

Original Paper

Bamboo in the Linpan of Western Sichuan—An Examination
Centered on the Period from the Ming Dynasty to Modern
Times

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Abstract

Thanks to its long history of agricultural abundance, Sichuan has been known as Tianfu since ancient times. And at the core of this Tianfu lies Linpan. Within Linpan, bamboo is yet another essential element. Grown as a kind of cash crop there, bamboo is put to many uses—everyday tools, farm-related handicrafts, and cultural products tied to agriculture. All these uses have helped shape a farming culture that's deeply rooted in Linpan. On top of that, bamboo is woven into the daily routines of local residents, and has long been a favorite subject for scholars and poets to pour out their emotions. As the economy kept growing, bamboo and its processed goods gradually gave rise to what's now called the bamboo forest economy—one that carries the distinct imprint of Linpan's farming traditions, thereby preserving and even broadening those traditions. In more recent times, bamboo products have been combined with tourism and cultural activities, leading to a new kind of bamboo culture. But the truth is, in many places, these bamboo products and the cultural heritage around them haven't been properly safeguarded or handed down over the years. The recent push for the "Bamboo Instead of Plastic" initiative has injected fresh energy into bamboo's future. Still, we're left with the pressing task of how to revive and redefine bamboo's cultural significance.

Keywords

Linpan, Bamboo, Farming culture

Introduction

The Linpan system, as a distinctive agrarian settlement pattern of the Sichuan Plain, has long been a subject of scholarly inquiry. Following its designation as a China Nationally Important Agricultural Heritage System in 2020, research on Linpan has exhibited a discernible upward trajectory. Existing

studies predominantly centre on themes such as rural landscape, rural revitalisation, and Linpan culture. Typically, Linpan comprises a mosaic of woodlands, water bodies, farmlands, and homesteads, forming a dispersed, traditional agricultural landscape. Bamboo, as the primary vegetation type within the green spaces of western Sichuan Linpan, accounts for up to 32% of the plant communities. Nevertheless, dedicated research on bamboo per se remains relatively scarce. Current bamboo-related studies tend to subsume it under the arboreal layer, with a predominant emphasis on its ecological values. Representative contributions in this vein can be broadly classified as follows: the first category focuses on specific geographical areas—for instance, examining the environmental impacts of plant community changes in the Pidu District of Chengdu, or more narrowly, investigating the influence of arboreal vegetation on microclimatic conditions within the Sandao Yan Linpan of the same district. The second category concerns the effects of woody vegetation on the internal and surrounding climatic environment of Linpan, again primarily addressing the tree layer. Examples include analyses of how the spatial configuration and arrangement of trees affect the microclimate of settlement environments, concluding that trees enhance human thermal comfort; or studies that, by evaluating the role of trees in rainfall interception, propose that tree cover furnishes a range of critical ecosystem services in rural areas of the Chengdu Plain. In all such works, bamboo is treated as part of the arboreal stratum and its contributions to the Linpan eco-environment are thoroughly delineated. However, bamboo, as an integral constituent of the Linpan system, has yet to be examined as a discrete entity. Within Linpan, bamboo not only performs agro-ecological functions but is also deeply interwoven into the productive and domestic life of local residents, gradually evolving into a symbol imbued with deeper connotations of agrarian cultural significance.

1. Ecological Value of Bamboo Species in the Linpan of Western Sichuan

The formation of the Linpan system in western Sichuan is a complex and historically protracted process, shaped not only by natural environmental conditions but also by sustained human activity. Originating in the agrarian civilisation of the ancient Shu period, the Linpan matured during the Qing dynasty, following the large-scale migration into Sichuan. Under the influence of the Dujiangyan gravity-flow irrigation system, the Chengdu Plain developed a settlement pattern that integrated dispersed homesteads with clustered villages. The earliest documented definition of the Linpan morphology is found in historical records, which describe a landscape where “there are few market towns; each household adjoins a Linpan, separated from the next by a distance of either half a li or about one li, forming a single paddy unit.” As a critical vegetation component of the Linpan, bamboo has not only been extensively utilised by residents but also performs essential ecological regulatory functions.

Among the plant communities constituting the Linpan, bamboo occupies a distinctive position. The suitability of the western Sichuan Plain for bamboo distribution is closely tied to the region’s unique geological, climatic, hydrological, and edaphic conditions. Situated around 30°N latitude, the plain falls within the mid-subtropical humid climatic sub-zone of the eastern monsoon region in the Northern Hemisphere. It enjoys abundant thermal resources and ample precipitation, which favour year-round

bamboo growth, with no pronounced “winter dormancy” phenomenon. Geomorphologically, the western Sichuan Plain is a trough-shaped downwarped basin, known tectonically as the “Chengdu Depression.” Its bedrock consists of Cretaceous Guankou Formation strata. The weathering of purplish sandstones and mudstones from the Cretaceous period has given rise to “purple soils” rich in calcium, phosphorus, and potassium, providing substantial fertility for crops. The plain is an alluvial formation shaped by the Minjiang, Jianjiang, and Jinhe rivers, with a dense drainage network. The weathering of various rocks and fluvial deposits have furnished the initial parent materials for paddy soil formation. However, the plain’s low and flat topography makes it susceptible to flooding during periods of heavy rainfall, which can cause soil loss and damage crops. Besides the maintenance of the Dujiangyan system, residents have also planted vegetation for soil and water conservation. The hydrological particularity of the western Sichuan Plain lies in its long-term regulation by the Dujiangyan water conservancy project. Since Li Bing constructed the Dujiangyan system in 256 BCE, the “dam-free water diversion and gravity irrigation” infrastructure has created a stable hydrological environment characterised by “freedom from both drought and flood.” This artificial canal network has profoundly influenced the distribution of bamboo. Over time, the Dujiangyan system evolved into a large-scale irrigation project serving over 50,000 hectares of farmland across fourteen counties in the Chengdu Plain. The favourable geographic setting and artificial irrigation have provided excellent growing conditions for bamboo. At present, Sichuan’s bamboo forests cover 1.133 million hectares, ranking first in China.

Traditional Linpan plant communities are dominated by arboreal species and bamboo; bamboo is not only a key greening element but also an important source of productive and domestic materials for farming households. Within the Linpan, residents have integrated bamboo’s ecological functions with their production activities. The Bamboo Catalogue (Zhu Pu) by Dai Kaizhi records: “Spiny bamboos grow densely, forming a grove from a single clump; their roots are like cart-wheels, their nodes like bundled needles; they are also called fence bamboos, firm enough to serve as city walls; their shoots are edible, but their bristles may harm the hair.” This indicates that, at least as early as the Jin dynasty, bamboo groves could function as “city walls,” providing defensive and boundary-demarcating capabilities. As an integral part of the Linpan, bamboo also acts as a boundary marker. The densely planted bamboo stands around the periphery of a Linpan form a natural green barrier that not only delineates the spatial extent of the settlement but also provides windbreak, shade, and noise-reduction functions. Du Fu’s poem “To a Guest” (Ke Zhi) vividly describes the scene of life in his thatched cottage, where he and his neighbours interacted across bamboo fences: “My flower-strewn path has never been swept for a guest; today, for the first time, my bramble gate opens for you. Far from the market, my meal offers but one simple dish; my poor home has only old wine to offer. Would you care to drink with the old man next door? I’ll call him across the fence to finish our cups.” In microclimate regulation, bamboo plays a significant role. In summer, the dense foliage intercepts intense solar radiation, and temperatures within bamboo groves are typically 3–5°C lower than in adjacent open areas. Bamboo species possess well-developed root systems with dense, shallow fibrous roots that form a network-like structure

underground, effectively stabilising soil and preventing erosion. Moreover, the strong penetration of bamboo roots improves soil structure, increases porosity, and enhances soil anti-erodibility and anti-scourability. Some low-lying patches on the Western Sichuan Plain get waterlogged seasonally, which doesn't exactly make them ideal for bamboo. In Western Sichuan Linpan, though, bamboo tends to grow around houses and along both sides of ditches, where it helps hold ridges and banks together and cuts down on soil erosion. As a result, bamboo distribution across the plain takes on a patchy, "island-like" pattern—concentrated in micro-relief units with good drainage, like Linpan settlements, house plots, and canal edges. Fertile soils, dense waterways, and a growing population all played a part in bringing these Linpan into being. Take the Place Name Records of Pixian County, Sichuan Province (1986), for example: it mentions "Luoja Dalin"—named after a big Linpan owned by the Luo family—and "Xiong Linpan", where the Xiong clan lived. Local sayings also go like "A tight-pursed family has thin bamboo; a well-off family has fine bamboo," and "Better to grow bamboo than to raise kids." So the amount of bamboo and how thick the groves are was taken as a sign of whether a household was rich or poor. That ecological role makes bamboo stands a key pillar of the living environment in Linpan.

If we look at it from the ecosystem-services angle, bamboo in Western Sichuan Linpan offers provisioning, regulating, and cultural services all at once. The fact that these multiple services overlap and reinforce each other is a big reason why Western Sichuan Linpan has stayed fairly stable over thousands of years of farming.

2. Economic Value of Bamboo in the Western Sichuan Linpan

For ages, Sichuan has held the title of "hometown of the Cizhu bamboo" (*Neosinocalamus affinis*). Favourable natural conditions and human demand led to bamboo being planted far and wide across the western Sichuan Plain, which in turn had various effects on both the farming and domestic life inside Linpan settlements. Bamboo's prevalence there isn't just because Linpan provides a good habitat—it's also due to the heavy demand from locals, who found all sorts of inventive uses for it. Since bamboo is flexible and easy to split, it took over many roles that would otherwise call for timber, making it the main source of building material and household utensils for western Sichuan Linpan residents.

Bamboo is found everywhere in the Shu region, often mixing with other greenery to form thick groves. These groves act both as natural scenery and as living fences within Linpan, blending seamlessly into daily life. The locals even came up with their own terms for bamboo products—calling them *zhumie* (bamboo splits) in general, and then distinguishing *mietiao* (thin strips) and *miekuai* (chunks) based on how the material is cut. In some surviving early- and mid-Qing buildings in western Sichuan, you can spot removable walls made with a wooden frame and double-sided plastered bamboo lath—they could be taken apart and put back together easily. Even earlier, excavations at the Baodun Ancient City site uncovered traces of *zhugu niqiang*—that's "bamboo-skeleton mud walls," woven from splits into a mesh, coated on both sides with straw-tempered clay or mortar, and left to dry into a sturdy wall. These bamboo relics tell us that locals had long been using bamboo splits as a building material. The Main Hall of

Longzang Temple in Xindu District, Sichuan, also uses bamboo-lathed mud walls for its load-bearing infill. From a building-materials standpoint, zhugu niqiang has three technical pluses. First, the tensile strength and flexibility of bamboo splits let the wall handle stresses from drying and temperature changes without cracking easily. Second, the bamboo framework interlocks mechanically with the plaster, giving the whole wall more integrity. Third, bamboo is easy to come by and you don't need much more than a knife or an axe to work it—so farmers could harvest and make it themselves. These advantages made zhugu niqiang the go-to wall type for traditional houses across the western Sichuan Plain. In Sichuan dialect, walls woven from bamboo strips are called libi—a name that already appears in Qing-period local records and gazetteers. Libi is similar to zhugu niqiang but not identical: the latter uses mud mortar as the main filler, with bamboo splits only as reinforcement, while libi relies on woven bamboo strips as the main structure and only a thin mud coat on the surface. In short, libi are "walls made of woven bamboo strips, plastered over with mud." These bamboo-and-earth hybrids came to define the distinctive "Sichuan-style architecture" (Chuanpai jianzhu). Building methods like zhugu niqiang and libi stand in sharp contrast to the rammed-earth walls of northern China or the brick-and-timber walls of the Jiangnan region—they're a hallmark of the Sichuan school. This tradition came about thanks to both the plentiful bamboo on the plain and the technical choices made by local craftsmen.

As a major agricultural province, Sichuan has long woven bamboo—so common in Linpan—into its farming tools. Take the zhu pa (bamboo rake) for breaking soil, the xiang gao (a bamboo pole with rattling bits) to scare birds off crops, and the beidou (bamboo backpack basket) for carrying harvests—all practical examples of bamboo in the fields. In water engineering, bamboo pipes (historically called jian) were used to move water; even the world's oldest known irrigation project, Dujiangyan, used bamboo pipelines for water supply. Back in the Han dynasty, bamboo cables were used to drill salt wells as deep as 1,600 metres. Inside Linpan, bamboo grows alongside other trees, and its ability to hold water and keep soil in place helps protect farmland fertility—which only underlines its agricultural significance. Beyond being helpers in farming and daily life, bamboo also puts food on the table. The ancient lexicon *Erya* notes: "bamboo shoots are the sprouts of bamboo and can be eaten as vegetables." For Linpan residents, bamboo shoots have become an indispensable seasonal dish. And since there's a wide variety of bamboo species in Linpan—including Maozhu, Cizhu, Gangzhu, Banzhu, Kuzhu, Zizhu, Luohan bamboo, Fengwei bamboo, and Feibai bamboo—shoot production is quite impressive. Harvesting spring shoots is a traditional activity for Linpan farm families. The shoots can be eaten fresh, or processed into dried shoots or salted preserves, which bring in a nice extra income for rural households during that season.

In the Western Sichuan Linpan, bamboo plants sit right at the pivotal juncture of the whole "Lin-Zhu-Tian" (forest-bamboo-field) material cycle. Fallen leaves, twigs, and other litter gradually break down and seep into the soil, which not only boosts the organic matter content but also makes nutrients more readily available for crops. When mature bamboo culms are harvested, they can be turned into building materials or crafted into various farm tools—pretty versatile stuff. Meanwhile, the shoots

that are picked and consumed don't just serve as a seasonal delicacy; they also bring in some extra cash for local families, ultimately helping to raise the overall quality of life for Linpan residents.

3. Distinctive Agrarian Culture

Vegetation is shaped by a whole mix of things—temperature, rainfall, soil conditions, local organisms, and not least, human history. On the natural side, Dujiangyan acts as the main irrigation hub for the entire Chengdu Plain, channelling plenty of water to meet bamboo's basic growth requirements. On the cultural side, bamboo had a deep impact on the people of the ancient Ba-Shu region. Some Ba-Shu bronze artifacts that have been unearthed feature pictographic carvings of bamboo, and locals even worshipped it as the "Bamboo God"—a telling sign of just how dependent they were on this plant and how much they revered it.

Within the unique, integrated ecosystem of the Western Sichuan Linpan, bamboo is more than just a landscape element or a green buffer—it's also a resource with considerable economic value. Beyond covering everyday needs, residents started to build a distinct handicraft economy around bamboo, taking advantage of its flexibility and resistance to breaking. Sichuan is often referred to as the "hometown of Chinese bamboo weaving." Bamboo timber has long been a staple of the traditional Linpan economy, mainly supporting the self-sufficient daily life of farming households. Farmers would make use of scattered bamboo clumps around their houses, turning the culms into building components, farm tools, furniture, and woven household goods. Among the various species, Cizhu bamboo is especially favoured in the Western Sichuan Linpan for its pliable texture, long internodes, and ease of working—making it the go-to material for bamboo weaving.

At first, bamboo weaving was purely about making practical items for daily use. But over time, it became more organised and even developed artistic touches. During the Tang Dynasty, folks used split bamboo strips to weave mats for drying things, baskets for silkworm rearing, containers for carrying loads, and fans for cooling themselves. In the Taihe period of the Tang, a man named Zhang Wu from Rong County led over a hundred families in Qingshen to weave bamboo baskets for blocking the Honghua Weir; they also cut through hills and dug canals to bring water to the fields. According to the Qingshen County Annals, this craftsman Zhang Wu organised villagers to fill stone-laden bamboo baskets to hold back the weir—an effort that not only improved farmland irrigation but also pushed bamboo weaving techniques forward and made them more effective in practice. By the Guangxu reign of the Qing Dynasty, the so-called "official fans" woven there were even presented as tribute to the imperial court. As residents turned bamboo strips into both everyday utensils and decorative pieces, large-scale bamboo craft traditions took shape—notably Qingshen bamboo weaving, Qu County Liu's bamboo weaving, and others. The Daoming bamboo weaving tradition goes back to the Ming and Qing periods, when villagers made use of the local Cizhu bamboo's flexibility to weave carrying baskets, flower baskets, winnowing pans, and other household goods—some for their own use and some for sale in local markets.

In the course of trade, the merchants would carry the customs and culture of the mountainous areas to the towns, while also bringing urban cultural information back to the mountains.

The Huayang Guozhi · Shu Zhi records: "Emperor Wu sent Zhang Qian to the Daxia state, where he saw Qiong bamboo and Shu cloth." It also notes: "To the west of Jiangyuan County... there are fine hemp, yellow-run fine cloth, and Qiang tubes " Qiang tubes are implements made of bamboo, indicating that as early as a millennium ago, people around the present-day Chongzhou area had already been cutting bamboo into vessels and dwelling in bamboo-rich environments. Residents also utilised the tubular nature of bamboo to produce "Pi bamboo tubes" for holding wine. It is documented that "Shan Tao, in the early Jin dynasty as magistrate of Pi County, often hollowed out large bamboo joints to brew tusui wine, covering them with banana leaves and wrapping them with lotus stems; after one night the brew was ready, and it was known to the world as Pi-tube wine" .The above confirms that Pi-tube wine was created when Shan Tao, one of the Seven Sages of the Bamboo Grove, came to Shu. The poetic lines—"The fish of Bing's cave are known for their excellence, and wine from Pi tubes is savoured without need for purchase" and "Rising smoke from Pi tubes and Pi-tube wine, strong vinegar from Baoning and fine silk from Baoning"—attest to the renowned flavour of Pi-tube wine. Another verse, "In the thatched cottage of Du Gongbu," reads: "The Master has long since departed, yet the thatched cottage stands as if newly built. May I procure some Pi-tube wine, and now and then drink by the Brocade River".Fan Chengda wrote: "Amidst the Pi-tube wine in a casual spot, I hardly realised I was already in Pengzhou." Wang Shizhen, in his poem "Recalling Happy Times in the Department of Justice," composed: "I recall your Pi-tube wine, which came on a boat from Shu." These all demonstrate that Pi-tube wine was not only delicious but also became an object through which poets expressed their feelings.

Born amidst bamboo, dwelling in bamboo, and using bamboo—bamboo has also become an indispensable element in the literary creations of western Sichuan scholars. When Du Fu lived in his thatched cottage, he composed numerous verses related to bamboo. For example, in "The Cottage Completed," he described the bamboo scenery: "Behind the city wall, the thatched cottage is shaded by white reeds; the familiar road along the river overlooks the green suburbs. The alder grove obscures the sun and rustles with wind-blown leaves; the caged bamboo, mingled with mist, drips dew from its tips".In another poem, "Composed with Yan Zheng'gong on Bamboo in His Mansion," he wrote: "Half of the green bamboo still holds its sheaths; the new shoots have just grown beyond the wall. Their colour encroaches on my book shelves in the evening, and their shade makes the wine cup feel cool..." Even after leaving the thatched cottage, he composed "Sent to My Thatched Cottage Beyond the River," saying: "By nature I am unrestrained, and fond of escaping to nature; I love wine and cherish bamboo in the wind; I must dwell among groves and springs." This nostalgia for his Chengdu cottage also reveals his fondness for bamboo and wine. When Fan Chengda travelled to Sichuan for his official post, he wrote "On the Road to Xinjin": "After the rain, the countryside is pure, and every village has its pleasant sounds; floating clouds drift over bamboo hues, and clear currents flow beneath alder shades." From this poem, it can be

inferred that bamboo, as a common vegetation in the rural landscape of the western Sichuan Plain, already occupied an important position in the ecological environment and daily life of the time.

Xue Tao, known as one of the "Four Great Talented Women of Shu," composed numerous poems throughout her life, including several works on the theme of bamboo. In her poem "In Response to Someone Appreciating Bamboo After Rain," she wrote: "In the southern sky, during the spring rain, how can one witness its frosty-snowy bearing? Among all flourishing species, it maintains a humble heart and self-control. Often it accompanies the intoxication of the Jin sages, and early shares the sorrow of the Shun consorts. In late years, if you appreciate it, you will admire its extraordinary integrity." This poem centres on bamboo's humble heart and firm integrity, endowing it with steadfast and self-possessed human qualities. Another piece, "Ten Parting Poems: Bamboo Parting from the Pavilion," reads: "Lush and newly planted in four or five rows, it often bears its sturdy integrity against autumn frost. Because its spring shoots break through the wall, it cannot cast its shade over the jade hall." In this poem, bamboo's hindered growth serves as a metaphor for the poet's own circumstances, continuing the tradition of expressing emotions through bamboo. In later generations, to commemorate Xue Tao, a large variety of bamboo species were planted in the Wangjianglou Park in Chengdu, where she once frequented, and numerous rare bamboo varieties were introduced, making the garden a "Brocade City Bamboo Garden." Xue Tao's tomb is located within the park, surrounded by bamboo groves, and a statue of Xue Tao stands before the verdant bamboo, forming a literary space in which bamboo serves as the medium for commemorating her poetry.

The Sichuan Pidun Linpan, as a significant agrarian system of Sichuan, is both a product and a carrier of agrarian culture. Bamboo plays a mediating role connecting the daily life of residents with agrarian culture. From the production and use of bamboo household utensils to the expression of personal sentiments through bamboo, the inhabitants have not only relied on bamboo resources to meet their basic productive and domestic needs but have also developed, on this basis, cultural and artistic activities mediated by bamboo. This process embodies a functional transformation from the utilisation of material resources to the expression of cultural values, completing the transition of bamboo from a subsistence object to a cultural symbol.

4. Innovative Development of the Bamboo Forest Economy

The bamboo resources in the western Sichuan Linpan have long served the self-sufficient needs of farming households. Although this utilisation model has been stable, its value chain remains short and its economic benefits limited. In recent years, with the progress of urban integration, the practical functions of bamboo have declined, and bamboo products have gradually been endowed with alternative meanings.

Traditional bamboo-weaving crafts are no longer confined to self-sufficiency but are now exported overseas. Chen Yunhua, a national-level representative inheritor of the Qingshen bamboo weaving intangible cultural heritage, explains that Qingshen bamboo weaving uses local high-quality Cizhu

(*Neosinocalamus affinis*) as raw material and is finely processed according to demand. The most complex procedures involve dozens of steps, including scraping the green outer layer, splitting into strips, dividing into filaments, and weaving, ultimately producing bamboo strands as thin as cicada wings and as fine as hair. These are then woven into exquisite bamboo artworks using special techniques. In Qingshen County, bamboo weaving has formed a complete industrial chain, and the county has become a benchmark for bamboo industry development in Sichuan.

In the meantime, Sichuan Province has also carried out considerable work on the protection of landscape bamboo forest resources. With the support of the National Natural Science Foundation of China and the Sichuan Provincial Science and Technology Support Program, key technologies for the conservation of landscape sympodial bamboo resources, primarily consisting of species such as Mianzhu (*Dendrocalamus*), Cizhu (*Neosinocalamus affinis*), and Mazhu (*Dendrocalamus latiflorus*), have been explored, which has facilitated the rapid development of eco-tourism and leisure wellness in sympodial bamboo regions.

Bamboo weaving craftsmanship serves as the core carrier of bamboo cultural value. The history of Daoming bamboo weaving can be traced back to the Ming and Qing dynasties. Villagers utilised the pliability of local Cizhu bamboo to weave daily utensils such as carrying baskets, flower baskets, winnowing pans, and back-baskets, thus developing a distinctive bamboo-weaving skill. In the 1980s, Daoming Town had already established a fairly large bamboo-weaving market, known as the “No. 1 Bamboo Weaving Market in Western Sichuan.” The Daoming Bamboo Art Village has not only well inherited the bamboo weaving culture but has also developed on this basis a bamboo forest economy centred on bamboo products, forming an integrated bamboo landscape route that combines bamboo forests, bamboo arts, and tourism.

In 2020, the “Sichuan Pidu Linpan Agrarian Culture System” was successfully inscribed in the fifth batch of China’s Nationally Important Agricultural Heritage Systems. This honour fully demonstrates the profound ecological and cultural philosophy of harmonious development between humans and nature, and between humans and society, embedded in the Pidu Linpan agrarian system, which has attracted increasing attention from the public.

It is noteworthy that although Sichuan has been an important centre of China’s papermaking industry since the Tang dynasty, with Jiajiang being the most representative in the field of bamboo paper production, this region has not yet developed a systematic and well-planned industrial pathway. Jiajiang has long been known as the “hometown of Shu paper.” Its manual papermaking techniques have a clear developmental trajectory dating back to the Tang dynasty. When Emperor Xuanzong of Tang fled to Sichuan, the craftsmen who accompanied him brought the mature technique of “bamboo paper” production into the region. According to the Ming dynasty work *Records of Famous Scenic Sites*, “At the foot of Jianding Mountain, all are paper mills; the paper is as thin as cicada wings yet firm, and can last long...” This indicates that by the Ming period, paper mills in the Jiajiang area had already reached a considerable scale and produced high-quality goods. The Qing dynasty marked the peak period of

Jiajiang's handmade paper industry, when its production techniques reached a fairly high standard. The Gazetteer of Jiading Prefecture records: "Now (during the Tongzhi reign of Qing), all [paper] is produced in Jiajiang, and half of Sichuan relies on its supply..." This reflects the maturity and widespread supply capacity of bamboo papermaking technology. From the Kangxi reign to the end of the imperial examination system in the late Qing, after being test-written by Emperor Kangxi, the "long-curtain examination paper" and "square fine earth-connected paper" were designated as "tribute paper" and "examination paper." Consequently, Jiajiang paper farmers presented nearly 30 million sheets of bamboo paper to the imperial court. Besides being used as writing paper, bamboo paper was also widely used for painting. Bamboo paper is referred to as "Tang paper" in Japan, and the Japanese painter Kano Motohide used bamboo paper for his portrait of the Sengoku warlord Oda Nobunaga in the 16th century. Zhang Daqian also praised Jiajiang bamboo paper as being on a par with Anhui Xuan paper, calling them the "two treasures of the nation." After the Qing dynasty, the output of Jiajiang handmade paper further increased. According to statistics up to 1939, the handmade paper produced comprised three series and over fifty varieties. During the War of Resistance against Japan, many paper-producing areas in China fell, while Jiajiang's paper production multiplied, reaching an annual output of over 8,000 tons. At that time, the county had a population of about 140,000, of whom over 80,000 relied on the paper industry for their livelihood, accounting for sixty percent of the total population. After the victory of the war, due to a sharp decline in demand and the impact of machine-made paper, Jiajiang's handmade paper industry fell into a slump, with annual output dropping from 8,000 tons to around 1,000 tons.

Nevertheless, compared with successful cases such as Daoming Art Village, Jiajiang bamboo paper has not yet achieved a comparable level of industrialisation and cultural brand development. During the author's visit to the Daqian Paper Mill in Jiajiang County, it was learned that the mill does not fully follow traditional papermaking steps today. Due to environmental protection regulations, the mill no longer carries out the bamboo material processing on its own, but instead purchases finished bamboo pulp uniformly, retaining only the latter part of the process starting from the sheet-forming (scooping) procedure. During this stage, the mill allows visitors to participate interactively, while an inheritor of the intangible cultural heritage simultaneously explains the techniques. The paper produced is sold through online stores. Although the Daqian Paper Mill has been designated as a practice base for intangible cultural heritage and has signed agreements with several universities as a teaching practice base, its social visibility and cultural influence have not yet been effectively enhanced.

As a self-financing business entity, the Daqian Paper Mill still continues the family-workshop production model of the early 20th century. Although some technical and managerial improvements have been made on the original basis, overall it remains a small-scale production form. Although the mill has been recognised as an intangible cultural heritage practice base, according to the representative inheritor, it has not yet received substantial policy support or financial subsidies. Secondly, although Jiajiang's manual papermaking techniques have a long historical tradition, due to the lack of systematic publicity and promotion mechanisms, its reputation is mainly confined to Sichuan Province and has not yet gained

broad cultural influence. Thirdly, the Daqian Paper Mill is located in Shiyan Village, Macun Town, Jiajiang County, geographically far from the city centre. Combined with its limited scale, it has not been able to link with other surrounding cultural and tourism resources, nor has it established an integrated tourism industry chain. Currently operating as an independent entity, the mill lacks supporting tourism service facilities, making it difficult to effectively attract and retain a large number of visitors. Therefore, it is suggested that, while maintaining its status as an intangible cultural heritage practice base, the mill should appropriately expand its production and reception capacity, and promote integrated development with related industries in the region, so as to enhance its overall attractiveness and sustainable development capacity.

Conclusion

Bamboo, as a widely distributed plant resource in the daily life of Linpan residents, has been extensively utilised for making various household tools due to its flexible and fracture-resistant properties. Bamboo shoots, as the edible part, provide a food source for the inhabitants. On the basis of meeting basic subsistence needs, residents have processed bamboo materials according to their own aesthetic preferences and economic demands, giving rise to bamboo-weaving crafts and bamboo papermaking techniques. After bamboo permeated all spheres of daily life, it also became a vehicle for emotional expression. As discussed above, although Daoming bamboo weaving has achieved considerable renown, the inheritance of bamboo culture in some areas still faces difficulties. For example, Jiajiang County, despite its early fame for bamboo papermaking techniques during the Tang dynasty and its significant role during the War of Resistance, has not been properly preserved and inherited in the subsequent period beyond that special era.

In recent years, the global initiative of “bamboo as a substitute for plastics” has provided an unprecedented opportune moment for the revival of bamboo—a trend that constitutes a rediscovery of bamboo’s value. However, a deeper question remains: how can the industrial wave of “bamboo-for-plastics” be made not only a solution for material substitution but also a “medium” that activates traditional skills and reshapes the subjectivity of bamboo culture, rather than a “curtain” that obscures its profound humanistic values? This may well be the fundamental issue that contemporary bamboo culture research and practice must collectively address.

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