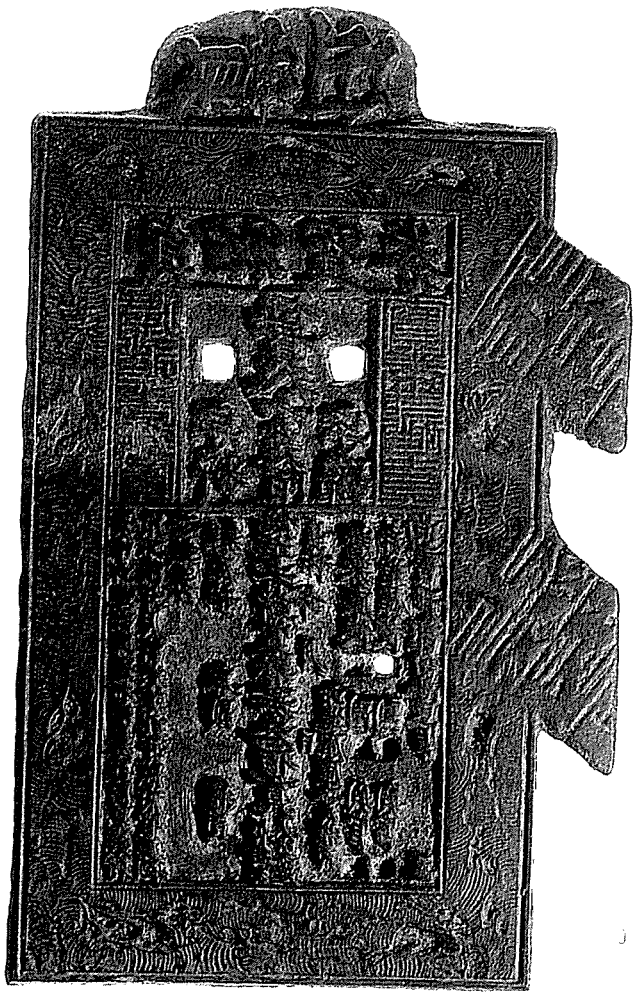
The Song responded by creating its own buffer zone of fiat currencies. In 1165, the Song issued a new *jiaozi* currency specifically limited to the Huainan region between the Huai and Yangzi rivers, while at the same time withdrawing bronze coin from this region. The Huainan *jiaozi* failed to win acceptance, though, and were withdrawn two years later. In 1170, the Song tried a different tactic by introducing iron coin to Huainan, which circulated uncomfortably with the bronze-coin denominated *huizi*. Subsequently the Song repeatedly tried to establish a regional paper currency in Huainan (during 1192–1202, and again after 1218), with limited success. Since these later issues of Huainan *jiaozi* were denominated in the region's iron currency, they were not readily exchangeable with *huizi*, which created a considerable obstacle to trade between Huainan and the southeast. Also in the 1160s the Song created yet another regional paper currency (known as *huhui*) for use in the Hubei region along the Jin border between Huainan and Sichuan. The limited geographic range of the Huainan and Hubei paper currencies severely circumscribed their utility in exchange, and both paper currencies were deeply discounted against even the depreciated southeastern *huizi*. Thus, for the last century of Song rule the empire in effect was divided into four distinct monetary regions (see map, p. 74): I, the capital and the southeast (*huizi* and bronze coin); II, Sichuan (*qianyin* and iron coin); III, Huainan (*jiaozi* and iron coin); and IV, Hubei (*huhui* and both bronze and Huainan iron coins). These four regions also coincided with the jurisdictions of the four General Commissariats established by the Song court to oversee fiscal administration and logistical support of the armies stationed along the Song-Jin border. This overlap attests to the primary purpose of Southern Song paper currencies as means of state payments. Yet with varying degrees of success, in each region paper currency also served as a major means of exchange in private trade, especially in the commercially more advanced regions of the southeast and Sichuan.

The *jiaochao* paper currency issued by the Jin state in 1154 was said to be modeled after Sichuan's defunct *jiaozi* currency. Like *jiaozi*, *jiaochao* had a fixed term of expiry (seven years in the case of *jiaochao*) and were convertible with bronze coin. The Jin briefly attempted to mint its own bronze coins, but with little success. In 1189, the Jin government closed its mints and adopted the *jiaochao* as its monetary standard in place of bronze coin. At the same time the seven-year term of expiry was abolished, and in practice the principle of convertibility was abrogated as well; those who turned in old or worn bills would

We are well informed about the nature of Jin paper monies even in the absence of actual specimens, in part because a greater number of printing plates survive, and in part because Jin paper money apparently was manufactured using a single plate. This *jiaochao* bill dating from 1214 is typical of Jin currency in having a decorative border with pictorial motifs of flowers or auspicious creatures (here phoenixes). Inset in the top portion of the bill is a panel stating the value of the bill (in this case, 100 *guan*) flanked by blank spaces in which the serial numbers of the bill would be written by hand. The top panel is flanked by cartouches with a legend in archaic script announcing the penalty for forging paper money (beheading) and the reward offered to informers (300 *guan*). The text in the lower panel repeats the penalty and reward in standard script and specifies the issuing agency (Beijing Fiscal Intendancy); the treasuries at which the note can be redeemed (in addition to Beijing and Kaifeng, which are mentioned on all Jin bills, this specimen also mentions two provincial treasuries in southern Manchuria); and the year of issue. The lower panel also has blank spaces for the signature seals of officials responsible for the manufacture and issue of the bill, six in all. In addition, outside the border at the top of the bill the value is written in large graphs (oriented toward the left edge), and along the right edge is a legend specifying the fees for purchasing or redeeming notes (8 and 4 cash, respectively).

receive new notes, not hard currency, in return. The suspension of convertibility clearly unsettled the marketplace. The value of *jiaochao* began to fall, forcing the government to trade salt vouchers for *jiaochao* in order to curb depreciation of the latter. The Jin also adopted the Southern Song practice of using formulas for state payments stipulating that payments be made in certain proportions of bronze coin, silver, and *jiaochao* (usually 50 percent or more of the total). These monetary reforms quickly ran aground on the shoals of new fiscal predicaments. In 1194 the Yellow River dikes burst, devastating the agricultural heartland of the Jin realm, and beginning in the following year the Jin was forced to contend with a new challenge on its northern frontier—the confederation of mounted warriors assembled by Chinggis Khan (ca. 1167–1227). Like the Song, the Jin came to depend on its paper currency to finance the provisioning of its frontier garrisons. The use of paper money for state payments quickly drove whatever little bronze coin remained in common circulation into private hoards, as an 1194 edict imposing strict limits on private holdings of coin testifies. In 1197, the Jin introduced a new system of silver coinage, but within two years this experiment was aborted because of rampant counterfeiting.

War with the Song in 1206–1208, though it resulted in victory, left the Jin government impoverished and weakened. In 1211, Chinggis Khan launched a devastating invasion that culminated in 1215 with the capture of the Jin capital (at modern Beijing) and the



The *baojuan* notes issued beginning in 1215 use a design similar to the *jiaochao* bill on p. 74, with a few changes, as can be seen in this plate for a 50-*guan* note. Immediately below the strings of coin the name of the note ("Zhenyou Reign-era Treasure Certificate") is printed in large graphs. In addition, the right border of the plate (on which the actual text is reversed) includes two partial, diagonally affixed seals of the provincial treasuries (in this case, in Shaanxi) where the bill could be redeemed. From the inscriptions on Jin printing plates it is clear that provincial agencies as well as the central government issued notes, and their primary purpose was to transmit funds between the revenue collection agencies in the capital and military garrisons in frontier areas. The large denomination of surviving notes (ranging from a minimum of 5 *guan* to as much as 100 *guan*) no doubt testifies to the steep inflation that accompanied the Jin's adoption of paper currency as its monetary standard in 1189.

whole of the Jin's Manchurian homeland. The Jin court, having fled to the former Northern Song capital of Kaifeng, quickly drafted a new set of fiscal initiatives to raise revenue for defense, including the creation of a new paper currency called "treasure certificates" (*baojuan*). The steep depreciation of the Jin paper currency is attested by the much larger denominations (10, 20, 50, 100, and 1,000 *guan*) in which the "treasure certificates" were issued. These emergency tactics only made matters worse. Profligate printing of paper money by Jin officials both in Kaifeng and in local jurisdictions quickly rendered the new currency virtually worthless. Although the Jin court managed to endure for another twenty years, its fiscal and monetary systems had utterly collapsed. At the time of the final annihilation of the Jin at the hands of the Mongols in 1234, its paper currency had become defunct and what little trade remained was conducted using uncoined silver as the means of exchange.

Though the Jin's preoccupation with the Mongol incursions provided the Song with a temporary respite, the Song monetary system suffered another series of shocks in the 1230s. The great Hangzhou fire of 1231 destroyed a large swath of the capital, including (ominously) the imperial family's ancestral temple, and the enormous costs of rebuilding prompted the government to release a new issue of *huizi* (no. 16). This flood of new paper currency caused the market value of *huizi* to sink to a new low of 220 *wen*. In 1234, the Song released a new issue of *huizi* (no. 17) and simultaneously disbursed gold, silver, and salt vouchers to retire issue nos. 14 and 15, which had been in circulation for twenty-three years. These measures reduced the quantity of paper money in circulation but did not restore popular confidence in the paper currency. The court then launched one misguided scheme after another in a fruitless quest to enhance the value of the *huizi*, such as requiring each household to purchase a certain quantity of bills and imposing a surcharge on landholdings to be paid in *huizi*. In the face of vehement opposition from all ranks of society, the government quickly withdrew these initiatives. The Mongol conquest of the Jin in 1234, replacing one enemy with a much more formidable menace, exacerbated the military burden and fiscal distress of the Song state. By the end of the 1230s wanton printing of paper money to cope with rising military costs raised the total amount of *huizi* in circulation to more than 350 million *guan*. In 1240, the government again made a serious miscalculation. A new issue, no. 18, was created to replace issue no. 16, but at the same time the government stipulated that the new issue was legally valued at five times the worth of issue no. 17, which was still in circulation. This arbitrary devaluation of issue no. 17 sent its market value skidding to a mere 50 *wen*, while the new no. 18 bills still were steeply discounted at around 250–260 *wen*. In 1247, in another feeble effort to rekindle faith in its paper money, the court declared that issue nos. 17 and 18 would circulate in perpetuity.

A marked deterioration in the quality of paper used in printing *huizi* also contributed to the steep depreciation of issue nos. 17 and 18. Since the inauguration of the *huizi* currency in the 1160s the bills were printed using fine papers from Chizhou and Huizhou in Anhui, areas renowned for the high-quality papers they produced for painting, calligraphy, and fine books, as well as imports from distant Sichuan. The mulberry paper from Sichuan was considered the best quality (and most difficult to imitate), but it was also the most expensive, since it had to be transported over a far greater distance to Hangzhou, where the *huizi* bills were printed. As cost-cutting gestures, issue no. 17 was printed using both Sichuan paper stock and cheap papers manufactured locally in Hangzhou, while issue no. 18 was made exclusively of local Hangzhou products. The poorer quality paper was also more easily counterfeited, further eroding the value of the last two issues of *huizi*.

* * *

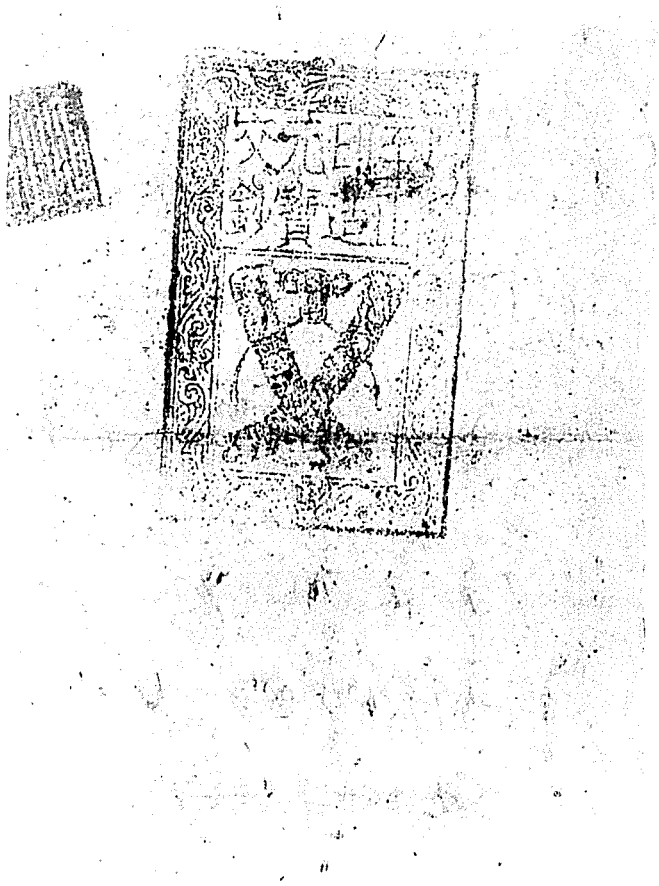
The election of Khubilai (1215–1294) as great khan of the Mongols in 1260 spelled the doom of the Song dynasty. In contrast to his predecessors, whose attention had focused on conquests in western Asia, Khubilai's ambition was to rule as emperor of China. In 1236, at the age of twenty-one, Khubilai had been granted a fiefdom in the former Jin territories in North China, and subsequently distinguished himself as both a capable administrator and military leader. After Khubilai vanquished a rival claimant to the title of great khan in 1264 he quickly turned his attention to the conquest of the Song. In the same year the long-reigning Song emperor Lizong (r. 1224–1264) died, leaving a teenage nephew to inherit the throne. Lizong's prime minister Jia Sidao (1213–1275) seized the opportunity to take firm control of the court and embark on a program of radical fiscal reform. Jia sought to raise revenue through reallocation of the tax burden, most infamously by requiring large landowners to sell most of their holdings to the state, for which the owners would be compensated in *huizi* notes. Jia also was determined to carry out a far-reaching monetary reform. In December 1264, he announced the creation of a new currency, "Gold/Silver/Ready Coin Sureties" (*jinyin xianqian guanzi*), which would replace *huizi* issue no. 18 at a rate of one *guan* of the new notes for three *guan* of the old (no. 17 was declared defunct and irredeemable). Despite its name the new currency was not convertible with bronze coin or precious metals, and the sudden abandonment of the *huizi* currency set off a panic in the marketplace. Prices once again soared, and in the next few years the government repeatedly issued edicts forbidding the discounting of the new *guanzi* currency, to little avail. The government issued annual requisitions for 20 million sheets of fine Sichuan paper to produce the new currency, but the Mongol invasions of Sichuan (which fell to the Mongols in 1271) prevented these orders from being fulfilled.

A set of eight iron plates bearing the title "Gold/Silver/Ready Coin Sureties Deposited in the Monopoly Tax Bureau of the Provisional Capital" was recently discovered in Dongzhi county, Anhui. The vertical cartouche in the center of the obverse (opposite, top left) face bears the denomination one *guan* (short-string). The accompanying text stipulates that the bill is to be accepted for both public and private payments at a rate of 770 *wen* (full-string) and specifies the penalties for discounting the bill at a lower rate. Underneath the text is an illustration of ten 100-*wen* strings of coin knotted together to constitute the full one *guan* value of the note (denoting the denomination of a particular bill with illustrations of the equivalent number of coins became a standard feature of Yuan and Ming paper currency). A second plate (bottom left) bears lengthy extracts from an edict specifying the penalties for forging or using counterfeit bills. Four of the other plates are square seals of various government agencies responsible for the manufacture and issue of paper money, written in archaic script (top center); one is an oblong seal (top, second from right) bearing the legend "Issued in 1264" (the year in which Gold/Silver/Ready Coin Surety bills were introduced) in standard script; and the final plate (top right) shows an illustration of a vase containing coins, silver ingots, and other treasures, what in popular Chinese lore is known as a "treasure-gathering bowl," a common iconographic motif for material wealth. Little documentation exists for the Gold/Silver/Ready Coin Surety notes, which appeared only in the waning days of the Song dynasty, but edicts were issued in 1268 and 1269 reiterating their official value of 770 *wen* and prohibiting discounting.

This emphasis on enforcing the official exchange rate of 770 *wen* certainly is consistent with the inscriptions on the Dongzhi printing plates. This set of plates at present supplies our only complete exemplar of Song paper money. Yuan and Ming paper money specimens typically are impressed with square red-ink seals (two on each face), and no doubt the four square seals in this set were used in similar fashion.

This specimen of a Song paper currency printing plate (bottom right) has provoked controversy and debate ever since it was first published in the 1930s. The text in the central panel of the note simply reads, "Valid for public and private payments in all circuits, prefectures, and counties outside of Sichuan. Shall circulate at par with coin at the 770-*wen* rate of exchange." The upper panel depicts ten coins of the standard Chinese type (perforated with a square hole), while the bottom panel contains an illustration of three men carrying bales of goods into a storehouse. A small cartouche in the upper right corner of the illustration bears the legend "May there be a thousand such storehouses," a line taken from the *Book of Odes*, one of the Chinese classics. The absence of any identifying information regarding the type and time period of the bill has encouraged both wild speculation and deep skepticism. The most authoritative catalogue of Chinese paper money offers no identification whatsoever, while several leading Chinese scholars have hypothesized that this plate was used to manufacture the *qianyin* currency employed briefly in 1105–1106 to redeem *jiaozi* notes that were circulating outside of Sichuan. This possibility seems far-fetched. A more likely explanation

is that this plate is a remnant of a larger set, which would explain the absence of any name or date. The inscription clearly states that the note could circulate in all parts of the empire except Sichuan, a range of circulation that conforms to that of the Southern Song southeastern *huizi*, yet this bill in no way resembles the huizi bill shown on p. 76. Of course, this plate could represent the reverse side of a *huizi* bill, which would explain this discrepancy. The prominence of the stipulation that the bill should circulate at par with bronze coin at the 770-*wen* rate of exchange suggests an affinity with the late Southern Song Gold/Silver/Ready Coin Surety plates from Dongzhi (above). In fact, the language of the text in the central panel of this note is identical to the corresponding text in the central cartouche on the obverse face of the Dongzhi bill. While there is no reason to doubt that this plate is a genuine Song specimen, most likely of a late Southern Song *huizi* bill, its exact identity remains a mystery.



Nearly two hundred specimens of actual Yuan paper currency are known to exist, most of which have been recovered from tomb excavations. The Yuan *Zhongtong chao* bills largely conform to the model of the Jin *baojuan* notes, their immediate predecessors in North China. The format of the inscriptions is virtually identical to that of the *baojuan*, and the major change in decoration is that the illustration of the corresponding strings of coin is prominently displayed in the center of the bill, immediately below the denomination printed in large graphs.

Jia Sidao's reforms ended in ignominious failure, and in 1276 Khubilai's armies seized Hangzhou and deposed the last Song emperor.

After vanquishing the Jin in 1234, the Mongol rulers had divided the Jin territories into a number of largely autonomous fiefdoms awarded to various members of the Mongol nobility, including the future great khan Khubilai. These Mongol nobles followed Jin precedents in issuing paper currencies denominated in silk yarn or silver that circulated only within the region under their personal jurisdiction. For the most part, though, the Mongol overlords of the former Jin territories collected tribute in the form of silver. Chinggis's predecessors as great khan occasionally issued paper money, but only in negligible quantities. Upon his accession as great khan in 1260 Khubilai replaced the sundry independent princedoms in North China with a centralized state that in 1272 he christened, in Chinese fashion, the Yuan dynasty (1272–1368). In keeping with his goals of unification and centralization Khubilai and his Chinese advisors sought to establish a unified monetary standard that would facilitate trade between the former Jin realm and the Mongol dominions in central and western Asia. A few months after being installed as great khan Khubilai introduced a new paper currency, known officially

as *Zhongtong yuanbao jiaochao* ("'Inaugural Treasure' Exchange Vouchers of the Zhongtong Reign-period"),[3] or simply as *Zhongtong chao*, as the basis of his fledgling empire's monetary system. Although denominated in units of bronze coin, the *Zhongtong chao* could only be redeemed for silver. In order to encourage adoption of the new paper currency, Khubilai banned the use of bronze coin in exchange.

The capture of Hangzhou in 1276 and the subsequent fall of the Song dynasty presented the Mongols with formidable administrative and fiscal tasks. The Song territories encompassed a population of over sixty million, more than twice the number of inhabitants in the old Jin territories, and a far more sophisticated commercial economy. In order to meet the needs of its fiscal administration as well as private commerce, the Yuan sharply increased its output of paper currency while allowing holders of nearly worthless Song *huizi* notes to exchange them for *Zhongtong chao* at a rate of 50 *guan* of the former for 1 of the latter. The issue of new *Zhongtong chao* quickly outstripped the silver reserves of the Yuan state, leaving officials hard pressed to honor their commitment to specie convertibility. In 1282, the Yuan promulgated a new set of currency regulations that prohibited private trade in gold and silver. From this point forward the *Zhongtong chao* in effect became a nonconvertible currency. Yet the new regulations changed the unit of account of the *Zhongtong chao* from bronze coin to silver (measured in *liang* and its decimal fraction, *qian*). This shift to silver as the measure of value implied not that silver itself was recognized as the monetary standard, but rather that paper currency would substitute for silver as the means of exchange. Yet, like its predecessors, the Yuan regime still demanded that a considerable portion of state payments, particularly commodity excises, commercial taxes, and consumption taxes, be paid in silver bullion.

The retreat from specie convertibility caused a sharp depreciation in the value of *Zhongtong chao*, forcing the government to attempt a restructuring of its paper currency. In 1287, the Yuan in effect devalued the *Zhongtong chao* by 80 percent by issuing a new paper currency, the *Zhiyuan chao* (named after the Zhiyuan reign period [1264–1294]), that was officially rated as equal in value to 5 *Zhongtong chao* of the same denomination. At the same time the government specifically declared that the *Zhiyuan chao* was a pure fiat currency, inconvertible with hard currency. Initially the Yuan government displayed restraint and reduced the emission of the new *Zhiyuan chao*, but by the turn of the fourteenth century fiscal officials once again succumbed to the temptation to print excessive quantities of paper currency. Indeed, despite the official exchange rate favoring the *Zhiyuan chao*, in the marketplace the *Zhongtong chao* circulated at a value equal to or greater than the new bills. It is possible that the premium accorded to the *Zhongtong chao* was due to the fact that the latter remained in principle convertible with silver, whereas the *Zhiyuan chao* was not. In any event, in private transactions both old Song coins and uncoined silver were preferred over the increasingly suspect paper currency. Yet another attempt at monetary reform was undertaken in 1309 by issuing a new paper currency (*Zhida chao*) that, although inconvertible, was the first to be formally denominated in units of silver. This new issue was coupled with the first concerted effort by the Yuan to mint bronze coins. Yet the new coin disappeared from circulation as soon as it left the mint, and the *Zhida chao*, overrated in comparison with the existing paper currencies, failed to win acceptance. In 1311, the court halted the emission of both the *Zhida chao* notes and bronze currency. Instead, capitulating to prevailing practice in private trade, the state restored the *Zhongtong chao* as the measure of value, while also repealing the prohibition against using gold and silver as means of exchange.

Despite the acknowledged primacy of silver as a measure of value, and especially as a

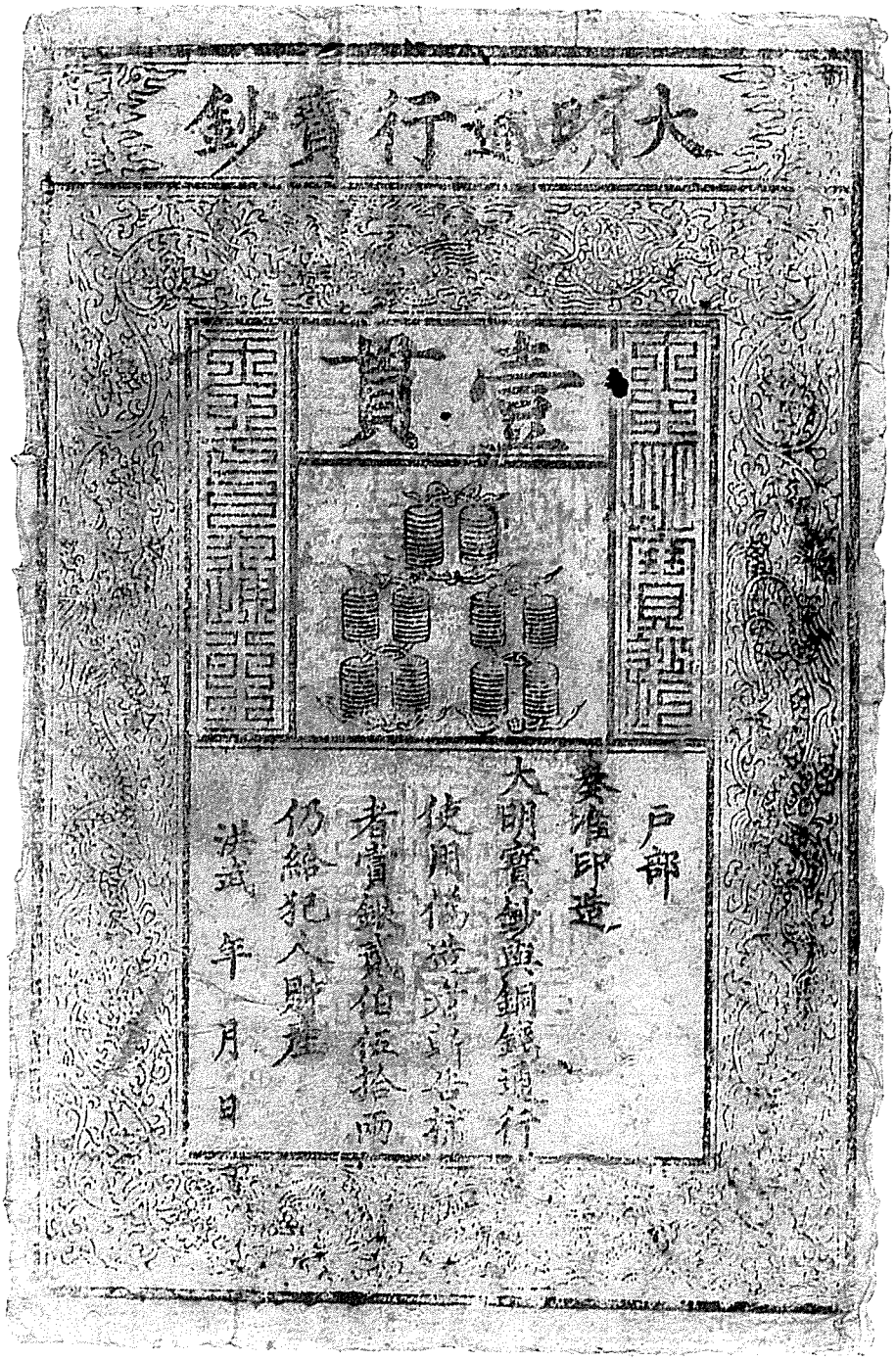
The *Zhiyuan chao* bills use a format similar to that of the *Zhongtong chao* on p. 84, with one slight change: the inscription stipulating the penalty for forgery flanking the denomination was written not in archaic Chinese script but in Mongolian, using the 'Phags-pa script, as in the example above. Strikingly, the extant Yuan bills are small in denomination: many are 500 *wen* or less, the smallest a mere 10 *wen*, while the largest denominations are only 2 *guan*. The small denominations indicate that these bills were intended principally for market exchange, reinforcing the impression from anecdotal evidence—and the famous testimony of Marco Polo—that paper money had largely eclipsed bronze coin for petty transactions during the Yuan dynasty. Tacit acknowledgement of the emergence of silver as a monetary standard can be found in the rewards offered to informers for identifying counterfeiters, which on Yuan bills are always specified in silver.

store of value, silver probably was not as widely used as paper currency in actual exchange. While examples of silver used as payment for wages, loans, entertainment, and both small and large purchases abound, citations for the use of paper currency in exchange, including even the most minor transactions, are equally frequent. With bronze coin and silver both scarce, paper money provided some measure of utility if for no other reason than the lack of an alternative. After 1311 the Yuan monetary system remained stable until the late 1340s, when the mounting administrative failures of the Yuan state resulted in economic hardship, civil war, and catastrophic inflation. In the 1350s the Yuan tried a variety of desperate expedients, including new issues of bronze coin and paper money, in a fruitless effort to restore economic stability. Yuan paper currencies became utterly discredited, and by the time Mongol rule was replaced by a Chinese dynastic house in 1368 trade had regressed to the level of barter. In this economic climate precious metals were most treasured of all, and the price of silver (relative to both bronze coin and gold) reached its highest level in Chinese imperial history.

The founding of the Ming dynasty (1368–1644) raised the curtain on the final act in the history of paper money in China before modern times. The first Ming emperor, Zhu Yuanzhang (reign title Hongwu; r. 1368–98), initially planned to restore the time-honored bronze coin monetary standard, but the empire's copper mines could not produce enough metal to supply abundant and inexpensive coinage. In 1375, Zhu decided to introduce his own paper money, the *Da Ming tongxing baochao* ("Universally Valid Treasure Vouchers of the Great Ming"). The Ming *baochao* was intended to be the primary instrument of exchange and tax payments, while bronze coin would continue to be used as a subsidiary currency. Like the Yuan paper currencies, the *baochao* were issued in small denominations, ranging from 100 *wen* to 1 *guan*. In order to establish its paper currency in an economic milieu in which uncoined silver had become the de facto monetary standard, the Ming prohibited the use of precious metals as means of exchange. Despite widespread belief that the Yuan's retreat from the principle of convertibility with silver had doomed its paper currency, from the outset Ming *baochao* were inconvertible with its bronze coin or any other metallic money.

The *baochao* currency found little favor in the marketplace, in large part because Zhu Yuanzhang's grandiose imperial projects required vast expenditures far beyond his government's revenues. From the outset the *baochao* failed to maintain its nominal value, and over the next two decades the Ming court veered erratically between policies favoring either paper money or bronze coin. In 1394, after the value of the *baochao* had fallen to less than 20 percent of its face value, the Ming took the extraordinary step of banning the use of even its own coin in exchange. The ensuing turmoil only accelerated the erosion of the *baochao*'s value, prompting a flight to silver in its stead. Although the Ming had banned the use of silver in exchange as well, a prohibition frequently reiterated in the final years of Zhu Yuanzhang's reign, Ming monetary policies did little to dislodge silver from its position as the standard of value in the private economy.

The economic stewardship of the third Ming emperor, Zhu Di (reign title Yongle; r. 1402–1425), was even more reckless. The sizable deficits incurred by Yongle's costly foreign expeditions, including the famous maritime explorations of Admiral Zheng He and his fleet, and the emperor's decision to relocate the Ming capital from Nanjing to Beijing were abated, albeit only temporarily, by printing more money. Finally, in the 1430s, the Ming yielded to economic realities, abandoning its paper currency and capitulating to the dominance of silver in the private economy. The Ming state gradually converted its most



Despite the first Ming emperor's avowed intention to eradicate the taint of Mongol cultural influences, the Ming *baochao* paper currency, like many early Ming political institutions, was closely modeled on Yuan precedents. The design of Ming *baochao* essentially replicated that of the Yuan *Zhiyuan chao*. Ming notes were not inscribed with serial numbers as Jin and Yuan notes had been, and of course the Mongolian inscription was replaced with a Chinese one. All Ming paper currency bore the same nomenclature; even the first emperor's reign-title (Hongwu) was repeated on bills issued by later emperors. The text in the lower panel identifies the issuing agency (the Secretariat during 1375–1380, and subsequently the Ministry of Revenue, as in this specimen) and asserts that the bills should circulate at par with bronze coin. The remainder of the inscription specifies the penalty for forgery (beheading), and offers informers a reward of 250 *liang* of silver plus the property of the guilty party. Ming *baochao*, like Yuan bills, were issued in small denominations ranging from 100 *wen* to 1 *guan*, which again suggests that they were intended for use in private transactions—though in this case to supplement, not wholly replace, bronze coin.

important sources of revenue to payments in silver, while suspending emission of paper money and minting of bronze coin. Though still uncoined, silver prevailed as the monetary standard of the Ming and subsequent Qing dynasty (1644–1911), fueled from the sixteenth century onward by the import of vast quantities of foreign silver from Japan and the Spanish colonies in the Americas. In times of fiscal crisis, such as on the eve of the fall of the Ming dynasty in 1644 and during the worldwide depression of the 1830s to 1840s, appeals to restore paper currency were renewed, but ignored. In the nineteenth century private banks, both Chinese and foreign, began to issue negotiable bills, but the weakness of the central government after its defeat in the Opium War precluded the emergence of a unified currency. The Qing government briefly issued paper currencies in the 1850s to 1860s at the height of the crisis caused by the devastating Taiping Rebellion, but these ventures were short-lived. Not until 1935, under the Republic of China, did China once again have a unified system of paper money.

The history of paper money in China does indeed attest to the crucial importance of the state and its fiscal practices in sustaining a viable paper currency. While paper currencies, along with other paper instruments like commodity vouchers, came to play significant roles in the fiscal administration of the Song and its successors, they also served, at certain times and in certain regions, as the primary means of exchange in private trade as well. Indeed, the two major paper currencies of the Song dynasty, the *jiaozi/qianyin* and *huizi*, both originally were issued by private moneychangers. The limitations of base metal currencies as means of exchange, and especially as means of remitting funds over long distances, encouraged the use of paper tokens as substitutes. Song officials, hard pressed to generate sufficient bronze coin to meet the needs of a rapidly expanding commercial economy, also appreciated the versatility of paper money. In taking over privately issued paper currencies the Song government reasserted the time-honored prerogative of the ruler to manage the economy through control of the money supply. Of course, when faced with fiscal crisis, the Song state—and subsequently the Jin, Yuan, and Ming states as well—succumbed to the temptation to issue excessive quantities of paper currency, resulting in depreciation and soaring inflation. Ultimately, improvident fiscal policies caused the ruin of each type of paper currency, and as a result of the Ming *baochao* debacle future generations of government leaders spurned paper money altogether. Yet the final demise of these early experiments in paper money should not obscure the notable success that Chinese governments attained in creating viable fiat currencies, particularly in Sichuan, the birthplace of the first paper currency. While its reach may have exceeded its grasp, the Song state developed a complex array of fiscal and monetary institutions, including paper currencies, that enabled the government to mobilize economic resources on an unprecedented scale. The durability of Song paper money not only as a means of paying taxes to the state, but also as the common currency of private trade, was indeed a remarkable achievement.