

Subverting the French Stranglehold: Miao Yuntai, reforming the Gejiu tin industry and the French Yunnan Railway, 1910-1937

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During the late nineteenth century, France carved out a colonial empire in Southeast Asia creating French Indochina. Then, French political and commercial interests undertook the formidable task of building the Yunnan Railway to link their colony with South China. These French interests envisioned the Yunnan Railway as the premiere mechanism in the economic penetration and political domination of Yunnan province. The lucrative Gejiu tin mines, located near the French Indochina border in southeastern Yunnan, were of particular economic interest to foreign and provincial authorities. Railway company officials, French colonial officials and banks all believed that they could derive a considerable profit from dominating the tin trade, which had historically passed along a river route through Vietnam. For the first several decades of operations, French colonial officials, railway authorities and banking interests placed a stranglehold on the tin trade via this international artery. In the 1930s, however, the provincial militarist governor Long Yun, through his economic advisor Miao Yuntai, would succeed in partially subverting French control over the tin trade and turn this powerful engine of foreign imperialism to serve the needs of provincial militarism.

The Gejiu tin mining region, only 25 miles from the railway line, was a focal point for provincial and foreign economic competition. The Gejiu tin mines were the most valuable, legitimate economic resource in the province during the 1920s and 1930s and the most productive tin mining operation anywhere in China.¹ Yunnanese and French political and commercial interests intensified their struggle for control of the tin trade as exports increased due to proximity to the railway.

In the 1930s, Yunnan Governor Long Yun and his economic advisor Miao Yuntai endeavored to firmly secure and reform the tin industry to provide financial support for the province and enhance provincial autonomy

from the Chinese central government. During the Warlord era (1916-1926) and the Nationalist period (1927-1937), regional and provincial militarists, more commonly referred to as warlords, sought to retain some degree of autonomy from other militarists, as well as the central government.² In Yunnan, the provincial militarist Long Yun ruled the province from 1928 to 1946 after ousting rival Yunnanese militarists. During Long's tenure as provincial governor, he publicly pledged his loyalty to Chiang Kai-shek's Nationalist government. Yet, Chiang, from his base of power in eastern and central China, had little influence over many peripheral regions of China, and Yunnan was no exception. Long Yun sought to maintain functional autonomy from the central government and prevent Chiang from interfering in the province. One means of maintaining provincial autonomy was preserving and developing economic resources. Thus, Long and Miao focused on developing the provincial mining industry and Gejiu tin mining and smelting, in particular.

In 1921, as Director of the Yunnan Tin Company, Miao Yuntai outlined a plan to reorganize and reform the tin mining industry in Yunnan. Miao's plan specifically sought to modernize the tin mining industry and weaken the French stranglehold. However, the one aspect of French domination that he could not alter was the critical role played by the railway itself in conveying tin exports to international markets. Instead, Miao turned this tool of foreign French imperialist ambitions to his own ends. In a limited way, the French railway could serve Yunnan's economic development and preserve provincial autonomy.

French manipulation of the Yunnan Railway

In the 1890s, French imperialist ambitions in South China crystallized around the plan to build a railway linking the French Indochinese port of Haiphong with Yunnan's provincial capital, Kunming. The main motivations for the construction of the railway were economic penetration and political domination of southwestern China. French colonial officials, including the Governor-General of Indochina Paul Doumer, championed political domination and eventual annexation of Yunnan. Meanwhile, the French Foreign Office opposed Doumer's ambitions, sought to preserve China's political integrity, and desired the formation of a sphere of economic influence in Yunnan and by extension Sichuan province. The Foreign Office's view eventually prevailed and the Yunnan Railway was built to extend French economic control and establish a stranglehold over Yunnan province's economic development.³

Prior to 1910, the province's trade and transportation was limited to mule caravans transporting goods between Yunnan and its neighboring Chinese provinces and the colonial possessions of Great Britain and France in Southeast Asia. The trade route through French Indochina gained an unprecedented boost with the opening of the railway. With the advent of the railway, a trip between Kunming and Haiphong required only two to three days, where it had previously taken weeks. Hong Kong was now only six to seven days away and Shanghai only a few more days by ship.⁴ Yunnan was suddenly connected to the economic centers of China and entrepôts of international trade in East Asia. Thus, the Yunnan Railway became the main artery of trade and transportation outside the province and portended the opening of Yunnan to international trade.

Upon completion, French government and commercial interests retained near total control of the railway and its operations. As such, French authorities arbitrarily set freight rates, unilaterally applied fees and taxes and raised passenger fares without regard to Yunnanese concerns or sentiments. Yunnan's trade was subject to French customs controls that favored goods originating in France and applied to all goods, even those simply passing through the colony. French authorities manipulated fares as they saw fit and often in partnership with customs officials.

The tendency of French authorities to manipulate the railway and to handicap all but French trade can be seen in the following example. The *Compagnie Francaise des Chemins de Fer de L'Indo-Chine du Yunnan*, which owned and operated the railway line in Yunnan, often worked in tandem with French customs officials to benefit French imports at the expense of other nations' products. After World War I, Tang Jiyao's Yunnan provincial government asked for bids on irrigation piping for a major water project. The value of the amount of piping necessary for the project was estimated at US\$100,000. Bids were received from an American, a Briton and a Frenchman. The American, who took into account the prevailing freight charges and transit taxes over the railway, still fully expected his offer to be accepted as his bid was at "dumping prices." Over-production of piping during the war had led to a surplus in the United States. Yet, the contract was awarded to the French bidder.

Determined to know how he lost out on the contract, the American salesman placed an agent in Hanoi to keep tabs on the French shipment. In due time, the agent noted that just before the piping shipment was due to arrive the Governor-General of Indochina had ordered a temporary reduc-

tion in the transit duty of water piping destined for Yunnan. Furthermore, the *Compagnie Francaise* had temporarily reduced the freight charges on water piping bound for Yunnan. Both of these reductions coincided with the arrival of the piping shipment and were in effect for only one month, by which time the shipment had reached Yunnan. The French company and the Indochina Government worked together to support French sales in Yunnan and unfairly hindered any other foreign power attempting to do business in Yunnan.⁵ Through exploitative tactics and manipulating freight rates and customs fees, French goods dominated the Yunnan market and French companies controlled 60% of all trade with the province.⁶

The opening of this new railroad link to international markets had an immediate impact on the Gejiu tin trade. Prior to the opening of the railroad, the annual export of Gejiu tin never exceeded 4,000 tons and comprised approximately eighty percent of the total exports via the Chinese Maritime Customs station at Mengzi, located on the Yunnan-French Indochina border. After 1909, when the railroad opened service to Mengzi, tin exports immediately increased to 4,743 tons and exceeded 6,000 tons the following year. Furthermore, tin exports accounted for over ninety percent of the total value of annual exports via Mengzi for most of the rest of the decade. In terms of value, tin exports neared six million silver *taels* in the first two years of operation and exceeded ten million silver *taels* four times in the next decade, 1912, 1913, 1917, and 1918.⁷ The advent of the French-controlled Yunnan Railway boosted the Yunnan economy and contributed to the expansion of the Gejiu tin trade.

However, the French exerted considerable outside influence for this service. Without French goodwill, the railway company could effectively reduce if not entirely embargo tin exports. For example, the company controlled the availability of railway cars for moving large consignments of tin slabs, and influenced the potential for lost loads and difficulties at the docks in Haiphong. French control of the railway advanced French interests in asserting control over this valuable provincial industry.

French banking concerns, led by the Bank of Indochina (*Banque de l'Indo-Chine*), were active in the Gejiu tin trade. The scope of the Bank of Indochina's activities was considerable. The bank was a major lender against advances of tin. It provided foreign exchange services, and advanced credit to Yunnanese merchants and smelters.⁸ At times, the Bank of Indochina was even rumored to be interested in establishing its own smelting operation for Gejiu tin. The Bank of Indochina was ideally placed in Mengzi to handle the financial needs and would profit from the expan-

sion and development of the tin trade. Together, government, commercial and financial institutions exerted a veritable stranglehold over Yunnan's economy, including the Gejiu tin industry, via the Yunnan Railway.

Miao Yuntai's Tin Industry Reforms

As the Yunnan Railway facilitated French domination of Yunnan's trade, Yunnan's provincial militarist governments exerted halting efforts to exploit this international transportation linkage to modernize the tin industry. By securing greater control over this lucrative economic resource and maximizing the profit derived from tin exports, Yunnanese militarists, like Long Yun and Tang Jiyao who ruled the province before him, enhanced their capacity to resist various rival provincial militarists and Chinese central governments during the Warlord and Nationalist periods.

Beginning in the 1910s, Yunnan's provincial governments tentatively ventured to develop independently the province's mineral resources and reform the mining industry, beginning with the valuable Gejiu tin trade. The man responsible for initially outlining and eventually accomplishing this restructuring was Miao Yuntai. He was selected for this important role on account of his professional training. Miao had studied in the United States and graduated from the University of Minnesota with a degree in mining. After graduation, he returned to Yunnan in 1919 and was appointed as an engineer for the Yunnan Tin Company.⁹ During his first short tenure in this post, Miao wrote *Outline of the Gejiu Tin Industry*. This study identified five main deficiencies (*quedian*) of the company and the entire tin mining industry, and proposed various methods to improve the overall situation.¹⁰

Of the five deficiencies identified by Miao, four applied industry-wide, while only one aimed to improve the standing of the company itself and increase its profits. Of the industry-wide deficiencies, Miao noted poor company management and lack of modern ore washing and smelting equipment. Even the Yunnan Tin Company,¹¹ which had imported German washing and smelting equipment in 1913, had been unable to utilize it properly for various technical and practical reasons and thus it remained idle. The Yunnan Tin Company was therefore forced to utilize the same primitive ore washing methods and smelting furnaces as other Gejiu smelters.¹² Lacking efficient methods or machinery for washing ore and smelting tin, the quality of Gejiu tin slabs was inconsistent and insufficiently pure to be sold directly on the international market.

This inability to produce pure tin slabs led to the second deficiency. According to Miao, approximately eighty percent of Gejiu tin was eventually sold on the New York or London tin markets. However, before this could occur, Gejiu tin had to be re-smelted in Hong Kong by Cantonese merchants to reach a sufficient level of purity. On the international market, tin slabs were sorted into three grades; the highest grade being at least 99.75 percent pure tin, the middle grade was 99.5 percent while the lowest grade was 99.3 percent tin. The best grade of Gejiu tin, prior to refining in Hong Kong, only reached 98.4 percent pure tin.¹³ These Hong Kong-based merchants acted as middlemen for the initial sale of Gejiu tin to re-smelting firms and then again for final sale on the international market. Miao estimated that on a yearly average, Yunnan miners and merchants lost 16% of the total value of Gejiu tin to these middlemen.¹⁴ The Yunnanese merchants and miners lacked control of direct tin sales and lost a significant share of the profits from tin after it left Gejiu.

The loss of revenue was not limited to the share taken by Hong Kong middlemen. The Yunnan Tin Company, like the greater Gejiu tin mining community, had no control over transportation of their product once it left Gejiu. During the 1910s, Yunnan exported approximately 7,000 tons of tin per year via the railway. Upon arrival at the nearest station, Yunnan tin was at the mercy of French colonial exactions. Miao noted the high taxes and extortionate practices with regard to import and export fees applied to tin exports by French railway and customs officials.¹⁵ After arriving in the port of Haiphong, the sea trade was in the hands of Cantonese merchants, who also profited from their position.¹⁶ Due to their reliance on others for transportation, the Yunnan tin industry lost additional revenue and relinquished further control over the industry to outsiders.

The final deficiency retarding the development of the mining industry noted by Miao was the lack of proper banking facilities. Unlike industrialized countries, which had numerous banks providing necessary services, Yunnanese merchants involved in international trade lacked adequate banking services. The Yunnan provincial bank, known as the Fudian Bank, along with private banks, lacked banking and exchange services in Hong Kong. Furthermore, Yunnanese merchants were unable to use Chinese national banks which did not operate branches in Yunnan province. Thus, they were compelled to utilize foreign banking institutions, like the Bank of Indochina and the Sino-French Industrial Bank, for all banking services associated with the sale of tin outside the province. This reliance on foreign banks led to significant losses with regard to exchange rates.¹⁷ This cir-

cumstance provided yet another instance where outside forces benefited from the weakness of Yunnan's mining industry and its necessary supporting institutions and further drained the profits of the tin trade to foreign and extra-provincial entities.

Miao Yuntai's plan to reform the mining industry envisioned modernizing not only the mining and smelting operations but also bolstering the necessary supports to this industry. Furthermore, Miao's plan and eventual success was achieved without recourse to foreign intervention. To begin with, Miao called for the purchase and importation of modern ore washing and smelting furnaces. The modern smelting machinery would remedy two key weaknesses of the Gejiu tin exports. The new electric furnaces, when properly operated, would raise the purity of the Gejiu tin to international standards and provide a uniformity of tin content that was necessary for direct international sales.¹⁸ Direct international tin sales would exclude the Hong Kong middlemen and the necessity of re-smelting thereby concentrating the profits of the tin trade in the hands of the provincial government and tin producers.

Miao's outline also advocated establishing financial offices in Gejiu and Hong Kong to support the tin trade. He argued for a closer relationship between the Fudian Bank and the Yunnan Tin Company and the opening of bank branches in Gejiu and Hong Kong. This alliance would facilitate the easy transfer of funds between these two key centers in the tin trade and would eliminate foreign banking interests from the trade. Furthermore, he believed that a tin trade office should be opened in Hong Kong to keep track of the foreign situation and market changes and thereby support the tin trade.¹⁹

With regard to the transportation question, Miao had no practical remedy. He recognized the importance of the railway in stimulating tin exports and the lack of viable alternatives. He needed the railway service to import the new machinery necessary to improve the smelting process and export the processed tin slabs. Thus, his modernization plan suggested dealing with other matters first and then later turning to the transportation question.²⁰ It is clear, however, that he planned to take advantage of the railway. Even if he could not fundamentally alter the conditions of French control over it, the railway could still serve Yunnan's interests.

Proposed in 1921, Miao's outline plan remained unfulfilled during the 1920s due to provincial economic weakness and the struggles for power which resulted in the fall of Tang Jiyao and his eventual replacement by

Long Yun in 1928. Beginning in 1930, during a period of increasing political and financial stability in the province under the leadership of Governor Long Yun, Miao was finally able to begin to reform the tin industry in a manner consistent with his outline plan and designed to secure greater provincial autonomy. The timing of Miao's reform is more remarkable as it occurred during the Great Depression. The effects of the Great Depression on Yunnan's trade and economy are disputed but the success of the tin mining reforms and revenues helped to stabilize the provincial currency and strengthen the overall provincial economy. In Yunnan, trade figures note stagnation during the depression but no sharp decline as experienced elsewhere in the world.²¹

In December 1930, Miao established the Industrial Bank with branches in Shanghai and Hong Kong. The bank was backed by mine owners and its chief functions were advancing credit and acting as a currency remittance exchange for Hong Kong dollars earned by the tin trade.²² In July 1932, the provincial government restructured the provincial bank, the Fudian Bank, and renamed it the New Fudian Bank. The New Fudian Bank gradually expanded its reach to include offices in Shanghai, Guangxi, and Hong Kong and agents in Singapore, New York and London. These offices and agents were associated with the Gejiu tin trade. Miao, reflecting on the creation of the bank, noted "an organization has been established for operating foreign exchange, thus eliminating foreign banks with their profit-making."²³ With regard to the fourth deficiency of the mining industry, as detailed in his outline, Miao had fashioned a new tool to counter foreign domination of the control of foreign exchange and banking services. Yunnan was now in control of the vital financial services necessary to support the tin mining industry.

The establishment of independent banking services was important to the effectiveness of the tin industry. However, the production of a superior product was fundamental to the success of Miao's plan. In February 1931, Miao invited a British tin-refining expert to visit Yunnan and generally assess the Gejiu tin industry and specifically review the Yunnan Tin Company's operations and facilities. Miao then utilized the findings of this expert's report to propose the financing and formation of the Yunnan Tin Refining Company.²⁴ The Yunnan provincial government was a significant investor in this new tin refining company. This company, when established in March 1932 with Miao as managing director, utilized modern, western tin processing and smelting equipment along with the adoption of western techniques.²⁵

By 1933, the Yunnan Tin Refining Company succeeded in producing tin slabs of sufficient purity and consistency to meet international standards. In fact, Yunnan tin exceeded the purity of Hong Kong smelters. The best grade of Hong Kong tin, known as yangtiao on the international market, was 99.343% pure tin. The lowest grade of Yunnan Tin Refining Company tin was 99.3%, rising to 99.55% for middle grade and 99.87% for the highest quality product, which exceeded the international standard for highest grade tin.²⁶ Miao had indeed fundamentally altered Yunnan's position in the international tin market. Yunnan tin could now be directly exported to European and American markets bypassing Hong Kong middlemen and earning dollars and pounds in foreign currency which could be remitted through provincial banking institutions to the province. Taxes on the tin industry and direct provincial government investment and involvement in tin production accounted for approximately 25% of total provincial revenue in the 1930s.²⁷

Conclusion

Miao Yuntai's reforms, initially detailed in his *Outline of the Gejiu Tin Industry*, required over ten years to reach fruition. With its successful implementation in the early 1930s, Miao's reforms fundamentally altered Yunnan's position in the international tin market and enhanced the province's revenues. Long Yun's provincial government stabilized its economic position and further enhanced its ability to remain independent of Chiang Kai-shek's Nationalist Government. These efforts managed to subvert the economic stranglehold that the French had placed on Yunnan with the completion of the Yunnan Railway. While it is true that Miao Yuntai was unable to completely free Yunnan's trade from arbitrary French exactions, he did succeed at turning the Yunnan Railway into a vital artery for expanding and modernizing the tin trade. The railway served as a secure, extra-provincial link for Yunnan's provincial military government. The ultimate expression of French imperialism came, in part and over time, to serve provincial autonomy.

NOTES

1. Yang Shouquan. "Jindai Dian Xi Chukou Shulue," *Sixiang Zhanxian* no. 4 (1990), 83. Yang compares tin production figures at Gejiu with the other tin producing areas in China. Gejiu tin exports consistently comprised over 90% of all tin production in China. Opium was a more valuable provincial export but was illegal and the scope of this trade is still undetermined.
2. For a more in-depth discussion of the use of warlord versus militarist, see Edward McCord, *The Power of the Gun: The Emergence of Modern Chinese Warlordism*, (Taipei: SMC Publishing, 1997), 3-4, and Diana Lary, *Region and Nation : The Kwangsi Clique in Chinese Politics, 1925-1937*, (London: Cambridge University Press, 1974).
3. For more detail on French policy struggles regarding economic penetration versus political domination, see Robert Lee, *France and the Exploitation of China, 1885-1901: A Study in Economic Imperialism*, (Hong Kong: Oxford University Press, 1989).
4. Li Guizhu, *Yunnan Jindai Jingji Shi (A History of Yunnan's Modern Economy)*, (Kunming: Yunnan Minzu Chubanshe, 1995), 220.
5. The piping shipment incident was reported in Wilbur Burton, *The French Stranglehold on Yunnan: A first-hand survey*, (Shanghai: China Weekly Review, 1933), 15.
6. Burton, *Strangle-hold*, 2.
7. Tin figures drawn from Yunnan Sheng Zhengfu Mishuting Tongji Shibian, *Sishi qi nianlai Yunnan Sheng Chukou Xi Tongjice*. (Kunming, 1936), Dong Mengxiong, *Yunnan Jindai Difang Jingji Shiyanjie*, (Kunming: Yunnan Renmin Chubanshe, 1991), 169, and Lai Zongcheng, "Dian-Yue Tielu Tongche hou Yunnan zhi Jingji Fazhan, 1910-1940," (Master's Thesis, Donghai University, Taiwan, 1993), 58.
8. Great Britain, Foreign Office Archives, Public Record Office, FO 228/2934, Ottewill to Jordan, 30 November 1919; and Jordan to Foreign Office, 5 April 1920.
9. He Zhiqiang, ed., *Yunnan Cidian*, (Kunming: Yunnan Renmin Chubanshe, 1993), 675.
10. The following discussion is drawn from Miao Yuntai, *Gejiu Xiwu Gongsi Gailan (Outline of the Gejiu Tin Industry)* (n.p. 1921). This manuscript written by Miao is held in the Yunnan Provincial Library, Kunming, Yunnan, PRC. The nature of this manuscript is an extended outline of the deficiencies and proposed solutions to the company and industry's problems. Most likely, it was an outline report or blueprint for the restructuring and future development of the industry prepared by Miao as the new director. The outline does not include pagination; however, it is divided into section and subsection. For the purposes of citation, I will note the section and subsection, for example, 1.2 for section 1, subsection 2.
11. For more on the Yunnan Tin Company, see J.C.S. Hall, *The Yunnan Provincial Faction, 1927-1937*, (Canberra: Department of Far Eastern History, Australian National University, 1976), 154-155, and Li, *Jindai Jingji*, 305.
12. Miao, Gailan, Section 2 and for a description of the technical aspects of these mining activities, see Peter Golas, "Tin Mining in 19th and 20th Century China: High Production, Low Technology," *Jindai Zhongguo Kejishi Lunji*, Yang Ts`ui-i and Huang I-nung, eds., (Taipei, Taiwan: Zhongyang Yanjiuyuan Jindaishi Yanjiusuo, 1991), 261-294.
13. Yu Zongze, ed. *Yunnan Xingzheng Jishi: Jingji, XIII, xiye, (A Record of Yunnan's Administration: Economy, Section 13, Tin)* (Kunming: Yunnan caizhengting yinshuachu, 1943), 2. The other two grades of Gejiu tin were 94.8 and 93.7 percent, respectively.
14. Miao, *Gailan*, Section 2 and section 4.4.
15. Xie Benshu, *Tang Jiyao Pingzhuan*, (Zhengzhou: Henan Jiaoyu Chubanshe,

1990), 137-140.

16. Miao, *Gailan*, Section 2.

17. Miao, *Gailan*, Section 2.

18. Miao, *Gailan*, Section 4, subsections 1, 2 and 4.

19. Miao, *Gailan*, Section 4.5.

20. Miao, *Gailan*, Section 4.3.

21. Tim Wright, "Distant Thunder: The Regional Economies of Southwest China and the Impact of the Great Depression," *Modern Asian Studies* 34.3 (2000), 716-718.

22. Hall, *Yunnan Provincial Faction*, 145.

23. Quoted in Hall, *Yunnan Provincial Faction*, 94, from Miao Yuntai, *Toward an Economic Handbook of Yunnan* (Kunming: Institute of Economic Social Research of Yunnan Institute, 1941), 5.

24. Yu Zongze, ed. *Yunnan Xingzheng Jishi: Jingji, XIII, xiye*, (Kunming: Yunnan caizhengting yinshuachu, 1943), 3.

25. *Jishi: Jingji, xiye*, and Hall, *Yunnan Provincial Faction*, 156-157.

26. *Jishi, Jingji, XII, xiye*, 3, chart of relative values of Yunnan Tin Refining Company and Hong Kong smelted tin.

27. Yang, "Jindai Dian xi," 83-87, and Wright, "Distant Thunder," 707.

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