



Western Washington University
Western CEDAR

Western Libraries Undergraduate Research
Award

Western Libraries and the Learning Commons

Spring 2019

Chinese Roots, Foreign Branches: Forestry as Self-Strengthening in the Late Qing

Emily Bunker
Western Washington University

Follow this and additional works at: https://cedar.wvu.edu/library_researchaward



Part of the [Asian History Commons](#), and the [Higher Education Commons](#)

Recommended Citation

Bunker, Emily, "Chinese Roots, Foreign Branches: Forestry as Self-Strengthening in the Late Qing" (2019).
Western Libraries Undergraduate Research Award. 18.
https://cedar.wvu.edu/library_researchaward/18

This Research Paper is brought to you for free and open access by the Western Libraries and the Learning Commons at Western CEDAR. It has been accepted for inclusion in Western Libraries Undergraduate Research Award by an authorized administrator of Western CEDAR. For more information, please contact westerncedar@wvu.edu.

Chinese Roots, Foreign Branches: Forestry as Self-Strengthening in the Late Qing

Introduction: Strengthening China's Roots

In the February 11th, 1888 edition of *The Chinese Times*, two memorials sit side by side, ostensibly at odds with one another. The first mentions flooding and crop loss in Zhili so severe that the province is allowed to pay only half its taxes for one full year.¹ The second, written by Viceroy Li Hongzhang, is far longer and in much greater detail, and serves as a call to the people of Zhili for the plantation of trees on a mass scale.² Included with this is a long list of methods for and potential benefits of forestry. At first, it might seem curious that a viceroy managing a province devastated by floods might fixate so intensely on something like forestry. The two memorials, however, are intimately related. Li explains in his list of benefits of arboriculture that “the roots [of planted trees], by their numerous ramifications, will bind and strengthen the soil against the pressure of currents and floods.”³ Such an assurance represents a powerful relief for a province, and indeed a country, at the whims of the banks of its rivers. Moreover, Li’s proclamation does not end there; the viceroy continues on by listing several varied benefits, from trees as food for silkworms to branches offering a fuel source for poor peasants to simply providing shade for relaxation and enjoyment. In championing arboriculture, then, Li offers not

¹ “Reduction of Taxes.” *The Chinese Times*, February 11, 1888, p. 92, *Abstract of Peking Gazettes*. The final item in this and other citations from the *Chinese Times* refers to the section of the newspaper the article was published in. *Abstract of Peking Gazettes* (henceforth *PG*) is a collection of documents from the Imperial Government, usually memorials, translated into English.

² “Viceroy Li’s Proclamation on Tree Cultivation.” *The Chinese Times*, February 11, 1888, p. 92-93, *PG*. Because this memorial is both highly interesting as well as underexplored in the historical record, a full transcription of the text as it appears in the *Chinese Times* is provided in Appendix A.

³ “Viceroy Li’s Proclamation,” p. 93.

only a plan to alleviate flooding, but a vision for the general improvement of Zhili, and subsequently China as a whole.

It may come as a surprise, then, that Li's most ardent supporters were not Chinese. Instead, Westerners immediately latched on to Li's memorial in wholehearted agreement, and several of their responses can be found in *The Chinese Times*. In one such response, the editors of the *Times* note their publication of the "sagacious and patriotic" memorial.⁴ Their next note offers a suggestion: foreign arboriculturists should be employed to help China.⁵ As it turns out, this pair of articles is representative of a larger trend in Western responses to Li's memorial. The articles begin by praising Li's plan before giving a recommendation for improvement, and this advice is always seated in foreign influence.

Li's memorial and the typical Western response are indicative of a larger trend in late Qing China. On the one hand, Self-Strengtheners such as Li himself argued that China must incorporate Western knowledge and especially technology if it were to survive;⁶ on the other, many Chinese turned inward, fiercely denying any Western influence and instead seeking strength from within the country's borders. Forestry, indeed, provided a powerful opportunity for the Self-Strengtheners, because it did not rely as much on foreign assistance as did, for example,

⁴ *The Chinese Times*, February 11, 1888, p. 83, col. 1, *Chinese Times*. *Chinese Times* (henceforth *CT*) refers to the Western-authored portion of *The Chinese Times*, including various leading articles, notes, letters, opinion pieces, etc.

⁵ *The Chinese Times*, February 11, 1888, p. 83, col. 1, *CT*. This article mentions one Rev. Dr. Nevius, who performed several experiments on the cultivation of foreign trees in China. For letters written by Nevius regarding his results, see "Foreign Fruit Culture." *The Chinese Times*, October 27, 1888, p. 699, *CT*, as well as "Foreign Fruit Culture." *The Chinese Times*, November 3, 1888, p. 715-716, *CT*.

⁶ Li Hongzhang's Self-Strengthening efforts are well-documented; see, for example, John K. Fairbank, *The Cambridge History of China, Volume 10* (New York: Cambridge University Press, 1978), pp. 496-500 and 507-511. For a general biography, see Arthur W. Hummel, *Eminent Chinese of the Ch'ing Period, 1644-1912* (Washington: U.S. Govt. Print. Office, 1943), pp. 464-471.

naval development.⁷ As a process intrinsically rooted in China's own natural resources and taking place on Chinese soil, arboriculture was much more palatable to the hard-line opposition to Western influence. Despite these apparent advantages, however, forestry has not been widely associated with Self-Strengthening in the historiographic record, and indeed the topic itself is underexplored, with Li Hongzhang's memorial nowhere to be found.⁸ The resultant picture is of a Self-Strengthening movement that is, above all else, predicated on Western influence.

If forestry is incorporated into the conception of Self-Strengthening, however, the picture changes. Given Li's intense focus on local benefits in his memorial, the inherently domestic nature of forestry, and the various ritual and economic boons offered by arboriculture that will be explored in this paper, China's implementation of forestry was the expression of a fundamentally innate source of power. It is no accident that Li's memorial, tinged with a literary flavor by its organization under "Eight directions" and "Ten benefits," invokes the symbol of roots as a bastion against flooding; when the soil is fortified, it is because of China's own strength. The influence of the West, then, becomes a useful tool to *augment* this preexisting wellspring, rather than becoming a source of power in itself. Shifting the frame in this way allows for the exploration of not only traditional aspects of Self-Strengthening—such as infrastructure and economic growth, both local and national—but also several underexplored dimensions of the Self-Strengthening movement, with cosmology and ritual being foremost among them.

⁷ Frederic Wakeman, *The Fall of Imperial China* (New York: Free Press, 1975), p. 139. Wakeman offers a particularly powerful illustration of the imbalance between the Chinese and Western navy: "Unfortunately, the policy [of resistance to Western influence] was crippled by a tragic contradiction. Western steamships and cannons could not be defeated unless the Chinese mastered the techniques and skills of the very civilization which those statesmen wished to repel."

⁸ See note 6.

Forestry and Cosmology: Parables of the Harmonious State

A Chinese-authored parable on practical government appears in the July 2nd, 1887 edition of *The Chinese Times*.⁹ In the parable, the sagacious minister Dang Zi, by means of personal influence rather than forcible proclamations, promotes the widespread cultivation of mulberry trees in the district of Zhangzi (in Shanxi province). This idealized archetype of the ruler also appears in the parable of Camel Guo by Liu Zongyuan (773-819).¹⁰ Camel Guo, an immensely successful arboriculturist, is asked how his trees—even those that are transplants from foreign lands—invariably take root and thrive. He replies that he adopts an essentially hands-off approach, providing the sapling with a good environment but not overmanaging it. In other words, his “secret of success... is to respect what Heaven had ordained, and not to force the seedlings, or to plant them in ground unsuited to their nature.”¹¹ This same advice is then related to governance. In these two parables, then, the conception of the ruler as strong, but not overbearing, is developed by way of metaphorical relation to arboriculture.

A third parable, “The Old Drunkard’s Arbour,” further supports this conception.¹² Here, the scenery of a beautiful copse of trees takes a paramount role. Living amidst these trees are the people of Chu, passing their time in idyll and bliss. With them is their drunken governor, who during the day passes his time with his subjects and at night “bends his steps homewards in company with his friends.”¹³ This intimate closeness, however, is tempered by his position:

⁹ “Practical Government. *The Chinese Times*, July 2, 1887, p. 558-559, SB.

¹⁰ Liu Tsung-yuan, “Camel Kuo the Gardener,” in *Anthology of Chinese Literature*, trans. and ed. Cyril Birch (New York: Grove Press, 1965), pp. 258-259.

¹¹ Menzies, *Forestry*, p. 647.

¹² Ouyang Xiu, “The Old Drunkard’s Arbour,” in *The China Review*, vol. 6 no. 6, trans. Herbert Giles (Hongkong: China Mail Office, 1878), pp. 384-385.

¹³ Ouyang Xiu, “The Old Drunkard’s Arbour,” p. 385.

“drunk he can rejoice with them; sober he can discourse with them; such is the Governor.”¹⁴

Here, as in the other parables, is a governor who is simultaneously gentle and powerful enough to maintain efficacy as a ruler. All three parables, indeed, share several similar characteristics. Each gives a similar conception of the ideal ruler, each places the ruler both above and among the people, and crucially, each heavily relies on the symbol of the tree, or in other words, wood.

Wood (*mu*) is one of the five phases in the Chinese cosmology of *Wu Xing* (the five elements or phases), and “for [it] to have entered the cosmological system as one of the elements, it must have been recognized as possessing unique qualities setting it apart from other substances in nature... the essential property of wood is said to be that it is ‘crooked and straight.’”¹⁵ This dualism is closely related to the qualities of ideal rule as presented in the aforementioned three parables. A ruler must be crooked, or in other words flexible and willing to work around the needs of his subjects, while simultaneously maintaining the straight regularity required in governance.

The parable of Dang Zi further reflects this linkage between *mu* and sagacious rule. After relating the tale, the author stresses absolute subordination to one’s ruler. The mulberry trees in this parable suggest not only *mu* but also the more literal longevity and tangible benefits (as described in Li’s memorial, with sericulture being an especially salient advantage of mulberry cultivation) offered by a forest. These mulberries, then, represent an analog to the ideal ruler-subject relationship. The trees’ existence is predicated both on the peasants’ agency (their direct involvement in planting them) and the ruler’s guidance (his sagacious call to action). This

¹⁴ Ouyang Xiu, “The Old Drunkard’s Arbour, p. 385.

¹⁵ Nicholas Menzies, *Forestry*, in *Science and Civilization in China*, vol. 6, part 3, ed. Joseph Needham (New York: Cambridge University Press, 1996), p. 645. Menzies, here, quotes *Shu Ching, Hung Fan*, trans. Legge (1), 5.4.4, p. 324. This discussion of cosmology vis-à-vis forestry heavily draws from this portion of Menzies’s work. The section he devotes to this (pp. 644-650) is worth reading for those interested in the ecological side of Chinese forestry.

relates back to *mu* as a manifestation of both the will of the people and the direction of their ruler. When both aspects are fulfilled, society takes on the qualities of a tree: long-lasting with deep roots, stable, and bearing numerous benefits.

This microcosm of rule can also, of course, be extended to the idea of the harmonious state as a whole. The subject-ruler relationship is emphasized in Confucian thought:

The relationship of *li* [principle] and *ch'i* [material force] clearly had implications for the process of moral cultivation that would issue in a more stable political order... [cosmology] had real significance for explaining and evolving the relatedness of human beings to each other and to the cosmos as a whole. This was especially true because principle (*li*) was conceived of as the foundation for order in both the natural and human worlds.¹⁶

Self-cultivation (the domain of the individual subject) and political order (the efficacy of the ruler), then, are of equal importance, and feed in to each other. This cosmology extends to the Imperial Government itself (acting as heaven, or *tian*): in a harmonious state, an intimate connection exists from the level of the individual to the office of the Emperor, with local rulers acting as an interface. Forestry, affecting both local Chinese and the Imperial Government as a whole, falls within this framework. Thus conceived, the national supply of timber is of equal importance to the tree planted on the individual peasant's plot of land. Arboriculture, then, indicates a localized facet of Self-Strengthening, which is otherwise often conceptualized primarily on the national level.

¹⁶ Mary Evelyn Tucker, "Religious Dimensions of Confucianism: Cosmology and Cultivation," *Philosophy East and West* 48, no. 1 (1998), p. 18.

Western Branches: The Imperialist Response to Chinese Forestry

That is not to say, however, that the broader strokes of Chinese forestry were unimportant. Far from the inward-looking, cosmological conception of arboriculture lies the Western response to Chinese afforestation efforts. Western actors saw embedded in the Chinese push for forestry—and Li Hongzhang’s memorial in particular—an opportunity to exert their influence. An intense desire to participate in, and reap the benefits of, arboriculture in China gives this Western response an Imperialist flavor. Much of this response was intimately related to forestry as flood control, and any altruism in contributing to the fight against “China’s Sorrow” commingled with potential economic and discursive benefits.

A Western-authored treatise on forestry and flooding, spanning four columns, made the front page of the February 19th, 1887 edition of *The Chinese Times*.¹⁷ It proposed that the sole solution for Yellow River floods would be to plant trees along its banks. The article gives several foreign examples of this plan in action, the countries named spanning much of Eurasia: Russia, France, Italy, Germany, India and more. Aside from forestry as flood control, the economic value of forestry in several foreign countries is mentioned; England’s royal forests, for example, are said to have been valued at 3,000,000 pounds sterling in 1886-1887. In addition to offering these attractive foreign examples, the article also advises that China should employ foreign foresters and surveyors, as well as send Chinese students to study abroad. Aside from potential kickbacks from the wealth generated by forestry,¹⁸ the West also stood to gain a discursive hegemony if their ideals should be implemented. In this article—and as a general trend found

¹⁷ “Forestry and the Rivers of China.” *The Chinese Times*, February 19, 1887, p. 237-238, CT.

¹⁸ As manifested, for example, in the grafting of foreign saplings to Chinese ones. See, for example, *The Chinese Times*, February 11, 1888, p. 83, col. 1, CT; *The Chinese Times*, March 17, 1888, p. 164, col. 3, CT; *The Chinese Times*, February 25, 1888, p. 116, col. 3, CT. The latter article mentions Li’s friendship (at the time) with Japan’s Prime Minister Itō Hirobumi, and implicates the possibility of a sapling trade developing from this connection.

across Western articles treating Chinese forestry—there is an emphasis on the efficacy of the foreign model of organization; secondly, there exists a conception of Western science and education as infallible.¹⁹ Such notions, it seems, could be “proved” if China successfully quashed its flooding woes by employing a Westernized system, as opposed to the consistent failures of Chinese-engineered methods of the past.

The push for a foreign model of forestry was the subject of many articles,²⁰ which may be separated into two general categories. The first relate to forestry for flood control specifically, while the second set of articles provide a more general treatment of forestry system. The flood-specific articles are unanimous in their thesis: the methods of flood control conventionally employed in China, and even more modern engineering, are not enough. Trees must be planted. This point is supported by examples of this practice working in other countries, namely those in Europe as well as India. These articles, eager as they are to push this foreign example, paint forestry as a “simple cure, thorough, organic, easy of application... that cannot fail” for China’s flooding woes.²¹ Of course, the reality is far more complicated, especially given the ultimately unique circumstances of each country vis-à-vis the application of forestry. While several successful models are provided, no one-to-one application can be made of any of them. A simple example is found in Li Hongzhang’s memorial: the viceroy gives special directions for the

¹⁹ *The Chinese Times*, March 10, 1888, p. 148, col. 1, *CT* offers an excerpt from the *London Times* detailing the Swiss Forest system, and copied because it “ought to be useful to the Viceroy Li” and his proclamation. *The Chinese Times*, March 17, 1888, p. 164, col. 1-2, *CT* extensively details and promotes the British Indian Forestry system. “Forestry.” *The Chinese Times*, April 7, 1888, p. 213-214, *CT* also discusses the Indian system. The treatment of Li’s memorial given in “Li Hung-Chang on Arboriculture,” *The North China Herald*, vol. 40, March 2, 1888, p. 232 interweaves discussion of the document with recommendations for foreign assistance.

²⁰ See note 19; other examples include “Floods and Forestry.” *The Chinese Times*, March 31, 1888, p. 196-197, *CT* and *The Chinese Times*, November 5, 1887, p. 872, col. 2, *CT* which both discuss the Indian system. “The Yellow River.” *The Chinese Times*, October 29, 1887, p. 849-851, *CT* covers several systems. *The Chinese Times*, July 27, 1889, p. 467-468, col. 3, *CT* gives the example of the Japanese system, but instead of flooding, this article discusses forestry’s effectiveness in reducing famine in Japan.

²¹ “The Yellow River.”

plantation of trees that take into consideration the windy climate of North China;²² clearly, special consideration of a location's environment, as well as political structure and infrastructure, is necessary in devising an effective plan.

The second set of articles promoting a foreign model focus more on organization and administration, again drawing from a diverse set of countries. Here, too, the models cannot be directly applied, especially the Indian Forestry system, being managed by the British.²³ Such foreign influence would run counter to China's tightly-knit domestic bureaucracy, and especially the will of those opposed to the Self-Strengthening movement. However, the Swiss and Japanese systems, as domestically-managed systems, were likely more palatable.²⁴

Aside from foreign models, Imperialist responders to forestry also called for the employment of both foreign science and scientists, again grasping at a hegemony of knowledge. One article in particular claims that the science of arboriculture, with its origins in Prussia and later France, by necessity requires the assistance of foreign experts to have any chance of working.²⁵ This article claims that such an employment would not be too costly.

Indeed, in discussing the economics of forestry, Westerners took care to make clear that China, too, would benefit. A sequence of several notes in *The Chinese Times* offers a representative example: India profited about 1,250,000 taels annually off its forestry system, which only increased as more trees had time to mature. Farmers in Shandong province profited

²² "Viceroy Li's Proclamation," p. 93.

²³ *The Chinese Times*, March 17, 1888, p. 164, col. 1-2, *CT*.

²⁴ For the Swiss system, see *The Chinese Times*, March 10, 1888, p. 148, col. 1, *CT*. For the Japanese system, see *The Chinese Times*, July 27, 1889, p. 467-468, col. 3, *CT*.

²⁵ *The Chinese Times*, February 11, 1888, p. 83, col. 1, *CT*.

considerably from fruit. And willows planted under Li's direction were used to make charcoal.²⁶

Of course, in this and every case, the necessary addendum of foreign assistance is appended.

While Li Hongzhang did not mention foreign assistance in his memorial, he was almost certainly welcoming of it to some extent as a Self-Strengthener. In writing their responses to Li's memorial, then, Westerners expressed a real wish that they would be read and considered by the Viceroy's yamen. Given Li's substantial influence in China, there existed an opportunity for foreign concepts to be implemented on a large scale. What, then, became of Li's memorial—did it mark the beginning of a foreign influence in China?

In fact, there is surprisingly little discussion of the results of the memorial. A letter from someone only identified as Jiang (江) details that, following Li's advice, willow trees were being actively planted in great numbers along the Grand Canal.²⁷ Other than that, however, little evidence exists. While Li's memorial may not have ushered in a new era of arboriculture, then, its message nonetheless reverberated throughout the country. Forestry was employed to a variety of ends, reflecting a harmonious cosmology in the respect that it occurred on levels from local to national. The movement that took shape was not so much tinged with foreign influence as Imperialists may have liked, and instead was a representation of China's internal strength via its domestic resources, both natural and human. Of course, the West was not excluded entirely, especially considering that the economic thread that ran from local districts to the Imperial Government also extended to international trade.

²⁶ *The Chinese Times*, March 17, 1888, p. 164, col. 1-3, *CT*; nearly the entire page is taken up by these three examples, as well as several less tangibly economic benefits of forestry.

²⁷ "Tree Planting." *The Chinese Times*, April 7, 1888, p. 223, *CT*.

Local Economic Incentives: Cassia bark and Sericulture in Guangxi

While the economic benefits of tapping domestic natural resources are clear on a national scale, local officials and peasants sometimes needed additional incentives to engage in arboriculture, and individual profit proved a powerful motivator. The province of Guangxi offers a compelling example of the economic dynamics of forestry at the local level. Bark from *Cinnamomum cassia*, a tree that grows throughout Southern China but is especially prevalent in Guangxi, was stripped off and sold as cinnamon.²⁸ An extensive memorial dated March 3rd, 1887 relates this process, noting that the peasants themselves cultivated and stripped the trees of their bark, valued at seven to eight taels per picul. However, the same memorial also details the formation of a rampant monopoly on cassia bark trade. While monopolists drove prices down, cassia bark production rose, and the compound effect dropped the export price down to eighty to ninety cents per picul. Though the monopoly was eventually dismantled, the price did not fully recover, settling at just below five taels per picul. This diminished value, on top of the sheer cost of duties and *likin*, meant that local growers' profits sustained a substantial blow. To remedy this, a regulation was put into place mandating the payment of one flat grower's duty, whereafter all other duties and *likin* were waived.²⁹

This method of incentivizing production worked on both the economic and cosmological level. Individual peasants could easily reap the benefits of heightened individual profit, and the requirement of just rule was also fulfilled in breaking up the monopoly, maintaining the harmony of the state. A similar implementation of this doubly-beneficial policymaking was found in

²⁸ S. Wells Williams, *A Chinese Commercial Guide*, 4th ed. (Canton: Office of the Chinese Repository, 1856), pp. 168-169. Bark, in fact, was not the only byproduct of this tree. Its buds, as well as oil derived from its leaves, also found their way into Williams's list of Chinese exports.

²⁹ "The Cassia Trade of Kuangsi." *The Chinese Times*, March 12, 1887, p. 294-295, PG.

Guangxi's sericultural efforts. In 1889, a memorial was published detailing the introduction of sericulture (the cultivation of silkworms) into Guangxi.³⁰ Over a hundred thousand mulberry shoots were purchased for plantation to provide food for the silkworms, inspiring peasants to use the waste portions of their land not covered by crops, as well as demonstrating the possibility of personal profit. Because this industry was in its infancy, a grower's tax was instituted in lieu of *likin* payments, much like the cassia bark trade. Another memorial, published about a year later, describes the Guangxi silk industry in more detail, and requests a few more years of exemption from export duties, which was granted.³¹

While local growers were especially incentivized and kept complacent by the comparatively cheap grower's tax, there was also the fact that their trees, bearing useful products for years or decades, could provide a long-term buffer against short-term crop failure, or even be sold outright in an emergency.³² The case of Guangxi, then, offered a powerful example of the myriad localized socioeconomic benefits of forestry. Furthermore, arboricultural byproducts, uninhibited by any taxes beyond those paid by the growers, could be traded freely to wherever they were needed. Such benefits, then, resonated all the way up to the level of the Imperial Government.

The Imperial Demand for Timber

The Qing state itself, of course, also reaped the benefits of forestry. A major logistic concern was to maintain a steady flow of timber from the provinces into Beijing for use in construction and repairs. The efficacy of this supply line varied. An article published on July

³⁰ "Sericulture Introduced into Kuangsi." *The Chinese Times*, September 14, 1889, p. 584, *PG*.

³¹ "Silk Industry in Kuangsi." *The Chinese Times*, July 5, 1890, p. 427, *PG*.

³² Nicholas K. Menzies, *Forest and Land Management in Imperial China* (New York: St. Martin's, 1994), p. 103.

31st, 1889 in *The Chinese Times* details the discovery of “immense forests, composed of gigantic trees, straight as arrows and hard as iron” in Guizhou province;³³ a memorial published soon after confirms that, at the Guizhou Governor’s own cost, fifty-four massive logs were sent to Beijing for use in repairing the *Taihe Men*, the Forbidden City’s largest gate.³⁴ Less critical byproducts, such as sandalwood oil, also occasionally made their way from Guizhou to Beijing.³⁵ But shipments were intermittent—in 1891, further repairs for the *Taihe Men* required the importation of wood from French-controlled Annam (in modern-day Vietnam), which cost the Imperial Government 200,000 taels, the payment made over two years due to “the low condition of the Treasury.”³⁶ Clearly, then, a regular supply of wood was essential.

The Imperial Government had two primary options to ensure this supply. On the one hand was the domestic sphere: a memorial dated May 31, 1887 explained that Hunan is to furnish annually a timber shipment to Beijing.³⁷ The province, having not sent this shipment in nearly a decade due to transportation difficulties and the Taiping rebellion, was reminded to pay its due. So important was this to the Imperial Government that the Board of Works denied a payment of silver twice as much as the value in wood! Payments continued to fall through, however, and Hunan finally purchased wood from Guizhou in 1887 to be sent. A memorial published in September of the same year revealed further difficulties in Beijing, with much of what was sent, if it was sent at all, being of poor quality.³⁸ This trend went as far back as 1873,

³³ “Gigantic Timber from Kueichow.” *The Chinese Times*, August 3, 1889, p. 492, *Local and General from Shih Pao*. *Shih Pao* here (henceforth *SB*) refers to the section of *The Chinese Times* that consists of articles pulled from local, Chinese-language newspapers and translated into English.

³⁴ “Wood from Kueichow for the Repair of the T’ai-Ho Gate.” *The Chinese Times*, August 24, 1889, p. 539, *PG*.

³⁵ “Dispatch of Local Productions of Kueichow to the Emperor.” *The Chinese Times*, January 10, 1891, p. 26, *PG*.

³⁶ “The Cost of Annam Wood for the Ta-Ho Gate Repairs.” *The Chinese Times*, January 17, 1891, p. 43, *SB*.

“Ta-Ho” appears to be a misspelling and almost certainly refers to the T’ai-Ho Gate.

³⁷ “Timber from Hunan for the Peking Government.” *The Chinese Times*, June 11, 1887, p. 503, *PG*.

³⁸ “Scaffolding Poles for Peking.” *The Chinese Times*, October 1, 1887, p. 788, *PG*.

and Hunan was not the sole offender.³⁹ The September memorial cites the fact that trees are paid little attention to by the peasants, who instead focused entirely on cultivating the more immediately profitable cereals, as the source of this issue.⁴⁰

What, then, could be done? The incentivization of trade through removing duties was one possible answer, and indeed there exists a memorial from Hainan calling for the exemption of duties on its wood exports, aimed at stimulating the island's economy.⁴¹ At the time the memorial was published in *The Chinese Times*, the memorialist's request had not been granted. This was, after all, a balancing act—in 1890, China pulled in 13 million taels annually from the likin tax alone, a sum which would necessarily be diminished in exchange for the free movement of timber.⁴² And for the Imperial Government, footing the bill with duties was not always a one-to-one exchange. As always in a system with potential personal profit, there existed avenues of abuse; one censor alleged corruption against officials staffing the Imperial Household's wood and charcoal sectors.⁴³ While the Government denied this accusation in an Imperial Decree, the fact remains that instances of corruption such as the monopoly on Guangxi cassia bark could and did rear their head.⁴⁴

Though corruption was not so prevalent as to nullify the domestic supply of timber, multiple sources were nonetheless appreciated. Another avenue was for the Qing government to import foreign timber. There are several examples from 1888-1890 alone of hardwoods being

³⁹ "Timber from Hunan."

⁴⁰ "Scaffolding Poles for Peking."

⁴¹ "Exemption of All Duties on Wood Exported from Hainan." *The Chinese Times*, February 11, 1888, p. 91, *PG*.

⁴² "Imperial Budget." *The Chinese Times*, January 10, 1891, p. 26, *SB*.

⁴³ "Alleged Peculation in the Imperial Household." *The Chinese Times*, January 7, 1888, p. 11, *PG*.

⁴⁴ "Alleged Peculation," editor's note.

imported into China from Manila and Borneo.⁴⁵ Russia's vast swathes of forest, too, offered promising prospects for trade.⁴⁶ Ultimately, this foreign supply commingled with China's own timber production, culminating in "immense quantities" of wood flowing into Beijing.⁴⁷ Though not without its difficulties, this stream of resources offered a powerful example of both China's domestic productive capacity and the employment of foreign goods, and stands as a counterpoint to the traditional conception of the late Qing as a purely disintegrating state. And with this timber often going towards repairing important symbolic buildings such as those in the Forbidden City, the Qing government harnessed a source of not only economic but also ritual power,⁴⁸ in the sense that, via forestry, powerful symbolic representations of state power could be maintained.

Forestry and Ritual: The Conifers of the Imperial Mausolea

As a natural resource, China's trees were valuable on several levels, as evidenced in the numerous benefits listed in Li Hongzhang's memorial.⁴⁹ However, one important factor that went unlisted—at least in explicit terms—was their ritual value. In addition to the cosmological importance of *mu* and local-national harmony, the efficacy of the state was also represented in the ritualization of forestry. Such representations of power, like the *Taihe Men* repairs, served to strengthen the domain of the ruler in the ruler-subject relationship, subsequently conveying important guidance to the people. A major example of this ritualization was found in the trees planted at the Eastern and Western Imperial Tombs. A series of memorials spanning 1886-1888

⁴⁵ See "Imported Woods." *The Chinese Times*, May 5, 1888, p. 289-290, CT; *The Chinese Times*, June 2, 1888, p. 353, col. 1, CT; *The Chinese Times*, January 12, 1889, p. 19, col. 2, CT.

⁴⁶ *The Chinese Times*, October 29, 1887, p. 851, col. 1-2, CT; *The Chinese Times*, October 20, 1888, p. 675, col. 3, CT.

⁴⁷ *The Chinese Times*, November 8, 1890, p. 709, col. 2, CT.

⁴⁸ "Wood from Kueichow"; "The Cost of Annam Wood."

⁴⁹ "Viceroy Li's Proclamation."

detail the destruction of trees planted at these tombs by caterpillars and their subsequent replanting. The first memorial, dated November 2nd, 1886, notes that of the 166,858 trees in the Mausolea, 235 died in the current year, while 195 were planted in 1885.⁵⁰ This deficit would prove the beginning of an alarming trend. A memorial published July 15th, 1887, recounts troubles at the Eastern Tombs with caterpillars eating the foliage of pines especially.⁵¹ One tael per catty of caterpillars collected was offered as a reward, in hopes that this infestation might be managed. A later memorial describes that 7,965 fir trees were destroyed around the Eastern Tombs, highlighting the severity of this problem.⁵² The Emperor himself took concern in this matter, publishing an autographed rescript in which he questioned how so many trees were destroyed in such a short period of time. Moreover, the meticulous counting of trees to the individual digit speaks to the gravity of these forests. This plague of caterpillars, then, was a serious affront to Imperial ritual power.

The Western Tombs faced the same troubles. A November 1st, 1887 memorial reports that a whopping total of 234,000 pounds of caterpillars, cocoons, and eggs were collected and destroyed from the trees of the Western Tombs.⁵³ A memorial published about a year later gives the exact same toll of destruction as that described in the Eastern Tombs—the loss of 7,965 firs.⁵⁴ Despite this apparent error in reporting (or else sheer coincidence), perhaps by the officials overseeing the tombs but probably *The Chinese Times* itself, this figure speaks to a vast amount of destruction nonetheless. This memorial also details the ritualized process of replacing these

⁵⁰ *The Chinese Times*, November 13, 1886, p. 20, col. 2, PG.

⁵¹ “Plague of Caterpillars at the Eastern Tombs.” *The Chinese Times*, July 23, 1887, p. 613, PG.

⁵² “Destruction of Trees at the Eastern Mausolea.” *The Chinese Times*, July 30, 1887, p. 634, PG.

⁵³ “Destruction of Caterpillars at Western Tombs.” *The Chinese Times*, November 12, 1887, p. 896, PG. The article “Plague of Caterpillars” describes the process for disposing of the pests—they were first burnt and then buried.

⁵⁴ “Replanting Trees at Western Tombs.” *The Chinese Times*, November 10, 1888, p. 730, PG.

trees, noting the necessity of “a protecting shade in order to secure a good *feng-shui* for the tombs” as well as the selection of a proper day for plantation by the Board of Astronomy. Included in the list of requests (all of which were approved), of course, is a financial stipend for the soldiers engaged in this work, as well as for the caretaking of the trees in the years to come.⁵⁵ Clearly, then, an immense amount of bureaucratic power was devoted to maintaining the ritual power of the Qing. Also implicit here is the dualistic nature of forestry: on the one hand, deforestation provided a key source of timber; on the other, *maintaining* certain forests was also critical.

In accordance with the local-national spectrum in the cosmology of forestry, the ritual power harnessed by the Imperial Government was also present at a local level. An article published in the *Shibao* (articles from local newspapers) in the September 14th, 1889 issue of *The Chinese Times* recounts the story of a blooming cypress planted at the tomb of one Mrs. Yuan.⁵⁶ The blooming of the tree was proclaimed to be an immensely fortunate omen, and so the Yuan family burned incense in ritual offering to the tree in hopes that this fortune would come to pass. Ritualized arboriculture, then, permeated every level of Chinese society, and served as a powerful nexus of inner strength. This lends a ritualistic aspect to Self-Strengthening that is seldom considered, but nonetheless key in delineating the fundamentally Chinese roots of the movement.

⁵⁵ “Replanting Trees at Western Tombs.” The requested financial stipend for the soldiers was 500 taels. To pay for the watering of the newly-planted trees, the memorialist requested three yearly payments of 250 taels each.

⁵⁶ “A Blooming Cypress.” *The Chinese Times*, September 14, 1889, p. 586, *SB*.

Conclusion: China's Legacy of Forestry

The late-nineteenth-century period covered thus far is far from the only emergence of arboriculture in China, one notable example being the Imperial Hunting Enclosure maintained by the Manchus from 1681-1821 that represented a powerful symbol of political legitimacy.⁵⁷ Several treatments exist as well of forest management directly after the fall of the Qing as well as the post-1949 period.⁵⁸ Our particular era, then, participated in and anticipated the continuation of a long tradition of forestry in China, and the way in which this tradition manifested was a blend of the myriad factors affecting China at the time. At the forefront of this is a strong relationship to Self-Strengthening, but not in the traditional sense of the term. Instead, the Self-Strengthening represented by forestry was more concerned with the domestic sphere than the foreign. With its strong connection to traditional cosmology, issues such as harmony between the people as well as local and national government could be brought to the forefront. Such harmony would provide a robust core to be used as a foundation for addressing other issues, including the deterioration that is historically attributed to the late Qing. We find instead in Chinese forestry efforts a tangible sense of improvement, particularly in the ritual and economic spheres.

This improvement was aided by Western influence, but could also be pitted against Western attempts at dominion. Indeed, the fundamental *driver* of the Self-Strengthening

⁵⁷ Menzies, *Forest and Land Management*, pp. 55-64. The Imperial enclosure is one of several case studies on Qing forestry that appear in this text.

⁵⁸ For a treatment of forestry in the years between the Imperial era and 1949, see E. Elena Songster, "Cultivating the Nation in Fujian's Forests: Forest Policies and Afforestation Efforts in China, 1911-1937," *Environmental History* 8, no. 3 (2003): 452-73. For the post-1949 period, see S. D. Richardson, *Forests and Forestry in China: Changing Patterns of Resource Development*, (Washington D.C.: Island Press, 1990); a look at local forestry is provided in Liu Dachang, "Tenure and Management of Non-State Forests in China since 1950: A Historical Review," *Environmental History* 6, no. 2 (2001): 239-63.

movement was the imbalance of power between China and other players on the world stage. It is perhaps easy to misattribute this as the *source* of the movement as well; instead, as we have seen, there was a desire to improve that ran deep, and was fundamentally seated in the Chinese sphere. Forestry in the late Qing moment, then, represents an inner strength that, while adorned with foreign branches, had fundamentally Chinese roots, standing as a legacy of vitality in a time of supposed decay.

Bibliography

PRIMARY AND SECONDARY SOURCES

Birch, Cyril, and Keene, Donald. *Anthology of Chinese Literature*. 1st Evergreen ed. UNESCO

Collection of Representative Works. Chinese Series. New York: Grove Press, 1965.

The Chinese Times, vols. 1-5, November 1886-January 1891.

Giles, Herbert A. "Chinese Allegory." *The China Review*, vol. 6, no. 6. Hongkong: China Mail Office, 1878.

"Li Hung-Chang on Arboriculture." *The North China Herald*, vol. 40, March 2, 1888, p. 232.

Menzies, Nicholas K. *Forest and Land Management in Imperial China*. New York: St. Martin's, 1994.

——— *Forestry. Science and Civilization in China*, vol. 6: Biology and Biological Technology, part 3: Agro-Industries and Forestry, ed. Joseph Needham. New York: Cambridge University Press, 1996.

Tucker, Mary Evelyn. "Religious Dimensions of Confucianism: Cosmology and Cultivation." *Philosophy East and West* 48, no. 1 (1998): 5-45.

Wakeman, Frederic. *The Fall of Imperial China*. New York: Free Press, 1975.

Williams, S. Wells. *A Chinese Commercial Guide*, 4th ed. Canton: Office of the Chinese Repository, 1856.

WORKS MENTIONED IN FOOTNOTES

Dachang, Liu. "Tenure and Management of Non-State Forests in China since 1950: A Historical Review." *Environmental History* 6, no. 2 (2001): 239-63.

Fairbank, John K. *The Cambridge History of China*, Vol. 10. New York: Cambridge University Press, 1978.

Hummel, Arthur W. *Eminent Chinese of the Ch'ing Period, 1644-1912*. Washington: U.S. Govt. Print. Office, 1943.

Richardson, S.D. *Forests and Forestry in China: Changing Patterns of Resource Development*. Washington D.C.: Island Press, 1990.

Songster, Elena E. "Cultivating the Nation in Fujian's Forests: Forest Policies and Afforestation Efforts in China, 1911-1937." *Environmental History* 8, no. 3 (2003): 452-73.

Appendix A: Li Hongzhang's 1888 Memorial on Arboriculture

6th February, 1888.

VICEROY LI'S PROCLAMATION ON TREE-CULTIVATION.

A Proclamation from Li, Viceroy of Chihli, etc., to exhort the people of his province to cultivate trees after approved methods, with the view of securing benefits to the people and the country.

One of the first principles of governing a state is to look into the nature and uses of its land, to ascertain how it may best subserve the benefit of individuals and the purposes of the state. In the province of Chihli, the soil of her alluvial plains is soft and fertile, and this fertility extends to a great depth. Arboriculture is, therefore, rendered so much the more easy and advantageous. But at present in the various prefectures of Chihli, aside from the several species of fruit trees, such as the chestnut, the pear, the peach, the apple, and the apricot, other kinds of trees are rarely seen, as the mulberry, and the ching tree (a thorny bush) of Yung-p'ing-fu, which is used for making a species of paper, and for medicinal purposes. In consequence of this general lack of tree culture, vast tracts of fertile plains are left barren, presenting a most monotonous and uninviting appearance. In looking for the cause of this treeless barrenness, it is to be found in the high winds which prevail over these northern parts. When trees are newly-planted, their roots are easily shaken and disturbed, and unless planted to a great depth, they cannot withstand the wind. Many of the peasants do not understand the loose nature of the surface soil, and consequently by not planting their trees to a sufficient depth, or selecting moist, solid ground for planting, they lose their trees, and their labour becomes fruitless. Few of them ever study the principles of

arboriculture, and, as a result, they become discouraged by their non-success, and giving up the industry altogether, they allow the rich alluvial lands to lie unutilized. The Viceroy has in recent years given orders for the plantation of willow trees along the banks of the various rivers and streams in Chihli, as a prudential measure for strengthening and protecting the embankments.

If successful methods of tree cultivation in salt lands have been found, how much more easy will it be to carry on arboriculture on rich level plains. Therefore, the authorities of various prefectures, subprefectures, and districts of Chihli are hereby instructed that they must procure the necessary seed trees, and inform the people of their respective jurisdictions of the “Eight directions of tree plantation,” and the “Ten benefits to be derived from same,” which accompany this proclamation. Having these directions given them, the people may proceed with tree-plantation, at first experimentally. Measures should be adopted to encourage the people in this industry, and no official agents should be sent who, on the pretext of inspecting and reporting the progress of tree-cultivation, really disturb and oppress the people. But at the end of every year, the people should be required to submit a statement, giving the number and kind of trees planted, how many survived, what their present condition is, etc., so that the authorities may reward those who evince the greatest diligence in carrying out the government’s instructions. And should any be guilty of stealing or cutting down other people’s trees, such should be summarily apprehended and severely dealt with by the local authorities. The people should all know that the earnest desire of the Viceroy in ordering this system of tree-cultivation is, that another source of obtaining a livelihood may be afforded the peasants; that droughts may be prevented; that river embankments may be strengthened; that the rainfall may be regulated;

that the country may be beautified, etc. The “Eight directions” and “Ten benefits” are appended below:—

THE EIGHT DIRECTIONS.

1st. On account of the loose nature of the soil near the surface, the cold penetrates to a considerable depth, and very easily injures the roots. To fortify the roots against injury from cold and other causes, a fertilizer should be used when planting trees, this fertilizer to be prepared by burning a mixture of dung with grass and then adding it to a proportionate quantity of earth. After putting in the fertilizer, the roots should be carefully and sufficiently covered.

2nd. After a tree has been securely planted, a small cumulus of earth should be placed around it, six or seven inches high, and this cumulus should be renewed at the approach of every winter until the end of the third year after planting. In this manner the tree will be unaffected by the wind or cold, and cannot possibly fail to grow. If this is not done, the vitalizing moisture in the earth will escape, and the roots will lack their natural necessary nourishment.

3rd. In places which are exposed to the high winds, trees should be planted at least $3\frac{1}{2}$ feet deep; without this depth the rich part of the soil will not be reached, and tree planting cannot be successful. In the case of the willow and trees of that kind, their outspreading and dependent branches should be carefully pruned in order to preserve the nourishment for the trunk and main branches.

4th. Where the soil is poor and sterile, it should be improved by the introduction of some rich earth, and adding it to some suitable fertilizer.

5th. In the case of the oak, the elm, the willow, the mulberry, the poplar, the cypress, etc., they shed their seeds every year, which, falling into proper ground, will take root and grow into

young trees. To prepare the earth for the growth of the seeds, a trough should be dug around each tree, and be filled with water in order to keep the soil moist.

6th. With willow and mulberry trees planting should take place in the spring, when there is rain. In one year's time the cuttings will have taken root. But before planting the young shoots, the soil should be well loosened and fertilized, and grafting should take place after the rain. After planting, the graft trees should be well watered every other day.

7th. In transplanting trees, strict care should be exercised. Every tree has three vertically projecting roots which will dry up if exposed to the wind or sun. Wait till there is rain, and then having dug a small hole by the side of the tree, carefully cut away one of these straight roots. This process should be repeated after half a month should there be rain; if not, a month must elapse before the second operation. This is to be repeated until the three roots have been cut away. While these roots are being cut, innumerable new rootlets will be thrown out, and these, as soon as the tree is transferred, will quickly take to the earth. In case of there being no rain, however, they should be well watered.

8th. In trying to raise trees from the seeds of the mulberry, the oak, etc., some fertile spot should be chosen and prepared, and then plant the seeds in the same manner as one plants seeds of grain. The spring is the best time and when there is rain. In one year's time young trees one or two feet high will spring up, and these can be easily transplanted.

THE TEN BENEFITS.

1st. By planting trees along river banks, where the soil is loose and sandy, the banks will increase in height, and the roots, by their numerous ramifications, will bind and strengthen the soil against the pressure of currents and floods.

2nd. By covering the mountains on the borders with the pine, the elm, the willow, etc., a large industry in timber will spring up, which will afford abundant material for house-building and other purposes.

3rd. By planting trees about the fields and farms, they will serve to absorb the superfluous moisture, and preserve a just equilibrium of “wind and fluid influences.”

4th. Where there is abundance of trees, rain will be plentiful, and no droughts will occur in spring or summer.

5th. An abundance of trees can also ward off epidemics; and where the people dwell closely together, the more trees ought to be planted, because they will absorb the carbonic acid and other noxious gases.

6th. By having an abundance of groves and trees, travellers and families can find rest and shelter in summer under their shade.

7th. Trees and forests being plentiful, they will obstruct the free operation of highwaymen and banditti.

8th. Extensive forests of trees on the mountains of the remote borders, will serve to absorb a great part of the snow when it melts in the spring.

9th. The wretchedly poor peasants, by having a number of trees of their own, will derive sufficient fuel for their needs out of the branches which they can prune away every year, which benefit to the trees.

10th. The 榲 (tree), and the 櫟 (tree) are of two species, the large leafed, and the small leafed; and the 柞 (quercus Mongolica) is also of two species, the red bark and the white bark. These and the oak can afford food to the silkworm, and in cold, mountainous regions, where the

silkworm subsists merely on the leaves of these trees, they weave a cocoon which when made into silk is much cheaper and more durable than that made from the cocoon of the mulberry silkworm.