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The Search for Material Civilization: Kang
Youwei's Journey to the West
康有為的西方物質文明之旅

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Abstract

This paper deals with Kang Youwei's search for modern material civilization, which he believed was the "prescription" for China's weakness and poverty. The extensive tour he made to the West confirmed the validity of his prescription. He detailed in his travel notes what he had seen in Italy, France, Britain, Germany, America, Mexico, etc. In general, he saw a prosperous new world of material civilization, and was deeply impressed by the importance of sea power. His reflections on the grand tour were written into *wuzhi jiuguo lun* (Essay on national salvation through material construction), which provides with the indispensable information for this study. After having seen how advanced the modern world of material civilization in Europe and America was, Kang's pleas for change at the time when China appeared so backward became all the more earnest and urgent. But in his cry for "material civilization," he abandoned neither his political reforms nor his utopian vision. As always, he believed that modernity was the common destination for all humankind, and his impassioned calling for China to follow the course of material civilization was merely a necessary step to universal peace or the utopia of all nations.

摘要

本文主要探討康有為之追求西方近代物質文明，並認為是救治中國積弱的不二之道。他於廿世紀初在歐美長期漫遊，使他親眼目睹近代物質文明的富麗，以及強國之根本所在。他將在義大利、法蘭西、英吉利、德意志、美利堅、墨西哥等國的見聞書之於遊記，並將感受與方案寫成物質救國論，為本文能夠仔細觀察康氏旅行細節及其思路設想，提供不可或缺的材料。大略言之，他見到的是一富盛的新世界，對海權關切到一國的富強興盛，印象尤其深刻。當他親見歐美國家物質文明如是之興隆，積弱的中國需要追求物質文明不僅緊迫，而且必須努力以赴。然而康氏之追求物質文明並未放棄他素具的政治改革抱負與世界大同的理想。他一貫認為，近代文明乃人類共同的命運，他急迫地呼籲中國須在物質文明的道路上迎頭追趕，也是通向世界大同的必要步驟。

As Kung-chuan Hsiao wrote in his celebrated biography, Kang Youwei "was profoundly impressed by the material civilization of the West and seldom failed to show appreciation of its manifestation in luxurious and gracious living."¹ This material civilization flourished in the West for Kang is an outcome of universal human evolution and knows no national boundaries. He regarded the progress of human culture and history as natural phenomena governed by laws. Different nations had their unique cultures and histories, but they all trod the common path of human evolution.² A nation's level of "evolution" (*jinhua* 進化) was mainly to be judged in terms of materialistic achievements. Western and central European nations happened to be the most advanced; however, the advanced West had merely acquired high material civilization first. The rest of the world had fallen behind, but would sooner or later follow suit. Backward China thus needed to redouble its efforts to catch up with the modern West on the common road to modernity. He thus had launched a life-long campaign for "national salvation through material civilization" (*wuzhi jiuguo* 物質救國).³

Kang's knowledge of the West first acquired almost exclusively from books translated by the Kiangnan Arsenal in Shanghai, which meant that Kang mostly read natural science. Kang's later experiences did not alter his belief that positivist scientific knowledge could resolve abstract philosophical questions. Like many of his European contemporaries, he admired the utility and even the aesthetic power of scientific laws and believed them applicable to politics, ethics, metaphysics, and even theology.

1 Kung-Chuan Hsiao, *A Modern China and a New World: K'ang Yu-wei, Reformer and Utopian, 1858-1927* (Seattle & London: University of Washington Press, 1975), p. 29.

2 For further discussion of this see Wang Rongzu, *Kang Youwei* (Taipei: Dongda, 1998), pp. 19-21.

3 This is also the title of his book, "Wuzhi jiuguo lun," first printed in February 1906 by Guangzhi shuju 廣智書局 in Shanghai. It can be found in Jiang Guilin 蔣貴麟 comp. *Kang Nanhai xiansheng yizhu huikan* 康南海先生遺著彙刊 (Collected works of Kang Youwei) (Taipei: Hongye shuju, 1976), vol. 15. This work will be hereafter cited as Kang, *Collected Works* followed by volume and page number(s).

Only after Kang had escaped from the death of the 1898 coup did he have an opportunity to see the Western world. Thanks to British protection he reached safety in Hong Kong. Still, he lived under constant threat of assassination. With the assistance of Japanese friends he settled in Tokyo as a political refugee. As he found a new life in Japan, he renamed himself Gengsheng 更生 (Life Renewed). But his exile in Japan was cut short when the Japanese government became unwilling to harbor him due to the pressure from the Qing government. He set sail from Yokohama to Vancouver, and by the end of May he showed up in London to seek British assistance to overthrow the Empress Dowager Cixi and restore the Guangxu Emperor to power. He returned to Vancouver when this effort came to nothing. Regardless of the setback, he launched Chinese Empire Reform Association, also known as "Emperor Protection Society" (Baohuang hui 保皇會), on behalf of Guangxu.⁴ The worried Qing court put a price on Kang's head.⁵ When Cixi signaled that she was about to dethrone Guangxu, Kang raised an armed uprising in 1900 during the Boxer Rebellion, but this ended in tragic failure.⁶

Kang sought refuge first in Penang and then in northern India under British colonial protection. In April 1903 the death of Ronglu, the military strong man behind Cixi, made Kang feel secure enough to resume traveling.⁷ So he left India for Burma, Java, Vietnam, Thailand, and finally arrived at Hong Kong in October. On March 22 in the following year, he set sail for an extensive world tour, and this tour 1904-1905 had a unique impact on him. Kang sharply sensed the enormous material gap between the modern West and backward China. He thenceforth concerned himself with saving China by closing this gap. His reflections on this

4 See Liang Qichao's observation in his *Xindalu youji ji qita* 新大陸遊記及其他 (Changsha: Yuelu, 1985), p. 428.

5 The figure was 100,000 taels of silver, see Chen Baochen 陳寶琛, *Daqing Dezong Jing huangdi shilu* 大清德宗景皇帝實錄 (Mukden: Manzhou guowuyuan, 1938), juan 458, p. 11.

6 For a concise account of this episode see Ma Honglin 馬洪林, *Kang Youwei dazhuan* 康有為大傳 (Shenyang: Liaoning renmin chubanshe, 1988), pp. 381-390.

7 See the daughter Kang Tongbi 康同璧's remark in *Kang Nanhai zibian nianpu* 康南海自編年譜 (Beijing: Zhonghua shuju, 1992), p. 108.

eleven-nation trip resulted in a treatise known as "Essay on national salvation through material construction" (*wuzhi jiuguo lun*). Its preface was written in March 1905 in Los Angeles.⁸

The Grand Tour

He departed from Hong Kong and headed westward through Indo-China and Burma to Penang. By late May he was on board an English ship to Ceylon, where he transferred to a much bigger ocean liner sailing through the Red Sea and Suez Canal, finally entering the Mediterranean in June 1904. In mid-June he set foot in Italy, where he spent almost two weeks there. He toured Naples, Rome, and Milan among many other places.⁹ Kang was initially disappointed by Italy, as its material civilization was not as magnificent as he had read in books and augmented by his own imagination. In fact, the poverty, banditry, filth and beggars in the streets of Rome and Naples reminded him of Beijing.¹⁰ Numerous ancient relics in Rome and elsewhere, such as "the red walls of Julius Caesar's old residence still under the sunshine,"¹¹ however, deeply impressed him. He believed these antiquities were essential for understanding the evolution of human civilization.¹² In Rome, Kang was awestruck by the magnificent St. Peter's Cathedral, which he considered "the

8 See Kang, "Wuzhi jiuguo lun," p. 7.

9 Cf. *ibid.*, pp. 109-111. See also Kang Youwei, *Kang Nanhai xiansheng youji huibian* 康南海先生遊記彙編 (Collected Travel Notes of Kang Youwei) (Taipei: Wenshizhe chubanshe, 1979), pp. 123-133. This work will be hereafter cited as Kang, *Travel Notes* followed by page number(s). It is interesting to know who financed this traveling. As Kang was then under British protection, British government could be a source of his finance. But given his popularity among overseas Chinese communities in the wake of the 1898 coup, he seemed to have no difficulty to solicit money from admirers and sympathizers. For example, before this trip, he had received a large sum of money from Qiu Shuyuan 邱菽園, a wealthy Singapore businessman, see Ma, *Kang Youwei dazhuan*, p. 394. The finance of Kang's activities deserves a separate study.

10 Kang, *Travel Notes*, pp. 136-137; 140.

11 From Kang's poem cited in Kang, *Zhibian nianpu*, p. 117.

12 Kang, *Travel Notes*, p. 144.

number one church in the world."¹³ Apparently he saw no national boundaries in terms of material achievements; rather, he judged the level of material civilization, advanced or backward, on the basis of a common evolutionary path. The remnants of ancient Rome convinced him that China during the Qin-Han period (221B.C.-A.D. 220) was apparently more advanced than Rome; however, China had recently fallen behind in material progress.¹⁴ The question was thus how to catch up with the West. Kang had his answer ready: by adopting Western material civilization.

Kang noted that Italy had fallen behind many other European nations in modern times, but had still made significant material progress in many aspects including railroads, food technology, manufacturing enterprises, banking, and so forth during Kang's own lifetime.¹⁵ When he was four years old, Italy unified as a modern nation and convened a parliament. What followed was the construction of a new material civilization. In his estimation, machine production in Italy, for example, had increased more than five fold in the twenty years from 1871 to 1894, way ahead of China during the same period of time.¹⁶

In late June he crossed the Alps to Switzerland. Subsequently he traveled to Geneva, Vienna, Budapest, Berlin, Paris, London, and Scotland, one stop after another. Kang then crossed the Atlantic in December and settled in Vancouver for a while. Not until the spring of 1905 did he visit the United States. He went to Europe again in August 1905, touring mainly France and Germany. In October, he returned to America, where he traveled extensively across the continent.¹⁷ No Chinese of his generation seems to have toured Europe and North American as extensively as Kang. One of his conclusions was clear-cut: a progressive polity, by which he meant constitutionalism and a parliamentary system, was the source of wealth and

13 Kang visited the cathedral and gave a detail description of it, see Kang, *Travel Notes*, pp. 158-163.

14 See *ibid.*, p. 177, 180.

15 Cf. *ibid.*, pp. 237-244.

16 See *ibid.*, p. 240.

17 Cf. Kang, *Zibian nianpu*, 117-129.

power. What he had seen around the world tended to confirm his belief that constitutional monarchy was the inevitable direction of human progress. England was first to accomplish this, which made her the greatest power of all. Italy, Germany, and Japan all turned poverty into wealth by adopting constitutional forms of government. Unquestionably, this world tour reinforced Kang's commitment to promoting constitutional monarchy, thus giving it higher priority than his utopian vision of a "Great Community" in the distant future.

Seeking a Prescription

He was proud that he had the opportunity to see the rest of the world while his countrymen were still living in seclusion. But during this trip the industrialized Western countries gave him a feeling of awe as well as a fear that modern forces could overwhelm China. Indeed, the Qing Empire, in the aftermath of the Boxer catastrophe, appeared to be collapsing. Most unfortunate, so far as Kang was concerned, the Empress Dowager Cixi survived the catastrophe and the Guangxu Emperor to whom he was unshakably loyal remained under house arrest. The government under Cixi's control, though instituting a reform program in 1902 not unlike the reforms defeated in 1898, refused to revoke the price on Kang's head. Under the circumstances, Kang started this world tour with a strong sense of mission; indeed, as he said at the conclusion of his trip, he had been seeking a "prescription to revive a dying China."¹⁸

China was dying because of her weakness and poverty, in contrast to the wealth and power of modern West. While many of his countrymen were aware of China's "illness," Kang found that no one had yet diagnosed this illness correctly, let alone proffered a helpful cure. His prescription was clear and simple: emulating the

18 See Kang, *Travel Notes*, 86-87.

industrial civilization of modern West. The prescription proffered almost simultaneously by his intellectual rivals, the revolutionaries, deeply worried him. Reform and revolution, or constitutional monarchism and revolutionary republicanism, had become two ever more distinct rival movements in China in the early 1900s.¹⁹ Kang certainly wished to discredit the revolutionary prescription, which he deemed wrong and harmful.

Kang's firm anti-revolutionary stance, apart from his commitment to the disgraced emperor, rested on an intellectual conviction derived from his belief in the universal path of human culture, no orderly and peaceful progress could be made by leaps and bounds. China at this particular stage of development could not afford revolution, which would not only be destructive but also likely result in chaos, even bloody turmoil. His tour of France in 1904 inspired him to write the "Faguo da geming ji" 法國大革命記 (On the great French revolution), in which he observed that great turmoil and loss of life resulted from France's rushing to follow the example of the American Revolution before her parliamentary system had matured.²⁰ If China similarly hurried into revolution, given her even greater backwardness, she would pay an even bloodier price. If 1.25 million deaths resulted from the French Revolution, he concluded, a Chinese revolution would lead to the loss of a hundred million, while the survivors would be destined to become the slaves of the white men.²¹ Revolution was thus clearly not the road to an industrialized China.

19 The two movements were not entirely distinguishable between 1899 and 1905 as both reformers and revolutionaries were advocates of ousting the ruling Qing court and equally treated as traitors by the Qing. While Zhang Binglin had staked out a clearly revolutionary position by about 1901, the views of most reformers and revolutionaries tended to overlap. However, in 1905, with the founding of the Revolutionary Alliance (tongmeng hui 同盟會) on the one hand and the launching of the Constitutionalist Movement on the other, the distinction between reform and revolution was clarified both politically and intellectually.

20 Cited in Kang, *Travel Notes*, pp. 375-426. For the horror of the French Revolution Kang had described see pp. 383-387.

21 See *ibid.*, 375-378.

Kang blamed revolutionaries for being misled by the Western theories that wealth and power could be brought about by democracy, freedom, constitutionalism, and republicanism. They used these ideas to "incite the whole country" (*shandong quanguo* 煽動全國).²² The revolutionaries, he insisted, would doom the country's chance of survival and lead China down the wrong road to modernity. The Western concept of freedom (*ziyou* 自由), as he understood it, was aimed at a specific historical system or institution, such as slavery, medieval feudalism, or the Catholic Church. Having neither feudalism nor slavery nor church, China had no need of such notions as liberation and revolution. Taking the wrong medicine could do enormous harm to the patient. During his tour, he found that Europeans and Americans scrupulously obeyed the law. Anyone who failed to follow them, he noticed, would be subject to ridicule and contempt. There was no such "freedom" as the translated Chinese word "*ziyou*" implied. Advocating "*ziyou*" in China devoid of the rule of law was destined to lead to "madness," driving the younger generation toward self-indulgence, even disrespecting the basic ethical code of human conduct.²³ When he was in Germany, he found the country much more disciplined and orderly than France, and it was straightforward discipline that had made Germany strong. Given the poorly disciplined Chinese, teaching about freedom, revolution, and democracy could "kill" the country.²⁴

Kang's grand tour greatly reinforced confidence in his own prescription, which would serve well the cause of China's modernity. The key word was "material" (*wuzhi* 物質), which he used to refer to the industrial civilization that made Western nations modern, strong, and wealthy. That Great Britain was the strongest among European nations was essentially due to its superior material civilization, even though her philosophy and revolutionary theories lagged behind both Germany and France. Europeans were able to dominate the earth largely on the

22 See Kang, "Wuzhi jiuguo lun," p. 22.

23 Kang, "Wuzhi jiuguo lun," pp.22, 24, cf. 25-27.

24 Ibid., p. 27.

basis of their inventions and the manufacture of new machinery and equipment. Even America came of age industrially in 1905 as a major world power.²⁵ It was clear to him that industrialization was key to the success of modern nations.

Kang recognized that material civilization was endlessly rich in its content; however, he gave top priority to "industrial manufacturing, steamships, electricity, canons, ironclads, and the like."²⁶ All these specific things made the West strong and wealthy almost instantly. In particular, he revered the Scot James Watt for his invention of a new type steam engine, which had changed the world by reducing distances. Kang was so humbled by Watt that when traveling to Scotland, he called on the Watt residence to pay his respects. When he cited Locke, Hobbes, Mills, Darwin, and Spencer, he gave special importance to the "material." But what he really intended to argue was that the British stress on utilitarian learning helped a small island country build the largest empire never seen in the history of mankind.²⁷

Steamships made it possible for the Western powers to create their colonial empires, but this vessel was invented only in 1801. Just a few decades later in 1831, Kang wrote, two British warships sailed into Guangdong, overwhelming governor Lu Mingshu's 3,000 junks and 20,000 men. In a period of less than twenty years China's door was thrown wide open, and Anglo-French allied forces even invaded Beijing in 1860. Japan, Burma, Vietnam were likewise subdued by the guns of the steam-powered warships. How great, he acclaimed, was the power that steamships could project.²⁸

Kang's tour in Europe had obviously shifted priority from government reform to science and technology, arguing that "material things" were what China should

25 Preface to "Wuzhi jiuguo lun."

26 *Ibid.*, p. 28. Note that a viable material civilization no doubt requires non-material contributions, such as basic science, philosophy, literature, and arts. Hence it is unnecessary to dichotomize the so-called material and spiritual civilization.

27 *Ibid.*, pp. 34-35.

28 *Ibid.*, p. 29.

emulate from the West.²⁹ The principal leaders of the Self-strengthening Movement, such as Zeng Guofan, Li Hongzhang, and Guo Songtao all failed in implementing Western technology fully because of their ignorance of the knowledge behind it. Without such knowledge, equipments and weaponry could not be properly made in China. Factories were indeed built, but remained woefully inadequate. The Merchant Marine Company (*Zhaoshang ju* 招商局), for example, had no single trained Chinese captain on board its ships even after several decades.³⁰ Kang in fact looked forward to moving China to acquaint itself with science and technology with renewed vigor.

The Attraction of Sea Power

Kang's extensive tour, during which he observed first hand the mighty West, inevitably aroused his patriotism. Material backwardness had made his own country the victim of foreign imperialism. He was deeply troubled when he heard, while in Italy, the Italian government's demand to lease Sanmen 三門 Bay on the Chinese coast.³¹ Moreover, China's humiliation was no longer an abstract concept when he personally observed in a French museum the numerous cultural relics taken from Beijing as result of the humiliating wars of 1860 and 1900.³² Kang's patriotism thus focused on the problem of how to catch up with the modern West through promoting material civilization.

Clearly, the most awesome manifestation of modern material civilization was military technology. The great powers required armed forces equipped with the

29 Ibid., p. 32. cf. Hisao, *A Modern China and a New World*, p. 521. "Kang's shift of emphasis" Hsiao rightly reminded us, "which involved important modifications of Kang's social thought, did not imply a radical change in his general outlook" (p. 517).

30 Kang, "Wuzhi jiuguo lun," pp.30-31.

31 Kang, *Travel Notes*, p. 174.

32 See *ibid.*, 294-299.

most advanced weapons. In comparison, China had been utterly unable to defend itself. Without modernizing the armed forces, Kang warned, the Chinese would have "no place to stand" on the earth.³³ Able ministers from Zeng Guofan and Li Hongzhang onward realize the importance of the military, but their efforts had proved fruitless. Aside from incompetent leadership, China lacked a strong material foundation. This meant that acquisition of any equipment requires the knowledge of making and using it, by which he meant science and technology, and the skills necessary to co-ordinate complex manufacturing.

Kang was fully convinced by the importance of the navy in the modern world. As he noticed, the introduction of steamships reduced the factor of distance. As well, steamships utterly changed the nature of naval warfare, since they were capable of moving directly upon the enemy from any direction without depending on the wind and could carry more powerful guns. Kang knew well how major European powers were struggling to build up their naval power and how Great Britain, that to its naval supremacy, enjoyed world domination. He vividly recalled how China's long coastline and ports were easily invaded by a small number of steam-powered gunboats. "China's sitting besides the Pacific without a modern navy," he wrote, "seems to expose her treasure waiting for the coming of pirates."³⁴ Here he sensed the indispensability of naval protection of sea routes to facilitate sea-borne commerce.³⁵ Kang seems echoing Alfred T. Mahan's thesis that England emerged as the ruler of the seas because of her sound naval strategy, and that naval affairs were closely related to international politics and economics. Kang could have read the highly limited Chinese version of the *Influence of Seapower upon History* published in 1890, as its incomplete translation was available to Chinese readers as early as 1900.³⁶ He was clearly aware of U. S. President Theodore

33 Kang, "Wuzhi jiuguo lun," p. 36.

34 Ibid., p. 41.

35 Ibid., p. 42.

36 Cf. Alfred T. Mahan, *The Influence of Seapower upon History, 1660-1783*, in American Century Series (New York: Hill and Wang, 1957). The Chinese translation of this book started appearing in

Roosevelt's "great interest in the navy" and his desire to catch up with the Great Britain.³⁷

Kang was particularly disturbed that the Beiyang 北洋 Navy and its men were almost totally wiped out during the Sino-Japanese War of 1894-95.³⁸ He now gave naval revival a higher priority than political reforms, because no matter how China might be improved domestically, without naval protection it would remain at the mercy of foreign forces. Moreover, naval forces needed a much longer time than armies to construct. It could take an entire decade to build a viable fleet, including shipbuilding and personnel training. He had in mind, however, a different idea for China's modern navy than the destroyed Beiyang Navy. He wanted to rest a naval force on what he called "material foundations," including capacity for steel making, machine manufacturing, and the skill to build latest model ironclads. While he was in England visiting the Armstrong shipyard, he was greatly impressed by the number of workers, amounting to 20,000-30,000 men, and docks as big as lakes. He also visited the shipyards of small European nations, such as Holland, Denmark, and Sweden, which were also huge. He did not miss German shipyards, the largest of which in Hamburg had built no fewer than 80 ships over its fifty years of existence. Regrettably, given the size of China, the Fujian Shipyard, which had been established twenty years previously, remained "small and outdated." Kang blamed the Qing government for mismanaging it.³⁹

Kang did not regard shipbuilding was a particularly difficult task. Apart from acquiring "materials" such as steel and nails, the key was constantly gain new skills to construct new and improved generations of ships. He found in European

a Shanghai newspaper in March 1900 but did not go beyond chapter one. Ten years later a Chinese magazine entitled *Navy* tried to resume the translation work, but again never finished. The limited Chinese translation was obviously rendered from Japanese. Refer to Pi Mingyong, "Haiquan lun yu Qingmo haijun jianshe lilun" (Seapower and the theory of naval building in late Qing), in *Jindaishi yanjiu* 2 (Mar., 1994), p. 38.

37 Kang, "Wuzhi jiuguo lun," p. 44.

38 See Kang, "Wuzhi jiuguo lun," p. 43.

39 Kang, "Wuzhi jiuguo lun," p. 45.

museums numerous models of both merchant vessels and warships in "evolution." Kang noted, "We need to gain all the latest models of ships from different nations and know the old models to understand from where they had progressed."⁴⁰ Museums, for him, vividly displayed the progress of material civilization.

China had dutifully purchased rifles and guns from abroad ever since the beginning of military modernization during the Self-strengthening movement of the 1860s. But Kang condemned China's failure even to manufacture its own weapons. As he pointed out, no nation would sell its latest military products to any other country. Indeed, what China had purchased in the past were old items, and this "old material" was no match for "new material." When he visited the Krupp Arsenal at Essen, Germany, he was shown the latest models of canons and told: "China had none of these, and what Yuan Shikai and Cen Chunxuan 岑春煊 had purchased was imply old weaponry." Kang considered weapons a country's "life preserver" (*tuoming zhi wu* 托命之物)⁴¹ and yet China remained dependent on foreigners for its weapons. China had missed the opportunity of mastering modern military technology while pursuing less important military reforms.⁴²

Kang's awareness of the scientific and technological foundations of modern weaponry led him to see the importance of acquiring science and technology through learning. He found ten Japanese officers training at the Armstrong Shipyard and quite a few Japanese workers studying at Krupp, the largest arsenal he saw in the West, while no single Chinese was there. Without mastering science and technology, he asked, how could steel be made, warships built, and canons manufactured? Warships and canons were merely two of numerous marvelous modern "material." China would have to learn to manufacture on its own. Therefore, he proposed that a large number of students be dispatched abroad while

40 See *ibid.*, p. 46.

41 *Ibid.*, p. 48.

42 See *ibid.*, pp. 47-49.

inviting the best scientists and technicians from the West to China. He disapproved, however, of slavish copying. Having learned modern technical skills, China's own best scientists and technicians would need to know "how to make further improvements in order to compete with other countries."⁴³ Kang's arguments, based on his extensive tours of the West, may be considered a conscientious reflection on the failure of the Self-strengthening Movement beginning from 1860. His conclusion was crystal clear: buying ships and guns from abroad without mastering their technological principles was fruitless, and neither quality nor performance could be improved under these circumstances.

A New World of Material Civilization

The solution to pay for the high cost of modern military equipment and training was for Kang to make the people rich. He redefined the traditional concept of "locating wealth in the people" (cangfu yümin 藏富於民) in a more proactive sense: people should acquire wealth "through proficiency in agriculture, industry, commerce, mining, or transportation with constant improvements in quality." Struggling in all these areas, China would have to mobilize national talent to study "material learning" (wuzhi zhi xue 物質之學).⁴⁴ This idea lay at the core of Kang's program for training new generations of Chinese scientists and technicians.

Kang largely reached this material interpretation of history on his own. The "material learning" he had in mind referred mainly to science and technology, including mathematics, physics, mechanical and civil engineering, electricity, chemistry, railroads, telecommunication, natural gas, electric wires, phonographs, microscopes, telescopes, gas burners, electric or steam-powered machines, and so

⁴³ Ibid., p. 49.

⁴⁴ Kang, "Wuzhi jiuguo lun," p. 50.

on. These subjects, he said, had brought forth a "new world" (xin shijie 新世界) which resembled a "tempest" blowing off the "old world" (jiu shijie 舊世界) like "leaves" from the tree.⁴⁵ The "new world" men were capable of making wealth a thousand times greater than the peasants and handicraft workers of the "old world." A letter might take a whole year to deliver in the "old world," while electric wires (telegraphs) allow people in the "new world" to communicate with each other tens of thousand miles away. What took several days by boat or by cart to reach in the "old world" only took a few hours by train in the "new world." And by effectively reducing the size of the oceans, steamships have changed the geography of the world. Both steamships and railroads, besides facilitating transportation, had also greatly reduced labor costs. The picture of the "new world" Kang drew fully convinced him that the new civilization created by material learning would persistently enrich people, save time, prolong life, augment wisdom, nourish populations, increase agricultural and industrial productivity, transform prevailing customs, and strengthen the nation.⁴⁶ No wonder Kang believed that knowledge, morals, customs, and government all changed dramatically under the progress of the material civilization.⁴⁷

Traveling in Europe and America, Kang observed at first hand the rise of this "new world." The strength or weakness of a modern nation, he noted, depended solely upon the state of its material civilization. When a nation's "material learning" flourishes, almost without exception, its state is strong, people affluent, and intellectuals wise. Tiny Belgium, champion in machine and steel manufacturing, made a worthy nation in the world. By contrast, Italy and Spain, despite their superb religion and philosophy, were weak owing to their deficiencies in the material

45 Ibid. pp. 50-51.

46 Ibid., p. 52.

47 Ibid., p. 51. Here it is clear that the so-called "wenzhi" 文質 (spiritual civilization) rests on a sound base of "wuzhi" (material civilization), so it is wrong to dichotomize "wenzhi" and "wuzhi" as a recent writer did. See Luo Zhitian 羅志田, *Liebian zhong de chuancheng: ershishiji zhongguo wenhua yu xueshu* (Transition in rupture: Chinese culture and scholarship in the 20th century) (Beijing: Zhonghua shuju, 2003), pp. 323-353.

civilization. Most of all, he was impressed by the rise of modern Germany. In the early nineteenth century, Germans were proud of their philosophers and yet weaker than France. But they had gradually achieved expertise in material matters since the Franco-Prussian War, in particular industry, machinery, electricity, and chemistry. Consequently, in a period of just twenty years German industry and commerce had become so dominant in the four continents that Great Britain was in retreat. Interestingly, basing his judgment on material accomplishments, Kang foresaw that two nations in particular, Germany and America, would "fly high above the earth" (*xiongfei dad* 雄飛大地).⁴⁸

Kang gave special attention to the rise of Germany, determining that the German road to wealth and power had been built on their engineering excellence. The Germans gave special attention to industrial schools of different levels, allocating sufficient funds for teachers and equipment. As a result, specialties were established in virtually every industry, including textiles, copper, iron, machine tools, and so forth. The advanced industrial school in Hamburg, as he knew, originally had five engineering majors, and before long added mathematics, physics, electricity, and architecture. Some German industrial schools also included departments of drawing, music, railroad, postal service, and telegraphy. In just a decade, the advanced industrial schools in Germany had expanded tenfold, from 2,000 to 20,000 students. The growth of science and industry, in short, was the basis of Germany's steady growth.⁴⁹

Kang thus felt that Germany's rapid rise from destitution to wealth and power was a model China should emulate. Although reforms had resumed and modern-style schools were open in China, Kang felt that these institutions taught few practical subjects. Worse still, students in modern-style schools picked up Western clichés such as liberty, rights, and competition, or repeated such vulgar Japanese

48 Kang, "Wuzhi jiuguo lun," p. 53.

49 Ibid., pp. 54-55.

translations as *shiji* 世紀 (century), *shouduan* 手段 (means), *chongbai* 崇拜 (worshipping), and *mudi* 目的 (purpose). None of these "empty words" (*konglun* 空論) would do China any good; only upholding science and industry would achieve national salvation.⁵⁰

Kang also noticed that the newly risen America, although it had not yet produced a major philosopher, had emerged as a major power due to its excellence in material culture. He claimed to have visited virtually all of the major factories in eastern America, where he witnessed on almost on a daily basis the output of new inventions superior to those of Europe. He viewed, for example, a new "abacus" capable of calculating 300 numbers per second. In Washington, D.C. he marveled at the United States Patent and Trademark Office founded in 1795, which had since issued 190,500 patents. These numerous inventions, Kang claimed, had transformed the old world into new world in America.⁵¹ He was aware of the problem associated with American capitalism's development of trust monopolies, but he generally sang the praises of tycoons, such as Rockefeller and Carnegie who generously donated huge sums of money to universities and libraries. It was not unknown for them to even establish a complete university. Andrew Carnegie alone founded no less than 1,300 libraries, one tenth of which were located in New York City. Such giants of capitalism were able to perform philanthropy on such a scale because they were exceedingly rich, and their wealth was made mainly in three major areas, namely, petroleum, steel, and electricity.⁵² Wealth in North America had also created large urban centers. Vancouver and Los Angeles were still largely barren in the 1880s, and yet less than twenty years later both emerged as metropolises of over a hundred thousand inhabitants boasting elegant houses, beautiful parks, numerous schools, and magnificent public buildings. Kang had lived in both cities for considerable lengths of time, so he personally witnessed

50 Ibid. pp. 55-56.

51 Kang, "Wuzhi jiuguo lun," p. 59.

52 Ibid., pp. 59-61.

"electric cars busily running back and forth" and "lights in the street shining like the moon."⁵³ But he soon found that America's eastern seaboard was even more prosperous than the Pacific coast. What made America prosperous—in happiness as well as wealth—according to Kang, was not republicanism and liberty but material civilization. Kang's analysis may not have been entirely correct, but he also turned to Mexico as a negative argument: revolution and republicanism without material culture had not raised that unfortunate country from poverty.⁵⁴

Kang gave such high priority to the "material" because he realized that efforts in this regard were not only urgent but also time consuming. As he pointed out, parliaments, administration, laws, translation projects, financial management and the like could get started quickly and be accomplished in a relatively short period of time; but science and industry took much longer to build. He was not downplaying the importance of a parliament, which he consistently supported, but given the intensified national crisis he wondered if a successful parliament could help resist China's powerful enemies. "As long as military hardware was in short supply and science and industry ignored," as he put it, "China could never defend itself even with such sage rulers as Yao and Shun."⁵⁵ Modern scholars have pointed out that Kang "never did give up the belief that he was qualified to join the company of the sages."⁵⁶ But overwhelmed by the material civilization of the modern West, he felt humbled. He said he had read enough Chinese books, knew some Western theories, history, customs, and was so patriotic that he was willing to sacrifice his own life for the motherland. But without material civilization, China would remain helpless, even if every Chinese were "like me." He regretted he could not claim any real expertise in any specific field of science and technology and was thus useless for national salvation.⁵⁷ This was also a key reason why Kang so admired Peter the

53 Ibid., 63.

54 Ibid., 64.

55 Ibid., 57.

56 Hsiao, *A Modern China and a New World*, pp. 21-22.

57 Kang, "Wuzhi jiuguo lun," 57

Great. As emperor, Peter had come to the West to spend three years learning how to build ships under extremely harsh conditions. After he returned home, he taught his countrymen and made Russia a power in north Europe. Kang felt ashamed that he was unable to do what Peter had done.⁵⁸

Kang emphasized that there were only two routes to enrich the people and strengthen the state: material and industrial progress. Besides inviting noted foreign scientists and technicians to China to teach, a large number of students, no less than 10,000, should be sent abroad to study such material learning as industry, military, machine, electricity, and chemistry. He only worried that not enough qualified students could be dispatched.⁵⁹ Even if only 1,000 students qualified, he argued, when they returned home following five years of study, each province would still be able to appoint a dozen or so experts in electricity, power-machine and the like. The annual cost of such a program, approximately one million silver dollars, was absolutely worthwhile.⁶⁰

Kang's extensive experiences in the West allowed him to make recommendations about where Chinese students should go and what they should study. Since his prime concern was science and technology, he recommended against London, the political center; even Oxford and Cambridge, regardless their fame in philosophy, theology, literature, medicine, and law, were not good places to study the material learning. Instead, he recommended Edinburgh and Birmingham, whose material learning had produced both Watt and Darwin. Kang had been in both cities and considered them birthplaces of the "new world." Their museums displayed the progress of machines. He saw for himself "factories in Scotland as

58 *Ibid.*, p. 58.

59 *Ibid.*, p. 74.

60 *Ibid.*, p. 77.

thick as forests" and schools all excelling in material learning. This, plus relatively low costs in schooling, made Scotland an ideal place for Chinese students.⁶¹

For studying electricity, Kang recommended America, as the American Benjamin Franklin first proved the nature of lightning and electricity with his kite in a thunderstorm. He noticed Franklin's stature at Columbia University in New York City and at the United States Congress. He visited numerous American universities (Harvard, Yale, Columbia, John Hopkins, Chicago, and Pennsylvania, to just name a few). He found that American universities were trying to emulate the British system; hence, their scholarship was not yet comparable with the British or the Germans. But in terms of material learning, in particular electricity and chemistry, Kang ranked America at the top. He considered Cornell as the world's best university in the field of electricity. However, "If we want to cut the costs," Kang suggested, "we may send our students to the west coast to study at Berkeley," which was also good at the material learning.⁶²

Kang recommended Germany for the study of technology, engineering, agriculture, commerce, and navigation. Technical schools were numerous in Berlin, and the Germans were especially strong in experimental sciences. Kang emphasized that together with Great Britain, Germany excelled in building warships and making guns. He pointed out that living expenses in Germany were only half of those of England or America; nevertheless, the real point was that regardless of cost, Chinese students needed to take advantage of Germany's technical education, even though language learning might take one or two extra years.⁶³ His impression of Italy was that it was backward in comparison with other European countries; however, he recommended Italian drawing. But the drawing in his mind was not a fine art but technical drawing for industry and commerce, as every invention needs

61 Kang, "Wuzhi jiuguo lun," p. 75.

62 Ibid., 77.

63 Ibid., pp. 84-86.

to be drawn before it could be built. "If drawing is not precise," he noted, "the industrial products would be low-graded."⁶⁴ "If we want our industrial products to compete with others," he continued, "we cannot but learn [the excellent Italian] drawing."⁶⁵ He admired exquisite drawings and sculptures when touring Florence and Milan and he earnestly advised students to come to Rome or Florence to study how to draw. As for Japan, he said he had recommended emulating her reforms back in the 1890s. Because of geographical and cultural proximity, Japan already had several thousand Chinese students. To Kang's regret, however, too many Chinese students studied "useless learning" there. For him, Japan's material learning, though not at the level of Europe and America, highly recommended it. And given its proximity and low costs, Japan still had a major role in training China's new technical elites.⁶⁶

To expand "material learning" on such a large scale, Kang looked to the simultaneous launching of technical institutes and industrial schools in different parts of China. He particularly urged the government to open industrial schools in urban centers, such as Shanghai and Tianjin. The key to success was the appointment of able teachers. "If teachers are incompetently giving outdated lessons," he remarked, "it would be better not to teach at all."⁶⁷ Hence, he advised the government to appoint distinguished foreign experts regardless of the cost, as both Germany and Russia had done to build their systems of industry and commerce. As he realized, much European talent went to America in search of higher pay. "If we offer handsome salaries to them," he believed, "they would come and pass on to us outstanding skills." As the years went by, China would gradually acquire all the necessary skills for material civilization.⁶⁸

64 *Ibid.*, 86.

65 *Ibid.*, 87.

66 *Ibid.*, 88.

67 *Ibid.*, 90.

68 *Ibid.*

Kang accentuated the extreme importance of "material learning" because China had simply failed to pursue it thus far. Neither the government nor his reformist friends knew how to achieve it. As for the revolutionaries, they knew about nothing other than crying for liberty and revolution. The officials made excuses about the lack of funds to do nothing, but they did not understand how urgent the task was before them. If they only realized this, Kang believed they would not ignore his "prescription" for the survival of the country. China had recently paid 200 million taels of silver for the dowager's birthday celebration and 800 million taels of silver on indemnities. If merely one tenth of these sums had spent on study-abroad programs, building industries, and opening schools and museums, China would have already produced numerous talented and knowledgeable scientists and technicians and have risen to a major power status.⁶⁹

Kang did not, however, single-mindedly pursue what he called material learning. He stated clearly at the conclusion of his essay that initiating one project would be closely related to many other issues. To make "material learning" work required good management of finances, and these could not be put in order without good administration. The foundation of good administration, in turn, rested upon self-rule. Parliaments from regional to local levels would set down rules and supervise their implementation. Had administration and finance been in order, a single county in Kang's native Guangdong province could have yielded an annual income amounting to tens of millions of taels, compatible to the revenues of Denmark or Germany's Hamburg. He could not help wondering what China with its two-thousand-counties could have accomplished as a whole. Without putting administration and finance in order, however, China would have difficulty reaching modern material civilization and thus was not likely to be rescued.⁷⁰ After having seen how advanced the modern world of material civilization in Europe and America was, Kang's pleas for change became all the more earnest and urgent. But

69 Ibid., 95.

70 Ibid., 96.

in his cry for "material civilization," Kang was certainly abandoning neither his political reforms nor his utopian vision.

Modernity as the Common Goal for All Humankind

Had Kang shifted his attention from "social perfection and human happiness" finding expression in his utopian treatise on the Great Community to patriotic concern for China's national salvation through material learning? K. C. Hsiao did not see "a radical change in his [Kang] general outlook."⁷¹ In fact, Kang's impassioned plea for China to follow the course of material civilization was merely "a necessary step to Universal Peace," or "the utopia of all nations."⁷² He repeatedly cautioned that the happy destiny must be reached step by step; one should never leap forward.⁷³ In other words, possessing a utopian vision of the distant future, Kang felt no contradiction in pronouncing nationalism to be the immediate nature of the family of rival nations.

Moreover, while Kang's patriotic calls for national survival through material learning sound highly nationalistic, the material civilization is itself universalistic. Material civilization brought forth to the world not just wealth and power but also human happiness. Kang saw how steamships were bringing the world together, railroads paving the way to wealth, industrialization raising living standards, and urbanization providing a more pleasant environment. The material culture that yielded wealth, power, and happiness, to Kang, was patently cosmopolitan. No wonder he first saw the utopian light in the new world of material civilization represented by modern Europe and America. At the same time, however, he soon

71 Hsiao, *A Modern China and a New World*, p. 517.

72 *Ibid.*, 518.

73 Kang, *Travel Notes*, p. 191.

became aware of the dark side of the power created by modern forces, which bolstered his concern for China's survival.

Bringing China into the New World of material civilization did not merely represent national survival but was also the common road to modernity. Kang never drew a clear-cut line between East and West. Science and technology as the foundation of material civilization were not Western but universally valid. The road to modernity, or to prosperity and happiness, was thus a universal passage toward human good. Any nation or culture could contribute to, or receive benefits from, the progress of all humankind. Kang thus did not see modernization as a process of Westernization. Conversely, modernity was not exclusively Western, just as Confucianism was not exclusively Chinese.

Kang regarded his quest for modernity as a common goal for all humankind, China included. This does not mean that he intended to abandon Chinese morals and ethos in pursuing modernity. For Kang, different countries do have diverse cultures before the arrival of the "Great Community" (Datong) he envisioned, in which all peoples and cultures of the world would be encompassed in one universal civilization. In other words, it was premature for China to surrender its cultural individuality. But pending the coming of utopia, individual cultures could be expected to mutually influence and benefit each other. In Kang's words, only a culture mingled with others could develop fully.⁷⁴ Many of Kang's contemporaries agreed that different cultures inevitably shared some universal values, but Kang's stance differed markedly from those who advocated wholesale Westernization on the grounds that East and West could never mix.

Kang certainly recognized the negative aspects of various particular cultures and even of the dark side of modern material civilization. He drew a distinction, however, between ideal and reality. As long as utopia remained a distant prospect,

74 Ibid., 3.

no culture could be perfect in practice. Not surprisingly, while traveling through the marvel of Europe and America, he also noticed "filth," "disorder," "swindlers," and "thieves."⁷⁵ Even so, despite these imperfections, the modern material civilization that flourished in Europe and America still offered the most desirable model for China to emulate. Given that China needed to be "saved," he was not so optimistic about her survival without earnestly pursuing material civilization.⁷⁶ It was not his immediate concern about what China would become once her material civilization is fully developed, as he was convinced that material success would bring forth wealth, power, and happiness. In the long run, he was unconcerned about any qualitative change of Chinese culture by moving China into the New World of material civilization. Based on his evolutionary scheme of human kind, he looked forward to the harmonious one world in which national culture no longer needs to exist. ♦

75 Cf. *ibid.*, pp. 3, 49-53, 100-104, and 142-148.

76 Many of Kang's junior contemporaries who lived in the perilous situation of China as well looked to material civilization as the means to "save" their country. Unlike Kang, however, they often fell into the trap of scientism or materialism. This leads to a different subject, which requires a separate study.

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Bibliography

- Chen, Baochen 陳寶琛
1938 *Daqing Dezong Jing huangdi shilu* 大清德宗景皇帝實錄 (Mukden: Manzhou guowuyuan, 1938)
- Hsiao, Kung-Chuan 蕭公權
1975 *A Modern China and a New World: K'ang Yu-wei, Reformer and Utopian, 1858-1927* (Seattle & London: University of Washington Press, 1975)
- Kang, Youwei 康有為
1906 "Wuzhi jiuguo lun 物質救國論," (Shanghai: Guangzhi shuju, 1906)
1976 *Kang Nanhai xiansheng yizhu huikan* 康南海先生遺著彙刊 (Collected Works of Kang Youwei), compiled by Jiang Guilin 蔣貴麟 (Taipei: Hongye shuju, 1976)
1979 *Kang Nanhai xiansheng youji huibian* 康南海先生遊記彙編 (Taipei: Wenshizhe chubanshe, 1979)
1992 *Kang Nanhai zibian nianpu* 康南海自編年譜 (Beijing: Zhonghua shuju, 1992)
- Liang, Qichao 梁啟超
1985 *Xindalu youji ji qita* 新大陸遊記及其他 (Changsha: Yuelu, 1985)
- Luo, Zhitian 羅志田
2003 *Liebian zhong de chuancheng: ershishiji zhongguo wenhua yu xueshu* 裂變中的傳承：二十世紀前期的中國文化與學術 (Beijing: Zhonghua shuju, 2003)
- Ma, Honglin 馬洪林
1988 *Kang Youwei dazhuan* 康有為大傳 (Shenyang: Liaoning renmin chubanshe, 1988)
- Mahan, Alfred T.
1957 *The Influence of Seapower upon History, 1660-1783* (New York: Hill and Wang, 1957)
- Pi, Mingyong 皮明勇
1994 "Haiquan lun yu Qingmo haijun jianshe lilun 海權論與清末海軍建設理論," *Jindaishi yanjiu* 近代史研究 2 (Mar., 1994)
- Wang, Rongzu 汪榮祖
1998 *Kang Youwei* 康有為 (Taipei: Dongda tushu, 1998)